
“शिक्षा मानव को बन्धनों से मुक्त करती है और आज के
युग में तो यह लोकतंत्र की भावना का आधार भी है।
जन्म तथा अन्य कारणों से उत्पन्न जाति एवं वर्गगत
विषमताओं को दूर करते हुए मनुष्य को इन सबसे ऊपर
उठाती है।”

— इन्दिरा गांधी



*“Education is a liberating force , and in our age
it is also a democratizing force, cutting across
the barriers of caste and class, smoothing out
inequalities imposed by birth and other
circumstances”*

- Indira Gandhi



MCFT-001
**Human Development
and Family
Relationships**

Block

1

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MCFT-001 HUMAN DEVELOPMENT AND FAMILY RELATIONSHIPS

COURSE INTRODUCTION

We welcome you to the M.Sc. (CFT)/PGD (CFT) programme of study of IGNOU. The curriculum prepared for this Degree/ Post Graduate Diploma Programme is unique. We have included latest information and knowledge in the area of Counselling and Family Therapy, both from within and outside the country.

You will study 'Human Development and Family Relationships' as the first Course in this programme of study on Counselling and Family Therapy. It comprises both theory and supervised practicum components. The theory paper on this is MCFT-001 and supervised practicum is MCFTL-001. You have to complete and clear both these components separately. For theory paper MCFT-001, you will have continuous evaluation through an assignment and a term-end examination. For MCFTL-001 you have to work under the supervision of the academic counsellor allotted from the study centre you are attached with. In the end as per the details given in the Supervised Practicum Manual (Block 5), you have to submit your file to the study centre.

This Course is designed to make learners aware of the growth and development of human beings in the context of family as well as individual life cycles. The Course provides comprehensive knowledge about human and family development and its various theoretical approaches. This Course provides knowledge and understanding about the various forms of family and family dynamics. Further, the Course focuses on the eight family life cycle stages.

The Course would help you develop the understanding that is required of counsellors/family therapists to have deeper knowledge about the client's family life dynamics. The Course consists of four theory Blocks and one supervised practicum Block.

THE BLOCKS

Block 1 is on "Human Development: Theoretical Approaches". This Block provides you indepth knowledge and understanding about the process of human development and its theoretical approaches. The Block focuses on some important and well known theoretical orientations on human development, such as psychoanalytic theories, cognitive development theories, learning theories, theories of intelligence, humanistic theories, ethological theories, and contextual theories. We have tried to cover the important and relevant theories in this regard, and the Indian perspective has been emphasised. On studying this Block, you shall be able to understand the overall growth and development of human beings, as well as have an overview of the major theories in the light of human development.

Block 2 is titled "The Family: Theoretical Perspectives". This Block consists of four Units. The first two Units deal with the family theories and the other two Units explain the family, its forms and family dynamics. This Block helps you understand the family system and the role that the family plays in an individual's development. This Block also makes you aware about the various forms of family

that is, from common existing forms (such as nuclear family, joint family, extended family etc.) to uncommon existing forms (such as lesbian family, gay family, polyandrous family etc.). The Block further imparts knowledge about the effect of family relationships on the development of an individual. A study of this Block will help you to understand the development of the individual in the context of her or his family system.

Block 3 is on “Family Life Cycle Stages – I”. This Block has five Units. These Units deal with the different life cycle stages of a family. As a counsellor/therapist, you have to deal with not only personal problems of a client, but also need to understand the family system and family stage of that person. For this you need to know about the developmental tasks and stages of family. This Block makes you understand the importance of each life cycle stage of a family and gives detailed information about the first four life stages of a family. On studying this Block, you shall be able to understand the characteristics, roles and responsibilities both from family life cycle and individual life cycle perspectives.

Block 4 is on “Family Life Cycle Stages – II” and it consists of three Units. It continues to talk at length about family life cycle stages. This Block deals with the next three stages of the family life cycle. Following the study of the Units of this Block, you will come to know that each and every family life cycle stage has its own importance and issues.

The Supervised Practicum Manual – Block 5

This Block will provide you the framework for hands on experiences. The supervised practicum has been planned with the applied aspect in mind. As a part of practical work you need to carry out observations of different stages of families around you. You need to conduct interviews with the persons of different age groups in different family settings. You have to draw and analyse a genogram. There is a case study on adolescents so as to understand this stage better. The Practical Manual provides you step wise directions for doing the practical activities and recording observations.

Audio and Video Programmes

Various audio and video programmes have been prepared on the different aspects of counselling and family therapy. These would be available at your Study Centre. It is advisable to keep in touch with the coordinator of your Study Centre so to know about new audio and video programmes. You must go through these audio and video programmes.

HOW WILL THIS COURSE HELP YOU?

The course will provide you a new vision for perceiving human development and will help you in understanding the different family life cycle stages. You will be able to identify the various biological as well environmental factors that affect the development of an individual as well as the family. Besides orienting the student towards human and family life development, this Course will provide a new approach to view development of human beings in various family stages and different life settings.

BLOCK 1 HUMAN DEVELOPMENT: THEORETICAL APPROACHES

Introduction

The Block1 "Human Development: Theoretical Approaches" will acquaint you with the basics of human development and various theoretical approaches to human development. The Block consists of five Units.

Unit 1 entitled "*Introduction to Human Development*", describes the human development as a scientific field, discusses its origin and its current scenario. The Unit begins with the historical glimpse of human development in which both the Western as well as the Indian view on human development is presented. The scientific foundation of human development was laid down in the late nineteenth century. The major goals, nature and domains of human development are important to know as they help in understanding the field as it exists today. The human life span is divided into different stages by Western as well as Indian thinkers. As you go through the Unit you will realise that the development of human beings is influenced by various biological and environmental factors. This Unit will help you in understanding the significance of studying human development in the field of counselling and family therapy.

Unit 2 is "*Biological Perspectives*". The focus of this Unit is on biological perspectives of human development. The Unit begins with the evolutionary theory, and further, the genetic foundations are discussed in detail. It is important to know about the various chromosomal and genetic abnormalities, and to understand the role of genetic counselling and prenatal diagnosis. These are important to avoid genetic diseases and chromosomal abnormalities in children. The prenatal stages and hazards during prenatal period are also discussed in this Unit. The prenatal development is not only influenced by the biological but also by the external environmental factors. The Unit describes these environmental factors in detail. Understanding of the process of child birth is important and so is the knowledge of complications during this process. The Unit helps you to understand all these biological and environment factors that affect prenatal and postnatal development.

Unit 3 on "*Psychoanalytic Theories*", begins with the introduction of the concept of theory and its functions. The psychosexual theory of Sigmund Freud is discussed in detail. The Unit then provides you with the critical overview of this theory. Further, the Unit explains the psychosocial theory given by Erik Erikson in detail. The later part of this Unit deals with the neo-Freudian personality theories given by various psychologists who worked on the same line as Freud did, but came out with new ideas and approaches. This Unit also discusses the application of psychoanalytic theory in the Indian context, as outlined by Sudhir Kakar.

Unit 4 is on "*Cognitive, Learning and Intelligence Theories*". It focusses on the cognitive approaches to human development. The theory of cognitive development given by Jean Piaget is discussed in detail along with its applicability in the education system. The other theories of cognition given by Lev Vygotsky and Bruner are also discussed. The information processing theory has been explained. The Unit also deals with various learning theories like trial and error

theory, conditioning theories etc. As you go through these theories, you will understand the process of learning and also, how you can modify and shape the behaviour. The later part of this Unit deals with two important theories of human intelligence: that are theory of multiple intelligence and Sternberg's triarchic theory. This Unit thus provides you an insight into cognition, learning and intelligence theories.

Unit 5, "Humanistic, Ethological and Contextual Theories" explains various approaches to human development; in particular, the humanistic theories, ethological theories and contextual theories. At the very beginning we will deal with Abraham Maslow's hierarchy of needs and try to understand the importance of these needs in human life. Further, Carl Roger's self theory provides us a new insight for analysing an individual. The Unit goes on to discuss the ethological theories given by John Bowlby, Harry Harlow and Mary Ainsworth. After studying these theories, you will be able to understand and identify the various factors that effect attachment and security of an individual. The later part of this Unit comprises two main contextual theories viz. Bronfenbrenner's ecological theory and the life course theory. As you go through these theories, you realise the importance of the surrounding environment of the individual in his or her development.

UNIT 1 INTRODUCTION TO HUMAN DEVELOPMENT

Structure

- 1.1 Introduction
- 1.2 A Historical Glimpse
 - 1.2.1 Western View: The Medieval Times
 - 1.2.2 Indian View on Human Development
- 1.3 Scientific Foundation of the Field
 - 1.3.1 The Baby Dairies and Biographies
 - 1.3.2 Normative Period
 - 1.3.3 Development of First Intelligence Scale
 - 1.3.4 An Early Developmental Theorist
 - 1.3.5 Development of the Discipline of Human Development in India
- 1.4 Human Development: Nature & Principles
 - 1.4.1 The Scientific and Applied Field
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 - 1.4.3 Nature of Human Development
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- 1.6 Influences on Human Development
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 - 1.6.3 Normative and Non-normative Influences
 - 1.6.4 Critical and Sensitive Periods
- 1.7 Significance of Studying Human Development in the Field of Counselling and Family Therapy
- 1.8 Let Us Sum Up
- 1.9 Glossary
- 1.10 Answers to Check Your Progress Exercises
- 1.11 Unit End Questions
- 1.12 Further Readings and References

1.1 INTRODUCTION

The development of human beings is the area of interest for many scientists, philosophers and psychologists. To understand human growth and change from conception till death we study human development. It is a field of science which has evolved from the discipline of developmental psychology and shares

contributions from other disciplines like sociology, anthropology, biology, psychiatry and others. In this Unit, we will get the visions of several civilisations regarding child and human development, such as views of Christian, Greece, Rome and India and how their vision changed over a period of time. Further, we will learn about the origin of human development as a scientific field and how the advancements in this field took place in the world including India. We will discuss some of the important philosophies on child given by various psychologists like John Locke, Jean Jacques Rousseau and Stanley Hall. We will also talk about the philosophies of Mahatma Gandhi and Rabindra Nath Tagore on childhood. Further, we will study about the present scenario of human development which includes its definition, goals and nature of study.

In this Unit, we will discuss the principles of development, the different domains of development and stages of human life span. Vision of Hindu religion on human life span will also be discussed. Further, we will discuss the basic perspectives of human development. Is human development determined by nature or nurture? Is the course of development continuous or discontinuous? Is the child viewed as an active or passive organism? Is development process stable after some time or is it liable to change at any phase of life? This Unit would provide answers to these and many other such questions. Finally, we will understand how biological influences like gender, maturation, and environmental contexts like family, socio-economic status and culture affect the development of human beings. In the end of the Unit, we will discuss the importance of studying human development in the field of counselling and family therapy.

Objectives

After studying this Unit, you will be able to:

- Understand the field of human development;
- Examine the scientific emergence of human development;
- Discuss the basic perspectives of human development; and
- Explain the importance of human development in the field of counselling and family therapy.

1.2 A HISTORICAL GLIMPSE

To have an in-depth understanding in the area of human development as it exists today, we must return to its history. In this section, we will study the historical perspective and foundation of human development. We will explain the different cultural views on child from both Western as well as Indian perspectives, which have affected the theories and researches on human and child development.

1.2.1 Western View: The Medieval Times

During the middle ages, that is, 500 – 1500 AD, it was assumed that from half to two-thirds of children died before the age of 2 years (McLaughlin, 1974). It was very difficult for parents to cope up with this loss, so to keep themselves emotionally fit, they avoided getting closely attached with their infants. Children at the age of seven or eight years were expected to behave like adults. It is believed that, during the Medieval times, European people had no concept of

childhood as a separate stage of human life. Children after infancy were considered as miniature adults. This view of regarding children is known as *preformationism* (Aries, 1962). We can observe this view from the art work like paintings of Medieval times, in which children's dressing and expressions were same as of the adults (see Fig. 1.1). Some efforts were made to protect children from maltreatment during that time, but no theories were found which describe childhood as a separate development period (Borstelmann, 1983).

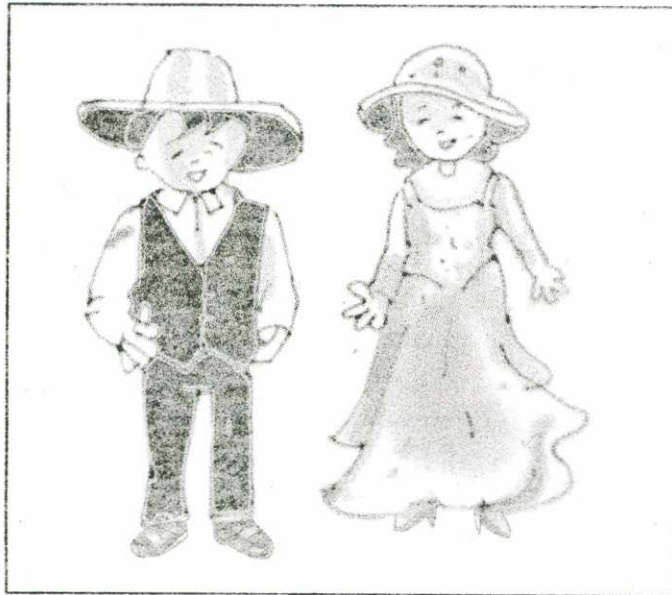


Fig. 1.1: Children in the Medieval times in the Western countries

The 'Original Sin' Era

After Medieval times, during the sixteenth century, childhood was seen as a different stage of life but regarded as a 'original sin'. According to Puritan (Christian) doctrine, the child's soul was tainted by original sin and children were required to be civilised. Children were believed to be stubborn and born evil (Shahar, 1990). Generally very harsh and authoritarian parenting techniques were suggested to be followed. But love and affection for own children prevented many Puritan parents from following such measures. Puritans developed the first special reading material for children that guided them about how to behave according to religious and moral ideals (Berk, 2002). Later, parents of this community reduced the harsh and strict discipline and adopted democratic parenting style to train their children according to their culture (Pollock, 1987).

Era of Enlightenment

During the Renaissance, the attitude towards childhood was changed by rediscovering great writings of ancient Greece and Rome. Towards the end of the seventeenth century, philosophy of '*tabula rasa*' was proposed by British philosopher John Locke (1632-1704). According to him, children were a '*blank slate*' at birth and the external experience from the surroundings shaped their personality characteristics. He put more emphasis on parental techniques as he regarded parents as rational tutors. He suggested giving rewards for desirable and good behaviour but not by money or materials (like chocolate, sweets) but with praise and right words. He strictly opposed physical punishment. He was against the harsh and strict view towards children and favoured kind and compassionate view. John Locke considered children as passive organisms, as

their characters were determined by the external factors, or in other words, the children were a blank state and were written by others; and innate qualities of the children had very little or negligible effect on their later development. But in the eighteenth century this view was rejected by Jean Jacques Rousseau (1712 – 1778). He was a French philosopher, who said that children were not blank slates to be written by the adults. According to him, children were active and '*noble savage*', meaning they were born with the sense of right and wrong, and had unique ways of thinking and feeling. Adult training could harm the innate goodness of the child.

We have studied the historical views regarding children in the Western culture. Let us see how Indian culture views children in history.

1.2.2 Indian View on Human Development

In the ancient times, the theories of man and his interrelationships in philosophy discourses were first described by Valmiki and Vyasa (Swami, 1999), in their manuscripts of Ramayana and Mahabharata, respectively. In India, child is considered as 'God'. In both Ramayana and Mahabharata, the great epics of ancient India, young children whether in the form of 'Rama', 'Lakshmana', 'Shatrugana', 'Bharata', 'Hanumana', 'Krishna', 'Sita', 'Rukamani', and others have been portrayed as very loving children (see Fig. 1.2). From ancient period Indians loved their children dearly. It was believed that children are gifts from God and products of their previous *karma*. Parents presumed that their children were related to them in their past lives. According to Manu, man recreates himself through his own children. Ancient Indians did not approve childlessness and considered it to be very ill-fated. The child and child birth was so very important in India that special ceremonies were performed before and after the birth of child. The main *samskaras* (ceremonies) related to children were *Garbhadharna* (conception), *Jatakarma* (child birth), *Annaprasana* (giving the child solid food), *Mundan* (shaving head) and *Upanayana* (sacred thread ceremony). Even today, these *samskaras* are being followed by many Hindu families.



Fig. 1.2: Young boys are loved as 'Bal Gopal' (Lord Krishna), a Hindu God, in their childhood

Today also parents in India treat their child with lots of love and affection. Parents treat their children as a blessing of God and a form of God or Goddess, having a popular saying as '*Bacha bhagwan ka roop hota hai*' meaning the child in her or his young age is considered to be an image of God. Young boys are loved as '*Bal Gopal*' or Lord Krishna, a Hindu God in his childhood and young girls are worshipped as '*Devi*' Goddess like *Mata Vaishnu devi*, a Hindu Goddess.

Apart from childhood stages, life as human being is very important and precious according to various Indian religions. Sant Gyaneshwar, Tulsidas, Kabir, Saibaba, Swami Vivekanand and many other religious Gurus including Sikh Gurus have described the human mind, the conscious and sub-conscious mind of humans and the importance of human life (*yonit*) with respect to the Supreme Being, that is 'God'. The major part of ancient Indian scriptures (Hindu, Buddhist and Jain) emphasises self realisation, *samadhi* or *nirvana*. The importance of life as human being was very well understood by the ancient Indians. For example, consider the Indus valley civilisation (6000 to 1500 BC), believed to be the first human civilisation with the theory of consciousness (Mathew, 2001). We can see the man sitting in *Padmasana* in their artifacts. Indus valley script used the symbol of *Swasthika* for the very first time. Buddhist thoughts and methods during 6th century B.C. had discussed the same concept as discussed in modern science and law of parsimony of science and they can be tested scientifically. Buddhist techniques of meditation, *sunya vada*, four noble truths and eight fold path has psychological relevance in modern psychology also. Similarly, Vedas and Upanishads described the vendanta philosophy and provided a theoretical base for *Jnana Yoga* which has direct relevance to psychology. The Bhagavat Gita also describes the Indian way of life and philosophy, focussing on *yogas*, *karma* and *bhakti*.

Rabindra Nath Tagore (1861-1941) on 'Child'

Rabindra Nath Tagore, a noble prize winner, was a social and educational reformer. He established an institute for rural reconstruction and named it as *Shantiniketan* for the upliftment of the 'untouchables'. At Shantiniketan, scholars from many places were appointed to share their knowledge with the students. He initiated *Upanishad* ideals of education. In 1901 Tagore set up a school, *Visva-Bharati*, which was devoted to emerging Western and Indian philosophy and education. He was very fond of children and wrote many poems, stories and books for them. He believed in rearing children in natural environment and in enriching their environment. He believed that a child's urge for learning should not be limited to parent's thinking as the child has been born in the more evolved era.

Mahatma Gandhi (1869-1948) on 'Child'

Mahatma Gandhi, father of India, cherished children a lot and he gave more importance on early childhood education. He stated that children should always be with their parents, as they are the first teachers of the child and home is the child's first school. He strongly believed that for proper rearing of the child, parents should have basic knowledge of care and upbringing of the child. Mahatma Gandhi favoured the view of innate goodness as he always said that other's viewpoint should not be forced on children. Instead one should let the children be reared in a natural way and enrich their environment. He criticised strongly "stuffing children's minds" (Chattopadhyaya, 1986).

Check Your Progress Exercise 1

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) Fill in the blanks:

- i) In medieval times, people had no concept of childhood as a separate stage of human life.
- ii) During the, the attitude towards childhood was changed by rediscovering great writings of ancient Greece and Rome.
- iii) The theories of man and his interrelationships in philosophy discourses were first described by *Valmiki* and *Vyasa* in their manuscripts of and
- iv) The is believed to be the first human civilisation.

2) Describe the following terms:

i) Preformationism

.....
.....
.....

ii) Original sin

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.....
.....

iii) Tabula rasa

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.....
.....

iv) Noble savage

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.....

1.3 SCIENTIFIC FOUNDATION OF THE FIELD

In the nineteenth century, Charles Darwin (1809-1882), a British biologist propounded the idea of Origin of Species. He proposed a theory which emphasised two related principles – ‘natural selection’ and ‘survival of the fittest’, which we will discuss in the next Unit. Darwin found that the prenatal stage of many species is similar. After Darwin, many other scientists worked on this line and observed various aspects of child’s behaviour so as to understand development of human beings and their evolution. In this way, the science of human development evolved. Let us study the step wise progress of human development as a scientific field.

1.3.1 The Baby Dairies and Biographies

During the late nineteenth and early twentieth centuries, some scientists began to write down the day to day description of behaviour of their closely related child for example, son or niece. The problem in these biographies was that they were biased. As the child was closely related, scientists reflected only the positive or good behaviour and chances of avoiding noting down the negative behaviour was high. But German biologist, William Preyer set very high standards for making observations of the child's behaviour as he checked the accuracy of his own notes against the second observer (Cairns, 1998). This technique is very scientific and even today many observers use this technique for observing a child's behaviour.

1.3.2 Normative Period

G. Stanley Hall (1844-1924) was one of the followers of Charles Darwin, who used Darwin's ways of recording and documenting the behaviour in psychology (Dworetzky, 1981). He is considered as the father of psychology. He was the first person to study children in laboratory. A student of Stanley Hall, Arnold Gesell (1880-1961) and Hall both launched the normative approach to child study. In this approach, a large number of children were observed to study a specific behaviour. Further, they constructed questionnaires according to the age group of children, asking them about their interests, fears, imaginary playmates, dreams etc. (White, 1992).

Using the same technique, Gesell conducted studies on motor achievements, social behaviours and personality characteristics of infants and children. He made developmental norms on the bases of these researches.

1.3.3 Development of First Intelligence Scale

Alfred Binet (1857-1911), a French psychologist worked on the line of Hall and Gesell, but on a different aspect. He was asked to develop a test to identify children with learning problems who needed special care and education. He constructed the first intelligence test, which was adopted by Stanford University in 1916 and is known as Stanford Binet Intelligence Scale. This was a landmark in the field of human development. Stanford Binet Intelligence Scale (with revisions) is still used in researches related to intelligence.

1.3.4 An Early Developmental Theorist

An American psychologist James Mark Baldwin (1881-1934) was the first theorist, who believed that neither environment nor innate goodness controls the child's character. Rather, nature and nurture both play an equally important role. He found that children's understanding of their surroundings develops in a set sequence of stages. It begins with simple behaviour patterns and later develops into more complex and abstract thinking.

1.3.5 Development of the Discipline of Human Development in India

Human development as a field of study was not studied as a different discipline in India earlier. Hence all the development that took place under this discipline was studied under the aegis of psychology. To understand the growth of human

development in India, we need to look into the history of psychology. Sinha (1986) has described four phases of Indian psychology that are:

- 1) *Pre-independence phase*: It is the era before 1947. During that time Indian psychology was highly influenced by the work done in the West. The empiricist psychology tradition was a gift to India by the British, but the psychology in Indian context did not grow much because of two reasons: (a) the educated Indians during British Raj were slow to react due to imposition and racist attitude of British; and (b) the researches in this field were carried out by social scientists from allied fields like sociology, anthropology, and political science which were not able to do justice to the subject of psychology.
- 2) *Early post-independence phase (1947-1960)*: During this period the Western concepts of psychology were adapted, modified and replicated in India. The main aim of this practice was to standardise many Western psychometric measures on Indian samples.
- 3) *Late post-independence phase (1960-1970)*: This is the period when Indian psychologists tried to conduct original studies on real issues and problems in the society, taking into cognisance political and economic realities in India.
- 4) *An indigenisation phase (1970-present)*: In this period, psychologists developed theories and models of Indian origin, which help to study Indian psychology. It is an attempt in search of a new identity. During this phase much of the researches are done in the domains of developmental, social and clinical psychology.

The two great Indian innovators in the field of Indian psychology were Girindrashekhkar Bose (1887-1953) and Durganand Sinha (1922-1998). Girindrashekhkar Bose was educated from the first Psychology department of India established in Calcutta in 1905. He became head of that department at the age of 23 years. He was the first 'self styled' psychoanalyst. He founded the Indian psychoanalytic society after having correspondence with Freud and Ernst Jones in early 1920's. Bose worked on Indian cultural psyche in his doctoral research and his work related to the concept of repression, and interpretation of many religious texts. The other important personality in Indian psychology was Durganand Sinha. He had done his post-graduation in Britain with Frederick Bartlett. Sinha focused on multifarious issues in psychology department in Allahabad, which is known as Centre for Advanced Study in Psychology (Kumar, 2006).

There are many other thinkers and theorists who have made significant contribution to the field of human development in the Indian socio-cultural context. These include Janak Pandey, Girishwar Misra, T.S. Saraswathi, S. Anandalakshmy and Margaret Khalakhidina, to name a few.

Check Your Progress Exercise 2

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) Match the following:

- | | |
|-------------------------------|----------------|
| 1) Baby biographies | Stanley Hall |
| 2) Normative period | James Baldwin |
| 3) First intelligence scale | William Preyer |
| 4) Early development theorist | Alfred Binet |

2) List down the four phases of Indian psychology.

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1.4 HUMAN DEVELOPMENT: NATURE & PRINCIPLES

Human development is a branch of science that deals with the study of all the changes viz. physical, social, emotional, behavioural and psychological that occur during the entire life span of human beings, that is, from conception to death. In the previous sections, we have studied how the science of human development came into existence and how it grew with time. Now, human development is a well developed discipline with its specific nature and goals. Let us discuss the science as it exists today.

1.4.1 The Scientific and Applied Field

Now-a-days human development is a well developed field of study. Although it is in its infancy in comparison to other disciplines, yet the researches done in this field are very scientific and well defined. Human development is an interdisciplinary field of science. It has emerged from developmental psychology. It also shares its subject matter with other sciences like sociology, anthropology, biology, political science etc. (Devadas and Jaya, 1984).

1.4.2 Goals of Human Development

Like all scientific disciplines, the discipline of human development also has specific goals. The major goals of human development are description, explanation, prediction and modification of human behaviour. Description of

behaviour means to describe what is going on, for example describing hyperactivity in a child, or a temper tantrum thrown by the child. It is an attempt to represent the human behaviour more scientifically and precisely. After describing the behaviour, the next step is explanation of behaviour, that is, why the person is behaving in a particular way. For example, what are the reasons for the temper tantrum of the child? It is an attempt to find out all the possible reasons for a particular behaviour. Prediction is the next goal of human development. It means to anticipate the future behaviour on the bases of past and present behaviour. If the behaviour is described and explained in a proper scientific manner, then one can predict the behaviour easily. For example, if we know the possible causes of the temper tantrum of a child, we can predict in which situations the child is likely to throw temper tantrums. The final goal of human development is modification. Modification is alteration and improvement in behaviour to its best. For example, by using various strategies, the child's behaviour of temper tantrums can be modified, for instance by avoiding the situations that initiate a temper tantrum or by role modelling (showing her or him how to behave positively in such situations).

We have seen that all these four goals work together. Now let us discuss the nature of human development.

1.4.3 Nature of Human Development

In this sub-section, we will discuss about development and its characteristics and in the next two sub-sections you will read about domains of human development and periods of the human life span.

Development and its characteristics

Development is defined as change in all human aspects including physical, motor, emotional, language, intellectual, social and behaviour in a progressive manner. Puberty in adolescent is an example of physical development. Development is a process which has some specific characteristics. These are:

- 1) **Development is life long:** Development is a continuous process. It occurs throughout the life span of human beings; where as the rate of development may vary according to the phase of the life span. For example, physical development is more rapid in the first three years of life in comparison to middle age.
- 2) **Development follows a specific sequence:** Development follows an order of sequence and this order is universal. For example, a child always learns to stand before walking; and babbles before speaking. Although the rate of development may vary from person to person, yet the sequence remains the same. For example, one child may learn to sit at the age of 5 months whereas another child learns to sit at the age of 7 months, but both of them learn to sit before they learn to stand. Sometimes a certain stage may be skipped and the child may jump from first level to third level, but it is always from a lower level to a higher level. For example, some children may skip the phase of crawling and start standing after they learn to sit (see Fig. 1.3). Usually physical development follows two sequences, that are:

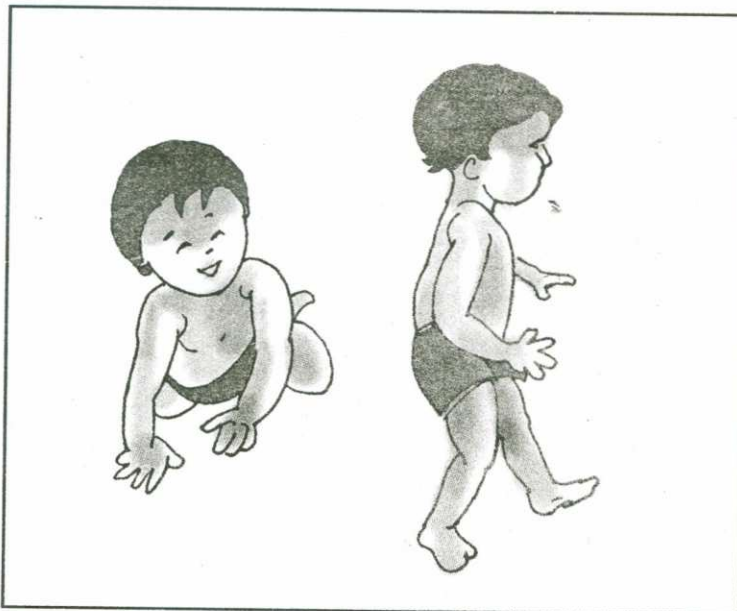


Fig. 1.3: Development follows a specific sequence, as a child always learns to crawl before walking and not the other way around

- i) **Cephalo-caudal development:** Cephalo-caudal development means that development proceeds from head to toe direction; that is, the child gains control over the upper part of the body first, then on the trunk region and then on the lower part. For example, children learn to control their head movements first, then hold the neck and after that only they learn to sit.
 - ii) **Proximo-distal development:** Proximo-distal development means the development spreads from near to far. The organs near to the heart are developed first than those farther from the heart. For example, children acquire control on their shoulders, then on their arms, then on their hand movements and only after that they control their finger movements, which help in fine motor activities.
- 3) **Development is irreversible:** Development process is irreversible as one who acquires or develops up to some level cannot go back to the lower level. For example, the child who learns walking cannot leave or forget standing, or one who attains the height of 5 feet cannot go back to 4 feet height, or the child who has entered the early childhood stage cannot become an infant again.
 - 4) **Development proceeds from general to specific:** Development becomes more definite with age. It starts from general responses and after some time, as the development proceeds, responses become more specific. For example, the neonates cry for each and every uneasiness whether hunger, bed wetting, uncomfortable clothing, cold etc., but as they grow older the cry or signs for hunger are different from the signs for bed wetting.
 - 5) **Child develops as a whole:** When we talk about the development of a child, it means development in all the areas, that is, physical, mental, social, emotional, behavioural, and so on. Development in all these areas takes place simultaneously. The child develops as a unified whole. Therefore, it is advisable to provide a rich environment for the development of children, that helps them to develop to their fullest potential.

- 6) **Development is cumulative in nature:** In any organism, the next development always follows the previous one, or in other words we can say that, the previous development acts as a base for the following development. It is not possible that new development occurs on its own, irrespective of the existing development. For example, before rupturing of teeth in infants, the gums get harder; and the child begins uttering single words before learning to speak in sentences.
- 7) **Development varies from one child to another:** Although developmental sequence is the same for each and every child, but the time and status of development varies from to child child. There are individual differences in the development of the child because of certain factors, such as nutrition and health status, socio-cultural influences, genetic predisposition, economic status of family etc. For example, while one child may start speaking much earlier than the other, it is possible that the latter one starts walking earlier than the former.
- 8) **Biological and environmental contexts strongly influence development:** Every person develops within a specific environment which is comprised of her or his surroundings, and defined by time and place. Biological contexts like heredity and maturation influence human development. Similarly, ecological contexts like family, neighbourhood, and culture, also have a great impact on human development (see Fig. 1.4). We will discuss this aspect in detail in the later part of this Unit.



Fig. 1.4: Region and culture affect the child rearing practices

- 9) **Development is multi-dimensional and multi-directional:** Development occurs in multiple areas at the same time. It is not as if children grow physically first and then their cognitive development takes place or after that social development occurs. All the development; whether physical, social, cognitive or emotional, occurs simultaneously. Development might be faster in one area in comparison to another at a particular stage of human life span, but it occurs simultaneously. For example, language

development appears slow in the first year of life in comparison to physical development. Development includes a balance of growth and decline throughout life (Papalia *et al.*, 2001). For example, people stop growing in height after some time during adulthood, but they may still develop other capabilities like vocabulary, problem solving skills etc. During old age, the memory and eye sight may start to diminish but the person now has greater expertise in some fields.

1.4.4 Domains of Human Development

Development has different aspects, which we call domains of development. Broadly there are three domains of human development; namely the physical and motor domain, the language and cognitive domain and the socio-emotional domain. All these three domains are interrelated and interdependent throughout the life span of human beings. Now let us see what we actually mean by these terms:

- 1) **Physical and Motor domain:** Physical and motor domain includes growth of the body-size and brain development, perceptual skills, motor skills and physical health.
- 2) **Language and Cognitive domain:** This domain includes development and changes in mental abilities like attention, learning, thinking, memory, reasoning, creativity, imagination and language development. For example, the child begins to speak two word sentences, memorises a story, etc.
- 3) **Socio-emotional domain:** Socio-emotional domain includes changes in the individual's relationships with others, development and changes in experiencing and manifestation of emotions, self concept, interpersonal skills, intimate relations, friendship, moral development and behaviour.

Although we have stated the domains separately, yet all these three domains are closely related and interdependent. For example, a child with good physical and mental health has more chances to do well academically than a child who is physically not well or mentally highly stressed.

1.4.5 Periods of Human Development

After discussing the domains of human development, let us study the periods of human development. The concept of periods of development is also known as *social construction*. Social construction is an idea about the nature of reality accepted by members of a particular society at a particular time on the basis of shared subjective perceptions or assumptions (Papalia *et al.*, 2001). Many developmental psychologists divided human life span into developmental periods so as to organise and understand development better.

Let us now discuss the stages of human life span

- 1) **The prenatal period:** The prenatal period starts with the time of conception till birth of the child. It is further divided into three sub-stages. These are:
 - a) *Period of the Zygote or Zygotic period* which includes the first 14 days after fertilisation. During this period, rapid cell division occurs. Zygote moves out from fallopian tube to uterus and attaches itself to the wall of the uterus.

- b) *Period of the Embryo or Embryonic period* includes the first two months of pregnancy. During this period, the foundation of vital organs and other major development is laid.
 - c) *Period of the Foetus or Foetus period* includes the next 7 months of pregnancy till the delivery of the baby. During this period, the child develops in the womb of the mother.
- 2) **Infancy:** Infancy is the developmental period which is further divided into two sub-stages. These are *the neonatal period* which starts with the birth of the child and ends at 4 weeks after birth. After 4 weeks to 2 years the child is called an *infant*. Infants are generally dependent on adults for their needs. The physical development is very fast during this period. It is also a beginning stage of many activities like language, sensory- motor coordination and socialisation. The age period of 1-3 years is considered as Toddlerhood.
- 3) **Early childhood period:** Early childhood is the period lasting from the age of 3 years to 6 years. This is also called the 'preschool period', or 'exploratory period'. During this period, children are prepared for schooling. The social development is very fast during this developmental period.
- Now-a-days early childhood is considered from conception to age eight years.
- 4) **Childhood period:** The childhood period includes the years from the age of 6 years to 9 years. It is also called the "elementary school period". The basic skills of reading, writing and arithmetic are learned during this period.
- 5) **Adolescence period:** Adolescence is considered as a period between childhood and adulthood. Adolescence period starts from 10 years to 19 years (according to the Report of Working Group on Adolescents for Tenth Five Year Plan, Govt. of India). This is also known as "teen age". Early adolescence is the period lasting from 10 years to 12 years. It is a period of rapid physical growth and secondary sex characteristics start appearing. This period begins with the onset of puberty. Reproduction maturity occurs at this stage. Late adolescence is considered from 15 years onwards.
- 6) **Adulthood period:** Adulthood period comprises the age of 21 years to 60 years. Physical development reaches its peak and then declines slightly during this period. Educational and professional choices are made in the beginning of this stage.
- 7) **Late Adulthood period:** From the age 60 years onwards the period of life span is known as senescence or old age. It lasts till the death of the individual. The reaction time slows down and physical health is also affected due to a number of factors. This stage is also known as 'retirement stage'.

Every period of development has certain development tasks, which must be mastered for normal development. *Development tasks* can be defined as certain problems that arise during a particular period of life. If the individual is successful in handling these problems, this will lead to satisfaction and success in proceeding tasks, but if she or he fails, it will lead to dissatisfaction in the individual, disapproval from society and difficulties with subsequent tasks (Devdas and Jaya, 1984). Human life span was divided in stages by other psychologists also, for example, psychosexual stages by Sigmund Freud, and psychosocial stages by Erik Erikson. We will study these theories in the third Unit of this Block.

1.4.6 Indian View on Human Life Span

The stages of human life span were described in *Dharmashastra* written by Manu of ancient India. Manu divided the human life span in four stages according to different social settings. He also gave a detailed account of each and every stage in respect of the individual's role and responsibility in every setting. He believed that each stage is a preparation for the proceeding stage (Devdas and Jaya, 1984). The life span stages were termed as '*ashrams*' in *Dharmashastra*. The four *ashrams* of human life are:

- 1) ***Brahmacharya* (stage of apprenticeship):** This is a period of learning – the foundation of life. This period lasts from birth to about 25 years of life. The major part is spent in Gurukul or in learning. Before the child enters the Gurukul, the early years of life are divided into different stages, which are; i) *Balpan* that is the period of pregnancy and birth of the child, ii) *Ksheerda* is a period of early infancy that is from birth to 9 months of age. In this *namakaran* (name of child) ceremony is done. The period is characterised by breast feeding, and is important for building the mother-child relationship, iii) *Ksheerannada* is period from 9 months to 2-3 years or early childhood in which *Chundakarana* (shaving head) ceremony is done, iv) *Bala* (middle childhood) is period of 2-3 years to 5-7 years, in which *vidyaramba* (formal education) of child starts; and v) *Kumara* (5-7 years to 8-12 years) is a period of late childhood in which *Upanayanam*, a ceremony in which the child is considered to take a second birth is performed. In this stage children learn social roles, responsibilities and practice religious rituals (Kakar, 1981; Saraswathi and Ganpathy, 2002). After this stage the *Brahmacharya ashram* starts in which education is imparted on spiritual, community and family life. More emphasis is given on positive training and discipline.
- 2) ***Grihasta ashram* (stage of family):** This stage lasts from about 25 years to 50 years of life. It is a period of procreation and family living. During this period, the person gets married, starts family life, raises children and fulfills his roles and responsibilities towards family and society. In this phase, people spend most of their time in the family and community.
- 3) ***Vanaprastha* (stage of extrication from attachment):** It is a period of spiritual maturity, meditation and prayer. During this period, the focus of the person shifts from family life towards spiritual practice. At this stage, people follow a simpler life style than at earlier stages and reduce their participation in community functions. This stage starts from around 50 years of age and lasts till 75 years of age.

- 4) **Sanyasa (stage of renunciation):** It is a period of detachment from each and every worldly thing such as family members, community, wealth etc. The person is now free from family, political, professional and social commitments. The only goal of life at this stage is spirituality. This stage is from about 75 years onwards.

After understanding the nature, goals, domains and periods of human development, now let us discuss its basic perspectives in the next section.

Check Your Progress Exercise 3

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

- 1) List down the major goals of the discipline of human development.

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- 2) List the major characteristics of human development.

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- 3) What are the major domains of human development?

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- 4) What are the main periods of human life span according to Indian view?

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1.5 BASIC PERSPECTIVES OF HUMAN DEVELOPMENT

We have studied earlier that development has different domains and it can be divided into different stages. It is seen that the approaches used to study human development are also different. Various researchers and scientists studied the human development process in different ways.

We can categorise these researchers' theories on the basis of four basic issues which we can say are the basic perspectives of human development. These are:

- i) Continuous *versus* discontinuous development,
- ii) Nature *versus* nurture,

- iii) Active *versus* passive child, and
- iv) Stability *versus* change.

1.5.1 Continuous *Versus* Discontinuous Development

The major debate regarding the nature of development process among the developmental psychologists is whether development is a continuous process or a discontinuous one, occurring in stages? Mechanistic theorists view development as a continuous process occurring in an orderly way, that is, earlier experience lays a base for new experiences. According to them, development is a smooth and gradual process which does not occur abruptly. These theories focus on quantitative changes that occur during development. For example, they study change in the frequency of behaviour instead of change in the style of behaviour. Albert Bandura supports the view of continuous change. We will study his theory in Unit 5. But Organismic theorists believe that development occurs in a series of distinct stages. The aspects of development and skills learned are distinctly different for each stage. These theories focused on qualitative changes that occur during the course of development. Jean Piaget, Sigmund Freud and Erik Erikson proposed the stage theories of development which we will discuss in further Units.

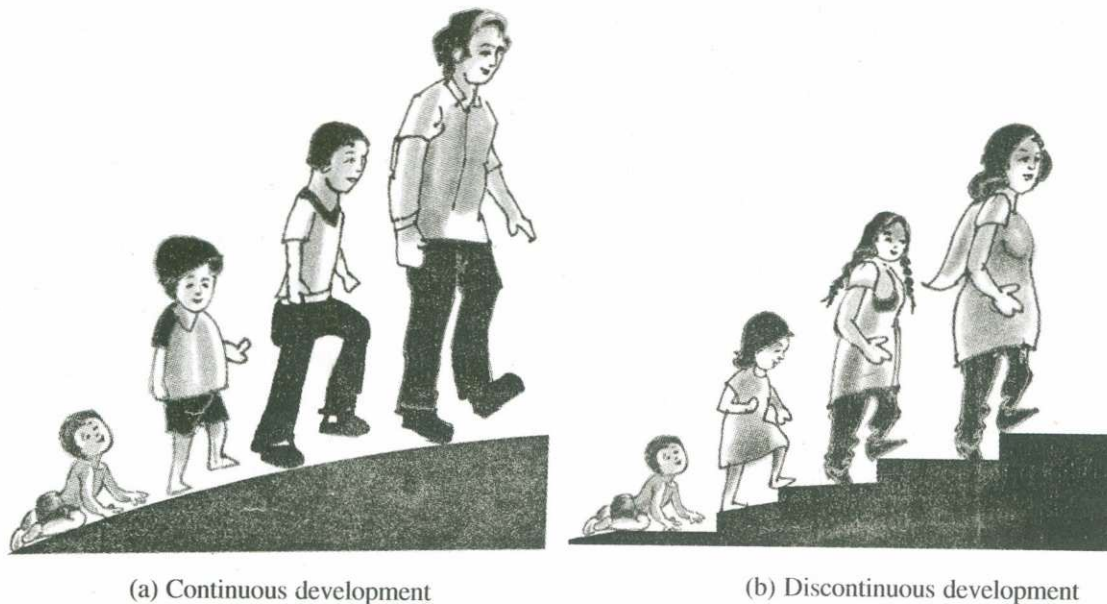


Fig. 1.5: Continuous *versus* discontinuous development: (a) some psychologists believe that development is a smooth, continuous process, and (b) other psychologists assert that development takes place in stages. Children change rapidly as they step up to new level of development.

1.5.2 Nature *Versus* Nurture

The second major issue of development is whether nature or nurture governs development. Although almost all scientists and researchers agree that both nature (biological inheritance of individual) and nurture (the environmental factors) affect human development, yet there is conflict over the degree of involvement and importance of these factors. Biological extremists or the scientists and psychologists who believe in nature maintain that biology is destiny that decides the course of development of an individual. They strongly believe that maturation is merely an effect of development which is guided by the genetic processes. Arnold Gesell had strongly advocated this view where

as other theorists like John B. Watson, opposed this view and emphasised strictly on the environmental effects on development. Watson (1930) claimed that he could train any healthy infant into any type of specialist like doctor, lawyer, merchant, chief etc. by organising the proper environment regardless of the infant's talents and abilities. The environmental factors can shape the development of the child. For example, it is seen that children who are rejected by their peer group often develop behavioural problems (Brown, 2004).

1.5.3 Active Versus Passive Child

Another view, on which developmental psychologists have an argument, is whether child is an active or a passive organism. Earlier researchers viewed the child as a passive organism whose character is determined by the environmental factors. For example, we studied the 'tabular rasa' view of John Locke who considered the child as a passive organism. According to this view, proper training of skills, suitable environment and talented teacher mould the child accordingly. But the modern developmental psychologists oppose this view and strongly believe that child is an active organism who shapes, controls and directs the course of her or his own development (Bugetal and Goodnow, 1998). They view children as curious information seekers who themselves want to understand and explore the world around them. We have also studied the view of Jean Jacques Rousseau and G. Stanley Hall who favoured this view of development.

1.5.4 Stability Versus Change

Another major issue for discussion for developmentalists is whether the inherited traits and characteristics persist throughout the life span or are they liable to change? This is also known as stability-change issue. According to the stability view point the characteristics inherited by children along with the experiences they encounter in the first 2-3 years of life will determine their characteristics and remain stable throughout the lifespan. For example, the Greek philosopher Plato (428- 348 BC) believed that infants who are rocked frequently become athletes in future life. According to this view, development takes place in early years of life and in later years it is negligible. This might be a reason for the dearth of studies on adult development by researchers (Santrock, 2007).

As we have seen, there are very few researches on adult development in comparison to child development. But the developmentalists who believe that development is a continuous process support the 'change' view in development. They said that children are malleable throughout their development and care during later stages is as significant as it is during the early years of life. For example, Kagan (2003) studied 2 year old children who were shy and timid and found that one-third of the total children did not show shy and timid behaviour when they reached at the age of 4 years. According to Santrock (2007), Asian people believe that experiences at 6-7 years of age are more important for development in comparison to early experiences at early years, since it is trusted in their culture that child's reasoning skills begin to develop at middle childhood.

1.5.5 A Middle Path

We have studied different views on development but all in terms of extremes; that means as dichotomous, favouring either one side or the opposite side of

that issue. But now-a-days, no one supports either of these extreme positions. Modern developmental psychologists are more eager to explore the balanced view on development.

For the issue of continuous *versus* discontinuous nature of development, psychologists with a balanced view believe that development is basically continuous but there are periods of transition in which change takes place suddenly. The transition period reveals the developmental process clearly at a particular period of the life span. For example, onset of puberty, beginning of family life etc.

Similarly, modern developmental psychologists believe that nature and nurture are equally important and responsible for the development of an individual. For example, genetic inheritance as well as nutritional status equally affect the health status of the individual, just as certain hormones as well as exposure to aggressive behaviour influence the development of aggression in an individual (Hetterington and Parke, 1999). Hence, in the discipline of human development, the focus is now on studying the correlated and interactional effects of inherited biological factors and how they are shaped, modified and directed by different sets of environmental factors, instead of arguing on the importance of one factor (nature) *versus* another (nurture).

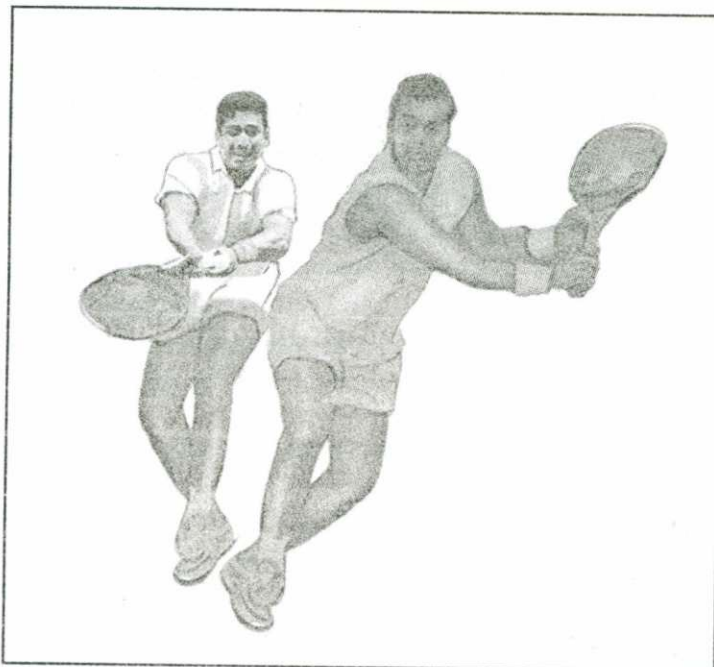


Fig. 1.6: Nature *versus* nurture: Do these tennis champions Leander Paes and Mahesh Bhupathi owe their prowess to inborn talent or to their parents' or coaches' tough training? The answer is 'Both'.

We also take a middle path on child's activeness or passiveness. Today the developmental psychologists discard the view that child is either an active or a passive organism. They say that development is a two-way process, it is not one-sided. For example, although socialising agents like peers, parents or other adults affect the development of the child, yet the child can also actively modify the behaviour of his parents, peers and others adults in his milieu (Hetterington and Parke, 1999).

Check Your Progress Exercise 4

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) Match the following

- | | |
|-------------------|---|
| i) Continuous | Characteristics persist throughout lifespan |
| ii) Discontinuous | Curious information seeker |
| iii) Nature | Environmental influences |
| iv) Nurture | Biological inheritance |
| v) Stability | Development occurs in stages |
| vi) Active child | Development is smooth and gradual process |

1.6 INFLUENCES ON HUMAN DEVELOPMENT

We now know that development is a universal and continuous process. It follows the same set of sequences for every human being irrespective of culture, gender, region etc. But we observe that not even two persons are alike; there are variations in the height, weight, body build, health, intelligence and many other aspects. This is due to individual differences that affect the developmental process. The main reasons of individual differences are the biological and environmental influences on development. For example, the sex of the individual is determined by the biology or sex chromosomes that she or he inherits. But it is not always possible to measure the effect of biological and environmental factors on human development as development is a complex, multidirectional and multidimensional process. To understand the individual differences, we need to study the influences of major contexts like gender, maturation, family, neighbourhood, socio-economic status, ethnicity and culture on the development of human beings.

1.6.1 Biological Influences on Human Development

Biology provides the blueprint for development which is called *genetic programming*. It may determine the whole process of development in future years. The main aspects influenced by biology are the sex of the individual and maturation.

- 1) **Gender:** The gender of an individual affects his or her development. For example, certain hormones like androgen etc. determine the male sex characteristics, are higher in males. They are also responsible for the more muscular body in males in comparison to females. Similarly mammary glands in females secrete hormones (oxytocin) which is responsible for milk production in females (after delivery of child), which makes them different from males. The age of puberty is also different for males and females. Females are generally 2-3 years ahead of males and acquire reproductive maturity earlier than males (see Fig.1.7). In some cases, however, the age of maturity is also determined by environmental factors.



Fig. 1.7: Gender plays an important role in the development of an individual during age span of 10 to 13 years. Girls are on an average taller, heavier and stronger than boys; who tend to reach their adolescent growth spurt later than girls.

- 2) **Maturation:** The term maturation was given by developmental psychologist Arnold Gesell (1880-1961). He described the sequential pattern of development through this term. Developmental sequences which are based on maturation have no relation with training or practice. For example, appearance of secondary sex characteristics like pubic hair, broadening of pelvic bone in girls are totally based on the maturation of individual. Maturation process follows three principles:
- i) Maturation is universal, which means that each and every living organism is bound to mature.
 - ii) Maturation follows a specific sequence.
 - iii) Maturation is relatively less affected by environmental factors.

1.6.2 Environmental Influences on Human Development

Let us now discuss the various environmental factors that influence human development.

- 1) **Family:** Family is a basic unit of society. Family can be defined as two or more people related by either blood, marriage or adoption, sharing same set of norms, values, morals and may live under the same roof. Though later at age parents and children may not share the same norms or values. Family has a number of functions such as reproduction, socialisation, emotional support, economic services etc. All these functions play an important role in human development. Family influences the individual's development directly or indirectly. The main characteristic of Indian family is that there is a hierarchy in family roles according to the age and sex of the members, which directly influences human development. Also, the interaction between two family members affects the development of other members of the family.

- 2) **Socio-economic status:** Socio-economic status comprises of many factors like income, education, profession, neighbourhood etc. Socio-economic status (SES) influences the individual's development in many ways. For example, a person who belongs to low SES has restricted access to school facilities and may not get opportunities to develop to her or his fullest potential. It is seen that factors like neighbourhood income and human capital, that is, presence of educated, employed adults can affect the development of children. Sometimes such conditions exist which increase the likelihood of a negative developmental outcome – these conditions are known as risk factors; for example an alcoholic parent or poverty.
- 3) **Culture:** Culture can be defined as ways of life of a society or group, which mainly includes customs, traditions, values, beliefs, language etc. It is the learned behaviour which is passed from one generation to another. Culture is dynamic in nature; it is not static. Culture further has sub-cultures like tribes and ethnic groups.

India is a large country with a number of sub-cultures. Now-a-days migration from one state to another, from one region to another, and one country to another is very common, because of varied factors, like employment, education, marriage etc. So, immigrant group or minority group learns the language and customs of the majority group as it is needed to get along in the dominant culture, while the minority group tries to preserve some of their own cultural practices and values. This process is called *acculturation*. For example, families from India may live in France, learn French, and try to adopt eating habits of the French, but they celebrate their functions and festivals according to their cultural norms.

Culture also influences human development in many ways. It might be directly or indirectly. For example, a Hindu gets married according to Hindu marriage traditions (see Fig.1.8). Further, one tends to follow gender roles determined by the culture or society. These are the examples of direct influences of culture on human development. Some child rearing practices are indirectly influenced by cultural norms; for example onset of puberty or first menstruation in adolescent girls is celebrated in some states of southern India.



Fig. 1.8: The marriage rituals and traditions vary from one culture to another

Here, we would like to conclude that both biological and environmental influences play a significant role in the child's development. Maturational readiness when associated with appropriate environmental stimulation results in optimal development.

1.6.3 Normative and Non-normative Influences

We have studied that development follows a sequence which is common for all. We also studied that there are individual differences in development due to many factors. To understand the similarities and differences in development, we have to study such factors that have influence on most of the people and others that only influence certain individuals. We can classify these factors according to their influences:

- 1) **Normative influences:** Normative influences can be defined as the influences experienced in the same way by a large number of people in a group. These events are usual and common for a certain group of people. Normative influences can be further divided into two groups. These are:
 - i) *Normative age graded influences:* These normative influences are experienced by a particular age group. For example, puberty in adolescents or menopause in middle-aged women.
 - ii) *Normative history graded influences:* These are the normative influences which affect only that group of people who share a similar set of experiences; for example, growing up at the same place and at same stage of life span.
- 2) **Non-normative influences:** Non-normative influences can be defined as influences that have a major affect on one individual. These can be usual events but the timing of these events is not correct, which makes them unusual events; for example, pregnancy at teenage or death of parents of an infant.

1.6.4 Critical and Sensitive Periods

As we studied, the timing of a usual event can make it unusual. Hence we can say that timing of influences is very important. In this context, let us examine the crucial concepts of critical period and sensitive period.

- 1) **Critical period:** It can be defined as a specific time when the occurrence or absence of certain events has great impact on the development of an individual (Papalia *et al.*, 2001). For example, if a lady gets affected by German measles (rubella) after or before pregnancy it has negligible effect on the child's health, but if she gets this infection during first or second trimester of pregnancy, it will seriously effect the child's mental and physical development.
- 2) **Sensitive period:** It is a particular experience which can be best incorporated during the maturation process for proper development (Bee and Denese, 2004). For example, the age of 22-35 years sensitive period for pregnancy, even though a woman may get pregnant after first

menstruation upto her menopause; but in that case, there will be greater risk for both the mother and the child. Likewise, infancy and early childhood are the sensitive periods for language development, wherein stimulating experience will field optimal benefits.

Check Your Progress Exercise 5

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) List the major biological and environmental influences on human development.

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2) Define:

i) Normative influences

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ii) Non-normative influences

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iii) Critical period

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iv) Sensitive period

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1.7 SIGNIFICANCE OF STUDYING HUMAN DEVELOPMENT IN THE FIELD OF COUNSELLING AND FAMILY THERAPY

The main aim of this Counselling and Family Therapy programme of study is to orient learners towards the needs and problems of those they are trying to help. The programme is intended to prepare interpersonally skilled and culturally competent professional counsellors and family therapists who facilitate the psychological growth and development of those they serve. They will also help those who experience difficulties in overcoming or resolving interpersonal, vocational and emotional adjustment problems associated with modern living. The counsellors and family therapists intervene for promoting positive family inter-relationships, and reducing maladaptive behaviour and psychosomatic problems. Hence, to be an effective counsellor and family therapist, it is a prerequisite to acquire basic knowledge about human development, its milestones and processes, its historical perspectives and basic concepts, and the variety of factors that influence it. It is seen that human beings continue to develop throughout their lives and are not restricted to the effects of incidences that happened to them from birth to six years of age. The milieu plays an important role throughout the lifespan.

To do the justice to the job of a counsellor or family therapist, in addition to the study of human development, we also need to study the family system, because the whole family is involved in each member's development. Each member influences and reacts to another member's phase of life. The family has its own stages of life cycle that are the major context and determinant of the development of individual family members. Socio-emotional development of an individual takes place within a family. The phases and course of development can be identified and predicted by studying the family itself. It can also help to understand the emotional problems that people develop as they struggle together through this basic process. Without acquiring the knowledge about these concepts, it is not possible to intervene effectively in family processes and personal problems. Knowledge of basic perspectives and understanding of human development and family life cycle will equip you to deal with interpersonal, vocational and emotional adjustment problems. As a counsellor and family therapist often has to work with disturbed and dysfunctional individuals and families, so it is advisable to proceed from the normal development of individuals and families that may serve as the base to which you will try to restore them after their treatment. This knowledge and treatment is needed to promote the positive aspects and reduce the negative. So keeping all these points in mind we are studying about human development and further we will study about theories of human development and families; and understand the stages of family life cycle in the context to counselling and family therapy.

Check Your Progress Exercise 6

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) For each of the following statements, state whether it is 'True' or 'False':

- i) A counsellor and family therapist needs to be oriented towards the client's needs and problems.
- ii) The whole family is involved in each member's development in the sense that each influences and reacts to the other member's phase of life.

1.8 LET US SUM UP

In the beginning of this Unit, we studied about the historical views of various civilisations on child and how childhood as a different stage gained its space. We also saw differences in the Western view on the child and the Indian view regarding the child. Further, we learnt how scientific foundation of human development was laid. We got to know about baby biographers and normative period. We studied about the major concerns of early developmental theorists. We also examined the development of the discipline of human development in India. We learnt that human development is comparatively a new field of study. It is an interdisciplinary and applied field. Description, explanation, prediction and modification are the major goals of the discipline of human development. We acquired knowledge about the development process and its characteristics. The three domains of human development viz. physical, cognitive and socio-emotional were also studied. We saw how the life span of human beings is divided into various stages by Western as well as Indian thinkers.

The Unit also focused on the four basic perspectives of human development that are, continuous *versus* discontinuous, nature *versus* nurture, active *versus* passive child and stability *versus* change in development. We also studied the middle path regarding these perspectives. In the end of this Unit we studied the various biological and environmental influences on human development that lead to individual differences in human beings. The normative and non-normative influences and importance of timing of influences such as critical period and sensitive period were also outlined. Finally, the significance of studying human development in the field of Counselling and Family Therapy was discussed.

1.9 GLOSSARY

- | | |
|------------------------|---|
| Critical period | : Critical period can be defined as a specific time when the occurrence or absence of certain events has great impact on human development. |
| Noble savage | : The belief that children inherited and were born with the sense of right and wrong, and had unique ways of thinking and feeling. |

Non-normative influences	: Non-normative influences can be defined as influences that have a major affect on the development of an individual.
Normative influences	: Normative influences can be defined as the influences experienced in the same way by a large number of people in a group.
Original sin	: Children were believed to be stubborn and born evil.
Preformationism	: Children after infancy were considered as miniature adults.
Sensitive period	: Sensitive period is a period when a particular experience can be best incorporated into the maturation process for proper development.
Tabula rasa	: The belief that children were a 'blank slate' at birth and the external experience from the surroundings shaped their personality characteristics.

1.10 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

1) Fill in the blanks:

- i) European
- ii) renaissance
- iii) Ramayana, Mahabharata.
- iv) Indus valley civilisation

2) i) **Preformationism:** It is believed that, in medieval times, European people had no concept of childhood as a separate stage of human life. Children after infancy were considered as miniature adults. This view regarding children is known as preformationism.

ii) **Original sin:** According to Puritan (Christian) doctrine, children's souls were tainted by original sin and children were required to be civilised. Children were believed to be stubborn and born evil.

iii) **Tabula rasa:** 'Tabula rasa' term was given by John Locke. According to him, the child was a 'blank slate' at birth and the external experience from the surroundings shaped her or his personality characteristics.

iv) **Noble savage:** According to Jean Jacques Rousseau, children were active and 'noble savage', meaning they were born with the sense of right and wrong, and had unique ways of thinking and feeling. Rousseau believed that adult training could harm the innate goodness of the child.

Check Your Progress Exercise 2

- 1) Match the following:

i) Baby biographies	William Preyer
ii) Normative period	Stanley Hall
iii) First intelligence scale	Alfred Binet
iv) Early development theorist	James Baldwin
- 2) The four phases of Indian psychology are:
 - i) Pre-independence phase (before 1947);
 - ii) Early post-independence phase (1947-1960);
 - iii) Late post-independence phase (1960-1970); and
 - iv) An indigenisation phase (1970-present).

Check Your Progress Exercise 3

- 1) The major goals of the discipline of human development are:
 - i) Description,
 - ii) Explanation,
 - iii) Prediction, and
 - iv) Modification.
- 2) The major characteristics of human development are:
 - i) Development is life long,
 - ii) Development follows specific sequence in the form of:
 - a) Cephalo-caudal development,
 - b) Proximo-distal development,
 - iii) Development is irreversible,
 - iv) Development proceeds from general to specific,
 - v) Child develops as a whole,
 - vi) Development is cumulative in nature,
 - vii) Development varies from one child to another,
 - viii) Biological and environmental contexts strongly influence development, and
 - ix) Development is multidimensional and multidirectional.
- 3) The major domains of human development are:
 - i) Physical and motor domain,
 - ii) Language and cognitive domain, and
 - iii) Socio-emotional domain.

4) The main periods of human life span according to Indian view are:

- i) *Brahmacharya* (stage of apprenticeship),
 - a) *Balpan*
 - b) *Ksheerda*
 - c) *Ksheerannada*
 - d) *Bala*
 - e) *Kumara*
- ii) *Grahashta* ashram (stage of family),
- iii) *Vanaprastha* (stage of extrication from attachment), and
- iv) *Sanayasa* (stage of renunciation).

Check Your Progress Exercise 4

1) Match the following

- | | |
|-------------------|---|
| i) Continuous | Development is smooth and gradual process |
| ii) Discontinuous | Development occurs in stages |
| iii) Nature | Biological inheritance |
| iv) Nurture | Environmental influences |
| v) Stability | Characteristics persist throughout lifespan |
| vi) Active child | Curious information seeker |

Check Your Progress Exercise 5

1) The major biological influences on human development are:

- i) Gender and
- ii) Maturation

The major environmental influences on human development are:

- i) Family,
 - ii) Socio-economic status, and
 - iii) Culture
- 2) i) Normative influences: Normative influences can be defined as the influences experienced in the same way by a large number of people in a group.
- ii) Non-normative influences: Non-normative influences can be defined as influences that have a major affect on an individual.
- iii) Critical period: Critical period can be defined as a specific time when the occurrence or absence of certain events has a great impact on human development.
- iv) Sensitive period: Sensitive period is a particular experience which can be best incorporated into the maturation process for proper development.

Check Your Progress Exercise 6

- 1) i) True
- ii) True

1.11 UNIT END QUESTIONS

- 1) Describe how the field of human development evolved as a science.
- 2) Explain the nature of human development in your own language. Give examples from your daily life experiences.
- 3) Discuss the basic perspectives of human development.
- 4) Describe the importance of various influences on human development.

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UNIT 2 BIOLOGICAL PERSPECTIVES

Structure

- 2.1 Introduction
- 2.2 Evolutionary Perspective
- 2.3 Genetic Foundations
 - 2.3.1 Genetic Transmission
 - 2.3.2 The Sex Cells
 - 2.3.3 Boy or Girl
 - 2.3.4 Multiple Offspring
 - 2.3.5 Genetic Inheritance
- 2.4 Genetic and Chromosomal Abnormalities
 - 2.4.1 Genetic Diseases
 - 2.4.2 Chromosomal Abnormalities
- 2.5 Genetic Counselling and Prenatal Diagnosis
 - 2.5.1 Genetic Counselling
 - 2.5.2 Prenatal Diagnosis
- 2.6 Prenatal Stages of Development
 - 2.6.1 The Period of Zygote
 - 2.6.2 The Period of Embryo
 - 2.6.3 The Period of Foetus
- 2.7 Hazards during Prenatal Period
 - 2.7.1 Physical Hazards
 - 2.7.2 Psychological Hazards
- 2.8 Prenatal Environmental Influences
 - 2.8.1 Teratogens
 - 2.8.2 Other Maternal Factors
- 2.9 Child Birth and Complications
 - 2.9.1 Child Birth Process
 - 2.9.2 Complications of Birth
- 2.10 Let Us Sum Up
- 2.11 Glossary
- 2.12 Answers to Check Your Progress Exercises
- 2.13 Unit End Questions
- 2.14 Further Readings and References

2.1 INTRODUCTION

Imagine how a two and a half kilogram human baby is developed from the union of two tiny male and female sex cells. Why is it a boy or a girl? Why do some have curly hair rather than straight hair? Why does one child resemble a parent while the second does not? Why does one child resemble her maternal aunt more than her paternal aunt? Why are some children born with genetic or chromosomal abnormalities? In this Unit, we will study answers to these questions. This Unit begins with the evolutionary perspective and genetic

foundations of physical development. Further, genetic and chromosomal abnormalities, genetic counselling and methods of prenatal diagnosis are described. It follows with a discussion of prenatal stages of development and the hazards of prenatal period. Prenatal environmental influences have also been discussed in detail. Finally, we shall learn about the child birth process and the complications of child birth.

Objectives

After studying this Unit, you will be able to:

- Describe evolutionary perspective and genetic foundations of human development;
- Explain genetic and chromosomal abnormalities involved in human development;
- Define prenatal stages of development and describe hazards of prenatal period; and
- Explain child birth process and its complications.

2.2 EVOLUTIONARY PERSPECTIVE

Now we will discuss the evolution of human beings. According to the evolution theory, human species is the youngest on earth or if we change the evolution time into one year, the human beings come in the end of December (Sagan, 1977). To describe how evolution of different species took place, the evolutionary theory came into existence. The evolutionary theory was proposed by the British naturalist Charles Darwin. Charles Darwin (1809-1882) was on world tour when he observed and studied the different species of many birds and animals in their natural settings. He wrote a book on these observations, named "*On the origin of species*". On the basis of his observations, he formed a well-known theory named as *evolutionary theory*. The evolutionary theory is composed of the following three basic concepts:

- i) **Microevolution:** Microevolution takes place due to the occurrence and builds up of mutations in the genes of an organism. Mutation of genes takes place randomly and in rare cases such as errors in reproduction process or exposure to radiations or chemicals.
- ii) **Natural selection:** Natural selection is the evolutionary process in which the fittest individual of a species survives to reproduce and pass his or her genetic inheritance, whereas others who are not strong enough to adapt to the environmental changes are eliminated. Natural selection is also termed as "survival of the fittest".
- iii) **Adaptation:** According to this theory, the survivors are more superior than the eliminated ones, or we can say that survivors are better adapted to the environment than others. They reproduce and transfer the better genes to their offspring so to increase the chances of survival of their species and for this process adaptation is a must. The examples of adaptation are long trunk of elephant, long neck of giraffe etc. Now let us study the biological bases of human development.

2.3 GENETIC FOUNDATIONS

In this section, we will study how genetic transmission takes place. Further, we will discuss what are sex cells, the reasons for multiple offspring, factors which determine the sex of the newborn and patterns of genetic inheritance.

2.3.1 Genetic Transmission

Each human being is made up of cells. Within every cell there is a nucleus which is a controlling centre and contains rod like visible structures called *chromosomes*. Chromosomes store and transmit genetic information from one generation to the next. Chromosomes come in matching pairs, except XY pair in male. Each human cell has 23 pairs of chromosomes. Each member of a pair corresponds to the other in size, shape, and genetic functions. One comes from the mother and the other from the father.

Each chromosome is made up of a single molecule of *deoxyribonucleic acid* (DNA). DNA is a data base of chemical information. Each chromosome contains thousands of segments of DNA called *genes*. Genes are basic physical and functional units of heredity. A special feature of DNA is that it can duplicate itself which makes it possible for a fertilised ovum to develop into a complex human being. The process of cell division and exact duplication of cells is called *mitosis*. In this process the total number of chromosomes does not change. Figure 2.1 explains the mitotic division in a cell.

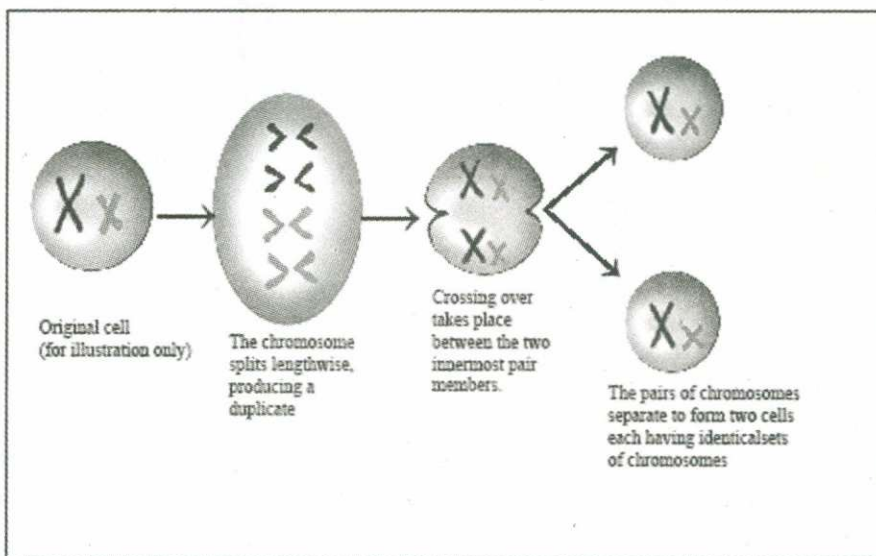


Fig. 2.1: Mitosis, a biological process in which cells duplicate themselves (*only two pairs of chromosomes have been shown for the sake of illustration*).

The genetic make up of an individual is called *genotype*. Genotype is a specific set of instructions carried by the individual's genes. *Phenotype* is the individual's expressed physical and behavioural characteristics which contain influences of genetic and environmental factors or we can say that phenotype is a set of actual observable traits of an individual. Phenotype is made up of two things, which are, genotype and environmental influences. The interactions between genotype and environmental influences affect the phenotype of an individual.

2.3.2 The Sex Cells

The sperm and ovum are the sex cells called *gametes*. Fertilisation takes place when sperm and ovum combine. Gametes are formed by a process of *meiosis*. Meiosis can be defined as the process of cell division in which the total number of chromosomes (46) reduces to half (23). Meiosis occurs in two phases. In the first phase, all the 23 pair of chromosomes in sperm and ova duplicate themselves, just as in mitosis. During the second phase, in males the two cells divide further creating four daughter cells. Each of these newly formed cells contains only 23 unpaired chromosomes means half the original set of chromosomes from the parent (father) cell.

Meiosis in females differs slightly from meiosis in males. In females, during the first phase of division, the cytoplasm divides into two unequal cells. The small cell disintegrates and the larger cell further undergoes chromosomal reduction through cell division in which cytoplasm again divides unequally and forms one smaller cell which disintegrates in the ovary and a larger cell with half the number of chromosomes which moves towards the fallopian tube.

The fertilisation takes place in the fallopian tube where the nucleus of sperm or male sex cell with 23 chromosomes merges into the nucleus of ovum (female sex cell) with 23 number of chromosomes and form a zygote, which has 46 chromosomes in total. Therefore, at the time of conception, the zygote receives 23 chromosomes from each parent and that will lead to 46 chromosomes in total. Fig. 2.2 explains the meiosis and zygote formation clearly.

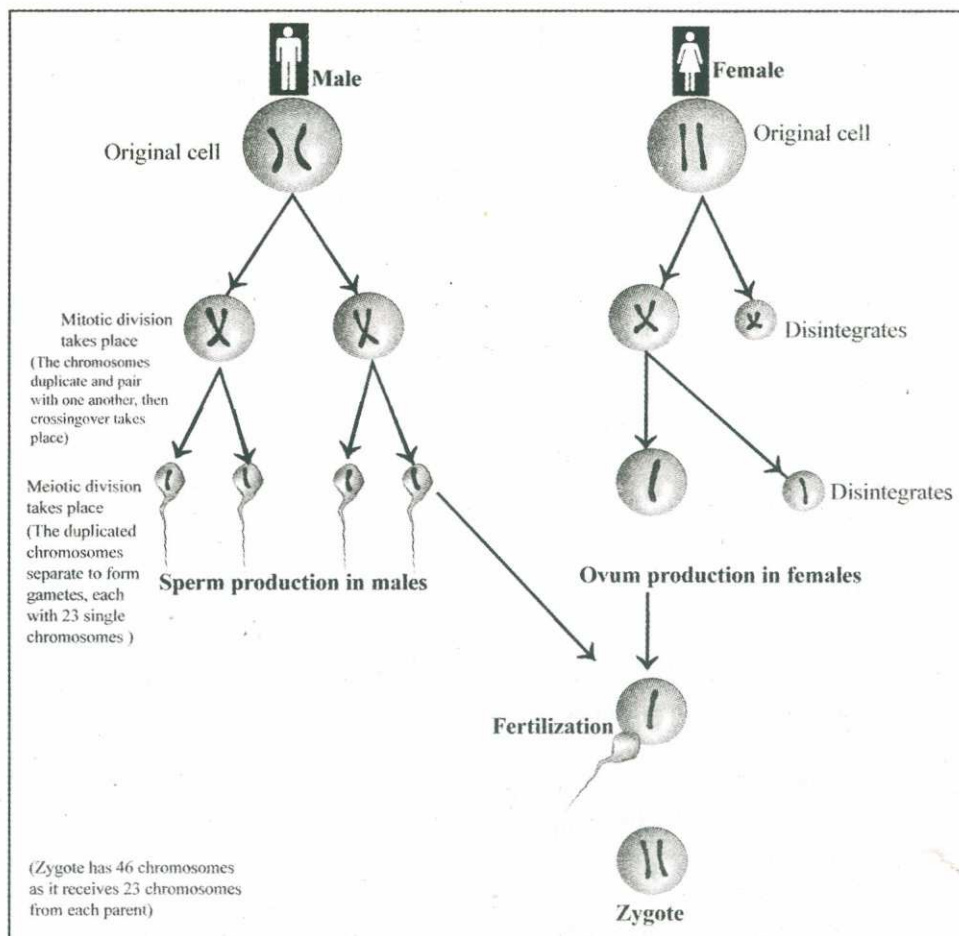


Fig. 2.2: The cell division process of meiosis, resulting in gamete formation in males and females. The union of sperm and ovum at conception leads to first cell of new individual known as zygote, which has complete 46 chromosomes.

Sometimes during the first phase of meiosis, genetic material is exchanged between a different pair of chromosomes, which are next to each other. This process of exchange of genetic material is called *crossing over* and results in genetic diversity.

2.3.3 Boy or Girl

Fertilised ovum has 23 pairs of chromosomes. Twenty-two of them are matched pairs, called *autosomes*. The twenty-third pair consists of *sex chromosomes*. Females have XX pair of sex chromosome and males have XY pair of sex chromosome. One half of all mature sperms carry the X chromosome and the other half carries the Y. But all mature ova carry the X chromosome. X denotes female and Y denotes male.

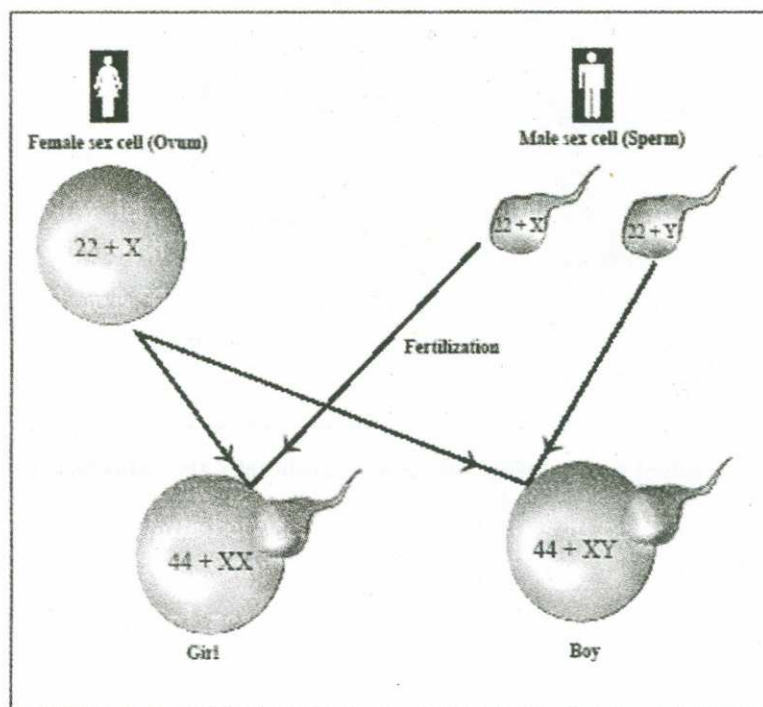


Fig. 2.3: Boy or Girl: The sex of the child depends upon the male sex cell

Thus, in any fertilised ovum, there is always an X chromosome from the ovum and either X or Y chromosome from the sperm. If the sperm that unites with the ovum has Y chromosome then the result will be a male child. In contrast, if the sperm that unites with ovum has X chromosome then the result will be a female child (see Fig. 2.3).

2.3.4 Multiple Offspring

The identical or monozygotic twins are created when a zygote divides into two during early stage of cell division. When ovum is fertilised by one sperm, it occasionally happens that at the time of the first division of the cell, the new cells separate instead of remaining together. Twins formed from this division are called *identical* or *monozygotic twins*. They are always of the same sex and carry the same genes (see Fig. 2.4).

Fraternal or *dizygotic twins* are created when two ova are released at the same time and are fertilised simultaneously by two different sperms. The individuals developed from these two ova are non-identical twins. There is lack of similarity in the physical and mental make up of these twins. They may be of the same sex or of opposite sex. The reasons of multiple offspring are family history,

rise in maternal age, good or over nutrition of mother (especially women who are tall and overweight) and higher number of birth. (Berk, 2002). Sometimes fertility drugs and invitro fertilisation also increase the chances of triplets or quintuplets.



Fig. 2.4: When fertilised ovum divides into two separate cells, the twins formed from this division are called identical twins.

2.3.5 Genetic Inheritance

- 1) **Dominant-recessive and co-dominance:** A single pair of genes, one from each parent, contributes to a particular inherited characteristic. The specific form of a gene coded for a particular trait is called an *allele*. A child's trait is said to be *homozygous* if the child has inherited two genes of the same allelic form for a trait from both the parents. For example, inheriting genes for brown eyes, from both the parents. If the alleles are different, then the genetic pattern is *heterozygous*. For example, genes for brown eyes from one parent and blue eyes from the other parent. A homozygous child will display the particular characteristic associated with that allele, but in the case of a heterozygous child, to resolve the differences one of the following three outcomes is possible:
 - i) When only one allele affects the child's characteristics, it is called *dominant allele*. The second allele which has no effect is called a *recessive allele*. Colour of eyes is an example of *dominant-recessive inheritance*. Let us consider an example in which the father has blue eyes which is a recessive trait and only displays if both the genes are recessive (bb), whereas mother has brown eyes which can be possible by two ways that is, either mother has both genes dominant (BB) or one gene dominant and one recessive (Bb). Now let us see the first possibility; that is, the father has blue eyes with bb and mother has brown eyes with BB, then what is the possibility of offspring to acquire brown eyes? See Fig. 2.5.

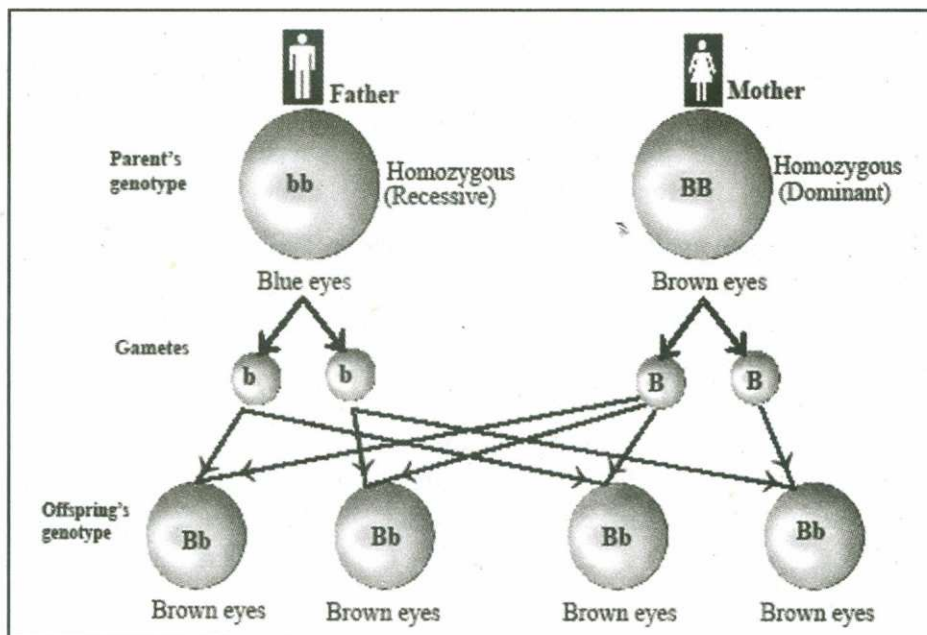


Fig. 2.5: All the offsprings have brown eyes with one recessive gene.

Now, let us consider the second possibility, where mother has brown eyes with (Bb) genes and father has blue eyes with bb genes.

There is 50% possibility that the child acquires blue eyes (with bb genotype) and 50% possibility that she or he will have brown eyes (with Bb genotype)

We have seen that heterozygous individuals with one recessive allele can pass on that trait to their children and are called *carrier* of that trait.

- ii) In the second possibility, the child displays characteristics that are *intermediate* between the characteristics to be displayed by the two alleles, for example colour of skin.
- iii) In the third possibility, the child displays characteristics that are affected by both alleles, but instead of being intermediate, the characteristics will be entirely different from those linked to either contributing allele. This pattern of inheritance is called *co-dominance*.

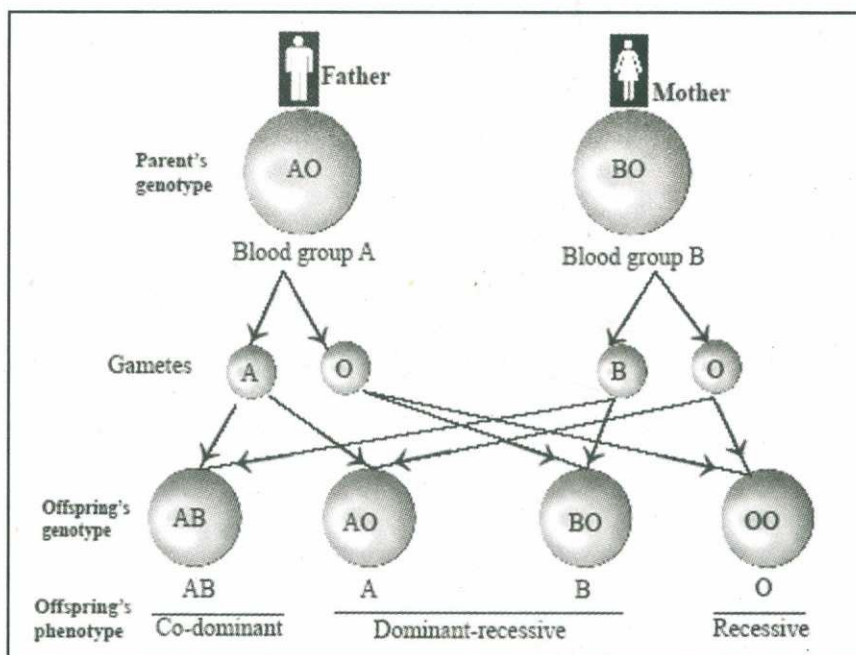


Fig. 2.6: Blood group AB type is a classic example of co-dominance

Let us consider an example where the father's blood group type is A (with AO genotype) and the mother's blood group type is B (with BO genotype). If the child inherits one type A allele from the mother and one type B allele from the father, it will exhibit a codominant outcome that is type AB blood group which is qualitatively different from type A and type B blood (see Fig. 2.6).

- 2) **Polygenic and multi-factorial inheritance:** The polygenic patterns of inheritance means more than two genes influence the phenotype. For example, it is believed that the skin colour is guided by three genes. Dark skin colour is dominant over light but in between skin colour is also possible. Here the concept of intermediate works. Height is also an example of polygenic trait, but it is also multi-factorial that means it is affected by genes as well as the environment. Hence while examining the height of a child, the doctor keeps both the things in mind that is environmental factors for example, child's nutrition and health status, etc. as well as the child's biological inheritance, for example the parents' height.
- 3) **Mitochondrial inheritance:** Mitochondrial inheritance means that the child inherits genes which are not present in the nucleus of the zygote. Generally, these genes are carried in mitochondria, which are located in cytoplasm near the nucleus of ovum before fertilisation. Therefore mitochondrial genes are passed from mothers only.
- 4) **X-Linked genetic inheritance:** Human characteristics which are affected by genes found on X-chromosomes are called *X-linked characteristics*. Males (XY) are more likely to get affected because their sex chromosomes do not match. Females receive two sets of corresponding X-chromosomes (XX), one from the mother and the other from the father. Any recessive allele on one X-chromosome gets suppressed by a dominant allele on the other X-chromosome, so it does not cause a disease. A male child, who inherits a harmful recessive gene on his X-chromosome, lacks a corresponding allele to override the recessive gene's harmful effects.

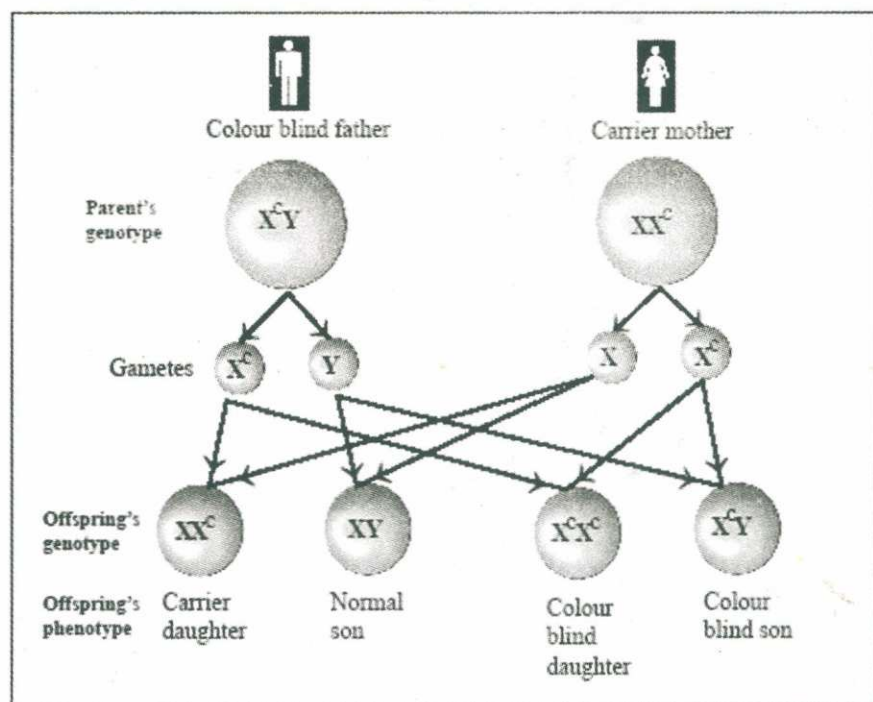


Fig. 2.7: X-linked genetic inheritance: Colour blindness

Red-green colour blindness is an example of X-linked recessive trait. A male child with X-linked recessive gene will be unable to distinguish red from green because there is no corresponding gene on the Y chromosome. A female child will exhibit this trait only if she has a father who is colour blind and a mother who is either colour blind or carrier for colour blindness (see Fig. 2.7).

Now, we know that genetic transmission takes place through the mitosis and meiosis processes. Now you know what are sex cells and how they are formed in males and females differently. You can also underline the reasons of multiple offspring and factors that determine the sex of the child. We have also explained the pattern of genetic inheritance. In the next section, we will study the various genetic and chromosomal abnormalities that can affect the physical and mental health of the child.

Check Your Progress Exercise 1

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) Briefly describe the following terms:

1) Mitosis and meiosis

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2) Crossing over

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3) Identical and fraternal twins

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4) Homozygous and heterozygous

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5) Dominant and recessive alleles

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6) Co-dominance

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7) X-Linked characteristics

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2.4 GENETIC AND CHROMOSOMAL ABNORMALITIES

Some children are born with defects and disorders that follow the rules of dominant-recessive inheritance. Many of the genetic abnormalities tend to be the product of recessive alleles. Besides inheriting recessive genes that are harmful, another major cause of developmental irregularities is abnormalities of chromosomes.

2.4.1 Genetic Diseases

Genetic diseases are passed from parents to their children. Some of these are sickle-cell anaemia, phenylketonuria, Tay-Sachs disease, haemophilia, and cystic fibrosis. All these diseases are single-gene defects because a single gene is the cause of the disease. We can classify genetic disorders under three headings that is autosomal disorders, sex-linked disorders and multi-factorial disorders.

- 1) **Autosomal Disorders:** Autosomes are the chromosomes which are not involved in sex-determination, or other than the sex chromosomes. For example, in the ovum there are 22+X chromosomes. Here 'X' is a sex chromosome whereas the other 22 chromosomes are autosomes. Autosomal disorders are those disorders which are caused by the genes that are located in autosomes. Autosomal disorders are further divided into two categories according to the dominant or recessive nature of genes causing disorders.
 - i) *Autosomal dominant disorders:* In autosomal dominant disorders, the individual inherits one dominant but affected gene and one normal but recessive gene. There are fifty per cent chances that the individual affected by an autosomal dominant disorder will pass it to her or his children. Common autosomal dominant disorders are Huntington's disease, neurofibromatosis and Marfan Syndrome.
 - ii) *Autosomal recessive disorders:* An autosomal recessive disorder is caused only if an individual receives both the genes which are recessive and affected. In this case, both the parents may be carriers (that is, having one affected and recessive gene) or suffering from these disorders. Common autosomal recessive disorders are cystic fibrosis, phenylketonuria (PKU), sickle cell disease, Tay-Sachs disease etc.
- 2) **Sex-linked disorders (XLGDs):** Sex linked disorders are caused by either dominant or recessive genes carried by sex chromosomes. Generally, dominant sex linked disorders affecting females are fatal and in males they cause severe disorders. Common dominant XLGDs are Albright's hereditary osteodystrophy (mental retardation, stunted growth), Goltz's syndrome, cylindromatosis, oral-facial-digital syndrome and incontinentia pigmenti. Females are the carriers of recessive XLGDs, who pass them to their male child. Common recessive XLGDs are colour blindness, haemophilia, severe combined immune deficiency syndrome (SCID), Duchenne's muscular dystrophy (DMD), and some spinal ataxias.
- 3) **Multi-factorial genetic disorders (MFGDs):** Multi-factorial genetic disorders are those which are caused due to defective genes as well as some environmental factors that help in the occurrence and severity. For

example, obesity is caused due to diet and improper metabolism. Other common examples of MFGDs are diabetes, alcoholism, rickets, schizophrenia, blood pressure, etc. The person carrying affected genes has a tendency to acquire these disorders more than normal persons.

Now let us discuss some of the common genetic disorders. These are:

- i) *Sickle-cell anaemia*: This genetic disease occurs in full form when a child inherits two recessive genes. Sickle cell anaemia affects the red blood cells. In sickle-cell anaemia the red blood cells are shaped like a sickle. The shape of the cell makes it difficult to transport oxygen. In addition, sickle cells are brittle and break easily. As a result, the body cannot manufacture new ones fast enough and anaemia results.
- ii) *Haemophilia*: Haemophilia is a disorder in which the blood fails to clot. It is an example of an X-linked disorder. Mothers who carry the abnormal X-chromosome are more likely to have male children affected by this disorder as explained in the following example (see Fig. 2.8).

Example: Father is normal (XY) and mother is carrier (XX) (Here X shows the carrier gene).

Father X	Y	Mother
<u>XX</u> Carrier Daughter	<u>XY</u> Affected Son	<u>X</u>
XX Normal Daughter	XY Normal Son	X

Fig. 2.8: Probability of Haemophilia

As shown above, these parents may have one carrier daughter, one affected son, one normal daughter and one normal son the probability is equal.

- iii) *Phenylketonuria (PKU)*: Phenylketonuria or PKU is a genetic disorder that interferes with a child's ability to metabolise an amino acid called phenylalanine. Without this enzyme, phenylalanine quickly builds to toxic levels that damage the central nervous system. It is a treatable genetic disease.

Example: Father and mother both are heterozygous carriers of PKU with N normal dominant gene and p carrier recessive gene with genotype (Np) (see Fig. 2.9).

Father N	p	Mother
NN Normal	Np Carrier	N
Np Carrier	pp PKU affected	P

Fig. 2.9: Probability of Phenylketonuria

As shown in Fig. 2.9 these parents may have two carrier children, one normal child, and one PKU affected child.

2.4.2 Chromosomal Abnormalities

Sometimes children are born with congenital birth defects, which are not hereditary. They are caused by the improper union of genes or error in development.

- 1) **Down syndrome or Down's syndrome (Trisomy 21):** One of the most common and widespread consequences of chromosomal error is Down syndrome. The primary cause of this syndrome is the failure of 21st pair of chromosomes to separate properly while undergoing meiosis (cell division) during the production of the ovum and sperm. Down syndrome children have three of these chromosomes rather than two. Therefore, they have a total of forty seven chromosomes rather than the normal forty six chromosomes. Down syndrome is frequently referred to as *trisomy 21*. Parents do not pass Down syndrome to their children as an inherited characteristic. The disease results from an error in cell division. The behavioural consequences of Down syndrome include mental retardation, speech difficulties, limited vocabulary and slow motor development.
- 2) **Sex chromosome abnormalities:** These abnormalities are caused by an incomplete or incorrect division of sex chromosomes.

Females born with XO combination instead of the typical XX combination are said to have *Turner's syndrome (TS)*. These single-X girls lack the second sex determining chromosome and therefore have only forty five chromosomes. These individuals are not likely to be mentally retarded, but they usually have specific cognitive deficiencies. Administration of female hormone (estrogen therapy) enables TS females to develop sexually in a normal way, although they remain sterile.

Males with *Klinefelter's syndrome* carry an extra X chromosome, resulting in XXY combination rather than the normal XY male chromosome pattern. These males have problems with language skills as well as reading disabilities and neuro-motor problems. Males born with the *XXY Syndrome* carry an extra Y chromosome. These boys typically are unusually tall and are mildly mental retarded.

Females with *Triple X syndrome (XXX)* carry an extra X chromosome. The extra X results in tallness and impaired intelligence in females whereas sexual development and fertility is normal.

In Fragile X syndrome, as the name suggests, the X chromosome becomes constricted and often breaks. Mental deficiency, mental retardation, learning disabilities or short attention span are possible outcomes of this disorder. It is more common in males than females because the other X sex-chromosome in females overcomes the negative effects of the fragile X chromosome.

In this section, we got a glimpse of genetic and chromosomal abnormalities that can occur in the child. Now we will study about genetic counselling and various methods of prenatal diagnosis.

Check Your Progress Exercise 2

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

Briefly describe the following:

1) Genetic diseases

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2) Down syndrome

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3) Sex chromosome abnormalities

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2.5 GENETIC COUNSELLING AND PRENATAL DIAGNOSIS

Earlier, people with a history of genetic disorders in their family chose not to marry or bear a child at all. In recent years, genetic counselling and prenatal diagnosis has helped people in taking decisions whether or not to have children.

2.5.1 Genetic Counselling

Genetic counselling is a process of providing information about genetic disorders in the family and their preventive options.

A couple needs genetic counselling if they have had repeated miscarriages, a still birth, have had difficulties bearing children, have one child with a genetic disorder, one close relative who has a genetic problem, want to have children at middle-age, or the woman has been taking drugs or other dangerous substances during pregnancy.

The genetic counsellor helps the couple in understanding the problem by preparing a picture of the family tree in which affected family members are identified. Parents

are explained the likelihood of having an abnormal child. Then the couple can consider appropriate options such as taking a chance and conceiving or adopting a child.

There are other alternative methods of conception such as donor insemination, in-vitro fertilisation and surrogate motherhood. *Donor insemination method* is used if a male has reproductive difficulty. In this method, injection of sperm from an anonymous man is given to a woman. *In vitro fertilisation* is another reproductive choice that is used to treat women whose fallopian tubes are permanently damaged. In this method, hormones are given to a woman to stimulate ripening of several ova. These ova are surgically removed and placed in a dish of nutrients. To this dish sperms are added. Once an ovum is fertilised, it is then injected into the woman's uterus.

A recent controversial form of alternate method of conception is *surrogate motherhood*. If the wife is infertile, then sperms from her husband are used to inseminate a woman who agrees to render child bearing services for money. After delivery, she returns the baby to the natural father whose wife then adopts the child.

2.5.2 Prenatal Diagnosis

Availability of prenatal diagnosis for a number of genetic disorders has made counselling and decision making process much easier. Prenatal diagnosis is the most useful application as it offers prospective parents the assurance of having an unaffected child in situations of high recurrence risks. Prenatal diagnostic methods which help in detection of problems before birth include amniocentesis, ultrasound, chorionic villus sampling, foetoscopy and maternal blood analysis.

In *amniocentesis*, a hollow needle is inserted through the abdominal wall to obtain a sample of fluid in the uterus to examine the cells for genetic defects. It can be done by 11 to 14 weeks after conception.

Ultrasound permits assessment of foetal age, detection of multiple pregnancies, and identification of physical defects.

Chorionic villus sampling: This test is done in the early stage of pregnancy (6 to 8 weeks). A thin tube is inserted through the vagina into the uterus. A sample of cells is taken from placental chorionic villi (hair like structure on the outer face) to examine genetic defects.

Foetoscopy is usually performed between 15 to 18 weeks after conception to inspect the foetus for the defects of limbs and face. Foetal blood can also be obtained to diagnose disorders such as haemophilia, sickle cell anaemia, and other neural defects.

Maternal blood analysis can also help in indicating foetal diseases like abnormal closure of the esophagus and spina bifida.

Today with improvement in prenatal diagnosis, some medical problems are treated before birth. Genetic engineering and therapy also offers new hope for correcting genetic defects.

Now, we are well aware of the genetic counselling process and its utility. We know the different methods of prenatal diagnosis. In the next section, we will study the different stages of prenatal development.

Check Your Progress Exercise 3

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

Briefly describe the following:

1) Genetic counselling

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2) Alternative methods of conception

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3) Prenatal diagnostic methods

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2.6 PRENATAL STAGES OF DEVELOPMENT

The process of human development begins at conception, with the fusion of the male and female gametes. Prenatal period is divided into three stages — the period of zygote, the period of embryo, and the period of foetus.

2.6.1 The Period of Zygote (Conception to Two Weeks)

The period of zygote is the period of about 2 weeks after conception, that is, from conception to implantation and is also known as the *germinal* stage. Fertilised egg cell is known as *zygote*. The formed cell is floating free in the fallopian tube and, through ciliary action and muscle contractions, moves down the fallopian tube. A period of rapid cell division called *cleavage* begins, and by the fourth day the cells form a *blastocyst* — a hollow ball of cells. The blastocyst consists of two layers of cells. The outer layer forms the placenta and the inner mass forms the embryo. The zygote proceeds down and becomes implanted on the wall of the uterus. *Implantation* occurs when the outer layer forms finger-like projections called *villi*, which attach to the uterus. A membrane,

called the *amnion*, covers the developing organism in *amniotic fluid*. *Implantation* is usually completed from seven to ten days after fertilisation and marks the beginning of pregnancy (see Fig. 2.10). The usual site of implantation is the upper, posterior part of the uterus. The placenta and umbilical cord begin to develop.

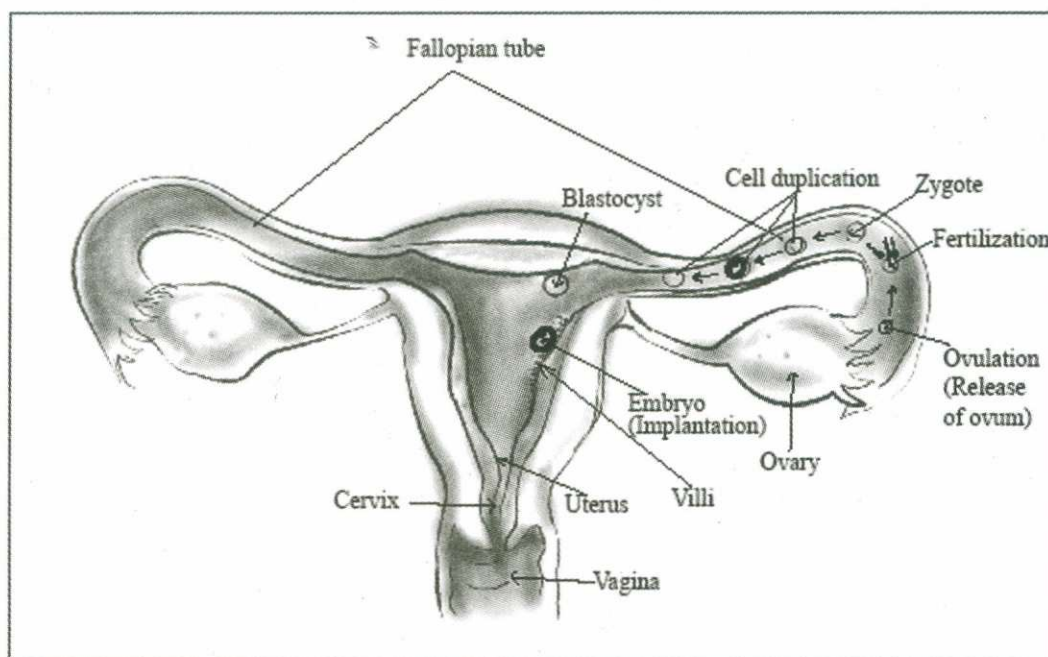


Fig. 2.10: Fertilisation process

2.6.2 The Period of Embryo (Two to Eight Weeks)

The second major phase of prenatal development lasts from implantation until about eight weeks after conception. This phase is also known as the embryonic stage. During this period, inner cells of the blastocyst *differentiate* into three layers, the ectoderm, the mesoderm and the endoderm. The *ectoderm* develops skin, nails, hair, eyes, mouth and tooth enamel; the *mesoderm* produces the circulatory system, muscles, bones, kidneys, and the inner layer of skin. From the *endoderm* develop the internal organs, glands, lungs, digestive system, tongue, heart, eustachian tubes and liver.

In addition, in this period, three other important structures develop — the amniotic fluid, the placenta and the umbilical cord.

Amniotic fluid: The amnion and its tough membranous sac lining the inner portion of the uterus contain amniotic fluid which is a clear and light yellow liquid. It protects the foetus from injury or physical shocks and maintains relatively constant foetal body temperature.

Placenta: The placenta is the prenatal life support system. It separates the circulatory system of the foetus and the mother. Nutrients, oxygen, and waste are exchanged across the placenta. The placenta serves all the functions provided by the lungs, kidneys, stomach and intestines.

Umbilical cord: The umbilical cord is the link between the foetus and the placenta. Through it passes the foetal blood supply. The umbilical cord contains two umbilical arteries and one umbilical vein. The vein carries oxygenated blood to the foetus and arteries return deoxygenated blood to the placenta. At full term, the umbilical cord is about two centimeters in diameter and fifty centimeters long.

By the end of this period, the embryo has eyes, the beginnings of ears, a mouth that opens and closes, a nose, hands and feet, arms with elbows and legs with knees, a primitive circulatory system including a heart that beats, some kidney and liver function and spinal cord.

2.6.3 The Period of Foetus (Third Month until Birth)

The final stage of prenatal development, the period of foetus also known as the foetal stage, extends from the beginning of the third month until birth. The transition from the embryo to the foetal stage is significant, because the foetus is now recognisable as a member of the human race. During this stage, the foetus grows and develops those structures formed during the embryonic stage. Body size and length increase rapidly and muscular development is also rapid. The differentiation of external genitals continues and the central nervous system develops rapidly. Between sixteen and twenty weeks, the mother often feels foetal movements, known as *quickening*. By the end of the 12th week, the foetus is covered with *vernix*, a greasy, cheese like substance, and by *lanugo*, white downy hair that help vernix to stick. The vernix protects the delicate foetal skin.

At about 20th week, reflexes such as sucking and swallowing usually appear. After 20th week, the foetus develops nails and sweat glands. By 22 weeks the eyes develop and opening and closing of the eyes occur.

The age between 22 to 26 weeks is sometimes referred to as the *age of viability*. At this time, if the child is born, then he has a probability of survival but only if child gets proper medical care.

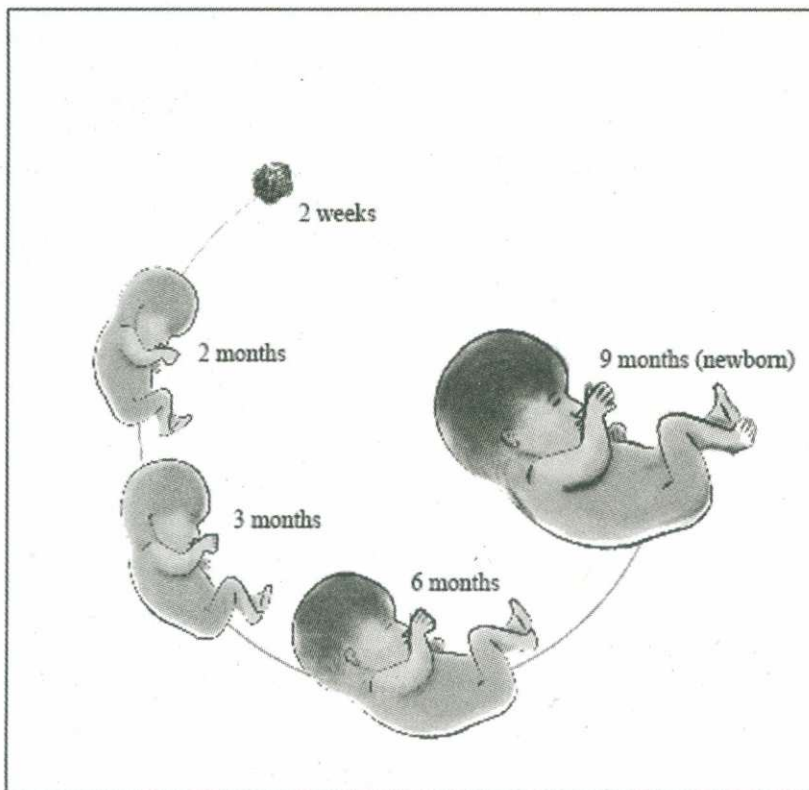


Fig. 2.11: Stages of prenatal development

Now, after understanding the prenatal stages of development, we will see how different factors can affect the physical and mental well being of the child during these stages of prenatal period.

Check Your Progress Exercise 4

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

State the functions of the following:

1) Placenta

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2) Umbilical cord

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3) Amniotic fluid

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2.7 HAZARDS DURING PRENATAL PERIOD

Hazards caused during prenatal period are of the most serious at nature than any other stage during the life-span, since the effects of these hazards are seen throughout one's life span. These hazards may be physical or psychological in nature.

2.7.1 Physical Hazards

Physical hazards at the three prenatal stages are discussed below:

Period of zygote

During this period:

- There is a possibility that the zygote will die of starvation before it becomes implanted if it takes a long time to pass down the fallopian tube.
- The uterine wall may not be prepared to receive the zygote due to hormonal imbalance.
- The fertilised ovum or zygote may get attached to the wall of the fallopian tube leading to a *tubal pregnancy*, therefore resulting in lack of nourishment and space for growth.
- The zygote may get attached to a small area of fibroid tissue in the uterine wall, which would prevent it from receiving nourishment.

Period of embryo

During this period:

- Miscarriage or spontaneous abortion may occur due to prenatal unfavourable conditions.
- *Developmental irregularities* like heart-malformation, cretinism, and mongolism are more likely to occur during this period.

Period of the foetus

During this period, there may be:

- Possibility of miscarriage up to the fifth lunar month, especially at times when the woman's menstrual period would normally occur.
- Premature and postmature birth with complications which may result in the death of the foetus.
- Complications during delivery which may result in the death of the foetus.
- Developmental irregularities caused by conditions similar to those of the period of the embryo that can retard the development of the foetus.

2.7.2 Psychological Hazards

Psychological hazards during prenatal period can have long-term effects on the child's development and can influence the treatment the child gets from parents and other significant people. Most important prenatal psychological hazards are:

- 1) **Traditional beliefs:** People, particularly in rural areas, still believe that it is within their power to control the sex of the child. The effects of these beliefs can be very hazardous when the sex of the child turns out to be the opposite of their belief. There are also traditional beliefs about the causes of developmental irregularities. Acceptance of these beliefs can lead to strong feelings of guilt on the part of the mother. These mothers tend to overprotect the child to compensate for the harm they believe they are responsible for.
- 2) **Preference for a child of a particular sex and the dream-child concept:** The majority of parents want their first born to be a boy. Also, family members usually have a dream child concept — a child to be perfect — physically, emotionally, and mentally normal. They get disappointed when the child born is opposite to their expectations or born with developmental abnormalities.
- 3) **Psychological stress:** Psychological stress during pregnancy can also have an impact on foetal development. When the expected mother is under stress, then some stimulant hormones are released which act on the brain, heart, arms, legs and trunk to support and increase the defensive system of the body. Blood flow during this process increases to other organs and the flow to uterus reduces. Hence the supply of oxygen and nutrition to the foetus gets restricted which leads to harmful effects on the developing organs of the foetus. Also, stress hormones get into the foetal blood stream, resulting in high heart rate and activity. Immune system is also

affected by these hormones and expecting women become more prone to infections. Further, intense anxiety is associated with a higher rate of miscarriage, pre-maturity, low birth weight, new born irritability, respiratory illness and digestive disturbances (Berk, 2002).

In this section we have studied about the physical and psychological hazards of the prenatal period. Now, in the next section we will identify various environmental factors that influence the prenatal development.

Check Your Progress Exercise 5

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) What are the physical hazards of prenatal period?

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2) What are the psychological hazards of prenatal period?

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2.8 PRENATAL ENVIRONMENTAL INFLUENCES

Although prenatal environment is more constant than the environment in the outside world, there are many factors which can affect the developing embryo and foetus. Some of these factors are discussed underneath:

2.8.1 Teratogens

Teratogen refers to any environmental agent that causes damage during the prenatal period.

Harm done by teratogens depends on many factors. First, the amount and length of experience makes a difference. Larger doses over longer time periods usually have more adverse effects. Second, genetic make-up of the mother and child plays an important role. Some individuals are better able to withstand the harmful environments. Third, effect of teratogens varies with the age of the organism at the time of exposure. The damage is more harmful during a *sensitive period*. Sensitive period is a limited time span in which a part of the body or behaviour undergoes rapid development.

During the period of zygote teratogens rarely have any impact. If they do, the mass of cell dies. The period of embryo is a sensitive period when serious defects are most likely to occur, since the foundations for all body parts are being laid down. During the foetal period, damage caused by teratogens is usually minor. Some organs, such as brain, eye and genitals, can still be strongly affected.

Some of the important teratogens which can cause damage during the prenatal period include the following:

- 1) **Prescription and non-prescription drugs:** Any drug a mother takes can enter the embryonic or foetal blood stream and produce gross deformities in the developing embryo. These children when they grow older, are more likely to score below average in intelligence. Some of the examples of drugs causing disastrous effects are thalidomide, antibiotics such as streptomycin and tetracycline, anticoagulants, anticonvulsants and artificial hormones. Any drug or medicine should be had during pregnancy only if prescribed by the doctor.
- 2) **Illegal drugs:** Intake of illegal drugs is associated with prematurity, low birth weight, physical defects, breathing difficulties, and death at the time of birth. These infants arrive as drug addicted. They are irritable and have sleeping problems. Behaviour problems are likely to persist when these infants grow older. They are less attentive and their motor development remains slow. Some of the examples of illegal drugs are heroin, methadone, marijuana and cocaine.
- 3) **Caffeine:** Intake of caffeine in large doses during pregnancy can result in spontaneous abortion and low birth weight.
- 4) **Alcohol:** Children born to alcoholic mothers may suffer from *foetal alcohol syndrome (FAS)*. FAS is a set of defects that results when a pregnant woman consumes large amount of alcohol during pregnancy. FAS includes mental retardation, slow physical growth, poor attention and over activity. Children have distinct physical symptoms – widely spaced eyes, short eyelids, a small upturned nose, and a thin upper lip. Their small heads indicate that the brain has not developed fully.
- 5) **Smoking:** The most well-known consequences of smoking during pregnancy are low birth weight, prematurity, miscarriage, infant death and cancer later in childhood. Longitudinal studies show that these children have shorter attention spans and lower intelligent quotients (IQ).
- 6) **Radiation:** Frequent exposure to X-rays can cause mutation and damage to the DNA in ovum and sperm. When mothers are exposed to radiation during pregnancy, additional harm can come to the embryo or foetus. Radiation is associated with miscarriage, slow physical growth, an under developed brain and malformations of the eyes and skeleton.
- 7) **Pollution:** Pregnant women can absorb lead from car exhaust, paint coming off the walls in houses, and other materials used in industrial occupations. High levels of lead exposure are linked to prematurity, low birth weight, brain damage, and physical defects.

- 8) **Maternal diseases:** The placenta cannot filter extremely small disease carriers, such as viruses, children can be born with malaria, measles, chicken pox, mumps, syphilis, or other venereal diseases that have been transmitted from the mother. Rubella (German measles) is a well-known teratogen. Greatest damage occurs when rubella strikes during the period of embryo. Damage includes mental retardation, heart defects, deafness, genital, urinary, and intestinal abnormalities. Infection during the foetal period is less harmful, low birth weight, hearing loss, and bone defects may still occur.

The human immuno deficiency virus (HIV), which causes acquired immuno deficiency syndrome (AIDS), is affecting increasing number of children. Children born to AIDS affected mothers are likely to have AIDS.

- 9) **Rh incompatibility:** The Rh-positive factor is an inherited genetically dominant trait in the blood that can result in a dangerous situation for the foetus. When an Rh-negative woman conceives a child with an Rh-positive man, the resulting child may have Rh-positive blood. Any small rupture in the capillaries of the placenta will release the Rh factor into the mother's bloodstream. The mother's immune system produces antibodies to fight it. The antibodies in the mother's blood will then cross the placenta into the foetus-bloodstream and attack its red blood cells. This condition is called foetal erythroblastosis. The result may be a miscarriage, brain defects, and even death of the foetus or newborn child. In the past, erythroblastosis was always fatal, but now medical techniques can minimise the harmful effects of Rh incompatibility.

2.8.2 Other Maternal Factors

Besides teratogens, there are many other maternal factors that affect the pre-natal development such as maternal nutrition, age of the mother and psychological stress. Let us discuss these factors in detail:

- 1) **Maternal nutrition:** Development is more rapid during prenatal period than at any stage of development. During this period, the child in the womb depends totally on the mother for nutrition. Mothers who suffer from malnutrition during the first trimester of pregnancy are more likely to have miscarriages or give birth to babies with physical defects. Prenatal malnutrition can cause serious damage to central nervous system. During the last trimester, when the brain is growing rapidly in size, malnutrition can cause loss in brain weight.
- 2) **Maternal age:** Women who delay having children, particularly those who give birth to their children after 35 years of age, face a greater risk of giving birth to babies with chromosomal abnormalities. Teenage pregnancy is not directly associated with prenatal problems. Infants of teenagers are born with a higher rate of problems for quite different reasons. Many young mothers do not have access to medical facilities because most of them come from low-income groups. In low income groups stress, poor nutrition, and health problems are quite common.
- 3) **Psychological stress:** Intense maternal anxiety during pregnancy is associated with a higher rate of miscarriage, prematurity, and low birth weight. It is also related to certain physical defects, such as cleft lip and

palate. Prolonged psychological stress weakens the immune system and the mother is more prone to infectious diseases. Women who experience long-term anxiety are more likely to smoke, drink and eat poorly that harm the embryo or foetus.

In this section, we learnt about the environmental factors such as drugs, caffeine, alcohol, smoking, radiation, pollution, Rh incompatibility and various maternal factors that can affect the growth of the child during the prenatal period. Now we will study the process of child birth and various complications that may occur during this process.

Check Your Progress Exercise 6

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

- 1) Name the teratogens which cause damage during the prenatal period.

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- 2) List down the maternal factors which influence prenatal development.

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2.9 CHILD BIRTH AND COMPLICATIONS

In this section we will study about the child birth process and complications that can occur during this process.

2.9.1 Child Birth Process

The birth process, often referred to as labour, is divided into three stages:

- 1) **Dilation and effacement of the cervix:** The first stage of labour or birth process is the longest stage, lasting, on an average, 12 to 14 hours in the first birth and 4 to 6 hours in later births. It covers the period during

which two important processes occur: *dilation* and *effacement*. The cervix (the opening at the bottom of the uterus) must open up (dilation) and also flatten out (effacement). At the time of actual delivery of the infant, the cervix must normally be dilated to about 10 cm.

First stage includes two phases. In the *early phase which is also called the latent phase*, contractions are relatively far apart and are typically, not too uncomfortable. In the *late phase*, which begins when the cervix is about halfway dilated (5 cm), contractions are closer together and are more intense. This phase continues until the cervix is dilated to 8 cm. Finally, last 2 cm of dilation are achieved during the *transition phase*. In this phase, in which the contractions are closely spaced and strong, is the shortest phase. Following the transition phase comes the urge to help the infant out by pushing.

- 2) **Delivery of the baby:** The second stage lasts from half an hour to two hours. Strong contractions of the uterus continue but they do not do the entire job. The most important factor is the natural urge that the mother feels to squeeze and push. Once the cervix is fully open, the baby is ready to be born. This is the actual delivery, when the baby's head moves and passes through the stretched cervix, into the birth canal, and finally out of the mother's body.
- 3) **Delivery of the placenta:** The third stage of labour is the delivery of placenta (also called the after birth) and other material from the uterus.

There are different approaches to child birth. In some families home delivery is preferred, while other parents opt for hospital delivery. Most mothers prefer natural delivery until and unless there are some complications. A few mothers who do not want to undergo the process of labour pains prefer to deliver their babies by caesarian section.

2.9.2 Complications of Birth

The ease or difficulty with which a baby is born and how quickly she or he begins to breathe can affect the infant's well-being. Some problems associated with birth are:

- 1) **Anoxia:** Reduced oxygen supply is called anoxia, it is an extreme form of hypoxia or low oxygen. It may occur during the period immediately after birth, because the umbilical circulation fails to continue the supply of blood oxygen until the baby breathes or because the umbilical cord has been squeezed in some way during delivery. Prolonged anoxia is often associated with such major consequences as cerebral palsy or mental retardation.
- 2) **Haemorrhaging:** Hemorrhaging is caused when very strong pressure on the head of the foetus breaks blood vessels in the brain. It affects the supply of oxygen to nerve cells of the brain.
- 3) **Low birth weight:** Another serious complication is to have a newborn weighing less than the normal. Those below 1500 grams (about 3.3 pounds) are usually called as very low birth weight babies. There are different categories of low birth weight babies. These are:

- i) Some infants have low birth weights because they are born too soon. These are usually called *preterm infants* (any birth before 37 week's gestation is usually considered pre-term).
- ii) Some infants are called *small-for-date* babies. These infants are usually light in weight, given the number of weeks of gestation they have completed. They may even have completed the full 38 weeks' gestation but weigh under 2500 grams.

Low birth babies tend to have high infant mortality, lower levels of responsiveness at birth and in the early months of life, high risk of respiratory problems, and lower IQ.

In this section, we have understood the process of child birth. Now, we are aware of the complications that can occur during the process of delivering the child. Now let us sum up the whole Unit and review the important concepts in it.

Check Your Progress Exercise 7

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

- 1) What are the different stages of the birth process?

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- 2) List down the child birth complications.

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2.10 LET US SUM UP

In this Unit, we have learnt that chromosomes store and transmit genetic information. Each chromosome contains thousands of segments of DNA called genes. The sex cells called gametes are formed by a process of chromosome reduction through cell division called meiosis.

We came to know that identical or monozygotic twins are created when a zygote divides into two during early stage of cell division. Fraternal or dizygotic

twins are created when two ova released at the same time are fertilised simultaneously by two sperms. Now we know that if the sperm that unites with the ovum has Y chromosome then the result will be a boy; if the sperm has X chromosome then the result will be a girl.

Dominant-recessive and co-dominance are the patterns of genetic inheritance. It is also seen that human characteristics affected by genes found on X-chromosomes are called X-linked characteristics. Genetic diseases are passed from parents to their children. Sometimes children are born with congenital birth defects, which are not hereditary. They are caused by the improper union of chromosomes.

We understood that sex chromosome abnormalities are caused by an incorrect division of sex chromosomes. Now we are aware of genetic counselling that helps couples to understand the causes of hereditary disorders. Prenatal diagnosis helps to detect the defects and abnormalities before birth.

We have seen that prenatal development begins at conception. Prenatal period is divided into three stages: the zygote stage which includes the first two weeks of prenatal development; the embryo stage which begins at three weeks and lasts through the eighth week; finally, the foetal stage which lasts from the ninth week until birth.

Further we studied about the hazards of prenatal period that could be more serious in nature than at any other stage of life-span. These may be physical or psychological in nature. It is known that teratogens are the environmental agents that cause damage during the prenatal period. These include prescription and non-prescription drugs, illegal drugs, alcohol, smoking, radiation, pollution, and maternal diseases. Embryo is more vulnerable to teratogens when body structures are developing more rapidly. The nutritional status, age, and experiencing of stress by the mothers are also associated with complications of pregnancy.

In the end of the Unit we have studied the birth process which has three stages that are: dilation and effacement of the cervix, delivery of the baby, and delivery of the placenta. There may be birth complications such as anoxia, hemorrhaging, and low birth weight.

2.11 GLOSSARY

Age of viability	: The age at which the foetus can survive if born early.
Amniocentesis	: A process in which a hollow needle is inserted through the abdominal wall to obtain a sample of fluid in the uterus to examine the cells for genetic defects.
Amnion	: A membrane that covers the developing organism.
Anoxia	: Reduced oxygen supply.
Autosomes	: Twenty-two of matched pairs of chromosomes.
Blastocyst	: A hollow ball of cells consisting of two layers of cells.

Chromosomes	: Rods like visible structures present in the nucleus.
Cleavage	: A period of rapid cell division.
DNA	: A data base of chemical information.
Fetoscopy	: The method to inspect the foetus for prenatal defects.
Gametes	: The sex cells – sperm and ovum.
Genes	: Carriers of heredity.
Genetic Counselling	: Counselling that helps people to assess their chances of giving birth to a child with a hereditary disorder.
Lanugo	: Hairs covering the body of foetus.
Genotype	: Genetic make up of the individual.
Miscarriage	: Spontaneous abortion due to unfavourable conditions.
Phenotype	: Individual's physical and behavioural characteristics influenced by genetic and environmental factors.
Preterm infants	: Babies born before 37 week's gestation period.
Sensitive period	: A limited time span in which a part of the body or behaviour undergoes rapid development.
Sex chromosomes	: The 23 rd pair of chromosomes which determines the sex of the child.
Small-for-date baby	: A baby light in weight, given the number of weeks of gestation, it has completed.
Teratogen	: Any environmental agent that causes damage during the prenatal period.
Tubal pregnancy	: When a fertilised ovum gets attached to the wall of the fallopian tube.
Vernix	: A greasy, cheese like substance that covers the foetus.
Villi	: Finger like projections which attach the fertilised zygote to the uterine wall.
Zygote	: Fertilised ovum.

2.12 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

1) Mitosis and meiosis

The process of cell division and cell duplication in which the number of chromosomes remains the same is called mitosis. Meiosis is the process of cell division in which the number of chromosomes is reduced to half.

2) Crossing over

During the first phase of meiosis, sometimes the genetic material is exchanged between a pair of chromosomes. This process of exchange of genetic material is called crossing over.

3) Identical and fraternal twins

When ovum is fertilised by one sperm and at the time of the first division of the cell, the new cells separate instead of remaining together, the twins formed are called identical or monozygotic twins. They are always of the same sex and carry the same genes.

When two ova released at the same time are fertilised simultaneously by two different sperms, the individuals developed from these two ova are non-identical twins called fraternal or dizygotic twins. They may be of the same sex or of opposite sex.

4) Homozygous and heterozygous

For a given trait, the child is said to be homozygous if she or he has inherited two genes of the same allelic form for the trait from both the parents. If the alleles are different, then the child is heterozygous for the given trait.

5) Dominant and recessive alleles

When only one allele affects the child's characteristics, it is called dominant allele. The second allele which has no effect in singular form is called a recessive allele.

6) Co-dominance

Co-dominance is a pattern of inheritance in individuals for a given trait which is heterozygous in which characteristics of both alleles are expressed, for example, blood group.

7) X-Linked characteristics

Human characteristics which are affected by genes found on X-chromosomes are called X-linked characteristics.

Check Your Progress Exercise 2

1) Genetic diseases

Genetic diseases are passed from parents to children. Some of these are haemophilia, sickle-cell anaemia, phenylketonuria, Tay-Sachs disease, and cystic fibrosis. All these diseases are single-gene defects because a single gene is the cause of the disease.

For example, Phenylketonuria (PKU) is a genetic disorder that interferes with a child's ability to metabolise an amino acid called phenylalanine. If both parents are heterozygous carriers of PKU, these parents may have two carrier children, one normal child, and one affected child.

2) Down syndrome

Down syndrome is one of the most common and widespread consequences of a chromosomal error. The primary cause of Down syndrome is the

failure of 21st pair of chromosomes to separate properly while undergoing meiosis during the production of the ovum and sperm. Down syndrome children have three of these chromosomes rather than two, therefore, also known as trisomy 21.

3) Sex chromosome abnormalities

Sex chromosome abnormalities are caused by an incomplete or incorrect division of sex chromosomes. One such example is Turner's Syndrome (TS) in which females are born with XO combination instead of the typical XX combination. Other examples of sex chromosome abnormalities: a) males with Klinefelter's syndrome carry an extra X chromosome, resulting in an XXY combination; b) Males born with the XYY syndrome carry an extra Y chromosome.

Check Your Progress Exercise 3

1) Genetic counselling

A couple needs genetic counselling if they have had repeated miscarriages, a still birth, have had difficulties in child bearing, have one child with a genetic disorder, any one close relative has a genetic problem, are over aged and want to have children; and the woman has been taking drugs or other dangerous substances during pregnancy. During counselling, parents are explained the likelihood of having an abnormal child.

2) Alternative methods of conception

When a couple is not able to conceive a child normally, then they opt for alternative methods of conception to fulfill their wish of parenthood. These are donor insemination method, in vitro fertilisation, and surrogate motherhood.

3) Prenatal diagnostic methods

With the help of prenatal diagnostic methods, problems can be detected before birth. Some of these methods are amniocentesis, ultrasound, foetoscopy and maternal blood analysis. Foetal blood can also be obtained to diagnose disorders such as haemophilia, sickle cell anaemia, and other neural defects.

Check Your Progress Exercise 4

1) Functions of placenta

Placenta is the prenatal life support system. It separates the circulatory system of the foetus and the mother. Nutrients, oxygen, and waste are exchanged across the placenta. The placenta serves all of the functions provided by the lungs, kidneys, stomach and intestines.

2) Functions of umbilical cord

The umbilical cord is the link between the foetus and the placenta that delivers nutrients and removes waste products.

3) Functions of amniotic fluid

It protects the foetus from injury or physical shocks and maintains relatively constant foetal body temperature.

Check Your Progress Exercise 5

- 1) Physical hazards of prenatal period include: a possibility that the zygote will die of starvation; a tubal pregnancy; zygote getting attached to a small area of fibroid tissue; spontaneous abortion; developmental irregularities; premature and post-mature birth with complications; and complications of delivery.
- 2) Psychological hazards of prenatal period are traditional beliefs, preference for a particular sex of the child, and maternal stress that have long lasting impact on the child's development.

Check Your Progress Exercise 6

- 1) Teratogens causing damage during prenatal period include prescription and non-prescription drugs, illegal drugs, alcohol, smoking, radiation, pollution, and maternal diseases.
- 2) Maternal factors influencing prenatal development are:
 - Maternal nutrition,
 - Maternal age, and
 - Psychological stress.

Check Your Progress Exercise 7

- 1) Different stages of the birth process are:
 - Dilation and effacement of the cervix,
 - Delivery of the baby, and
 - Delivery of the placenta.
- 2) Important birth complications are:
 - Anoxia,
 - Haemorrhaging, and
 - Low birth weight.

2.13 UNIT END QUESTIONS

- 1) Explain the biological foundations of human development in detail.
- 2) Discuss the genetic and chromosomal abnormalities.
- 3) What is the importance of genetic counselling?
- 4) What are the various methods of prenatal diagnosis?
- 5) Briefly describe the alternative methods of conception.
- 6) Discuss the prenatal development in detail.
- 7) Describe the hazards of prenatal period.
- 8) How is prenatal development influenced by teratogens?
- 9) Discuss the birth process and its complications.

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UNIT 3 PSYCHOANALYTIC THEORIES

Structure

- 3.1 Introduction
- 3.2 Theory
 - 3.2.1 What is a Theory?
 - 3.2.2 What is the Framework of a Theory?
 - 3.2.3 What are the Parts of a Theory?
 - 3.2.4 What are the Functions of a Theory?
- 3.3 Freud's Psychoanalytic Theory
 - 3.3.1 Defense Mechanisms
 - 3.3.2 Personality Development — The Psychosexual Stages
 - 3.3.3 Freud's View on Females
 - 3.3.4 Limitations and Applications of Psychoanalytic Theory
- 3.4 Erik Erikson's Psychosocial Theory
 - 3.4.1 Personality Development — The Psychosocial Stages
 - 3.4.2 Application of Psychosocial Theory
- 3.5 Neo-Freudian Theories
 - 3.5.1 Carl Jung's Theory of Psychodynamics
 - 3.5.2 Alfred Adler's Theory of Individual Psychology
 - 3.5.3 Erich Fromm — Political Psychophilosopher
 - 3.5.4 Harry Stack Sullivan
 - 3.5.5 Karen Horney
 - 3.5.6 Sudhir Kakar's Psychoanalytic Theory
- 3.6 Let Us Sum Up
- 3.7 Glossary
- 3.8 Answers to Check Your Progress Exercises
- 3.9 Unit End Questions
- 3.10 Further Readings and References

3.1 INTRODUCTION

Sigmund Freud is considered the father of psychoanalysis, and by many, the father of modern personality theory. As a respected scholar, he developed a following of well known theorists and psychologists in his psychoanalytic society. But as theories were discussed, questioned and revamped, many found themselves at odds with the father in their views on society and the theories.

As these members began to break away from the Freudian camp, many new theories emerged that have been well received in their own right. These new theories however, hold many of the same underlying beliefs of psychoanalysis, most importantly the view of the unconscious as an important drive in human emotions, cognition and behaviours.

As such these new theories, arising from psychoanalytic thought and the writings of Freud, still maintain many Freudian components. The term *neo-Freudian* or *psychodynamic* have both been used to describe those who left the psychoanalytic society and formed their own school of thought.

In this Unit, we will discuss some of the more important neo-Freudian theories. Among those which we will discuss are Erik Erikson's ego psychology, Carl Jung's analytical psychology and Alfred Adler's individual psychology. We shall also talk about Erich Fromm, Harry Stack Sullivan, Karen Horney and Sudhir Kakar.

Objectives

After studying this Unit, you will be able to:

- Explain and illustrate the structure of personality;
- Describe the view points of various theories on development of personality; and
- Discuss how these theories have contributed towards the study of human behaviour.

3.2 THEORY

Let us first understand what the term "theory" means.

3.2.1 What is a Theory?

Theorising is the process of systematically formulating and organising ideas to understand a particular phenomenon. According to Doherty *et al.* a theory is a set of interconnected ideas that emerge from this process. Runder propounded that theory is a set of systematically related propositions that are empirically testable.

A theory usually comprises of several propositions. These propositions formulate hypotheses. The hypothesis leads to concept formation. This concept should have variables which can be verified and measured. Further, relation between concepts is ascertained. After testing of hypothesis it is either approved or disapproved. These propositions must be systematically linked by relations and by logical forms. A theory that is not capable of being empirically tested is not a scientific theory. Theory making process can be explained in the following way (see Fig. 3.1):

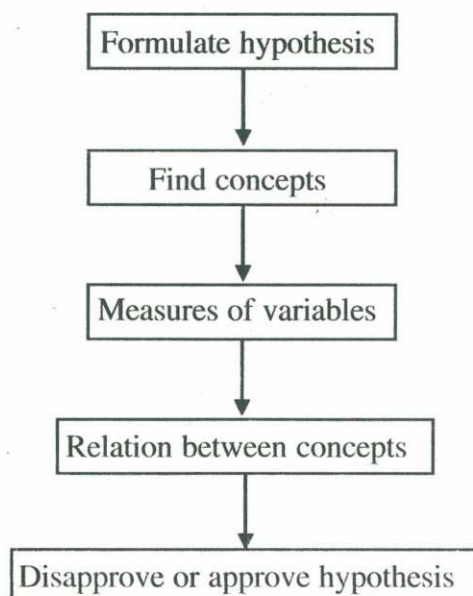


Fig. 3.1: Theory making process

3.2.2 What is the Framework of a Theory?

Philosophy of Science

Philosophical ideas help to frame theories. The term philosophy can refer to both: the values, way of thinking of a person and an academic discipline. Both meanings are important in understanding the emergence and growth of family theories and framework (White and Klein, 2008).

Ideas and Data

Science is mainly concerned with ideas, data, and relationships between them. Theories exist in the realm of ideas. Research takes place in the realm of data. When the process marks a shift from ideas to data, it is deductive. When it proceeds from data to ideas, it is inductive. For example: a researcher begins with an existing theory, derives hypotheses, and then observes to see how well the data will fit.

3.2.3 What are the Parts of a Theory?

There are three building blocks of scientific theories:

- Concepts
- Relations
- Proposition

Concepts

Concepts are abstractions. These enable us to organise experience. Every time we do not invent concepts, rather we think about a concept in ways that are more abstract. For instance, the meaning of divorce will remain the same though its properties may differ from culture to culture. Not all concepts can take empirical measures. A variable is any measure that can have two or more than two values like, yes or no, strongly agree to strongly disagree.

Relations

Relations connect concepts with each other. They have the properties of symmetry, reflexivity and transitivity. We can use same concepts with different relations. A simple difference in the properties of relation can make a difference in the validity of the final statement.

For example:

- 1) Sanya is taller than Riya
Riya is taller than Tanu
Therefore,
Sanya is taller than Tanu.

This is true.

- 2) Sanya is the mother of Riya
Riya is the mother of Tanu
Therefore,
Sanya is the mother of Tanu.

This is false

Proposition

A proposition exists when a concept is linked in a meaningful way by relating it to another concept. This relation can be negative or positive. It also indicates which variable is dependent and which is independent. For example, the rate of divorce is negatively related to living in joint family.

3.2.4 What are the Functions of a Theory?

In general, theories have many functions but here we will throw light only on how theories help to develop understanding. Knowledge about theories related to families will be fruitful; especially it will help therapists, counsellors and social policy advisers to help in reduction of familial and social problems. Here are some functions of a theory:

- 1) **Accumulation:** Theories helps in collection, analysis and arrangement of empirical facts, filtered through the lenses of researchers.
- 2) **Precision:** Theories state clearly ideas in more careful and specified ways than everyday language. Concepts, propositions and applications must be understood well.
- 3) **Guidance:** Theories guide researchers to develop and test hypotheses. A theory also promotes a critical spirit of inquiry. Comparisons can be made as to which theory is better in the field. For example, if in a field there are contradictory theories then hypotheses can be framed to decide which theory is better.
- 4) **Connectedness:** A theory demonstrates how ideas are connected to each other and to other theories.
- 5) **Interpretation:** It has two aspects:
 - 1) A theory should enable a good description of the subject matter with which it is concerned.
 - 2) Theories evoke or promote notions about the way things work.
- 6) **Prediction:** Theories assist to predict what will or can happen in the future by studying the past events, that is a theory can state relative proposition for the future outcomes.
- 7) **Explanation:** Theory provides answers to the “why” and “how” questions.

Check Your Progress Exercise 1

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

- 1) Define ‘theory’.

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- 2) List functions of a theory.

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3.3 FREUD'S PSYCHOANALYTIC THEORY

Sigmund Freud (1856-1939), the founder of modern psychoanalysis, was born in Vienna and conducted most of his work in Europe. Freud's focus was on human emotions, which were rarely spoken of in the Victorian society, and the unconscious mind as a determinant of behaviour. He believed that the primary forces behind human behaviour are biological animal drives, including sex and aggression. Freud looked to childhood for clues about the underlying nature of personality. For Freud, personality also has a definable structure with three basic components. One can be thought of as the personality's biological side, the second represents the psychological side and the third reflects society's contribution to personality. These are not parts of personality in a physical sense, nor do they have any specific physical location in the person. Rather, they are processes or systems of the mind. Their job is to organise mental life and interact with one another in a dynamic way so that personality is influenced and changed. These structures are explained below (also see Fig. 3.2).

- 1) **Id** : The id is the mental agency containing everything inherited, present at birth and fixed in the individual's constitution – especially sexual and aggressive instincts. It is raw, animalistic and unorganised, knows no laws, obeys no rules and remains basic to the individual throughout life. It operates according to what Freud termed the *pleasure principle*, which means the achievement of pleasurable feelings as quickly and immediately as possible through the reduction of discomfort, pain or tension. Id satisfies its needs through the *primary process*, a continual flow of events involving infantile images and wishes that demand immediate and direct satisfaction.
- 2) **Ego** : Ego is that portion of the psychic apparatus that seeks to express and gratify the desires of the id in accordance with the restrictions of both the outer reality and the superego. The ego acquires its structure and functions from the id. Having evolved from it, ego operates according to the *reality principle*. Ego has the capacity to delay satisfaction. The hungry person has to seek, find and eat food. and operates according to the principle of *secondary process*, guided very much by reality consideration but in the service of the instinctual drives.
- 3) **Superego** : In order for a person to function effectively in society, he or she must acquire a system of values, norms and ethics that are reasonably compatible with that society. These are acquired through the process of socialisation. In Freud's view, the human organism is not born with a superego rather, children must acquire it through interactions with parents,

teachers and other formative figures. These specific mechanisms through which superego receives its content is called *introjection*.



Fig. 3.2: Freud's psychic structure includes id, ego and superego. Id operates according to the pleasure principles, ego operates according to the reality principles and superego represents the moralistic values of society.

Freud considered personality to be like an iceberg. According to him, most of the personality exists below our level of awareness, just as the massive part of an iceberg is beneath the surface of the water. Freud believed that most of the important personality processes occur below the level of conscious awareness. In examining people's conscious thoughts about their behaviours, we can see some reflections of the ego and the superego. Whereas the ego and superego are partly conscious and partly unconscious, the primitive id is the unconscious, the totally submerged part of the iceberg as shown in the Fig. 3.3.

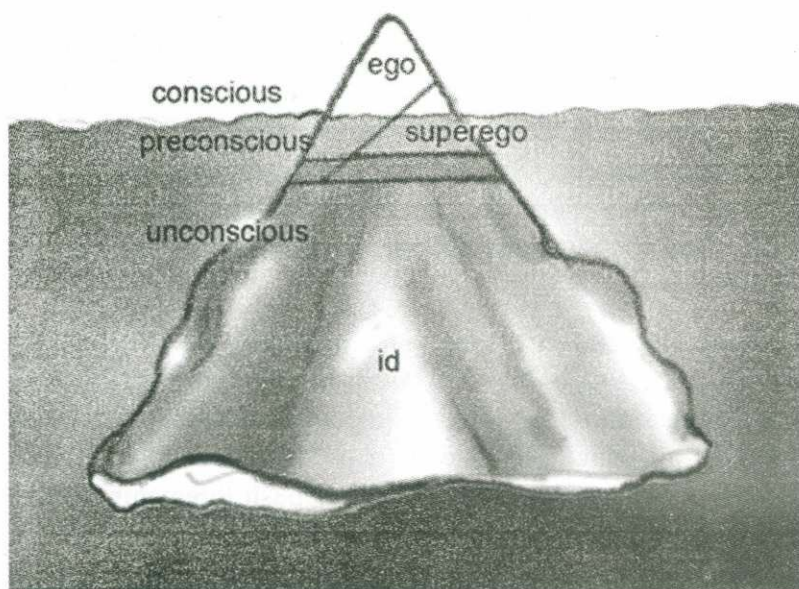


Fig. 3.3: Freud considered personality to be like an iceberg

Instinct

Psychoanalytic theory is based on the notion that a 'human being' is a complex energy system, which derives its energy from the food it consumes and expends it for such various purposes as circulation, respiration, muscular exercise, perceiving, thinking and remembering.

Freud accepted the law of conservation of energy (that is, energy may be converted from one state to another but it is all the same energy). He believed that the energy used for psychological activity can be legitimately called *psychic energy*. He believed that the total amount of psychic energy deriving from the tissue needs to be invested in the form of wishes that are termed as *instincts*. An instinct is defined as an inborn psychological representation of an inner bodily state of excitation. Freud maintained that all human activity is determined by the instincts. People behave because instinctual tension impels them to behave, their actions serving to reduce tension.

Although there may be an indeterminate number of instincts depending upon the bodily states, Freud recognised the existence of two basic groups of them — life instincts and death instincts. The *life instincts* serve the purpose of individual survival and social propagation. The form of energy by which life instincts perform their work is called *libido* (from the Latin word for 'wish' or 'desire') or libidinal energy, a term, which came to refer to the energy of the life instincts in general. Libido is that portion of psychic energy, which seeks its gratification from purely sexual activities.

The second category – the *death instincts* (also known as '*Thanatos*'), underlies all the manifestations of cruelty, aggression, suicide and murder. Unlike the libidinal energy of the life instincts, no name was assigned to the energy system of the death instincts. However, Freud considered them to be biologically rooted and as equally important as the life instincts in determining the individual's behaviour.

3.3.1 Defense Mechanisms

How does the ego resolve the conflict among its demand for reality, the wishes of the id, and constraints of the superego? *Defense mechanisms* is the psychoanalytic term for unconscious methods that the ego uses to distort reality, thereby protecting it from anxiety. In Freud's view, the conflicting demands of the personality structures produce anxiety. For example, when the ego blocks the pleasurable pursuits of the id, inner anxiety is felt. This diffuse, distress state develops when the ego senses that the id is going to cause harm to the individual. The anxiety alerts the ego to resolve the conflict by means of defense mechanisms. The various defense mechanisms used by an individual are discussed below:

- 1) **Repression:** Repression is the most powerful and pervasive defense mechanism, according to Freud. It works to push unacceptable id impulses out of awareness and back into the unconscious mind. Repression is the foundation from which all other defense mechanisms work; the goal of every defense mechanism is to repress, or push threatening impulses out of awareness. Freud said that our early childhood experiences, many of which he believed are sexually laden, are too threatening and stressful for us to deal with consciously. We reduce the anxiety of this conflict through the defense mechanism of repression.
- 2) **Identification:** Identification enables the individual to reduce anxiety related to personal shortcomings. It can take the form of imitating the behaviours of a successful peer (perhaps a sibling) or imitating the behaviour of a powerful significant other such as a parent in order to decrease the negative attitude and behaviours that the parent has expressed in relation to the child.

- 3) **Projection:** Projection involves the process of unconsciously attributing one's own unacceptable impulses, attitudes and behaviours to other people or to the environment. For instance, the student who inadequately prepares for an examination and then attributes his failing grades to an unfair test, the cheating of others or a biased teacher who has checked the papers.
- 4) **Displacement:** Displacement enables the person to substitute an acceptable or non-anxiety provoking object or activity for an unacceptable or anxiety provoking one. For example, the child scolded by her parents may hit her little sister, kick her dog or smash her toys. A variation on the notion of displacement involves those situations in which the diversion of psychic energy results in an improvement for society. A displacement that produces a higher cultural achievement is called *sublimation*.
- 5) **Reaction formation:** Reaction formation involves the replacement in consciousness of an anxiety producing impulse or feeling by its opposite. For example, hate is replaced by love. The original impulse still exists but it is masked by one that does not cause anxiety. Usually, a reaction formation is marked by behaviour that is compulsive, exaggerated and rigid.
- 6) **Rationalisation:** People use the rationalisation technique as a means of justifying behaviour or ideas that the individual would usually label as unacceptable, stressful or anxiety provoking. One's mistakes, poor judgements and failures can be explained away through the magic of rationalisation. One frequently employs this type known as 'sour grapes' — individual minimises the attractiveness of an object or situation that is beyond his or her reach.
- 7) **Regression:** Regression will appeal to you if you believe that life has become tougher rather than easier as you have grown older. It maintains that you may return to behaviour or situations that are representative of earlier and more comfortable times in your life. Readily observed form of regression displayed by adults include losing their temper, giving people "the silent treatment", talking baby talk, destroying property, rebelling against authority, driving fast and recklessly and similar childish behaviours.

3.3.2 Personality Development — The Psychosexual Stages

Development is the process by which something grows from a beginning state to a later one. Personality also develops over time from an immature beginning state to a later mature state. Freud hypothesised a series of four sequential stages of personality development that are oral, anal, phallic and genital. A period of latency normally occurring between the ages of 6 or 7 years and the onset of puberty, was included by Freud in the overall scheme — though not as a stage. Psychosexual development is a biologically determined sequence, invariant in its order of unfolding and characteristic of all persons regardless of their cultural heritage.

- 1) **Oral stage:** The oral stage extends from birth to approximately 18 months of age. The infant's primary source of pleasure and gratification comes from stimulation of the oral region of the body. This pleasure in oral activities develops through the connection between nursing and being fed.

The infant obtains nourishment from sucking at the breast or bottle and at the same time, sucking movements are pleasurable. Therefore the oral activity remains an important erogenous zone throughout life.

Freud postulated that an infant who is given either excessive or insufficient amounts of stimulation is likely to develop a fixation. If a child is fed whenever he wants, he is likely to develop an *oral-passive personality type* in adulthood. This is the person who has an optimistic view of the world, who has established trusting dependent relationships with others, who are expected to care for them. His or her psychological adjustment is characterised by gullibility, passivity, immaturity and excessive dependence.

The *oral-aggressive* or *oral sadistic type* is also derived from childhood pleasures associated with the mouth, food and eating but with greater chewing, biting and use of teeth. This personality type is likely to develop if the infant gets inadequate oral stimulation and is frustrated by the same. Fixation at the oral-aggressive stage is reflected in adults who are argumentative, pessimistic, bitingly sarcastic and often cynical about everything around them.

- 2) **Anal stage:** The anal stage begins at about 18 months and continues into the third year of life. During this time, young children derive considerable pleasure from both the retention and expulsion of faeces and gradually learn to enhance this pleasure by delaying bowel movements. An important aspect of anal stage is toilet training which involves children and parents in issues of interpersonal interaction and conflict. From the parent's point of view, the issue is control: "Will my child go to the toilet as I desire or not?". For the child on the other hand, the issue is power: "Should I do what I want to do or what they want me to do?". Therefore, the need to hold back faeces. If "hold back" becomes excessive and generalises to other modes of behaviour, the child may become *anal-retentive personality type*. In contrast, a second outcome of anal fixation due to parental strictness about toilet training is the *anal-expulsive type*.

Individuals who fit this personality type contently save for the future, whether the reference is to money or gratification of some need. They delay gratification and retain objects for future use just as once at the behest of their parents they retained their faeces until an appropriate receptacle was found. Other characteristics include orderliness, stinginess, obstinacy, punctuality and extreme cleanliness or extreme messiness.

People fixed at this level show traits of cruelty, destructiveness, disorderliness, temper tantrums, explosive emotional outbursts and hostility with respect to adult love relationships. Such a person would tend to perceive others primarily as objects to be possessed.

- 3) **Phallic stage:** The phallic stage or early genital stage, as it is sometimes called, has its name because at about the age of four years the child's sources of libidinal pleasure shift to focus principally on the genital region. During this stage, children can be observed examining their sex organs, masturbating and expressing interests in matters pertaining to birth and sex. The child is curious about the anatomical differences between the sexes, the origin of babies, the role of father in procreation and sexual activities of the parents.

In this period, boys experience the emergence of the *oedipus complex* which consists of sexual feeling for the mother and jealousy of the father and rivalry with him for the mother's attention. Girls, in the *electra complex*, experience similar dynamics in relation to their parents but to a less severe degree than boys.

Oedipus complex consists of a sexual cathexis for the parent of the opposite sex and a hostile cathexis for the parent of the same sex. The boy's initial love object is the mother who has been the prominent source of gratification for him since birth. He wants to possess his mother, and the father becomes the chief rival or enemy of his son. The boy's fear of retaliation from his father is called *castration anxiety*, which forces the boy to renounce his wish to have incestuous relation with his mother.

Somewhere between 5 and 7 years of age, the Oedipus conflict is normally resolved as the boy represses his sexual desire for the mother and begins to identify with his father. This identification with the father provides the boy with a set of values, morals, attitudes and sex-related behaviours. It is the specific quality of identification that Freud felt leads to the child's development of superego.

Like the boy, the girl's first object of love is the mother. She exchanges her original love object, the mother for a new object, the father. But girls do have difficulty identifying with the same sex parent. There are two reasons why identification is more difficult for them. First, girls experience ambivalence toward their mothers. They hold their mother responsible for their castrated condition and devalue her for lacking a penis. The probability that daughters will identify with their mother is lowered by their jealousy of the mother's closeness to the father. Second, the girls transfer their love to the father because he has the valued organ which they aspire to share with him. However, a girl's love for the father and other men as well is mixed with a feeling of envy because they possess something she lacks. *Penis envy* is the female counterpart of castration anxiety and collectively they are called the *castration complex*.

- 5) **Latency Period:** Freud believed that sexual drives are submerged or latent in the age period of six to twelve years. It is partly to avoid reminders of feelings that occurred during the phallic phase. It is a period of acquisition of culturally valued skills, values and roles.
- 6) **Genital stage:** Freud's final stage of development is the genital stage. It is phase of mature sexual love which begins at puberty and includes directing both feelings of lust and affection toward another person. The initial phase of genital stage is brought about by biochemical and physiological changes in adolescents.

3.3.3 Freud's View on Females

Because of the different socialisation processes for girls and boys, Freud believed the girls are more dependent on the defense mechanism of repression. Further, because of their assumed weaker superego development, "for women the level of what is ethically normal is different from what it is in men". That is, Freud thought that, on average, women function at a lower moral level than men.

Freud did not wish to confine women to the status of lesser men. Rather, he wanted to account for his observation that women were “innately bisexual”. Freud reasoned that to be sexual young females had to be masculine. Thus, girls engage in sex like boys. They actively manipulate the clitoris just as boys stroke the penis. But at about adolescence they must come to accept their femininity and the lack of a penis by renouncing clitoral stimulation and embracing the passive sexual mode that is penis in vagina. By this “logic”, females are first masculine and then feminine, therefore, bisexual. In turn, the switch accounts for their greater tendency to neurosis. Females experience greater internal turmoil because they must abandon one set of needs, masculine, and then, while still in the throes of the loss, embrace another, feminine. The negative traits Freud assigned to females arose out of the necessary transition from masculinity to femininity dictated by their anatomy, not out of female inferiority *per se*.

Assuming that gender bias is actually the source of Freud’s conception of women, in that he viewed women from his masculine vantage point, it follows that it should be possible to rewrite his theory from a feminine perspective and preserve all its concepts and basic assumptions, except one. Male inferiority would replace female inferiority.

3.3.4 Limitations and Applications of Psychoanalytic Theory

There is considerable, qualified support for some of Freud’s ideas, but it is not great considering the large number of researchers who have tried for so many years to confirm his concepts. One reason is that the concepts of psychoanalytic theory, even when clearly defined, are not open to direct observation. Thus they are hard to test scientifically. It is thus difficult to measure. The concepts have relatively low predictive validity. Also the use of uncontrolled clinical settings like interruption, chance mood of patient and analyst, events in the setting and unknown events occurring just before the session make it difficult to draw inferences. Analysts, as observers, influence what they observe so total objectivity can’t be achieved. The clinic subject samples often used by Freud and other psychoanalysts are unrepresentative of people in general.

Freud’s ideas relied heavily on people’s early childhood experiences. However Freud actually had few child patients. He obtained most of his information about children through everyday experience, reading his own recollection of his childhood and the recollection of adult patients.

However, Freud is the most cited personality theorist. His timeless contributions include inspiring others to look beyond the obvious, the identification process and the unconscious.

Psychoanalytic theory has been applied to the understanding of virtually every area of human behaviour. Such different fields as anthropology, art, criminology, history, economics, philosophy, sociology, education and religion have felt its impact. Applications of psychoanalytic concepts to everyday life are numerous. One of the most significant of these, psychoanalytic therapy, uses well developed methods such as free association, interpretation of resistance, dream - analysis and analysis of transference to probe the unconscious with the aim of making possible a deeper understanding of self. These newly acquired self-insights are then converted into the person’s everyday life through a method of emotional reeducation. Each therapeutic technique is designed to help patients achieve greater insight into causes of their behaviour.

Check Your Progress Exercise 2

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

- 1) According to Freud, what are the components of personality? Name them.

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- 2) Briefly describe the function of defense mechanisms.

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- 3) What are the characteristics of psychosexual development?

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- 4) How many stages are described by Freud in the course of personality development? List the stages.

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3.4 ERIK ERIKSON'S PSYCHOSOCIAL THEORY

Erik Erikson (1902-1994), a German born psychoanalyst who was trained under Anna Freud in Vienna, fled from the threat of Nazism and came to the United States in 1933. His personal and professional experiences were far broader than Freud's and this led him to modify and extend Freudian theory. From Erikson's vantage point, the ego rather than the id is the basis of human behaviour and functioning. Erikson introduced a new perspective concerning the person's relationship to parents and the cultural context in which the family is located. His theory of ego development encompasses the entire life span of the individual that is from infancy to adolescence and eventually maturity and old age. His theory focuses on ego qualities or virtues that emerge at various developmental periods. He saw personality as developing throughout lifetime and looked at identity crisis as the focal point for each stage. According to Erikson, an *identity crisis* is a time in the individuals' life when they lack direction, feel unproductive, and do not feel a strong sense of identity. He believed that we all have identity crisis at one time or another in our lives and that these crises do not necessarily represent a negative but can be a driving force toward positive resolution. The process whereby these

stages evolve is governed by the *epigenetic principle of maturation*. Each stage is named according to the possible outcomes which are polar opposites.

Erikson has described the stages in terms of the *basic ego quality* that emerges during each stage. He discussed the *virtues* or *ego strengths* that appear during successive stages. Further, he described the *ritualisation* peculiar to each stage. By ritualisation Erikson means a playful and culturally patterned way of doing or experiencing something in the daily interplay of individuals. The basic purpose of this ritualisation is to turn the maturing individual into an effective and familiar member of a community. Unfortunately ritualisation can become rigid and turn away from proper nature and turn into *ritualisms*.

3.4.1 Personality Development — The Psychosocial Stages

- 1) **Trust versus mistrust:** Erikson viewed personality development from the social perspective. Hence his theory at times is also known as psychosocial theory. The first stage of psychosocial development is named the stage of *trust versus mistrust* because of the two possible major outcomes — first a warm loving relationship with the mother (and others) during infancy might lead to a sense of basic trust in people and the world (see Fig. 3.4). Second, a cold non-gratifying relationship might generate a pervasive sense of mistrust. Erikson believed that most of us would wind up with some blind trust and mistrust; hopefully, more trust than mistrust.



Fig. 3.4: According to Erikson, a warm loving relationship with the mother during infancy leads to a sense of basic trust in people and world.

The first stage of life, infancy is the stage of the *numinous ritualisation*. Numinous means baby's sense of holy presence of the mother, her looking, holding, touching, smiling, feeding, naming and recognising him. These repeated interactions are highly personal and yet culturally ritualised. Recognition of the infant by the mother affirms and certifies the infant and its mutuality with the mother, lack of recognition can cause estrangement in the infant's personality; a sense of separation and abandonment.

- 2) **Autonomy versus shame and doubt:** Acquisition of a sense of basic trust sets the stage for the struggle to attain a certain degree of autonomy and self control, but children during the age 1-3 years remain worried and concerned about their continuing dependency on adults and their inability to live up to adult demands and expectations.

The virtue of *will* emerges during this second stage of life. Trained self-will and the examples of superior will displayed by others are the two origins from which the virtue of will develops. Will is responsible for the child's gradual acceptance of lawfulness and necessity.

Erikson calls the ritualisation of this stage *judicious*, because children begin to judge themselves and others and to differentiate between right and wrong. They also learn to distinguish between "our kind" and others judged to be different, so that others that are not like their "own kind" can be automatically assumed as wrong or bad. This is the basis of worldwide alienation that is called *divided species*.

This period of judicious ritualisation in childhood is the origin within the life cycle of *judicial* ritual in adulthood exemplified by the courtroom trial and the procedures by which guilt or innocence is established. The perverted *ritualism* of this stage is *legalism* which is victory of letter of the law over the spirit.

- 3) **Initiative versus guilt:** At 3 to 5 years of age, children struggle with learning to take responsibility and master their environment, but often at the price of offending their loved parents. The degree of initiative acquired in this phase of the child's life is related by Erikson to the economic system of the community.

Purpose is the virtue that emerges during this stage. The child's major activity at this age is playing. Purpose results from its playing, exploration, attempts, failures and experimental games by assuming the role of parents and other adults in make-believe world. This age is characterised by *dramatic* ritualisation. The child engages in pretend playing. The negative counterpart of dramatic ritualisation is the ritualism of *impersonation* throughout life. The adult plays roles or acts in order to present an image that is not representative of one's true personality.

- 4) **Industry versus inferiority:** The fourth psychosocial period occurs from about 6 to 12 years of age. Children become oriented to peers and are expected to learn the rudimentary skills of the culture *via* formal education. There may be potential development of a sense of inferiority or incompetence. For instance, children may doubt their skill or status among their peers, due to constant social comparison.

The virtue of *competence* emerges during industry stage. The child develops confidence to exert positive influence on the social world in quest of meaningful individual and social goals. School age is the stage of *formal* ritualisation when the children learn how to perform methodically. Whatever the children do whether in school or home, they do it in a proper way. The distorted ritualism in adulthood is that of *formalism*, which consists of the repetition of meaningless formalities and empty rituals.

- 5) **Identity versus role confusion:** Adolescence stage is regarded as highly significant in the person's psychosocial development. The adolescents are confronted with various social demands and role changes that are essential for meeting the challenges of adulthood. The task (as son, daughter, student, athlete, musician, scout etc.) confronting adolescents is to consolidate all the knowledge they have gained about themselves and integrate these various self images into a personal identity that shows awareness of both a past and a future that follows logically from it. The failure of the young person to develop a personal identity results in what Erikson has called the *identity crisis*. It is characterised by an inability to select a career or pursue further education.

Many adolescents feel inadequate, aimless, alienated and sometimes even seek *negative identity*, that is a sense of possessing a set of potentially bad or unworthy characteristics. Negative identity crisis can result in a lot of social pathology; that is, prejudice, crime and discrimination against various groups of people, but it is also an important part of the adolescents' readiness for ideological involvement.

Adolescence is extension of childhood till one attains the adulthood status. Social institutions grant a period of grace, a *moratorium* for individuals who need to delay or momentarily slow down their development into adults by providing extended formal education, apprenticeship, internship etc.

During adolescent age, the virtue of *fidelity* emerges from adequate resolution of the ego identity-role confusion crisis. Fidelity refers to the adolescent's ability to sustain loyalties freely pledged in spite of the inevitable contradiction of value systems. Fidelity represents the young person's capacity to perceive and abide by the social mores, ethics and ideologies of society. Fidelity is the foundation upon which a continuous sense of identity is formed.

The ritualisation concurrent with the adolescent stage is *ideology*. Ideology means that the individual develops a set of ideas and ideals. When an individual fails to develop an ideology, it results in identity confusion. The distorted form of ideology ritualisation is *totalism*. Totalism is the fanatic and exclusive preoccupation with what seems to be unquestionably right or ideal.

- 6) **Intimacy versus isolation:** In young adulthood, the task is to form intimate relationship that is merging our own identity with that of another person. Erikson contends that a true sense of intimacy cannot be attained unless the young person has already achieved a stable identity. Young men and women need to experience an intimate oneness with their society lest they experience isolation.

Virtue of love comes into being during intimacy stage of development. Although love is there in the earlier stages, the development of true intimacy is seen only after the age of adolescence.

The corresponding ritualisation of this stage is the *affiliative* that is a sharing together of work, friendship and love. The corresponding ritualism namely, *elitism* is expressed by exclusive groups that are a form of communal narcissism.

- 7) **Generativity versus stagnation:** During middle years of life, generativity occurs when a person begins to show concern not only for the welfare of the next generation but also for the nature of the society in which that generation will live and work. Adults who fail to establish a sense of generativity slip into a state of absorption in which their personal needs and comforts are of dominant concern. Lacking generativity such persons cease to function as productive members of the society, live only to gratify their needs and are interpersonally impoverished. This is commonly known as *crisis of middle age*, whereby, a sense of hopelessness and feeling that life is meaningless occurs.

From the psychosocial crisis of generativity emerges the strength of care. Care stems from the feeling that something or someone matters — one's concern for others by wanting to take care of those who need it and to share one's knowledge and experience with them.

The ritualisation of this stage is *generational* which is the ritualisation of parenthood, production, teaching, healing and so forth, roles in which the adult acts as a transmitter of ideal values to the young.

The corresponding ritualism, namely *authoritism* is expressed by seizure or encroachment of authority incompatible with care.

- 8) **Ego integrity versus despair:** Finally, as adults witness the development of a new generation, they gain a further perspective of their own cycle. They develop a sense of integrity by glancing back on their own life in full perspective and humbly but assuredly affirm, "I am satisfied". At the other extreme are the people who regard their lives as a service of unfulfilled opportunities and missed directions. The lack or loss of ego integration in such persons is marked by a hidden dread of death, a feeling of irrevocable failure and an incessant pre-occupation with what "might have been".

One often finds wisdom and a philosophy of life, in this final phase, which extends beyond one's own life cycle to future development cycles.

Wisdom develops out of encounter of integrity and despair in the last stage of life. Wisdom maintains and conveys the integrity of accumulated experiences of previous years.

The ritualisation of old age is called *integral* and this is reflected in the wisdom of the ages. The corresponding ritualism Erikson suggested is *sapientism* that is, the unwise pretense of being wise.

Thus in Erik Erikson's psychosocial theory, developed within a psychoanalytic framework, emphasis is placed on the importance of ego psychology, developmental change throughout the life cycle and understanding personality against the background of social and historical forces. Erikson regards the ego as an autonomous personality structure. His theory focuses on ego qualities that emerge at various developmental periods.

Erikson has formulated a theory in which the roles of society and of persons themselves are accorded equal emphasis with respect to the development of personality throughout life. Erikson has stimulated a sense of optimism by demonstrating that each stage of psychosocial growth has the potential for both strength and weakness, so that failure at one stage of development does not necessarily indicate doom at a later stage.

3.4.2 Application of Psychosocial Theory

Erikson has applied his theoretical views to diverse topics as children's play behaviour, childhood in American Indian tribes, juvenile delinquency, identity problem of youth, dissent in youth and various historical figures such as Luther, Hitler, Gandhi and Jefferson. In particular he had stressed various social-emotional experiences influencing adolescent personality development in American society.

According to Erikson's viewpoint, it is the democratic system in America that poses special problems in this regard since democracy requires "self-made identities". When democracy is coupled with the technological sophistication of our social world, identity crises are further intensified. The major areas of adolescent behaviour — the problem of vocational choice, conflict with parents, peer-group membership, love relationships, alcohol and drug use are the manifestations of the identity crisis.

Check Your Progress Exercise 3

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

- 1) How does a child become industrious while overcoming the feeling of inferiority? Explain briefly.

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- 2) What is identity crisis?

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- 3) Write briefly how an individual acquires integrity.

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3.5 NEO-FREUDIAN THEORIES

In this section, we will discuss the theories of psychologists, who worked on the theory of Freud and came out with new ideas and theories of personality. We call these theories as neo-Freudian theories.

3.5.1 Carl Jung's Theory of Psychodynamics

Carl Jung (1875-1961) was a Swiss psychiatrist who had been a member of Freud's inner circle. He fell into disfavour with Freud when he developed his own psychodynamic theory — *Analytical Psychology*. Jung, like Freud, was intrigued by unconscious processes.

Jung theorised that the *psyche* (his term for personality) is composed of three separate but interacting structures: the ego, the personal unconscious and the collective unconscious. The *ego* is the centre of the conscious mind. It constitutes all those thoughts, feelings, memories and perceptions that give us a sense of temporal continuity and identify us as human beings. The *personal unconscious* contains complexes or clusters of emotionally charged ideas, feelings and memories acquired from a person's developmental past or ancestral experiences.

Within the personal unconscious, experiences are grouped into clusters that are called *complexes*. A complex is an organised group of thoughts, feelings and memories about a particular concept. Each complex is organised around a particular person or object. A popular example is Jung's mother complex, which includes all experiences that one has pertaining to mothering.

Jung proposed the existence of a deeper structure within the psyche called *collective unconscious*. The collective unconscious contains primitive images or archetypes, which are the reflections of the history of our species. *Archetypes* include vague, mysterious mythical images. Examples of archetypes are the All Powerful God, the young hero, the fertile and nurturing mother, the wise old man, the hostile brother, even fairy godmothers, wicked witches and themes of rebirth or resurrection. Archetypes themselves remain unconscious, but Jung declared that they influence our thoughts and emotions and render us responsive to cultural themes in stories and films. Archetypes are somewhat accessible through the interpretation of dreams. Four archetypes are better developed than any of the others: *the persona*, *the anima*, *the animus* and *the shadow*. These are so well developed that they have become separate personality systems. The *persona* is the mask which represents the various roles we play in response to social demand, and serves to impress others or to conceal ourselves from them.

Balancing the persona is the *anima* which is the feminine part of man and the *animus* which is the masculine part of woman. These archetypes constitute Jung's recognition of human bisexuality. They evolved, like any other archetypes, as a result of universal racial experiences. The anima is the result of man's experiences with woman, and the animus is the result of woman's experiences with man.

The *shadow* consists of that part of the unconscious that was inherited from man's pre-human ancestors. It is the animal instinct. Immoral and passionate impulses originate largely from the shadow. When these impulses appear in consciousness, they may be expressed or repressed. Indeed, Jung believed that it is the function of the ego to channel the forces of the shadow, to curb the evil side of our nature enough so that we can live in harmony with others, while allowing enough expression of our impulses to enjoy a robust and creative existence.

A fifth well developed archetype, the *self*, is the most important one of all. Jung found this archetype represented in various cultures by a symbol which was called the '*mandala*' or *magic circle*. It represented human striving for unity, wholeness and integration of personality. The self holds all the other systems together. It strives for oneness of the individual with the world through religious experience as well as for oneness of the psychic systems within the individual. The self can appear only as the other psychic systems become separate enough to require integration, which does not occur until middle age.

Jung identified two general *orientations* or *attitudes* towards the world: extraversion and introversion. Both orientations are viewed as existing simultaneously in each person, although one usually becomes dominant.

Extraversion refers to an attitude of interest in the outer world of people and things. The extravert or extrovert is likely to be outgoing, talkative, friendly and focused on things outside of the self. *Introversion* in contrast, signifies a preoccupation with the internal world of one's own thoughts, feelings and experiences. The introvert is more likely to be contemplative, aloof, reserved and focused on self. The combination of these dominant and non-dominant ego orientations create personalities that display distinctive and predictable patterns of behaviour.

Soon after he formulated his ideas about extraversion and introversion, Jung began to realise that this pair of opposites did not fully explain all the differences in how people relate to the world. Accordingly, he extended his typology to include what he called *psychological functions*. The four basic functions of the psyche are: thinking, feeling, sensing and intuiting.

Thinking and *feeling* are rational functions since they involve making judgements about life experiences.

Jung called *sensing* and *intuiting* as irrational functions because they involve passive recording of life experiences without evaluating or interpreting them.

Thinking is characterised by an intellectual style of relating to the world. Its opposite function, feeling is the appraisal of reality in terms of good or bad, pleasant or unpleasant, stimulating or dull. When thinking function is dominant, the person is oriented toward making a conscious judgement of whether an experience is true or false. But when the feeling function dominates, the person is oriented toward making a conscious judgement of whether an experience is inherently pleasant or unpleasant. Sensing is the direct realistic perception of external world without judgement. Intuiting by contrast is characterised by the subliminal unconscious perception of daily experiences. When sensing function is dominant, the person deals with reality in terms of appearance as if he or she were a photographer. On the other hand, when the intuitive function is predominant, the person is responsive to unconscious images, symbols and the hidden weaving of experiences.

According to Jung, development may follow either a *progressive, forward movement* or a *regressive, backward movement*. By *progression*, Jung means that the conscious ego is adjusting satisfactorily both to the demands of the external environment and to the needs of the conscious.

When the forward going movement is interrupted by a frustrating circumstance, the libido is thereby prevented from being invested in extraverted or environment oriented values. As a consequence the libido makes a *regression* into the unconscious and invests itself in introverted values. That is, objective ego values are transformed into subjective values. Regression is the antithesis of progression. By performing a regression the ego may discover useful knowledge in the unconscious that will enable the person to overcome the frustration.

For Jung, life's ultimate goal is the realisation of a whole self that is, becoming a single, separate and indivisible being. Progress in this direction is unique to

each person, covering the entire life span and involves a process Jung termed *individuation*. Oversimplified, individuation is a dynamic and evolving process where by the person seeks to integrate the many opposing forces in the psyche. In its ultimate form, then, individuation involves the full development and expression of all elements of the psyche. Fulfillment of individuation, which is no easy task, results in what Jung called *self-actualisation*. Few people ever achieve this highest level of personal development.

The most prominent and distinctive feature of Jung's view of humans is that human behaviour is conditioned not only by individual and social history but also by aims and aspiration. Both the past as actuality and future as potentiality guide one's present behaviour. To paraphrase Jung, "the person lives by aims as well as by causes".

For Jung, there is constant and often creative development, the search for wholeness and completion and the yearning for rebirth.

3.5.2 Alfred Adler's Theory of Individual Psychology

Adler (1870-1937) is often portrayed as a disciple of Freud who eventually rebelled against and proceeded to develop his own ideas. However, both Alfred Adler and Carl Jung were early members of the psychoanalytic movement and ardent supporters of Freud's sweeping and novel theoretical system. Eventually, however both voiced their opposition to what they felt was Freud's excessive emphasis on sexuality and aggression as the centres of human life.

Adler christened his theory '*Individual Psychology*'. He held that no life expression can be viewed in isolation; but must always be regarded in relation to the total personality. Adler believed that people are basically motivated by an inferiority complex. In some people, feeling of inferiority may be based on physical problems and need to compensate for them. Compensation for this inferiority accounts for the nature of many neurotic symptoms and helps to determine the individual's *life style*, the way in which he or she deals with problems in general. Regardless of the circumstances that give rise to inferiority feelings, however, a person may react by overcompensating and thus developing what Adler called a *superiority complex*.

Adler emphasised the conflict between masculinity and femininity as very important. He saw the overcoming of femininity by both males and females ('masculine protest'), rather than sexuality in itself, as the important thing. The will to power was thought to be the greatest motivating force in people's life. Adler portrayed human beings as living in concern with their social world but perpetually striving to create a better world.

Adler maintained that our *style of life* accounts for the consistency of our personality throughout life as well as our general orientation to the outside world. In his view, the style of life is so firmly ingrained by the age of 4 or 5 years that it is almost totally resistant to change thereafter. Of course, people continue to learn new ways of expressing their unique life style.

Another crucial concept in Adler's individual psychology is that of *social interest*. It reflects his strong belief that all humans are social creatures and that we must consider our relationship to others and to the larger socio-cultural context in which we live if we are to fully understand ourselves. Development

of social interest takes place in the social environment. Other people, initially the mother, then other family members and finally those beyond the home, contribute to this developmental process. According to Adler, the degree of social interest represents a useful yardstick for measuring the person's psychological health. Normal or healthy persons are genuinely concerned about others and their goal of superiority is social, encompassing the well-being of all people.

Adler believed that self-awareness plays a major role in the formation of personality. Adler spoke of *creative self*, a self-aware aspect of personality that strives to overcome obstacles and develop the individual's potential. In other words, style of life is shaped by the individual's creative powers. Ultimately people are solely responsible for who they are and how they behave. This creative power is responsible for the person's life goal, determines the method of striving for the goal and contributes to the development of social interest.

As already stated, Adler believed that everything we do in life is marked by our striving for superiority. The striving aims to bring about perfection completion, and wholeness in our lives. Our ultimate goals (those goals which give our lives direction and purpose) are *fictional goals* that can neither be tested nor confirmed against reality. Some persons may, for instance, conduct their lives in the belief that with hard work and little luck, they can accomplish almost anything. To Adler, this belief constitutes a fiction simply because there are many people who work hard and yet never accomplish anything of real merit. Another example might be the precept of "Your reward will be in Heaven". Although our fictional goals have no objective existence, they nonetheless exert an enormous influence on our striving for superiority, perfection and unity.

Application: Neurosis and its treatment

Adler wanted above all else to create a practical and useful psychology that would be relevant to the everyday world of human affairs. In particular, he sought to develop a theoretical system that would enable him to explain the causes and development of neurosis and provide him a strong basis for the psychological treatment of such disorders.

From Adler's point of view, neurosis was a broad-based diagnostic term designed to encompass a variety of behavioural disorders. These disorders manifested themselves in a variety of symptoms for example, anxiety, doubts, fears, obsessions, compulsions etc.

Adler believed that people are fundamentally responsible for their own behaviour and life direction. He also argued that neurotic life style tended to result from the person being "overburdened" during childhood. Three situations leading to inferiority complexes are likely to overburden the child: (i) organ inferiorities, (ii) pampering, and (iii) neglect. The *neurotics* are people who have acquired faulty life-styles, usually because they experienced either physical affections, pampering or rejection during early childhood.

The overall approach to treating neurosis in individual psychology logically follows from Adler's theoretical conception of the nature of neurosis. The goals of therapy for Adler are:

- 1) To recognise our mistaken beliefs about ourselves and others,
- 2) To eliminate faulty goals, and
- 3) To implement new life goals that will enable us to realise our full human potential.

Realisation of these therapeutic goals could best be accomplished through understanding the patient, enhancing patient understanding and strengthening social interest.

Alfred Adler's individual psychology holistically depicts the human being as single, indivisible, self-consistent and unified, human life as a dynamic striving for perfection, the individual as a creative and self-determined entity, and the social embeddedness of the individual and individual subjectivity.

3.5.3 Erich Fromm — Political Psychophilosopher

Erich Fromm (1900-1980) was born in Germany in 1900. He witnessed World War I when he was a teenager and the rise of the Nazi party fifteen years later. His interest in war and politics grew from these experiences and much of his theories were derived as a result of his desire to understand why individuals followed leaders into acts of destruction.

His initial book, which is one of his most influential works, was called '*Escape from Freedom*' and published near the beginning of World War II. In it he described freedom as the greatest problem for most individuals. With freedom, according to Fromm, comes an overwhelming sense of aloneness and an inability to exert individual power. He argued that we use several different techniques to alleviate the anxiety associated with our perception of freedom, including automation, conformity, authoritarianism, destructiveness, and individuation.

The essential theme of all of Fromm's writings is that a person feels lonely and isolated because he or she has become separated from nature and other people. This condition of isolation is not found in any other species of animal; it is a distinctive human situation. Children, for example, gain freedom from the primary ties with the parents with the result that they feel isolated and helpless. As a slave, an individual belonged to someone and had a feeling of being related to the world and to other people, even though he or she was not free. Fromm points out that as human beings have gained more freedom throughout the ages, they have also felt more loneliness. Freedom then becomes a negative condition from which they try to escape.

Fromm answered this dilemma by stating that a person can either unite with other people in the spirit of love and shared work or can find security by submitting to authority and conforming to society. Any form of society that human beings have fashioned, whether it be that of feudalism, capitalism, fascism, socialism or communism, represents an attempt to resolve the basic contradiction of human being. This contradiction consists of a person being both a part of nature and separate from it, of being both an animal and a human being. That person develops a social character in keeping with the requirements of the society.

Fromm has identified and described five *social character types* that are prevalent in contemporary societies. These social character types represent the interaction

of existential needs and the social context in which people live. Fromm grouped them into two general classes; *non-productive* (unhealthy) and *productive* (healthy) types. The nonproductive category includes the *receptive*, *exploitative*, *hoarding* and *marketing* character orientations, whereas the productive category represents Fromm's caricature of ideal psychological health. Fromm points out that none of these character types exists in the pure form because nonproductive and productive qualities blend together in differing proportions in particular persons.

The first four are similar in that each is considered to be unproductive in terms of the betterment of society. Thus, if the society is to provide maximal opportunities for personal and collective growth, the fifth of these character types; the productive orientation, must be dominant. Briefly, the five types of social characters are as follows:

- 1) **Receptive orientation:** Receptive oriented individuals are passive and are waiting to see what the world is going to do to them and for them.
- 2) **Exploitative orientation:** Exploitative oriented individuals are also 'takers' who perceive that the source of all satisfaction involves external factors. They don't wait for others to bestow gifts upon them, rather, they take anything they can get without considering the needs of other specific people and of society in general.
- 3) **Hoarding orientation:** Hoarding oriented individuals believe that there is nothing to be gained from the outside world and that they should hoard or keep everything they have and not share with others.
- 4) **Marketing orientation:** Marketing oriented people operate from a frame of reference which states that people who are successful are valuable and people who are not successful are worthless.
- 5) **Productive orientation:** Productive oriented are the individuals who make optional use of all the power and abilities with which they have been bestowed. These are the people who can make the world of tomorrow a better place to live.

From the standpoint of the proper functioning of a particular society, it is absolutely essential that the child's character should be shaped to fit the needs of the society. The task of the parents and of education is to make the child want to act, as it has to act, if a given economic, political and social system is to be maintained.

There are some specific needs that arise from the conditions of human existence. The five human existential needs identified by Fromm are:

- 1) **The need for relatedness:** To overcome their feelings of isolation from nature and themselves, all persons need to care for, share with and be responsible for others – what Fromm called *productive love*. Productive love always implies mutual care, responsibility, respect and understanding.
- 2) **The need for transcendence:** It refers to a person's need to rise above his or her animal nature, to become a creative person instead of remaining a creature.

- 3) **The need for rootedness:** Human beings need to be an integral part of the world, to feel that they belong.
- 4) **The need for identity:** One wants to have a sense of personal identity, to be a unique individual belonging to someone and not from being someone.
- 5) **The need to have a frame of reference:** Fromm theorised that humans need a stable and consistent way of interpreting the complexities of the world.

Fromm believed that the specific manifestations of these needs, the actual ways in which a person realises inner potentialities, are determined by the social arrangements under which he or she lives. One's personality develops in accordance with the opportunities that a particular society offers to one. In a capitalistic society, for example, a person may gain a sense of personal identity by becoming rich or develop a feeling of rootedness by becoming a dependable and trusted employee in a large company.

In essence, Fromm envisioned the perfect society in which the basic needs of human beings for existence are satisfied, everyone would have equal opportunity to become fully human and a name for this perfect society should be '*Humanistic Communitarian Society*'.

Application of Fromm's theory to the treatment of psychopathology

According to Fromm, the causes of pathology are primarily socio-cultural in nature. On a microscopic level, they involve symbiotic relationships between parents and children. On a macroscopic level, they involve those economic and political forces within society that stifle personal growth. These diverse forces, in Fromm's view, are largely responsible for the individual's inability to achieve a productive orientation. They create repressions of the individual's need for love and relatedness and generate instead brutal and exploitative strivings. The person comes to see others as threats to his own existence — that is, as obstacles to be overcome or removed. Under these conditions, the person is alienated from himself and from others. He does not understand the sources of his problems or that his behaviour is at variance with his basic nature.

To achieve positive growth, people must be made aware of the many family and societal conditions that have stifled their development. In addition to self-awareness, people must actively change those life conditions responsible for their illness. They must change their values, norms and ideals that block their growth. Fromm believes further that the chances for positive growth depend not only on change within people and in their particular life circumstances, but on more general changes within society. As mentioned earlier, Fromm believed that a sane society produces sane people and that a society based on humanistic ethics is desperately needed. In such a society, qualities like greed, narcissism, and exploitativeness would be nonexistent and people would live in harmony and cooperation.

3.5.4 Harry Stack Sullivan

Harry Stack Sullivan (1892-1949) was trained in psychoanalysis in the United States, but soon drifted from the specific psychoanalytic beliefs while retaining

much of the core concepts of Freud. Interestingly, Sullivan placed a lot of focus on both the social aspects of personality and cognitive representations.

Although Sullivan grants personality only hypothetical status, he asserts that it is the dynamic centre of various processes that occur in a series of interpersonal fields. The principal processes are *dynamics*, *personifications* and *cognitive processes*.

Dynamics: Dynamism is the smallest unit that can be employed in the study of the individual. It is defined as "the relatively enduring pattern of energy transformations which recurrently characterise the organism in its duration as a living organism". An energy transformation is any form of behaviour. It may be overt and public like talking, or covert and private like thinking and fantasising. Because a dynamism is a pattern of behaviour that endures and recurs, it is about the same thing as a habit.

Dynamism usually employs a particular zone of the body such as the mouth, the hands, the arms and the genitals by means of which it interacts with the environment. For example, when the nipple is brought to the baby's mouth it stimulates the sensitive membrane of the lips which discharges impulse along nerve pathways to the motor organs of the mouth which produce sucking movements.

Many dynamics serve the purpose of satisfying the basic needs of the organism. However, there is important dynamism that develops as a result of anxiety. This is called the *dynamics of the self* or the *self-system*. Sullivan, however, saw anxiety as existing only as a result of social interactions. He described techniques, much like defense mechanisms, that provide tools for people to use in order to reduce social anxiety. *Selective inattention* is one such mechanism.

According to Sullivan, mothers show their anxiety about child rearing to their children through various means. The children, having no way to deal with this, feel the anxiety themselves.

Selective inattention is soon learned, and the children begin to ignore or reject the anxiety or any interaction that could produce these uncomfortable feelings. As adults, we use this technique to focus our minds away from stressful situations. This moved Sullivan away from Freud's psychosexual development and toward a more eclectic approach.

The self-system as the guardian of one's security tends to become isolated from the rest of the personality. It excludes information that is incongruous with its present organisation and fails thereby to profit from experience.

Personification: Through social interactions and our selective attention or inattention, we develop what Sullivan called *personification* of ourselves and others.

In other words, personification is a complex of feelings, attitudes and conceptions that grows out of experience with need satisfaction and anxiety. For example, the baby develops a personification of a good mother by being nursed and cared for by her.

These personifications are mental images that allow us to better understand ourselves and the world. There are three basic ways we see ourselves that Sullivan called the *bad-me*, the *good-me* and the *not-me*. The *bad-me* represents those aspects of the self that are considered negative and are therefore hidden from others and possibly even the self.

The *good-me* is everything we like about ourselves. It represents the part of us we share with others and that we often choose to focus on because it produces no anxiety. The final part of us, called the *not-me*, represents all those things that are so anxiety provoking that we can not even consider them as part of us. The *not-me* is kept out of awareness by pushing it deep into the unconscious.

Cognitive process: Sullivan's unique contribution regarding the place of cognition in the affair of personality is threefold classification of experience. He says experience occurs in three modes. These are prototaxic, parataxic and syntaxic. *Prototaxic* experience is the separate series of momentary states of the sensitive organism that is, the raw sensations, image and feeling that flow through the mind of an individual. The prototaxic mode of experience is found in its purest form during the early months of life and is the necessary precondition for the appearance of the other two modes.

The *parataxic* mode of thinking consists of seeing casual relationship between events that occur at about the same time but which are not logically related. All superstitions, for instance, are examples of parataxic thinking.

The third and highest mode of thinking is the *syntaxic* which consists of consensually *validated* symbol activity, especially of a verbal nature. A consensually validated symbol is one which has been agreed upon by a group of people having a standard meaning. Words and numbers are the best examples of such symbols.

In addition to this formulation of the modes of experience Sullivan emphasised the importance of foresight in cognitive functioning. *Foresight* depends upon one's memory of the past and interpretation of the present.

Although dynamisms, personifications and cognitive processes do not complete the list of the constituents of personality yet they are the chief distinguishing structural features of Sullivan's system.

The dynamics of personality: Sullivan, in common with many other personality theorists, conceives of personality as an energy system whose chief work consists of activities that will reduce tension. Sullivan says there is no need to add the term "mental" to either energy or tension since it means same as they are in physics. These terms are explained below.

Tension: Organism is a tension system and absolute tension is exemplified by extreme terror. There are two main sources of tension: tensions that arise from the needs of the organism and tensions that result from anxiety. Tensions can be regarded as needs for particular energy transformations that will remove the tensions, often with an accompanying change of mental state or awareness or insatisfaction.

Energy transformations: Energy is transformed by performing work. Work may be overt actions involving muscles of the body or it may be mental such

as perceiving, remembering and thinking. These overt or covert activities have their goal as to the relief of tension and are to a great extent conditioned by society in which the person is raised.

The similarity between Sullivan's theory and that of Freud's is in the belief that childhood experiences determine to a large degree, the adult personality. And, throughout one's childhood, the mother plays the most significant role. Unlike Freud, however, Sullivan also believed that personality can develop in adolescence and even well into adulthood. He called the stages in his developmental theory *Epochs*. He believed that we pass through these stages in a particular order but the timing of it is dictated by our social environment. Much of the focus in Sullivan's theory revolved around the conflicts of adolescence.

Sullivan acknowledged the importance of heredity in providing certain capacities, chief among which are the capacities for receiving and elaborating experiences. He also accepted the principle that training can be effective only after maturation has laid the structural groundwork.

Sullivan did not believe that personality is set at an early age. According to him, personality may change at any time as new interpersonal situations arise because the human organism is extremely plastic and malleable.

3.5.5 Karen Horney

The most important contribution Karen Horney (1885-1952) made to psychodynamic thought was her disagreements with Freud's view on women.

In many ways, Horney was well ahead of her time and although she died before the feminist movement took hold, she was perhaps the first theorist who changed the way psychology looked at gender differences. She countered Freud's concept of 'penis envy' with what she called *womb envy*, or man's envy of woman's ability to bear children. She argued that men compensate for this inability by striving for achievement and success in other realms.

Horney pointed out that psychoanalysis was created by a male genius, and almost all those who had developed his ideas had been men. It must be realised that Horney's opposition to Freud's assumptions about women created considerable controversy. Infact, she was disqualified as a trained analyst and was eventually expelled from the male dominated psychoanalytic school of thought. As an early feminist, however, Horney did much more than criticised Freud. She set forth her own *theory of feminine psychology*, one that recast the differences between men and women in terms of socio-cultural differences.

Horney insisted that women often feel inferior to men because their lives are based on economic, political and psychological dependency on men. Historically women have been treated as a second class citizen, denied equal right and socialised to overvalue their perceptions of "superior" men. Likewise, they have been enmeshed in male-dominated social systems that constantly make them feel dependent and inadequate. Horney argued that many women do aspire to be more masculine, but not because they lack penises. Rather, she saw women's "overvaluation" of masculinity as motivated by a desire for power and privilege.

Horney also emphasised the role conflicts that many women experience in their relationships with men. In particular, she contrasted the traditional role of marriage and motherhood with a more liberated role of pursuing careers and other goals. She suggested that these contrasting roles accounted for the neurotic needs that some women displayed in their love relationships with men.

Horney's sociocultural view of personality was prompted by three major considerations. First, she rejected Freud's pronouncements regarding women, in particular his notion that penis envy is preordained from the orthodox Freudian point of view. Second, while living in Chicago and New York, Horney exchanged ideas with other prominent figures such as Erich Fromm, Margaret Mead, and Harry Stack Sullivan. They reinforced her conviction that socio-cultural conditions exert a profound impact on individual's development and functioning. Third, Horney's clinical observation of striking differences in personality dynamics between patients seen in Europe and United States confirmed the powerful influence of cultural forces. More specifically, these observations led her to conclude that unique interpersonal conditions of a persons' life are at the core of disturbed personality functioning.

Personality development

Horney agreed with Freud on the importance of childhood experience in shaping adult personality structure and functioning. Horney rejected Freud's claim that there are universal psychosexual stages and that the child's sexual anatomy dictates the course of personality development. Instead, she argued that the social relationship between the child and the parents is the decisive factor in determining personality growth.

According to Horney, childhood is characterised by two needs: the *need for satisfaction* and the *need for safety*. Satisfaction encompasses all of the basic physiological needs – food, water, sleep and so on. Although Horney recognised the importance of satisfying needs for ensuring physical survival yet she did not regard them as having key significance in shaping personality. Instead child's need for safety is essential. The child's fundamental motive in this case is to feel wanted, loved and protected from a hostile world. Horney felt that the child is completely dependent upon the parents in having its safety need met. If the parents show genuine affection and warmth towards the child, thereby satisfying the need for security, healthy personality development will take place. Conversely, if parents act in ways that obstruct the child's need for safety, abnormal personality development is likely to occur. A wide range of parental behaviours may frustrate a child's need for security like indifference, unfair punishment, erratic behaviour, ridicule, unkept promises, overprotection and preference for a sibling. However, the main result of such parental mistreatment is the creation within the child of an attitude of basic hostility. The child is now caught between dependence on the parent and resentment towards them, a conflict which Horney believed brings the defense mechanism of repression into operation.

Unfortunately, the repressed feelings of resentment and hostility caused by the parents do not remain isolated instead they manifest themselves in all other relationships the child has or will have with other people.

Horney stressed the importance of cultural and social influences on personality throughout her work. Although her theory deals far more with neurotic than normal personalities, many of her ideas offer insight into the understanding of individual differences and interpersonal relationships.

Most of us have come in contact with people who seem to successfully irritate or frighten people away with their clinginess, significant lack of self esteem, and even anger and threatening behaviour. According to Horney, these individuals adapted this personality style through a childhood filled with anxiety. Although this way of dealing with others may have been beneficial in their youth but as adults it serves to almost guarantee that their needs will not be met.

She identified three ways of dealing with the world that are formed by an upbringing in a neurotic family: moving toward people, moving against people, and moving away from people.

Moving toward people: Some children who feel a great deal of anxiety and helplessness move toward people in order to seek help and acceptance. They are striving to feel worthy and believe the only way to gain this is through the acceptance of others. These people have an intense need to be liked, involved, given importance, and be appreciated.

Moving against people: Another way to deal with insecurities and anxiety is to try to force your power onto others in the hope of feeling good about yourself. Those with this personality style come across as bossy, demanding, selfish, and even cruel (See Fig 3.5).



Fig. 3.5: According to Horney, the person with personality style 'moving against people' comes across as bossy, demanding, selfish and even cruel.

Moving away from people: The final possible consequence of a neurotic household is a personality style filled with asocial behaviour and an almost indifference to others.

Each of these descriptions represents a basic orientation towards others and oneself. Horney finds in these different orientations the basis for inner conflict. Such conflicts are avoidable or resolvable if the child is raised in a home where there is security, trust, love, respect, tolerance and warmth. Conflict arises out of social conditions. The person who is likely to become neurotic is one who has experienced the culturally determined difficulties in an accentuated form, mostly through the medium of childhood experiences.

In drawing attention to the importance of culture and gender roles, Horney's ideas fit in quite well with the feminist zeitgeist of modern times. The rapid changes in the roles and relationships of the two sexes that are occurring in modern societies would certainly have been welcomed by Horney. Her numerous articles on feminine psychology continue to be cited by investigators today.

3.5.6 Sudhir Kakar's Psychoanalytic Theory

Sudhir Kakar (1938- till date) pointed out that an exploration of the psychological terrain of the Indian inner world must begin with the cluster of ideas, historically derived, selected and refined, through which Hindu culture has traditionally structured the beliefs and behaviour of its members. At the heart of this cluster of governing ideas is a rational, consistent world image in which the goal of human existence, the ways to reach this goal, the errors to be avoided, and the obstacles to be expected along the way are all dramatically conveyed. Kakar is not talking there of Hindu philosophy in the sense of abstract intellectualised concepts accessible only to an elite priesthood of interpreters, but of the regulatory configuration of ideal purposes, values and beliefs which penetrate down into the everyday life of the ordinary people and give it form and meaning.

The world image of traditional Hindu culture, like those of other societies, provides its members with a sanctioned pattern, a template which can be superimposed on the outer world with all its uncertainties and on the flow of inner experience in all its confusion, thus helping individuals to make 'sense' of their own lives.

As posited by Hindu culture, the ultimate aim of existence, the chief *purushartha* ('man's meaning'), is *moksha* or *mukti*. The term *moksha* has been taken to mean self-realisation, transcendence, salvation, a release from worldly involvement, from 'coming' and 'going'. Yet in Hindu philosophy it is also described as the state in which all distinctions between subject and object have been transcended, a direct experience of the fundamental unity of a human being with the infinite.

Kakar states that one of the main difficulties in trying to arrive at a psychological understanding of such states as *moksha* is terminological. The semantic confusion among 'I', 'self', and 'ego', and among their counterparts 'other', 'world', etc. is exaggerated in translation from Sanskrit or from any Indian vernacular to English.

Ego here is to be understood in the psycho-analytic sense. By 'ego' Kakar means the inner agency of the psyche which screens and synthesises the impulses, needs, emotions and memories from within and the impressions, ideas, expectations and opportunities from outside, both of which become part of our consciousness and call for some kind of action.

The individual ego is in a state of constant instability, mediation and exchange between inner and outer, past and present, unconscious and self-conscious, self and society, between the instinctual and the institutional in human life. The ego is unconscious in that one can become aware of its work but not of *it*. The *self*, on the other hand, following Erikson, is preconscious in the sense that it becomes conscious when 'I' reflects upon it, or rather upon the various selves — body, personality, social roles — which make up the composite or whole self. The counter players of the self are 'others', or more precisely, the selves of others. This, of course, leaves one with the problem, more metapsychological than psychological, of the 'I'. For 'I' is neither self, which is the object of 'I', nor ego, a psychic agency. 'I', as Hindus would say, is pure consciousness. *Moksha* can be understood to mean that a person living in this state has an all-pervasive current of 'I'. 'I' as the centre of awareness and existence in all experienced situations and in all possible selves.

In the Hindu ideal, reality is not primarily mediated through the conscious and pre-conscious perceptions, unconscious defenses and logical, rational thought processes that make up the ego; it emanates from the deeper and phylogenetically much older structural layer of personality — the *id*, the mental representative of the organism's instinctual drives. *Reality*, according to Hindu belief, can be apprehended or known only through those archaic, unconscious, preverbal processes of sensing and feeling (like intuition, or what is known as extra-sensory perception) which are thought to be in touch with the fundamental rhythms and harmonies of the universe.

A good reality sense, according to psycho-analysis, shows itself in the absence of a conscious feeling of the self or the various selves. This, however, is precisely the situation which the Hindu ways of liberation would seek to reverse. And if in the course of development, the child learns to differentiate between himself and what is not a part of him, between 'me' and 'not-me' — a process in which the individual's sense of space, time, causality and individuality are formed, and ego boundaries are constituted — in a certain sense the Hindu ways of liberation.

Life Task and Life Cycle – *Dharma*

In the Hindu philosophical tradition, Kakar explains that *dharma* is not only the principle of individual action and social relations but also the ground-plan of an ideal life cycle in the sense that it defines the tasks of different stages of life and the way each stage should be lived. Like modern theories of personality, the Hindu model of *asramadharma* or *dharma* conceptualises human development in a succession of stages. It holds that development proceeds not at a steady pace in a smooth continuum, but in discontinuous steps, with marked changes as the individual moves into each new phase of life. Proper developmental progress requires the meeting and surmounting of the critical task of each phase in the proper sequence and at the proper time.

Essentially, *asramadharma* is the Hindu counterpart of the epigenetic principle applied to man's development in relation to his society and, it is very similar to Erikson's well known theory of psychosocial stages of growth.

Unconscious as Destiny

What prevents the individual from living in *dharma*, separates him from an intuitive understanding of right-action, and thus hinders his progress towards

the destined goal of *moksha*? This is the question the concept of *karma* addresses, thereby completing Hinduism's philosophical response to the fundamental issues of human existence. This question also takes us on a short excursion into the conceptual psychology of ancient Hindus, formalised in various philosophical texts and at the same time constituting a shared pool of intuitive 'common knowledge', a psychology which can legitimately be described as originating in a specific metaphysical need.

Kakar explains that according to Hindu psychological theory, the newborn infant is not a *tabula rasa* but comes equipped, as it were, with a highly personal and individual unconscious characterised by a particular mixture of three fundamental qualities or *gunas* which are *sattva* (clarity, light), *rajas* (passion, desire) and *tamas* (dullness, darkness). In the Hindu idea of destiny the unconscious has an innate tendency to strive towards clarity and light.

Mother and infant

Kakar pointed that the first month of human life is a period of wordless void which is of radical significance for the individual's emotional development. At once timeless and brief, infancy is the foundation for all later psychological experience. Moreover, the nature of an individual's first relationship — with his mother — profoundly influences the quality and 'dynamics' of social relations throughout her on his life.

During the first few months of life, the infant lives in a psychological state which has variously been termed 'undifferentiated', non-differentiated', or 'unintegrated'. At the beginning of life there is no clear and absolute distinction between conscious and unconscious, ego and id, psyche and *soma*, inside and outside, 'I' and what is 'not-I', nor even between the different parts of the body. Only gradually, through constant exchanges with the mothering person, does the infant begin to discriminate and differentiate these opposites which are initially merged, and thus to take his or her first steps on the road to selfhood. The emotional or affective quality of this process of differentiation and inner integration is determined by the vicissitudes of the infant's tie to his or her mother.

There is no comparable period of life in so far as the adaptive learning that takes place in infancy, learning which is mediated almost solely through the mother's instrumentality, and when the mother is the principal caretaker of infants as she is in most cultures.

This emphasis on the mother's significance and power does not mean that the infant is completely helpless or passive in his relationship with her. From the beginning, he too is actively involved — looking, listening and, with the development of manual co-ordination, touching, handling, grasping — in maintaining connection and communication with his mother.

Without her contact and facilitation, the infant's first experiences take place in a psycho-social void, and his development is likely to be severely disturbed.

Psycho-social matrix of infancy: Feminine identity in India

Whether her family is poor or wealthy, whatever her caste, class or region, whether she is a fresh young bride or exhausted by many pregnancies and infancies already, an Indian woman knows that motherhood confers upon her a purpose and identity that nothing else in her culture can. Each infant borne

and nurtured by her safely into childhood, especially if the child is a son, is both a certification and redemption.

At the same time, each individual woman approaches motherhood at her particular crossroads of *desa, kala, srama* and *gunas*, and with her unique constellation of values, expectations, fears and beliefs about the role and the experience of mothering. She meets her new born infant with the emotional resources and limitations of her particular personality; these are the 'matrix' of her child's infancy. Her identity as a Hindu woman has evolved out of the particulars of her life cycle and childhood, out of the dailiness of her relationships as daughter in her parents' family and as wife and daughter-in-law in her husband's family, and out of the universals of the traditional ideals of womanhood absorbed by her from childhood onwards. Whether a particular mother is reserved or responsive to a particular infant, and in what circumstances, depends on a wide range of variables, not the least of which is her ordinal position in her original family (whether she was a first born female or the fourth daughter in a row, or the first little girl after a string of sons...) as well as the sex and ordinal position of the infant who now needs and claims her love and care.

The frank answer is that it is difficult to know, at least as exhaustively and in depth as Kakar would like to. He explained that the reason for this lies in the fact that data, of all kinds, are uneven or unavailable. An anthropological account refers, absolutely or clearly, to the development of boys, and skips the subject of female childhood. Myths, too, are cautious of their reward towards daughters, for in a patriarchal culture myths are inevitably man-made and man-oriented. Addressing as they do the unconscious wishes and fears of men, it is the parent-son rather than the parent-daughter relationship which becomes charged with symbolic significance.

In the first place, for the cultural devaluation of women to be translated into a persistent psychological sense of worthlessness in individual women, parents' and other adults' behaviour and attitudes towards the infant girls in their midst — the actualities of family life — must be fully consistent with this female depreciation. Secondly, the internalisation of low self-esteem also presupposes that girls and women have no sphere of their own, no independent livelihood and activity, no area of family and community responsibility and dominance, no living space apart from that of the men, within which to create and manifest those aspects of feminine identity that derive from intimacy and collaboration with other women. And, in fact, these two circumstances exist in India, to mitigate the discriminations and inequities of patriarchal institutions.

In traditional India, on which Kakar based his writings, every female is born into a well defined community of women within her particular family. Although by no means does it always resound with solidarity and goodwill, the existence of this distinct sphere of femininity and domesticity gives women a substantial opportunity to be productive and lively, to experience autonomy and to exercise power. It also allows a special kind of inviolate feminine privacy and familiar intimacy. Getting along with other women in this sphere, learning the compulsory skills of house holding, cooking and childcare, establishing her place in this primary world: these relationships and these tasks constitute the dailiness of girlhood in India (see Fig. 3.6).



Fig. 3.6: According to Kakar, learning the compulsory skills of householding, establishes a girl's place in this primary world.

Kakar pointed out that the daughter in a Hindu family hardly ever develops an identity of her own. Upon birth, she is seen as a daughter; she is expected to remain chaste and pure; upon reaching marriageable age she may be seen as an economic liability because of the dowry she is expected to take with her to her husband's home. On entering her married home, her status changes. She is seen as a wife, as a daughter-in-law, as a sister-in-law in the new home, and as a mother, a grandmother, and should her husband predecease her, as a widow. She acquires a new persona and is given a new name by which she is addressed in future. The Hindu bride, upon entering her new home – her own feelings notwithstanding – is expected to bury her past, which includes her identity, and start her life with a new identity which is ascribed to her by her husband and her in-laws. Such a staggering metamorphosis serves no biological or evolutionary advantages. On the contrary, it reinforces the defenseless if not 'subjugated' role which she is expected to play after marriage. She appears to have no individual identity other than the changing identities she acquires through reflected role relationships. Her private persona remains submerged within these changing and conflicting identities. Right from birth to death she does not possess an identity of her own. However, it is important to stress that several enlightened parents look upon the birth of a girl as 'a gift of the God' and see it as their sacred duty, which is part of Hindu dharma, to have their daughter(s) handsomely and 'happily' married.

In India the process of ego development takes place according to a model which differs sharply from that of Western psychologists. Indian mothers consistently emphasise the 'good object' in their behaviour. They tend to accede to their children's wishes and inclinations, rather than to try to mould or control them. Thus, Hindu children do not have a gradual, step-by-step experience of the many small frustrations and disappointments which would allow them to recognise a mother's limitations harmlessly, over some time. Rather her original perfection remains untarnished by reality, a part of the iconography of the Hindu inner world. Thus, the detachment from the mother by degrees that is considered essential to the development of a strong, independent ego, since it allows a child almost unnoticeably to take over his

mother's functions in relation to himself, is simply not a feature of early childhood in India. The child's differentiation of himself from his mother (and consequently of the ego from the id) is structurally weaker and comes chronologically later than in the West with this outcome: "The mental processes characteristic of the symbiosis of infancy play a relatively greater role in the personality of the Indian adult".

The process of social change in India during the last one hundred and twenty-five years has been a gradual one, though there are indications of its pace having recently accelerated. It does not imply that all sections of society remained intact by the upheavals of Indian history during the nineteenth and twentieth centuries.

For the large majority of India's people, social change has been gradual and bearable. Most Indians have remained true to the traditional Indian identity in which the maternal cosmos of infancy and early childhood is the inner world.

An important psychological factor related to the social change is the notion of two kinds of reality – absolute and relative, ultimate and worldly – which is firmly and unconsciously embedded in the Hindu psyche. The 'ultimate reality' of the maternal cosmos of infancy is unmistakably held superior to the 'worldly' reality of post-maternal childhood. Glaring economic and social inequalities which are a part of the worldly reality, have the status of *facts* and can never feel as real as the *moksha* ideals which give meaning to the Hindu life cycle and especially old age. However, much concern may be expressed for the problems of worldly reality; the Hindu commitment to this reality cannot be a total one. It is as if there is a core self which, with a fluctuating intensity depending on the individual's stage of life, is always facing the ultimate reality and the maternal cosmos.

A psychological revolutionary situation in India can only come about if large sections of Hindu society question the usefulness, if not the existence, of 'ultimate reality', and firmly reject many of its social and cultural manifestations as vestiges of an archaic, personal and historical past.

Kakar is also intensely aware of the loss that such a rigid adherence to the world of facts implies, namely, the despair of old age, devoid of meaning, the shadowy underside of all societies which have accepted the verifiable world of facts as the only *really real* image of the world. Yet without a more equitable balance between different kinds of reality and without an integration of the material and the instinctual with the 'spiritual', Hindu culture may soon find itself entrapped in a field of critical environmental stresses. Like many other cultures which have lopsidedly overdeveloped only a part of man's nature and stressed only a part of his life experience, Hindu culture too may be caught up in contradictions and dead ends. This would indeed be a great loss since the many insights to be gleaned from the nature of traditional Hindu childhood and society are of vital importance for mankind's present position and its radical need for a holistic approach to man's nature.

Check Your Progress: Exercise 4

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) What is social interest in Adler's individual psychology?

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2) What do you understand by fictional goals?

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3) Describe briefly collective unconscious.

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4) How will you describe individuation?

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5) What is the fundamental need of the child according to Horney?

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6) What do you mean by personification?

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7) List the ways, according to Sullivan, through which individuals adapt to deal with anxiety.

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- 8) What is the ultimate aim of existence in Hindu culture?

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- 9) What are the qualities, according to Kakar, that a newborn infant possesses?

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3.6 LET US SUM UP

In this Unit we have studied that the psychoanalytic approach to personality is most often associated with Sigmund Freud. Psychoanalytic theory stresses the unconscious determinants of behaviour. Freud's psychic structure includes the id, ego, and superego. The id operates according to the pleasure principle. The ego operates according to the reality principle. The superego represents the moralistic values of society. Freud describes three types of anxiety: reality, neurotic, and moral. Rational means of dealing with anxiety are called defense mechanisms. The most crucial defense mechanism is repression. Freud lists four psychosexual stages of development: oral, anal, phallic and genital. According to Freud, most of one's adult personality is determined during the first five years of life.

We also discussed the theory of Erik Erikson which is called psychosocial theory. Erikson emphasised the importance of understanding personality against the background of social and historical forces and developmental change throughout the life cycle. Erikson regards the ego as an autonomous personality structure and focused on ego qualities that emerge at various developmental periods. There are eight psychosocial stages that characterise the human life cycle and each is marked by a particular kind of crisis or turning point in the person's life. The eight stages, depicted in terms of the essential psychosocial conflicts associated with each, are (1) basic trust *versus* mistrust, (2) autonomy *versus* shame and doubt, (3) initiative *versus* guilt, (4) industry *versus* inferiority, (5) ego identity *versus* role confusion (6) intimacy *versus* isolation (7) generativity *versus* stagnation, and (8) ego integrity *versus* despair. Further, we have learnt that the individual's personality is determined by the resolution of these conflicts.

The theory of Carl Jung is called Analytical psychology. Jung deemphasised the importance of sexual instincts and the abnormal aspects of the personality. Jung maintained that the personality or psyche contains life-process energy which operates according to the principles of equivalence and entropy. Jung's psychic structure includes the conscious ego, personal unconscious, and collective unconscious. Jung's personal unconscious includes experiences that are grouped into clusters called complexes. The collective unconscious contains archetypes that determine one's behavioural tendencies. The centre of the personality for Jung is the self archetype which provides the personality with a

sense of unity and harmony. Jung hypothesised that each personality was dominated by a basic attitude which was either introversion or extraversion.

We also studied the theory of Alfred Adler which is called Individual psychology. Adler's theory focuses upon social rather than biological motives. The approach of Adler is largely contained within six concepts: fictional finalism, striving for superiority, inferiority feelings, social interest, style of life, and creative self. In his later writings, Adler claimed that striving for superiority was the goal of mankind. Social interest is a society wide striving for superiority. Each person has a unique style of life that is determined by the creative self. Adler believed that one's personality is affected by birth order.

We have studied the theory given by Erich Fromm. Fromm postulated that human being basically feels isolated. The goal of each person, according to him, is to find meaning for his existence. He identified five basic needs: relatedness, transcendence, rootedness, identity, and frame or orientation and devotion. He named the optimal society as Humanistic Communitarian Society. He stated that each person could relate to the world through dominance, submission, or cooperation. He labeled the constitutional determinants of behaviour as temperament. Culturally related motivations to experience the world in given ways are placed under the heading of character by Fromm. Fromm's basic character types of orientations are receptive, exploitative, hoarding, marketing and productive. Then we read Sullivan's theory on Psychoanalysis. He gave the principal processes as dynamics, personifications and cognitive processes. He did a lot of work on adolescents. He also acknowledged the importance of hereditary in personality development.

Then we studied Karen Harney's theory on Psychanalysis. Her most important contribution was that she countered Freud's concept of penis envy with her concept of womb envy. It is the man's envy of a woman's ability to give birth, which then men compensate by achievement and success in other realms.

In the end of this Unit, Sudhir Kakar's psychoanalytic theory was presented. It is a study of childhood and society with special reference to India. Kakar described *moksha* or liberation as ultimate aim of existence.

3.7 GLOSSARY

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|------------------------------|---|--|
| Anal stage | : | The second stage of psychosexual development during which bowel control is achieved and pleasure is focussed on the expulsion or retention of faeces. |
| Analytical psychology | : | Jung's unique brand of psychology that emphasises the complex interplay between oppositional forces within the psyche and the ways in which these internal conflicts affect personality development. |
| Archetype | : | Universal theme or symbol that can be activated by forces operating in the psyche, thereby generating visions that are projected into current experiences. |

Basic trust	:	The inner feeling that one's social world is a safe and stable place and that caring others and nurturing are reliable.
Complex	:	Collection of thoughts united by a common feeling.
Conscience	:	A psychoanalytic term that refers to the individual's capacity for punitive self-evaluation, moral prohibitions, and guilt feelings when an individual fails to live up to internalised standards of perfection.
Catharsis	:	Therapeutic procedure whereby patient alleviates anxiety and symptoms by talking about them.
Defense mechanism	:	The process whereby the individual distorts reality so as to reduce or eliminate anxiety and other unpleasant feelings.
Epigenetic principle	:	The assumption that human development proceeds in terms of a series of invariant stages that are universal to humanity and is the result of an ongoing, bidirectional interchange between heredity and environment.
Fictional finalism	:	Term used by Adler to convey the notion that human behaviour is guided by imagined or fictional goals that can be neither tested nor confirmed against reality.
Fidelity	:	The psychosocial virtue ensuing from a sense of ego identity that enables a young person to perceive and act in terms of an ideology despite its contradictions and limitations.
Identity crisis	:	In Erikson's theory, a period of time during which a young person struggles with such questions as "Who am I?" and "Where am I going?" The young person plagued by an identity crisis often lacks a clear idea of his or her social roles and assumes whatever role that seems appropriate to a given situation.
Industry	:	According to Erikson, corresponding to the school age, learning new skills and completing tasks on one's own.
Inferiority complex	:	Deep pervasive feeling that one is inferior to other people. It is often associated with faulty attitudes and behaviours.
Instinct	:	An innate bodily state of excitation that seeks expression and tension release. For Freud, mental representations of innate bodily excitations are reflected in the form of wishes.

Initiative	:	Associated with the play age, reflects an active interest in work of others, trying out new things, and the inner sense that one is able to undertake activities.
Intimacy	:	Associated with young adulthood it includes sexuality, deep relationships with others, and a commitment to one's fellow beings.
Psyche	:	For Jung, a construct that was postulated to represent all of the interacting systems within human personality that were needed to account for the mental life and behaviour of the person.
Separation anxiety	:	Fear of being separated from the caregiver, a form of anxiety that usually manifests itself in children between the ages of 7 to 30 months. Separation anxiety usually is strongest at 18 months of age.
Stagnation	:	A state of self-absorption in which only the individual's personal needs are of central concern.
Theory	:	A set of rules or assumptions used to predict or explain phenomena.

3.8 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

- 1) Theory: Theorising is a process of systematically formulating and organising ideas to understand a particular phenomenon. A theory is a set of interconnected ideas that emerge from this process. It is a set of systematically related proposition that is empirically testable.
- 2) The functions of a theory are:
 - i) Accumulation,
 - ii) Precision,
 - iii) Guidance,
 - iv) Connectedness,
 - v) Interpretation,
 - vi) Prediction, and
 - vii) Explanation.

Check Your Progress Exercise 2

- 1) The three components of personality are id, ego and superego.
- 2) The function of defense mechanisms is to repress or push the threatening impulses out of awareness.

- 3) Psychosexual development is a biologically determined sequence, invariant in its order of unfolding, and characteristic of all persons regardless of their cultural heritage.
- 4) Freud describes four stages in the course of personality development that are, oral, anal, phallic and genital, and period of latency has been added through not as stage.

Check Your Progress Exercise 3

- 1) Children develop a sense of industry when they learn the rudimentary skills of the culture through attending school and overcome the feeling of inferiority when they develop confidence in their skill.
- 2) Identity crisis is a period of time during which a young person struggles with a clear idea of his social roles that is personal identity.
- 3) Integrity is acquired from the individual's ability to look back on life in full perspective and feel satisfied.

Check Your Progress Exercise 4

- 1) Social interest is feeling of empathy for others and the larger socio-cultural context in which we live.
- 2) Fictional goals are beliefs that exert powerful influence on lives of people which cannot be tested or confirmed against reality.
- 3) Collective unconscious contains primitive images which are the reflections of the history of our species.
- 4) Individuation is the process of realisation of self by which individual seeks to integrate many opposing forces in the psyche.
- 5) The fundamental need of the child according to Horney is need for safety.
- 6) Personification is a complex of feelings, attitudes and conceptions that grows out of experiences that allow us to better understand ourselves and the world.
- 7) There are three ways people deal with anxiety, that Sullivan called 'bad-me', 'good-me' and 'not-me'.
- 8) The ultimate aim of existence in Hindu culture is 'moksha' which means release from the worldly involvement.
- 9) The newborn infant comes equipped with 'gunas' that are, 'sattva', 'rajas' and 'tamas'.

3.9 UNIT END QUESTIONS

- 1) Discuss some of the examples of defense mechanisms you use in day-to-day life.
- 2) Critically analyse the psychosocial stages given by Erik Erikson.
- 3) How are the neo-Freudian theories different from Freud's theory? Please discuss each theory.

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UNIT 4 COGNITIVE, LEARNING AND INTELLIGENCE THEORIES

Structure

- 4.1 Introduction
- 4.2 Cognitive Theories
 - 4.2.1 Piaget's Cognitive Development Theory
 - 4.2.2 Vygotsky's Social Cognitive Theory
 - 4.2.3 The Constructive Theory
 - 4.2.4 Information Processing Theory
- 4.3 The Learning Theories
 - 4.3.1 Theories of Connectionism
 - 4.3.2 Trial and Error Learning Theory
 - 4.3.3 Theories of Learning by Conditioning
- 4.4 Social Learning Theory
 - 4.4.1 Theory
 - 4.4.2 Concepts
 - 4.4.3 Basic Potentials of Child Development
 - 4.4.4 Applications
- 4.5 Theories of Intelligence
 - 4.5.1 Theory of Multiple Intelligence
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- 4.7 Glossary
- 4.8 Answers to Check Your Progress Exercises
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- 4.10 Further Readings and References

4.1 INTRODUCTION

In this Unit, we will study about the theories of cognition, learning and intelligence which are proposed by different psychologists and scientists. Before starting the discussion about theories related to these aspects, let us discuss the meaning of cognition. The term cognition originated from the Latin word "*cognoscere*" which means "to recognise" or "to know", hence we can say that cognition is a process of utilising information and attaining knowledge. In this Unit, we will study theories of cognition given by Jean Piaget, Vygotsky, Bruner and Information processing theory in detail.

Further, we will discuss about learning. Learning can be defined as a permanent change in behaviour due to an experience. It can also be defined as acquiring new knowledge, skills or values that leads to change in one's behaviour. Learning may be goal-oriented and/or due to motivation. One may learn things consciously or it may occur without conscious awareness. In this Unit, we will discuss some of the important learning theories such as theories of connectionism, trial and error theory, and theories of learning by conditioning

and along with these theories we will also discuss the importance of social learning theory by Albert Bandura.

In the later part of this Unit, we will study about the two important theories of intelligence, that is, theory of multiple intelligence by Howard Gardner and triarchic theory by Sternberg. The word intelligence derives from the Latin word “*intellegere*” that means “to understand”. Intelligence is defined by the American Psychological Association as the attempts to clarify and organise the complex set of phenomena (Perloff, *et al* 1996). Another definition of intelligence by Mainstream Science on intelligence said that intelligence is a general mental capability which includes the abilities to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly and learn from experiences (Gottfredson, 1997). Hence we can say that intelligence is the ability to learn whether formally or informally and solve problems.

Objectives

After studying this Unit, you will be able to:

- Explain cognitive development in human beings;
- Understand the view points of various theories on learning;
- Discuss the social learning theory in detail; and
- Describe different types of intelligence.

4.2 COGNITIVE THEORIES

Many psychologists who are working on a cognitive perspective focus on children's mental processes. They investigate the ways in which children perceive and mentally represent the world, how they develop thoughts and logic, how they develop the ability to solve problems.

In this section, we will discuss some important theoretical approaches to cognitive development. Firstly, we will study the theory of cognition proposed by Jean Piaget. After that we will review the social learning theory by Lev Vygotsky and constructive theory given by Bruner. Lastly, we will study information processing theory. All these theories share a strong focus on how children think, development of problem solving process and how such cognitive activities contribute to overall process of child development.

4.2.1 Piaget's Cognitive Development Theory

Swiss cognitive theorist Jean Piaget (1896-1980) was concerned about how children form concepts or mental representation of the world. How can they manipulate their concepts in order to plan changes in their internal world? Piaget believed that children's thinking developed in a series of increasingly complex stages, each of which incorporates and revises those that precede it. Below, we will discuss this theory in detail.

Basic concepts

Let us study the basic concepts of cognitive development theory. Piaget used concepts such as schema, mental representation, adaptation, assimilation, accommodation, equilibration and organisation and then tied them together to explain cognitive development. The basic concepts of Piaget's theory are:

- 1) **Schema:** According to Piaget, schema is a specific psychological structure or an organised way of making sense of experience. It can also be defined as a pattern of action or a mental structure that is involved in acquiring or organising knowledge. According to Piaget, the schema in infants is a pattern of actions, such as sucking, grasping, eating, holding and throwing. After the age of two a child's schema may include objects as well as actions. A child forms schema through exploration and experience. By using schema, the child learns to identify objects, predict events, plan actions and pattern behaviour.
- 2) **Mental representation:** Mental representation is an internal interpretation of information. According to Piaget, around two years of age the infant starts thinking before acting. The two most important mental representations are (i) *images*, which can be defined as mental pictures of objects, people, and space; and (ii) *concepts*, that mean categorising similar objects or events together. For instance, we can retrace our steps when we misplaced our watch only by using mental image or one can copy another's behaviour long after one has observed it.
- 3) **Adaptation:** Adaptation is a process of building schema through direct interaction with the environment (Berk, 2002). According to Piaget, adapting to the environment is a biological tendency found in all organisms. It involves two complementary processes, that are assimilation and accommodation which occur throughout the life span of an individual.
- 4) **Assimilation:** Assimilation is the process by which new objects or events are interpreted according to the existing schema. It is a way of organising knowledge. For example, a preschooler sees a 'truck' and calls it a 'car' as the concept of a car is already well established in her or his thinking. But the other preschooler may correctly use the concept of vehicles and say it is a truck. The teenager may act very politely towards an elderly person because of the schema developed by past experiences with one's own grand parents. In all these cases, the children are responding to the present in terms of past.
- 5) **Accommodation:** In this process an individual modifies old schema and makes new schema which constitute a better fit with the environment. As sometimes some objects or events cannot be made to fit or in other words we can say cannot be assimilated into already existing schema.

In accommodation, a child changes existing schema or ways of thinking, when faced with new ideas or instruction in which the old schema does not work. Instead of calling a truck by the wrong name, the preschooler searches for a new name and begins to realise that some four wheeler objects are not cars.

While assimilation is a 'taking-in' process, accommodation is an 'outgoing' process. The infants learn by reaching out into their environment and changing their action to accommodate a new object.

- 6) **Equilibration:** Piaget theorised that when children can assimilate new events to existing schema they are in a state of cognitive harmony or equilibrium. When something that does not fit in existing schema, their state of equilibrium is disturbed and they may try to accommodate to it.

During this time of rapid cognitive change, children are in a state of disequilibrium. Once they modify their schema accordingly, they shift back to assimilation. This back-and-forth movement between equilibrium and disequilibrium is known as equilibration. Whenever equilibration occurs, there is a chance that better schema are created.

- 7) **Organisation:** Organisation is the process that takes place internally to change the schema instead of any direct role of the environment. Children arrange the existing schema and create new schema by linking them together and in this way they develop cognitive systems.

Piaget's Stages of Cognitive Development

Jean Piaget hypothesised that children's cognitive process develop in an orderly sequence or series of stages. As in the case of motor development, some children may be more advanced than others at particular ages but the development sequence does not normally vary. Similarly, the cognitive development may be faster in some children than others but it follows the same sequence. Piaget identified four major stages of cognitive development. These are:

1) The Sensorimotor Stage (Birth to two years)

The sensorimotor stage begins with inborn reflexes and simple actions that help infant to meet her or his needs. Piaget believed that the child develops the schema of actions first and later the schema of objects.

During this stage, the infant interacts with and adapts to her or his physical and social world by means of assimilation and accommodation. There are very simple and limited number of schema at initial stage, so the child unites these schema so as to make them more complex and large in number. At first an infant's "thoughts" and "ideas" are based completely on experience of the world through the five senses, that is, touch, smell, taste, sight and hearing (sensory experience) and direct physical involvement with objects (motor experience). That is why it is known as sensorimotor stage. Piaget divided this stage further into six sub-stages, which are:

- 1) *Reflexive schemes (Birth to one month):* Piaget regarded the newborn, reflexes as the building blocks of sensorimotor intelligence. At first infants suck, grasp, and look in much the same way, irrespective of the experience they encounter.
- 2) *Primary circular reactions (1 to 4 months):* In this sub-stage, infants start to gain voluntary control over their actions by repeating chance behaviours which are largely motivated by the basic needs. They begin to vary their behaviour differently for hunger and for uneasiness. But these actions are centered on their own body. It is also believed that the baby makes effort to imitate others.
- 3) *Secondary circular reactions (4 to 8 months):* In this sub-stage, infants try to repeat attractive effects in the surrounding world that are caused by their own action. They start imitating the familiar behaviour which they see in their near surroundings.



Fig. 4.1: According to Piaget, the infants of 4 to 8 months of age try to repeat attractive effects in their near surroundings, which are caused by their own action.

- 4) *Co-ordination of secondary circular reaction (8 to 12 months)*: In this sub-stage, infants combine old schema into new and more complex actions, so that they can engage in intentional, planned or goal-oriented behaviour. The concept of object permanence also appears in this sub-stage that is, infants know that although an object is out of sight, yet it still exists. Infants have an ability to find a hidden object in the first location in which it is hidden.
- 5) *Tertiary circular reactions (12 to 18 months)*: In this sub-stage, infants repeat behaviours with variation, provoking new outcomes. For example, a child hits the drum with a stick, then hits a block with the same stick and then hits the table, so as to enjoy different sounds. The concept of *A-not-B search* becomes accurate that is, toddlers look in not just one but several locations to find a hidden object.
- 6) *Mental representation (18 months to 2 years)*: In this sub-stage, sensorimotor development works with mental representation. Due to this, the infants become capable of solving advanced *object-permanence problems* that is, finding a moved object while out of sight. It also permits *deferred imitation*, that is, the ability to remember and copy the behaviour of persons who are not present. Infants are now involved in *make believe play*, in which children act out imaginary activities or behaviour.

2) The Pre-operational Stage (Two to seven years)

During the pre-operational stage, there is a major shift from the action-oriented schema of the sensorimotor period to schema based on the use of language and other forms of symbolic representation. In this stage, children's thinking begins to follow certain predictable logical operations or rules, but they are not fully mastered. They also begin to develop the ability to figure out things or solve problems with words as well as with actions.

Pre-operational children experiment with symbols to represent the world in several ways. One manifestation is *deferred imitation*. For example, three year old Priya hears her dog barking one morning. She does not respond to it then, but later in the afternoon she wrinkles her face and says, "Woof-woof woof-woof"! *Symbolic thinking* during this stage is also obvious in children's dramatic

play in which they try out the roles and behaviour of their parents and other important people, for example in playing 'house', a girl child plays the role of her mother and a boy plays the role of father.

The advancement in thinking emerges due to the incredible development of language and mental activity that occurs between the age of two to seven years. However, Piaget felt that there are still major differences between a child's thinking at this age and the mental functioning of an adult.

The most important limitation of preoperational thinking is *egocentrism*. Piaget believed that children mentally represent the world by focusing on their own viewpoint and do not know the other's perspective.

It results in *animistic thinking*, that is, the belief that non-living things have life like qualities similar to living things.

The other limitation of this stage is the *inability to conserve*, that is children of this stage have no idea that physical characteristics of objects do not change, even when their appearance changes.

Another illogical feature of this stage is *irreversibility*, that is children of this stage cannot mentally go through a series of steps during any process and then, return to the starting point by following steps in reverse direction.

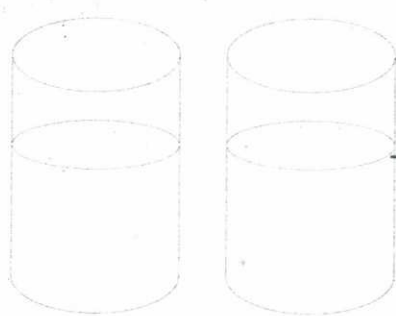
Let us consider an example. A child is shown two same size glasses full of water. The water from one glass is transferred to another broader but shorter glass. The whole process takes place in front of the child. On asking which glass has more water, the child in pre-operational stage will point towards tall and narrow glass (see Fig. 4.2). But a child who has mastered concrete operations will know that despite the change in size of glass, both the glasses still contain the same quantity of water.



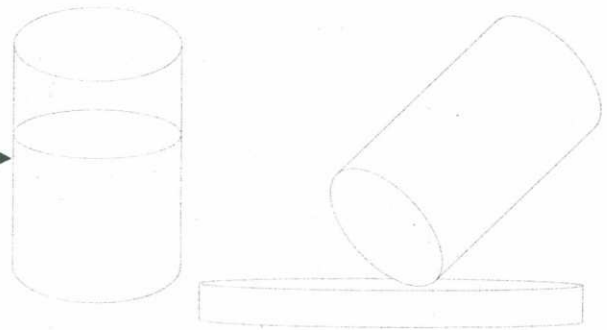
Fig. 4.2: Child in pre-operational stage of cognitive development points to the glass full of water; when asked which glass contains more water.

The conservation tasks given by Piaget are mastered by children in concrete operational stage (Fig. 4.3), whereas pre-operational stage children are not able to conserve either mass, weight, length or liquid.

1) Task on Liquid

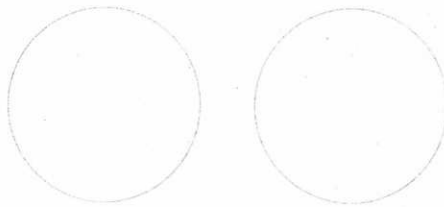


Two glasses having same amount of liquid.



Liquid from one glass is transferred into patridish. Now, is their same amount of water, or does one have more?

2) Task on Mass



Two clay balls having same size

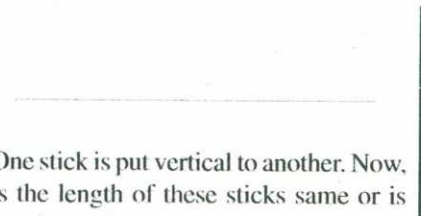


One ball is rolled in cylindrical shape. Now, is the amount of clay same?

3) Task on length

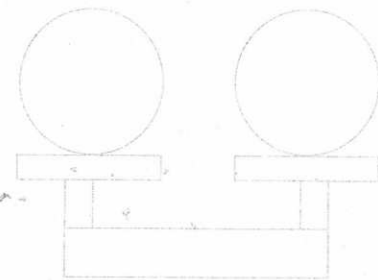


Two sticks of same length put parallel to each other

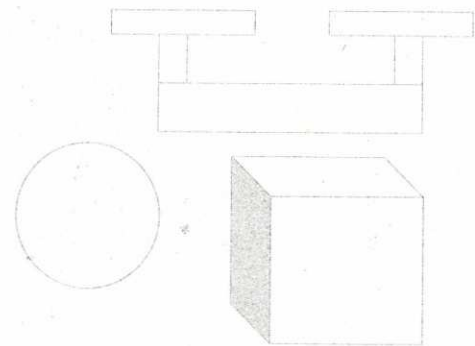


One stick is put vertical to another. Now, is the length of these sticks same or is one longer?

4) Task on weight



Two balls of clays with same weight



One ball is reshaped in cube, now are the weights of these two shapes same?

Fig. 4.3: Piagetian conservation tasks.

3) The Concrete Operational Stage (Seven to eleven years)

After children become skillful at making representations, they begin learning how to co-ordinate them logically. As they do so, they enter the concrete operational stage. According to Piaget, *operations* are logical relationships among concepts or schemas. During this stage, children are able to use logical relationships for the first time. This new ability, however, is largely limited to objects and events that are real, tangible and concrete.

The changes in thinking associated with the concrete operational stage have been illustrated in the above sub-section. At this stage, children are able to conserve and serialise. Their mental processes now reflect reversibility.

4) The Formal Operational Stage (Eleven years and older)

During adolescence, children learn to think logically, abstractly, hypothetically and scientifically to the point, when they enter the formal operational stage. They are able to perform operations on operations and to solve problems that require them to systematically consider all possible alternatives whether real or hypothetical. They are also able to think about their own thinking. These new intellectual capacities allow them to think about complex and abstract issues such as morality, politics, economics and religion that are central to the development of an adult identity. The main features of formal operational stage are:

- i) **Hypothetico-deductive reasoning:** It is basically a problem solving strategy used by adolescents or children at formal operational stage. According to this, children are capable of thinking all the possible solutions of a problem. They test all the possible solutions mentally and select the best solution for a particular problem, whereas children at concrete operational stage are unable to think about the alternatives of solution of a particular problem.
- ii) **Abstract thinking:** The other main characteristic of formal operational stage is abstract thinking or propositional thought. According to this, adolescents are able to evaluate the logic of verbal statements without referring to the actual circumstances (Berk, 2002). This ability further leads to two main characteristics of adolescents, that are:
 - a) **Imaginary audience:** According to Piaget, adolescents at this stage are very conscious about their physical appearance. They think as if they are always on stage, and their each and every activity is noticed by others. So they become very self-conscious and spend hours in front of the mirror. The adolescents are very sensitive about the comments given by others on their physical appearance and sometimes it can be mortifying.
 - b) **Personal fable:** Adolescents at this stage are very sure that people are observing and thinking about them only and therefore adolescents start thinking that they are special and unique. They start thinking more about themselves in the context with others. This leads to egocentrism.

The feeling of imaginary audience and personal fable starts during the transition from concrete to formal operational stage. But it disappears as the adolescents proceed further in this stage.

Application

Piaget's theory has been applied to teaching practice and curriculum design in education especially at elementary level. This theory suggests some specific recommendations for a given stage. For example, mother of children in sensorimotor stage should provide a stimulating environment with suitable objects to play with, whereas learning activities of children at the pre-operational stage should not include problems of classification, ordering, location, and conservation. Further the theory suggested some principles, that are:

- 1) Explanation of the reality should be according to the cognitive development stage of the child.
- 2) Children should engage in such activities and situations that require adaptation (that is, assimilation and accommodation).
- 3) Learning materials and activities should be according to the motor and mental development of children (see Fig. 4.4). Children should not be asked to perform tasks that are beyond their cognitive abilities.
- 4) Such teaching methods should be used which actively involve children and are challenges at their stage.



Fig. 4.4: According to Piaget, learning material and activities should be according to the motor and mental development of the child.

4.2.2 Vygotsky's Social Cognitive Theory

The Russian psychologist Lev Vygotsky (1896-1934) had proposed the social cognitive theory. It states how culture (the values, beliefs, customs and skills) of a social group is transmitted to the next generation of that group. According to the theory, social interaction especially interaction between the children and adult members of the society is necessary for children to acquire the ways of thinking and behaving that make up a community's culture.



Fig. 4.5: According to social cognitive theory, interaction between child and caring adult is important for the cognitive development of the child.

Vygotsky believed that as adults and more expert peers help children to master culturally meaningful activities, the communication between them becomes a part of children's thinking. Children use this communication with in them to guide their own thoughts, actions and acquire new skills (Berk, 2002). Vygotsky's theory was influenced by the study of children's cognition by Jean Piaget. He agreed with Piaget that children are active and constructive beings, but he viewed cognitive development as a *socially mediated process* as it depends on the support of others, which is provided by the adults or peers of the social group.

Another important concept of social cognitive theory is 'Zone of proximal development (ZPD)'. *Zone of proximal development* means a level of development attained by children by engaging themselves in social behaviour. Lev Vygotsky believed that the potential for cognitive development depends upon the Zone of Proximal Development. The development of ZPD of individual depends upon social interaction of that person with his or her social group. Hence, we can also say that adults and more skilled peers can help the child to complete the task which she or he cannot do alone.



Fig. 4.6: According to Vygotsky, learning should be planned according to ZPD of the child. It is facilitated by explanation, demonstration and verbal prompts.

Vygotsky said that children guided themselves by speaking to themselves. He believed that language acts as foundation for all the higher cognitive processes like problem solving, planning, categorisation, classification, reasoning etc. He termed the speech of self as '*private speech*'. Children use private speech to regulate their own thoughts and behaviour.

Application

The theory of social cognition can be applied in following ways:

- A) According to this theory, social interaction is the base of cognitive development. Hence, two important points should be kept in mind to enhance social interaction, that are:
 - i) *Inter-subjectivity*: Inter-subjectivity is defined by Newson and Newson (1975) as "processes where by two participants that begin a task with different understandings arrive at a shared understanding". Also we can say that inter-subjectivity is a shared understanding among two or more individuals whose interaction is based on common

interest and assumption (Rogoff, 1990) and later these dialogues become internalised and become the basis of internal speech.

- ii) The next feature to improve social interaction is *scaffolding*. Scaffolding can be defined as changing the quality of aids and assistance during the process of learning.
 - iii) Another important feature is guided participation. *Guided participation* is much more than simple scaffolding. In this process adult supports the children's effort by providing them diverse opportunities to learn instead of giving instruction.
- B) The theory of social cognition helps educationists as it emphasises the importance of social context and interaction. According to Vygotsky, teachers should plan the learning process according to ZPD of each child and learning should be facilitated by explanations, demonstrations and verbal prompts. *Co-operative learning* is an important application of this theory as children can teach and help one another according to their abilities.

4.2.3 The Constructive Theory

The Constructive theory was proposed by an American psychologist named Jerome Seymour Bruner (1915-till date). Bruner's work on cognitive psychology and his cognitive learning theory was influenced by the theoretical research of Jean Piaget and Lev Vygotsky. This theory states that learning is an active process during which transformation of information takes place. In this process, persons construct new concepts on the basis of their existing concepts.

Bruner supports the idea of categorisation. He said that human beings understand the concept in terms of its differences or similarities. They form a hierarchical arrangement of related categories. According to him, people have two basic modes of thinking that are, the narrative mode and the paradigmatic mode. In *narrative thinking*, people's thoughts are in sequence, detail driven and action oriented where as *paradigmatic thinking* is logical and scientific. Bruner (1986) said that paradigmatic thoughts make use of procedures, to assure verified references and to test for empirical truth.

According to this theory, there are three modes of representation, which are as follows:

- i) **Enactive representation:** Enactive mode of representation is action based, that is, knowledge is acquired through motor responses. For example, one can understand a thing more easily if it is demonstrated and done by one's own hands instead of verbal description.
- ii) **Iconic representation:** Iconic mode of representation is more image based, that is, knowledge is acquired through visual images or responses. For example, people can better understand some data if it is represented in graphic form, or a diagram of digestive system helps students to understand better instead of simple text.
- iii) **Symbolic representation:** Symbolic mode of representation is language based, that is knowledge is acquired through symbols like words, letters, numbers etc. For example, 5×4 is easy to understand instead of saying five times four.

Bruner's constructive theory can be applied and utilised in different instructional situations, such as:

- i) Instructions should be related to the existing concepts and experience of the learner, so that learner will be motivated to learn.
- ii) Instructions should be organised in such a manner that student can easily understand.

4.2.4 Information Processing Theory

Information processing is an approach that views the human mind as a 'symbol-manipulating system' through which information flows and that regards cognitive development as a continuous process (Berk, 2002). Information processing theory focuses on the precise detailed features or steps involved in mental activities. Like a computer, the mind is viewed as having distinct parts that make unique contribution to thinking in a specific order. In the human mind a number of other functions occur between the input (stimulus) and output (response). These include storage and processing which can be identified as parts of human thoughts.

Store model of information processing:

Store model is a model of mental functioning that views information as being held in three parts of the mental system for processing: the sensory register; working or short term memory; and long-term memory. The information is processed at a different speed in each part. The sensory register and working memory has limited space for memory storage. They can hold only a certain amount of information for a short time whereas in long term memory information is stored permanently (see Fig. 4.7).

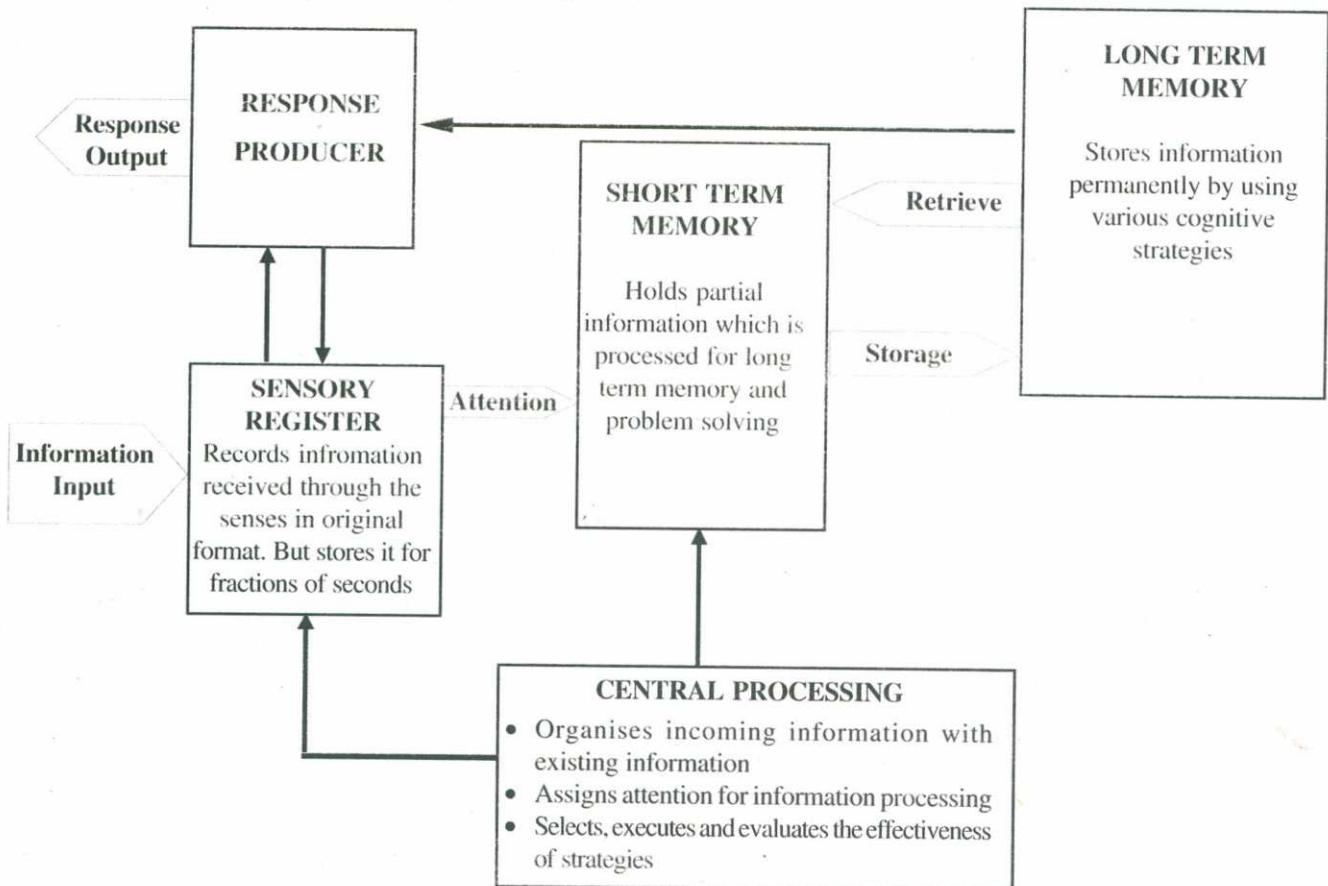


Fig. 4.7: Store model of information processing.

Components of store model

Sensory register: Figure 4.7 shows store model of information processing of human thinking. According to this model, when persons try to solve a problem they first take in information from their environment through their senses. The information gained in this way is held briefly in the 'sensory register' – the first memory store. The sensory register records information exactly as it originally receives, but the information fades or disappears within a fraction of a second unless the person processes it further.

Short term memory: Information to which a person pays special attention is transferred to 'short term memory'; the second memory store. The short term memory corresponds roughly to "momentary awareness" or whatever the person is thinking about at a particular instant. The short term memory can hold only limited amount of information, in fact only about seven pieces of it at any one time. After about twenty seconds, information in short term memory is either forgotten or processed further so that it moves into long term memory.

Long term memory: Information can be stored permanently in long term memory (LTM), the third memory store. But doing so requires various cognitive strategies such as wheeling information repeatedly or organising it into familiar categories. Unlike short term memory, long term memory probably has unlimited capacity for storage of new information. The problem comes in retrieving information or to recall something. But most of us can remember certain events that occurred long ago better than many more recent events.

The information processing model provides a useful way of understanding thinking. There are certain processing functions that change as children grow older. As children grow older, they experience several cognitive changes that allow them to process more information, more efficiently and comprehensively.

Check Your Progress Exercise 1

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) List down the basic concepts of Piaget's cognitive development theory.

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2) What are the limitations of pre-operational stage of Piaget's cognitive development theory?

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- 3) Describe the components of information processing model briefly.

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- 4) How is Vygotsky's approach to cognitive development different from Piaget's?

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4.3 THE LEARNING THEORIES

To understand how learning takes place, various explanations have been proposed by a number of scientists and psychologists. Each theory emphasises one or another aspect of the learning process and is therefore helpful in explaining it. Learning theories not only explain the learning process but they also explain the way the mind develops and how personality is formed. Hence, knowledge of these theories provides useful insights into how human beings learn and why they behave as they do. Learning is generally defined as a relatively permanent change in observable behaviour that results from experience. In this section, we will discuss some important theories of learning.

4.3.1 Theories of Connectionism

In these theories, learning is described in terms of connections that occur in different situations. These theories emphasised more on association which leads to learning. They believed that to learn something the bond should be established between two or more experiences, so that the second experience tend to connect to the first one.

4.3.2 Trial and Error Learning Theory

The trial and error learning theory was postulated by Thorndike (1874-1949) in 1932. As he was working on cats, he found that the smell of fish motivated the cat to get out of the puzzle box. In this process, the cat made all kinds of movements – jumping, biting at the bars, scratching at the door and so on. During this process, by chance the cat put its paw at the latch and got out of the box. Again when the cat was put into the puzzle box, it was seen that it took less time to come out, that is, the cat made the correct movement in comparatively less time than earlier. Now the cat understood the technique to open the puzzle box and it opened the box as soon as it was put in that box. In this way the cat had learned to open the box.

According to Thorndike, various random movements of getting out of the box, led to this type of learning. He called these movements as trial and error movements, which also include one correct movement that results in opening the puzzle box. Every movement has some effect, but if it is not the desired one the connection is weakened. The connection is only strengthened if the action leads to the desired result. This is called learning, that is, strengthening of the connection of the response or set of responses made as trial. The sequence which is usually used in trial and error method is, firstly the various random activities, then movements which are not useful are discarded and lastly the movement that leads to the desired result is selected and learned.

Application

Thorndike suggested three laws of learning, which are

- 1) *Law of effect*: It states that if any particular action gives the desired result and leads to satisfaction then there is a tendency to establish that activity and get it fixed, but if that activity does not yield the desired result it generates the feeling of dissatisfaction and lead towards the discarding of that particular activity. Thorndike (1932) found that when a response is "accompanied or followed by a satisfying state of affairs the strength of that connection is increased".
- 2) *Law of frequency*: It states that when any particular action is repeated for a certain number of times, then it has a tendency to be established permanently.
- 3) *Law of recency*: According to this law, one can repeat an act easily which has been recently performed as it is fresh in experience.

4.3.3 Theories of Learning by Conditioning

Conditioning learning theories include two main theories; that is classical conditioning theory by Ivan Petrovitch Pavlov (1849-1936) and operational conditioning theory by B.F. Skinner (1904-1991).

Classical Conditioning Theory

The term '*classical conditioning*' is used to describe one type of associative learning in which there is no consistency between response and reinforcer. Classical conditioning is a simple form of learning in which an originally neutral stimulus comes to bring forth or elicit the response usually brought forth by a second stimulus, as a result of being paired repeatedly with the second stimulus. Like many other important scientific discoveries, classical conditioning was discovered by accident. Russian psychologist, Ivan Pavlov was doing research on the salivary reflex in dogs. He discovered that reflexes can be learned, or conditioned, through association. Pavlov's dogs began salivating in response to clinking food trays, because clinking had been paired repeatedly with the arrival of food. Pavlov then carried out experiments in which he conditioned his dogs to salivate to the sound of a bell, which had been paired with food.

Application

Psychologists use classical conditioning for helping 5 and 6 years old children to overcome bedwetting. They place a special pad beneath the sleeping child. Whenever the pad is wet, an electric circuit completes, causing a bell to ring

and the sleeping baby to wake up. After several repetitions most children learned to wake up before they wet the pad. In the bell and pad method for bed wetting, psychologists repeatedly pair tension in children's bladders with a stimulus (the bell) that wakes them up. The children learn to respond to the bladder tension.

The bell is an unlearned or unconditioned stimulus (UCS). Waking up in response to the bell is an unlearned or unconditioned response (UCR). Bladder tension is at first a meaningless or neutral stimulus. Then, through repeated association with the bell, bladder tension becomes a learned or conditioned stimulus (CS) for waking up in response to bladder tension (the CS) which is learned or conditioned response (CR) (see Fig. 4.8).

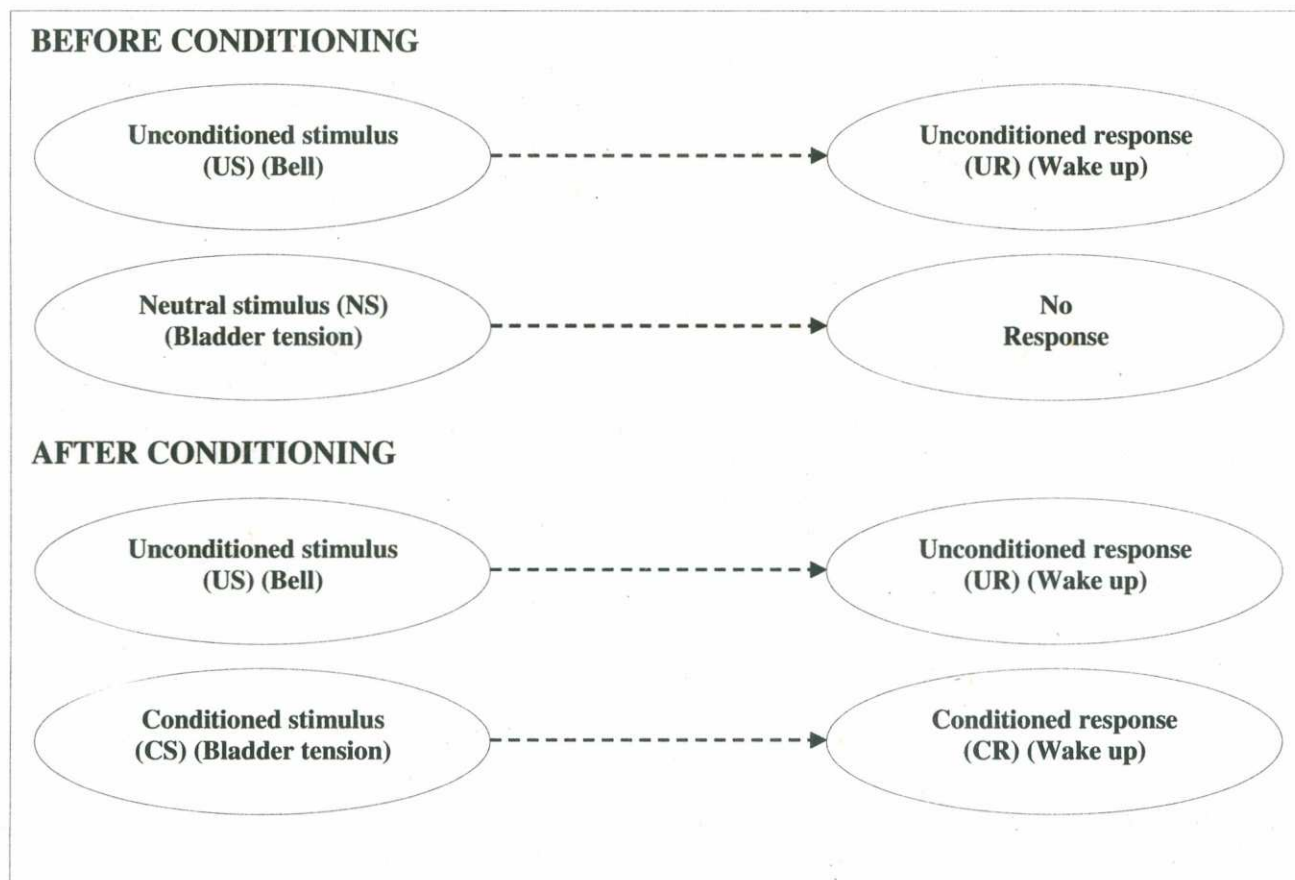


Fig. 4.8: Application of classical conditioning theory.

Behaviourists argue that a good deal of emotional learning is acquired through classical conditioning. For example, touching a hot stove is painful and one or two incidents may elicit a fear response when a child looks at a stove or considers touching it again.

Theory of operant conditioning

Operant conditioning describes one type of associative learning in which there is a contingency between the response and the presentation of the reinforcer. In classical conditioning children learn to associate stimuli so that a response made to one stimulus is then made in response to the other. But in operant conditioning, children learn to operate on the environment or to engage in certain behaviour, because of the effect of that behaviour.

Operant conditioning learning theory was purposed by B.F. Skinner, based largely on research with animals. He trained rats and pigeons to press a lever in order to obtain a food reward. In such experiments, the subject was able to generate certain motor-output, the response (R), for example, running around, clinging, resting, pressing the lever. The experimenter chose a suited output for example, pressing the lever to pair it with an unconditioned stimulus; for example, a food reward. Often a discriminative stimulus, DS, for example, a flash light is present, when the R-US contingency is true. After the training period, the subject shows the conditioned response (CR, for example, touching the trigger) even in the absence of US, if the R-US association had been memorised (see Fig. 4.9).

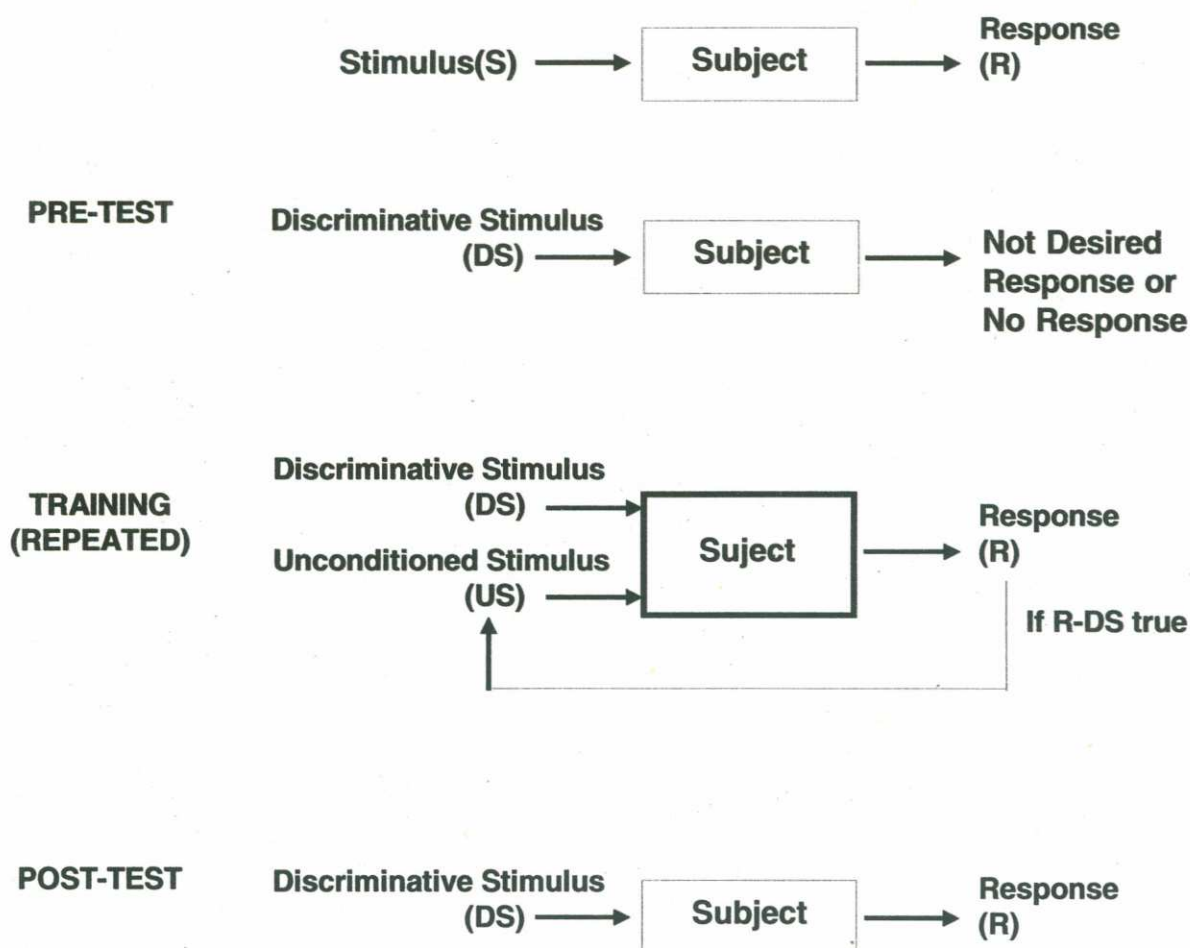


Fig. 4.9: Application of operant conditioning learning theory.

Application

The starting point in classical conditioning is limited to a small number of inborn, voluntary responses such as the sucking and eyeblink reflexes. These are also called *respondents behaviours*. In contrast, the starting point in operant conditioning can be any response that an individual makes while *voluntarily* reacting to the environment. These are called *operant behaviours* and include crying, smiling, head turning and even sucking (if controlled by the individual). Because these are more operant behaviours, operant conditioning has been much more widely applied in understanding and influencing child and adolescent development. Now, we will discuss various applications of this theory.

- 1) **Reinforcement:** B.F. Skinner introduced one of the central concepts of operant conditioning – the concept of reinforcement. *Reinforcers* are stimuli

that increase the frequency of the behaviour they follow. Most children will increase the frequency of the behaviour patterns that earn them consequences such as a hug, an 'A' grade on a test, attention and social approval, and so, these consequences serve as reinforcers. Some children learn to confirm their behaviour to social codes and rules to earn the attention and approval of their parents and teachers. Other children ironically may learn to misbehave since misbehaviour also draws attention. Children may especially learn to be "bad" when their "good" behaviour is routinely ignored or is not "good enough" to earn approval.

Various behaviours such as vocalising, smiling and looking at specific objects have been conditioned in very young infants.

Most of the times, food, social approval and attention serve as reinforcers. The different type of reinforcers are:

- i) *Positive reinforcers*: These will increase the frequency of behaviours when they are applied. Food and approval usually serve as positive reinforcers.
- ii) *Negative reinforcers*: These will increase the frequency of behaviours when they are removed. Children often learn to plan ahead so that they need not fear that things will go wrong. Fear acts as a negative reinforcer in that its removal increases the frequency of the behaviours preceding it such as studying for a quiz.
- iii) *Knowledge of result*: It is often an effective reinforcer with children. Many children will work hard to improve skills in spellings, math and other areas simply for the sake of improvement.
- iv) *Intrinsic reinforcers*: We have an internal or intrinsic motive to master skills and will frequently learn how to solve problems and manipulate objects for the pleasure of doing so. Children in other words, frequently find reinforcers for behaviours within rather outside of themselves.
- v) *Extrinsic reinforcers*: Extrinsic reinforcers external rewards. These extrinsic rewards act as concrete representations that something of 'value' has been accomplished. For example, common extrinsic motivational strategy is to give tokens and prizes to students when they perform a desired behaviour.
- vi) *Continuous reinforcers*: In continuous reinforcement, the desired behaviour is reinforced every time it occurs. This reinforcement is used in the initial stages of learning to reinforce positive or desired behaviour. Later, the reinforcement is converted to partial reinforcement schedule.
- vii) *Intermittent reinforcement*: The intermittent reinforcement is given only part of times the child gives the desired response. It is often used after the continuous reinforcement, once the desired response is conditioned by continuous reinforcement and the reinforcer wishes to cut down or eliminate the number of reinforcements necessary to encourage the intended response. For example, in the classroom,

the teacher may at first praise children each time they write numbers and letters correctly. But once children have acquired basic skills in writing letters, teacher can turn to intermittent praise or reinforcement.

- viii) *Partial reinforcement*: During partial reinforcement, reinforcement is given only part of the time. The behaviour acquired with this type of reinforcement is more resistant to extinction though acquisition of behaviour takes a longer duration of time.
- 2) **Extinction**: Extinction of specific (operant) behaviour results from the repeated performance of that behaviour without reinforcement. After a number of trials, the operant behaviour is no longer shown. For example, there are many cases in which children throw temper tantrums and crying at bed time to seek the parental attention. The tantrums and crying had been reinforced by parental attention and company. This behaviour can be extinguished within a few days by simply keeping parents out of the bedroom, after the children have been put to bed. By changing the reinforcement contingencies of the problem behaviour, the behaviour is eliminated.
- 3) **Punishment**: Punishments are aversive events that suppress or decrease the frequency of the behaviour they follow. Punishing events may be physical (such as spanking), verbal (for example, scolding and criticising), or involve removal of privileges (for example, mother's hug or kiss).

It is usually preferable to reward children for desirable behaviour than to punish them for unwanted behaviour. By ignoring their misbehaviours, or by using *time out* (isolate for a few minutes) we can consistently avoid reinforcing children for misbehaviour.

Punishment is usually undesirable because:

- 1) Punishment in itself is not an alternative and acceptable form of behaviour.
- 2) Punishment tends to suppress undesirable behaviour only under circumstances in which its delivery is guaranteed.
- 3) Punished children may withdraw from the situation. Severely punished children may run away, miss class, or dropout of school.
- 4) Punishment can create anger and hostility.
- 5) Punishment may generalise too far. The child who is punished severely for bad table manners may stop eating altogether.

Making reinforcement effective:

- 1) Immediate reinforcement is more effective than delayed.
- 2) Give the reason of the reward/punishment.
- 3) Consistent reward/punishment is more effective than inconsistent reinforcement.
- 4) Negative reinforcement or punishment should be preceded by a warning. One needs to remember that insulting or bashing just makes children think about revenge not remedy. Public punishment, in particular, should be avoided.

- 5) Rules and penalties should be made clear, and should be fair and consistent, so that children are more likely to strive for the rewards and avoid punishment.
- 4) **Behaviour modification:** Behaviour modification means to change the human behaviours which are considered to be maladaptive or dysfunctional. It is the use of empirically demonstrated behaviour change techniques to improve behaviour. Such as, altering an individual's behaviour and reaction to stimuli through positive and of adaptive behaviour and the reduction of maladaptive behaviour through negative reinforcement or punishment.
- 5) **Shaping of behaviour:** Shaping of behaviour means a process of moving from unskilled performance to skilled performance. We can teach children complex behaviours by shaping, or at first reinforcing small items towards the behaviour goal. If a child is being taught to use the toilet, the parent first generally reinforces the learner simply for sitting on the toilet for a while, even if the child insists on wearing a diaper at that time.

Check Your Progress Exercise 2

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

- 1) Explain the laws of learning.

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- 2) List down the different types of reinforcers.

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- 3) What are the important points that make punishment effective?

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4.4 SOCIAL LEARNING THEORY

In the previous section, we learnt that behaviourists tend to limit their discussions of human learning to the classical and operant conditioning of observable behaviour. But social learning theorists, such as Albert Bandura

(1925- till date) have done numerous experiments that show that much of children's learning also occurs by observing parents, teachers, other children and even characters on television.

4.4.1 Theory

Bandura's social learning theory emphasises the importance of observing and modelling the behaviours, attitudes and emotional reactions of others (Kearsley, 1994). Bandura (1977) states: "Learning would be exceedingly labourious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behaviour is learned observationally through *modelling* that is, from observing others one forms an idea of how new behaviours are performed, and on later occasions this coded information serves as a guide for action." According to this view, change is a result of mutual interaction among the child's observable behaviour, the cognitive, biological and other internal events that can affect the child's perceptions and actions, and the external environment (see Fig. 4.10).



Fig. 4.10: According to social learning theory, learning occurs when children observe others, like mother's dressing up.

4.4.2 Concepts

The main concepts of social learning theory are:

- 1) **Observational Learning:** Observational learning is the type of learning which is an area of interest for most of the social learning theorists, and may account for most of human learning. It occurs when children observe how parents cook, clean or repair a broken appliance. It occurs when children watch the teacher solve problems on the blackboard. Observational learning does not occur because of direct reinforcement. Children can learn without engaging in overt response at all. Learning will occur so long as children pay attention to the behaviour of others.

The processes underlying observational learning are:

- i) *Attention:* It includes watching and observing.
- ii) *Retention:* It includes cognitive organisational motor rehearsal.

- iii) **Motor reproduction:** It includes physical capabilities, self observation of reproduction and accuracy of feedback.
 - iv) **Motivation:** It includes external and self reinforcement.
 - v) **Observer characteristics:** It includes sensory capacities, arousal level, perceptual set and past reinforcement.
- 2) **Identification:** It may be viewed as a broad process of imitation through which children acquire behaviour patterns that are similar to those of other people.
- 3) **Models:** The people after whom children pattern their own behaviour are models. The traits that encourage children to identify with models include warmth, competence, social dominance and social status.

4.4.3 Basic Potentials of Child Development

According to social cognitive theory a child's development depends on five basic potentials, or capabilities, that all human beings possess. These are:

- 1) **Symbolic capability:** Symbolic capability enables children to think in symbols and to use language.
- 2) **Vicarious capability:** Vicarious capability allows children to learn indirectly from the experience of parents and other role models through observation. Vicarious capability is influenced by:
 - i) *Attention processes*, which influence what children selectively observe from their environment.
 - ii) *Retention processes*, which enable children to transform and restructure information from role models.
 - iii) The *behavioural production process* through which children's symbolic conceptions of thoughts are translated into an appropriate course of action.
 - iv) *Motivational processes*, which reflect the various incentives and disincentives in observation learning.
- 3) **Forethought capability:** Forethought capability enables children to anticipate the likely consequences of future actions, set goals and plan courses of action that produce desired outcomes.
- 4) **Self-regulatory capabilities:** Self-regulatory capabilities enables children to substitute their internal controls and directions for external motivation, social and moral standards.
- 5) **Self-reflective capabilities:** Self-reflective capabilities enable children to analyse their experience and to think about their own thought processes.

4.4.4 Applications.

Application of social learning theory is discussed below:

- 1) **Self-regulation:** Self-regulation means controlling one's own behaviour. It is the work-horse of human personality. In this Bandura suggested three steps:

- i) *Self observation*: It means one observes one's self-behaviour and keeps tab on it.
- ii) *Judgement*: It means one compares oneself with the standards or norms set by the social group.
- iii) *Self response*: If one does well in comparison with the norms or set standards, one gives reward to self and if one is not upto the expectations then one gives a punishing self response. These self responses can range from the noticeable (working on holidays) to more concealed (feeling shame or pride).

Self-regulation highly affects the self concept or self esteem of the person. For example, a person who is able to meet all the standards of life will have positive self-regulation like self praise and self reward, which leads to satisfying self concept and high self esteem, but a person who faces failure in her or his life and is not able to meet the standards will always punish herself or himself and hence has poor self concept and low self esteem.

2) Therapy

There are two types of therapies based on Bandura's social learning theory, that are:

- 1) Self control therapy
 - 2) Modelling therapy
- 1) **Self control therapy**: The self control therapy is based on the technique of self regulation. It is seen that for simple problems like smoking, overeating etc. this technique is very successful.

The process of self control therapy includes:

- i) *Behavioural chart*: Behavioural chart is a technique in which people maintain all the track record of behaviour of both, before change begins and after the change. By maintaining a dairy or chart people can keep detailed track of their behaviour. This helps to identify the factors that are associated with a specific behaviour, for example, one eats more while watching TV or one smokes more when travelling.
 - ii) *Environmental planning*: Environmental planning means that by taking cues from behavioural charts and dairies, people can start giving attention to their environment such as avoiding such behaviour that leads to bad habits or behaviour problem.
 - iii) *Self-contracts*: Self contracts means people should make a deal with themselves regarding the execution of the self regulation process. It is advisable to write down the contracts in which details are spelled out very clearly. For example, 'I will go out for a picnic if I control my eating habit else I will stay at home at the weekend'.
- 3) **Modelling therapy**: Modelling therapy means, following a person who has some psychological disorder but she or he is dealing with the issue in a very productive manner. In this, the person with more effective and productive solution will act as a model to others.

Check Your Progress Exercise 3

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) What does social learning theory state?

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2) Fill in the blanks.

- i)means one observes one's own behaviour and keeps a tab on it.
- ii) enables a child to anticipate the likely consequences of future actions, set goals and plan courses of action that produces desired outcomes.
- iii) includes cognitive organisational motor rehearsal.
- iv) includes both external and self-reinforcement.

4.5 THEORIES OF INTELLIGENCE

Intelligence theories deal with the ways cognitive processes operate in various environmental contexts. Two of the major intelligence theories are the American psychologist Howard Gardner's multiple intelligence theory and Sternberg's triachic theory of intelligence.

4.5.1 Theory of Multiple Intelligence

The theory of multiple intelligence was proposed by Howard Gardner (1943-till date) in 1983, to define the concept of intelligence more accurately and address scientific methods which claim to measure intelligence. It states that intelligence does not sufficiently encompass the wide variety of abilities humans display. According to this, a child who is a good singer is not necessarily a good dancer. Gardner originally identified seven components of intelligence. He argues that these intelligences are relatively distinct from each other and each person has some level of each of these seven intelligences. More recently in 1997, he added an eight component of intelligence to his list. Following are the categories of intelligence proposed by Gardner:

- i) *Body-kinesthetic*: It is an intelligence that deals with the ability to use one's physical body well. People with this intelligence learn better by doing and are good at physical activities. These people often learn best by doing something physically rather than reading or hearing about it. The persons with this type of intelligence can be good dancers, athletes, surgeons, actors, builders or soilders.
- ii) *Interpersonal*: It is an ability to sense others' feelings and be in tune with others. The persons with this type of intelligence seem to be extroverts, and understand others' feelings and temperaments. Effective communication and empathy are two basic characteristics of these people. They enjoy

discussion and debate. These persons can be good sales persons, teachers, clinicians, politicians, religious leaders, social workers or managers.

- iii) *Logical-mathematical*: As the name suggests, it is an ability to learn higher mathematics and to handle complex logical arguments. These people are good in mathematics, chess, computer programming and other logical or numerical activities. It is believed that persons with this type of intelligence have a higher IQ. Usually, persons with this intelligence can become mathematicians, engineers, doctors or economists.
- iv) *Verbal-linguistic*: It is an ability to communicate well, perhaps both orally and in writing, sometimes in several languages. These people are good at reading, writing, telling stories and they can even remember the dates along with words. They can learn foreign languages very easily because they have high verbal memory and recall. They are good in understanding and manipulating syntax and structure. This intelligence is higher in writers, lawyers, philosophers, journalists, politicians and teachers.
- v) *Intrapersonal*: It is an ability to know one's own body and mind. These people are generally introverts and prefer to work alone. They are highly self aware and capable of understanding their complex inner feelings. These people can be good philosophers, psychologists, theologians, writers or scientists.
- vi) *Visual-spatial*: It is an ability to know where one is relative to fixed locations, the ability to accomplish tasks requiring three-dimensional visualisation and placement of one's hand or other parts of one's body. They have strong visual memory and are often artistically inclined. They have a very good sense of direction and good eye-hand co-ordination. These people can be artists, engineers, architects, sailors navigating without modern navigational aids, surgeons, sculptors or painters.
- vii) *Musical*: It is an ability to learn, perform and compose music. These people display greater sensitivity to sounds, rhythms, tunes and music. Since the auditory component to this intelligence is very strong hence, they learn best through lecture. These people can be good instrumentalists, singers, conductors, disc-jockeys or composers.
- viii) *Naturalistic*: This type of intelligence was added to the theory in 1997. It is an ability to understand different species, recognise patterns in nature, and classify natural objects. These people have greater ease in caring for, taming and interacting with animals. They may also be differentiating changes in weather or similar fluctuations in natural surroundings. These people can be good scientists, naturalists, conservationists, gardeners or farmers.

Applications

The theory of multiple intelligence has focused mostly on children although it applies to all ages. Gardner discussed application of the theory to school programmes.

- 1) **Education with broader spectrum**: To live a meaningful life, one needs all the eight intelligences hence, it is important for teachers that they should stress on all the intelligences. It is necessary to extend sufficient opportunities for the students to work.

- 2) **Developing indigenous and flexible programme:** According to Gardner, understanding should be clear and deep, which should be based on performance, exploration and creativity. Hence, the curriculum should be planned according to local surrounding and it should be flexible according to the learning abilities of learners. There should be more than one type of assessment.

Further the theory suggested some principles which are as follows:

- ii) Individuals should be educated and encouraged to learn things related to the intelligence they possess more strongly.
- iii) Assessment should measure all forms of intelligence.
- iv) Instructional activities should be planned according to the form of intelligence.

4.5.2 Sternberg's Triarchic Theory

The triarchic theory was formulated by Robert J. Sternberg (1949-till date) who conducted research on human intelligence. The theory is made up of the following three interacting sub-theories (see Fig. 4.11), which are:

- 1) **Componential sub-theory:** This sub-theory emphasises the information processing skills that underlie intelligent behaviour. Its main elements are strategy application, knowledge acquisition, metacognition and self-regulation. Berk (2002) said that although children use these components according to their internal capacity, yet it is a function of the conditions under which intelligence is measured.
- 2) **Experiential sub-theory:** Experiential sub-theory states that highly intelligent individuals are able to process information more expertly in comparison to less intelligent persons. It is seen that as intelligent person learns a new task more rapidly by making strategies automatically so that work memory is freed for more complex aspect (Berk, 2002).
- 3) **Contextual sub-theory:** Contextual sub-theory states that intelligent people use their information processing skills more efficiently so as to meet the personal needs and demands of their worlds. If they are not able to acclimatise the situation, they search and find new contexts to solve the problem. The cultural influences on the person's intelligence are also considered by this theory.

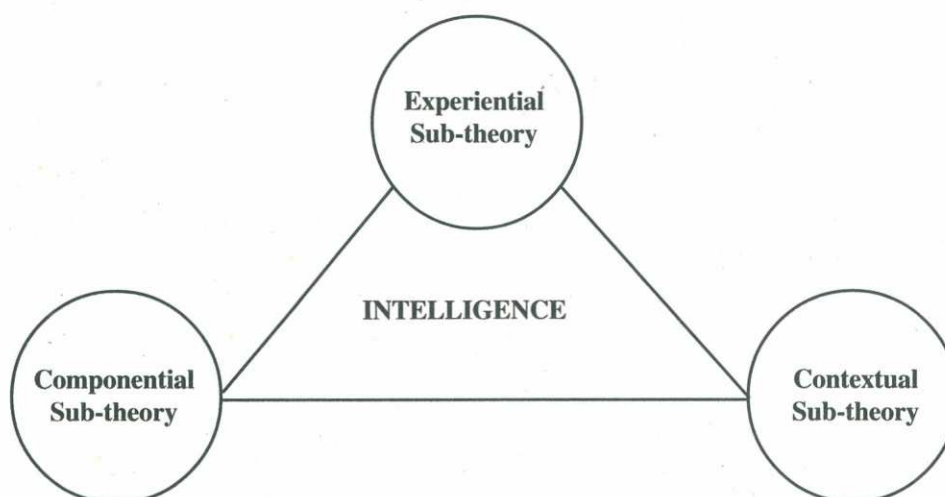


Fig. 5.11: Triarchic theory of Intelligence.

Sternberg's theory tries to simplify the complexity of human mental skills. He said that the current tests for assessing human intelligence have a limitation as they are not able to assess the complexity of human mind. Sternberg *et al* (2000) said that children often use different ability in academic tasks than in non-academic everyday situations. Yet out-of-school, practical forms of intelligence are vital for life success, and they help in explaining why cultures vary widely in the behaviours they regard as intelligent.

Application

- 1) Instructions for learning should be socio-culturally relevant to the person.
- 2) Subject matter to be learned should have links with real world behaviour.
- 3) Instructions should include strategies for coping up with specific situations.

Check Your Progress Exercise 4

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

- 1) List down the categories of intelligence proposed by Gardner.

.....

.....

.....

- 2) Match the columns:

Intelligence

Naturalistic

Visual-spatial

Musical

Verbal-linguistic

Body-kinesthetic

Persons to be

writers, lawyers, philosophers, journalists, politicians or teachers.

dancers, athletes, surgeons, actors or builders.

artists, engineers, architects, surgeons, sculptors or painters.

scientists, naturalists, conservationists, gardeners or farmers.

instrumentalists, singers, conductors, disc-jockeys or composers.

4.6 LET US SUM UP

The Unit began with the cognitive theories proposed by various psychologists and scientists. The cognitive development theory of Jean Piaget provides the platform for other psychologists to work on human cognitive system. He gave the concepts of schema, mental representation, adaptation, assimilation, accomodation, equilibration and organisation to explain cognitive development in human beings. Piagetian stages of cognitive development are; the sensorimotor stage, the pre-operational stage, the concrete operational stage and the formal operational stage. Then we studied Vygotsky's social cognitive theory. He viewed cognitive development as a socially mediated process as it depends on the support, provided by the adult, or peers of the social group.

The terms zone of proximal development (ZPD) and private speech were first introduced by Vygotsky. We studied the applications of social cognitive theory like inter-subjectively, scaffolding, guided participation and cooperative learning.

Further, we studied the constructive theory by Bruner which supports the idea of categorisation. We also studied information processing theory which describes how we learn things. Further, in the course of this Unit, we dealt with some important theories of learning like theories of connectionism which emphasised more on association which leads to learning, trial and error theory by Thorndike and theories of learning by conditioning. Thorndike suggested three laws of learning, that are, law of effect, law of frequency and law of recency. We studied two popular conditioning theories viz classical conditioning theory and operant conditioning theory. The former theory states that specific behaviour can be learned by conditioning through association whereas the latter theory states that children learn to operate on the environment or to engage in certain behaviour, because of the effect of that behaviour. The application of operant learning theories is through concepts like reinforcement, extinction, punishment, behaviour modification and shaping of behaviour.

Further, we studied the social learning theory which states that most human behaviour is learned observationally through modelling. The basic concepts of this theory are observational learning, identification and models. We found that social learning theory provides the base for self-regulation, self control therapy and modelling therapy. Finally, we studied the two theories of intelligence that are theory of multiple intelligence by Gardner which describes eight types of intelligence viz body-kinesthetic, interpersonal, logical-mathematical, verbal-linguistic, intrapersonal, visual-spatial, musical and naturalistic. Sternberg's triarchic theory of intelligence is composed of three sub-theories, these are componential sub-theory, experiential sub-theory and contextual sub-theory. We have studied that how these theories help in improving the education system and facilitate learning process.

4.7 GLOSSARY

Accommodation	: The process in which an individual adjusts old schema and creates new ones to produce a better fit with the environment.
Adaptation	: It is the process of building schema through direct interaction with the surroundings.
Assimilation	: The process by which new objects or events are interpreted according to existing schema.
Classical conditioning	: Associative learning in which there is no contingency between response and reinforcer.
Cognition	: Inner processes and products of the mind which result in attaining knowledge.
Extinction	: Decline of the specific behaviour as a result of negative reinforcer.
Mental representation	: It is an internal description of information that the mind can use accordingly.

Operant conditioning	: Associative learning in which there is a contingency between the response and the presentation of the reinforcer.
Organisation	: The process that takes place internally to change the schema.
Reinforcer	: Stimuli that increase the frequency of the behaviour they follow.
Schema	: A pattern of action or a mental structure that is involved in acquiring or organising knowledge.
Self regulation	: Controlling one's own behaviour.

4.8 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

- 1) The basic concepts of Piaget's cognitive development theory are:
 - i) Schema,
 - ii) Mental representation,
 - iii) Adaptation,
 - iv) Assimilation,
 - v) Accommodation,
 - vi) Equilibration, and
 - vii) Organisation
- 2) The most serious limitation of pre-operational thinking is egocentrism. Piaget believed that when children first mentally represent the world, they tend to focus on their own viewpoint and ignore others' perspective. It results in animistic thinking, that is, the belief that inanimate objects have life like qualities. The other limitation of this stage is inability to conserve, that is children of this stage have no idea that certain physical characteristics of objects remain the same, even when their outward appearance changes. Another limitation is irreversibility, that is children of this stage cannot mentally go through a series of steps and then think back in reverse direction, returning to the starting point.
- 3) The components of information processing model are:

Sensory register: According to store model, when persons try to solve a problem they first take in information from their environment through the senses. The information gained in this way is held briefly in 'the sensory register'. The sensory register records information exactly as it originally received it, but the information fades or disappears within a fraction of a second.

Short term memory: Information to which a person pays special attention is transferred to 'short term memory'. The short term memory corresponds roughly to "momentary awareness" or whatever the person is thinking about at a particular instant. The short term memory can hold only limited amounts of information, in fact only about seven pieces of it at any one time.

Long term memory: Information can be stored permanently in long term memory (LTM). But doing so requires various cognitive strategies such as wheeling information repeatedly or organising it into familiar categories. Long term memory probably has unlimited capacity for storage of new information.

- 4) Vygotsky agreed with Piaget that children are active and constructive beings, but he viewed cognitive development as a socially mediated process, as dependent on the support which is provided by the adults or peers of the social group. He believed that as adults or more expert peers help children to master culturally meaningful activities the communication between them becomes part of children's thinking.

Check Your Progress Exercise 2

- 1) The three laws of learning are:
 - i) *Law of effect:* It states that if any particular action gives the desired result and leads to satisfaction then there is a tendency to establish that activity and get it fixed, but if that activity does not yield the desired result it generates a feeling of dissatisfaction and helps towards discarding that particular activity.
 - ii) *Law of frequency:* It states that when any particular action is repeated for a certain number of times, then it has tendency to establish permanently.
 - iii) *Law of recency :* According to this law, an act which has just recently been performed has an advantage of being repeated easily for the reason that it is recent and fresh in the experience.
- 2) The different types of reinforcers are:
 - i) Positive reinforcers,
 - ii) Negative reinforcers,
 - iii) Knowledge of result,
 - iv) Intrinsic reinforcers,
 - v) Extrinsic reinforcers,
 - vi) Continuous reinforcers,
 - vii) Intermitent reinforcement, and
 - viii) Partial reinforcement.
- 3) The important points to make the punishment effective are:
 - 1) Immediate punishment is more effective than delayed.
 - 2) It is helpful to explain why the misbehaviour is worthy of punishment.
 - 3) Consistent punishment is more effective than irregular punishment.
 - 4) Punishment should be preceded by a warning.
 - 5) Make punishment respectful that means insulting or bashing just makes children think about revenge and not remedy.
 - 6) Public punishment hurts the ego, so make it private.
 - 7) Make rules and penalties more clear and fair so that children are more likely to accept the consequences.

Check Your Progress Exercise 3

- 1) The social learning theory states that "Learning would be exceedingly labourious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behaviour is learned observationally through modelling".
- 2) Fill in the blanks.
 - i) *Self observation* means one observes one's own behaviour and keep a tab on it.
 - ii) *Forethought capability* enables a child to anticipate the likely consequences of future actions, set goals and plan courses of action that produce desired outcomes.
 - iii) *Retention* includes cognitive organisational motor rehearsal.
 - iv) *Motivation* includes both external and self-reinforcement.

Check Your Progress Exercise 4

1. The categories of intelligence proposed by Gardner are:
 - i) Body-kinesthetic,
 - ii) Interpersonal,
 - iii) Logical-mathematical,
 - iv) Verbal-linguistic,
 - v) Intrapersonal,
 - vi) Visual-spatial,
 - vii) Musical, and
 - viii) Naturalistic.
- 3) Match the columns:

Intelligence	Persons to be
Naturalistic	scientists, naturalists, conservationists, gardeners or farmers.
Visual-spatial	artists, engineers, architects, surgeons, sculptors or painters.
Musical	instrumentalists, singers, conductors, disc-jockeys or composers.
Verbal-linguistic	writers, lawyers, philosophers, journalists, politicians or teachers.
Body-kinesthetic	dancers, athletes, surgeons, actors, or builders.

4.9 UNIT END QUESTIONS

- 1) Give your views in support of Piaget's cognitive development theory.
- 2) According to social learning theory children learn a great deal by observing models. Do you think the same type of learning might occur while watching television? Explain with the help of examples.

- 3) Describe a behaviourist approach to teaching a child to share toys with others. What techniques would a behaviourist employ?
- 4) Describe the importance of intelligence theories in day-to-day life.

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UNIT 5 HUMANISTIC, ETHOLOGICAL AND CONTEXTUAL THEORIES

Structure

- 5.1 Introduction
- 5.2 Humanistic Theories
 - 5.2.1 Abraham Maslow — Hierarchy of Needs
 - 5.2.2 Carl Roger's Self Theory
- 5.3 Ethological Theories
 - 5.3.1 John Bowlby's Ethological Theory
 - 5.3.2 Harry Harlow's Attachment Theory
 - 5.3.3 Mary Ainsworth's Attachment Theory
- 5.4 Contextual Theories
 - 5.4.1 Bronfenbrenner's Ecological Theory
 - 5.4.2 Life Course Theory
- 5.5 Let Us Sum Up
- 5.6 Glossary
- 5.7 Answers to Check Your Progress Exercises
- 5.8 Unit End Questions
- 5.9 Further Readings and References

5.1 INTRODUCTION

In this Unit, we will study some of the humanistic, ethological and contextual theories. Now, let us discuss what does humanistic psychology mean? Humanistic psychology as the name suggests, has belief in the innate goodness and respect of human beings. It is a science that deals with the understanding and acceptance of one's own existence and responsibility. The necessity to understand human nature was realised during early to mid 1960s. Humanistic psychology emphasises more on the present of the person rather than focusing on the past or trying to predict the future. Generally, humanistic theories are reality based. These theories help to understand personality and improve the overall satisfaction of individuals. We will study the theories given by psychologists Abraham Maslow and Carl Roger in this Unit.

Further, we will study about ethological theories. Ethology is defined as a science which deals with the study of animal behaviour. Ethologists work to know that how animals (including human beings) acquire their behaviour patterns. They concentrate more on innate behaviour or instincts. In this Unit, we will discuss ethological theories proposed by John Bowlby, Harry Harlow and Mary Ainsworth.

In the later part of this Unit, we will discuss about some contextual theories. Contextual theories believe that the environment designs or contexts in which human activity takes place are crucial to the nature of that activity. The environment design includes immediate settings, such as home, school, college, office, neighbourhood as well as circumstances that are not directly related to the person's everyday life, for example, community resources, societal values

and priorities and historical time period. Hence, we can define context as a unique combination of genetic and environmental circumstances that are responsible for different path of development of an individual. In this Unit, we will discuss two major contextual theories that are ecological system theory of Bronfenbrenner and life course theory.

Objectives

After studying this Unit, you will be able to:

- Describe the orientation and belief of humanistic theories that every person has potentialities for healthy and creative growth;
- Comprehend various ethological theories;
- Explain contextual theories; and
- Integrate the knowledge derived from the various theories to enhance understanding of yourself and others.

5.2 HUMANISTIC THEORIES

Humanistic psychologists hold that the individual, merely by being human, possesses an inherent worth. Actions may not be positive but this does not negate the value of the person. The goal of life should always be to achieve personal growth and understanding. Only through self improvement and self knowledge can one be truly happy.

5.2.1 Abraham Maslow — Hierarchy of Needs

Perhaps the most well known contribution to humanistic psychology was made by Abraham Maslow (1908-1970). Maslow originally studied psychology because of his intrigue with behavioural theory and the writings of John B. Watson.

He criticised behaviourism and later took the same approach with Freud and his writings. While he acknowledged the presence of the unconscious, he disagreed with Freud's belief that the vast majority of 'who are we' is buried deep beyond our awareness. Maslow believed that we are aware of our motives and drives for the most part and that without the obstacles of life, we would all become psychologically healthy individuals with a deep understanding of ourselves and an acceptance of the world around us.

One of the most fundamental themes leading Maslow's humanistic stance is that each person must be studied as an integrated, unique and organised whole. For Maslow, the human organism always behaves as a unified whole, not as a series of differentiated parts and what happens in any part affects the entire organism. Therefore, the central characteristic of personality is essential unity and totality.

Maslow maintains that human nature is essentially good or, at the very least, neutral. From Maslow's point of view, the evil, destructive and violent forces in people result from the frustration or thwarting of basic needs rather than from any inherent wickedness on their part. Human nature has a built-in structure comprised of potentialities for positive growth and improvement that are common to all people.

Maslow's most well known contribution is the *Hierarchy of Needs* and this is often used to summarise the belief system of humanistic psychology (see Fig.5.1). The basic premise behind this hierarchy is the belief that we are born with certain needs. Without meeting these initial needs, we will not be able to continue our life and move upward on hierarchy. This first level consists of our *physiological needs*, or our basic needs for survival. Without food, water, sleep, and oxygen, nothing else in life matters.

Once these needs are met, we can move to the next level, which consists of our *need for safety and security*. At this level, we seek out safety through other people and strive to find a world that will protect us and keep us free from harm. Without these goals being met, it is extremely difficult to think about higher level needs and therefore we can not continue to grow.

When we feel safe and secure in our world then we begin to seek out friendships in order to feel a sense of belonging. Maslow's third level, the *need for belonging and love*, focuses on our desire to be accepted, to fit in, and to feel like we have a place in the world. Getting these needs met propels us closer to the top of this pyramid and into the fourth level, called the *esteem needs*. At this level we focus our energy on self respect, respect from others, and feeling that we have made accomplishments in our life. We strive to move upward in careers, to gain knowledge about the world, and to work towards a sense of high self-worth.

The final level in the hierarchy of needs is called the need for *self-actualisation*. According to Maslow, many people may be at this level but very few if anybody ever masters it. Self-actualisation refers to a complete understanding of the self. To be self-actualised means to truly know who you are, where you belong in the greater society, and to feel like you have accomplished all that you have set out to accomplish. It means to no longer feel shame or guilt, or even hate, but to accept the world and see human nature as inherently good.

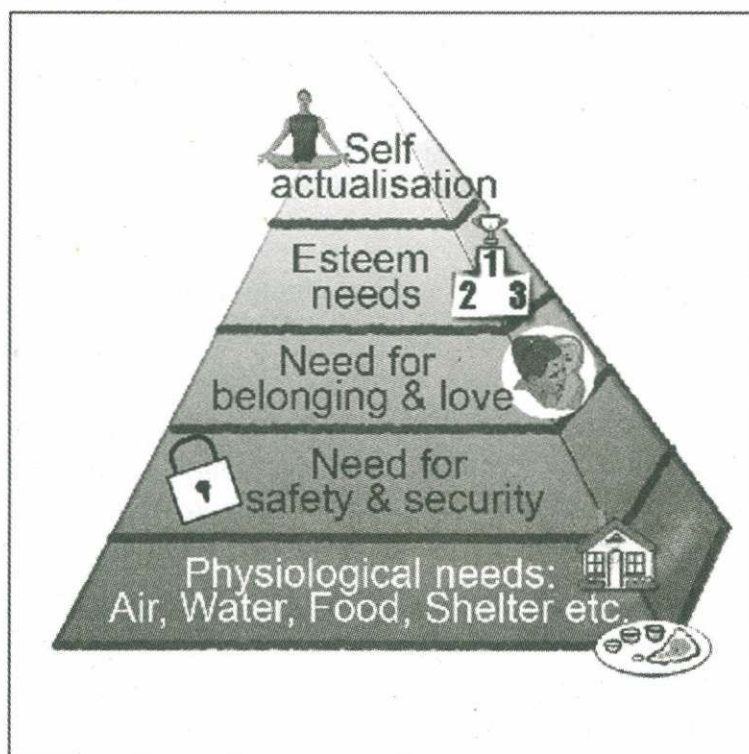


Fig. 5.1: Maslow's hierarchy of needs.

As you read through the preceding section, you might have tried to place yourself on one of the five levels of the pyramid. This may be an easy task for some, but many struggle with the ups and downs of life. For many of us, life is not that straight forward. We often have one foot in one level, and the other foot in the next level, and are at times trying to pull ourselves up while making sure we don't fall backward at other times.

We may stumble at some time and we may leap forward at other times. No matter how far we fall backward, however, the road back up is easier since we already know the way. Many people are simply blind to their potential; they neither know that it exists nor understand the rewards of self enhancement. Rather they tend to doubt and even fear their own abilities, thereby diminishing their chances of becoming self actualised. Maslow called this as the *Jonah complex*. It is characterised by a fear of success that prevents a person from aspiring to greatness and self fulfillment.

In addition the social and cultural environment often hinders the tendency toward actualisation by improving certain norms. Another obstacle to self-actualisation is the strong negative influence exerted by safety needs. The growth process demands a constant willingness to take risks, to make mistakes and to break old habits. Anything that increases the person's fear and anxiety also increases the tendency to regress toward safety and security.

Application

For anyone attracted to humanistic psychology, the attainment of self-actualisation epitomises the ideal life-style, culminating in an ideal psychological state, for example, mental health, *nirvana* and cosmic consciousness; as propounded by "experts". Nonetheless, to the extent that the concept of self-actualisation is *real*, there should be clear ways in which it can be applied to each person.

The first requirement for becoming a self-actualised person is to satisfy the first four levels of needs in Maslow's hierarchy. That, for many of us, would take the rest of our lives; but for those who do go on from there, developing self-actualisation on one's own, can best be facilitated by studying the characteristics of healthy, self-actualising adults. Maslow listed fifteen salient characteristics of self-actualisers which are stated below:

- 1) *Efficient perception of reality*: Perhaps the most universal characteristic of these superior people is their unusual ability to perceive other people correctly and efficiently. They can see reality *as it is* rather than *as they wish it to be*.
- 2) *Acceptance of self, others, and nature*: The healthy person displays a sense of respect for self and others. Without feeling undue concern, the person accepts her or his own nature in a stoic style, with all its shortcomings and weaknesses.
- 3) *Spontaneity, simplicity, and naturalness*: The behaviour of self-actualising people is marked by spontaneity, simplicity and by an absence of artificiality. It is the person's *inner life* (thoughts, impulses etc.) that is unconventional, natural and spontaneous.

- 4) *Problem centering*: Self-actualising people are not ego-centered but rather oriented toward problems beyond their immediate needs, problems to which they are dedicated in the sense of a mission in life.
- 5) *Detachment — Need for privacy*: This kind of individual prefers solitude and privacy and even seeks it to a greater extent than the average person. This is because self-actualisers do not *need* people in the usual sense of friendship. They rely completely upon their inner resources and remain unruffled by that which produces turmoil in others.
- 6) *Autonomy — Independence of culture and environment*: Self-actualising people are not dependent for their main satisfactions on the physical and social environment. Rather, they rely on their own potentialities and latent resources for growth and development. They regard themselves as self-governed, active, responsible and self-disciplined agents in determining their own destiny.
- 7) *Continued freshness of appreciation*: Maslow discovered that healthy, mature adults exhibit a capacity to appreciate even the most ordinary events in their lives with a sense of newness, awe, pleasure and even ecstasy. They seldom become bored with life experiences.
- 8) *Peak or mystic experience*: Maslow observed that self-actualising individuals commonly had what he called *peak experience* that means moments of intense excitement and high tension as well as those of relaxation, peacefulness, blissfulness and stillness.
- 9) *Social interest*: Even though self-actualisers are sometimes troubled, saddened and even enraged by the shortcomings of the human race, they experience a deep feeling of kinship with humanity.
- 10) *Interpersonal relations*: Self-actualising people tend to form deeper and closer personal relationships than those of the "average" adult.
- 11) *Democratic character structure*: They are free of prejudice; they tend basically to respect all persons.
- 12) *Discrimination between means and ends*: In their day-to-day living, self-actualising individuals show less confusion, inconsistency and conflict than the average person about what is right or wrong, good or bad.
- 13) *Sense of philosophical humour*: The healthy person typically finds humour expressing the foolishness of humanity in general most appealing. Philosophical humour usually elicits more of a smile than a laugh.
- 14) *Creativeness*: Without exception, creativity was more prominent in self-actualisers than in others.
- 15) *Resistance to enculturation*: Finally, Maslow observed that his superior subjects are in harmony with their culture and yet maintain a certain inner detachment from it.

Maslow believed that people are motivated to seek personal goals that make their lives rewarding and meaningful. Infact, motivational processes lie at the very core of his personality theory. Maslow is perhaps first to point out that creativeness is the most universal characteristic of people which he studied or

observed. Creativity is a universal human function and leads to all forms of self expression. Maslow depicted the human organism as a "wanting organism" who rarely reaches a state of complete and total satisfaction.

5.2.2 Carl Roger's Self Theory

Carl Roger's (1902-1987) approach is based on the assumption that the individual lives within his or her own experiential or phenomenal field. This field includes all that is going on within and around the organism at any given moment and which is potentially available to awareness. Thus it includes, in addition to external events, the psychological representation of physiological drives such as hunger and the momentary influence of memory.

A portion of the phenomenal field gradually becomes differentiated. This is *self*. The self or self concept (Roger used the term interchangeably) denotes the person's conception of the kind of person he or she is. The self concept reflects those characteristics that a person perceives as being part of himself or herself; for example "I am intelligent, honest, considerate and attractive". From Roger's point of view, self concept often reflects how we view ourselves in relation to various roles we play in life.

In addition to the self as it is (the self structure), there is an *ideal* self which is what a person would like to be. The ideal self reflects those attributes that the person would like to possess but currently does not.

Roger contended that the organism has one basic tendency and striving to actualise, maintain and enhance. This actualising tendency is selective, paying attention only to those aspects of the environment that promise to move the person constructively in the direction of fulfillment and wholeness. On the one hand there is a single motivating force, that is the self-actualising drive and on the other hand, there is a single goal of life, that is to become self actualised or a whole person. Self actualisation is not a final state of perfection. Indeed, Rogers believed that no person ever becomes self actualised enough to abandon the motive altogether. There is always more talent to develop, more skills to enhance, more efficient and pleasurable ways to satisfy biological urges.

According to Roger, as the person interacts with the environment and particularly with significant others like parents, sisters, brothers and various relatives, he or she begins to develop a concept of self that is largely based on the evaluations of others. The person also develops a *need for positive regard*. Roger believed, this need is either learned or innate. The person then becomes aware of the fact that when she or he satisfies another individual's need for positive regard, she or he also experiences satisfaction of her or his own need for such regard. As a result, the desire for positive regard from others may become more compelling. If, for example, the person feels that aggression against others is wrong but significant others place a positive value on it, the person may ignore the validity of her or his feelings, and act in terms of their expectations.

Roger's theory is a clinical one, based on years of experience dealing with his clients. He had this in common with Freud. The other thing in common with Freud is that his theory is particularly rich and mature, well thought-out, logically thought and with broad application.

Not in common with Freud, however, is the fact that Roger saw people as basically good or healthy — or at very least, not bad or ill. In other words, he saw mental health as the normal progression of life, and he sees mental illness, criminality, and other human problems, as distortions of that natural tendency.

Also not in common with Freud is the fact that Roger's theory is a relatively simple one. The entire theory is built on a single "force of life" which he calls *the actualising tendency*. It can be defined as the built-in motivation present in every life-form to develop its potentials to the fullest extent possible. We are not just talking about survival, here Roger believed that all creatures strive to make the very best of their existence and if they fail to do so, it is not for a lack of desire.

Roger captured this single great need or motive with all the other motives that other theorists talk about. He asked us, why do we want air and water and food? Why do we seek safety, love, and a sense of competence? Why, indeed, do we seek to discover new medicines, invent new power sources, or create new works of art? Because, he answered, it is in our nature as living things to do the very best we can!

Keep in mind that, unlike Maslow's use of the term self-actualisation, Roger applied it to all living creatures. Some of his earliest examples, in fact, include seaweed and mushrooms! Think about it. Doesn't it sometimes amaze you the way weeds will grow through the sidewalk, or saplings crack boulders, or animals survive desert conditions or the frozen north?

Roger also applied the idea to ecosystems, saying that an ecosystem such as a forest, with all its complexity, has a much greater actualisation potential than a simple ecosystem such as a corn field. If one bug were to become extinct in a forest, there are likely to be other creatures that will adapt to fill the gap. On the other hand, one bout of "corn blight" or some such disaster, and you have a dust bowl. The same applies to us as individuals:- If we live as we should, we will become increasingly complex, like the forest, and thereby remain flexible in the face of life's little and big disasters.

People, however, in the course of actualising their potential, created society and culture. In and of itself, that's not a problem. We are a social creature, it is in our nature. But when we created culture, it developed a life of its own. Rather than remaining close to other aspects of our nature, culture can become a force in its own right. And even if, in the long run, a culture that interferes with our actualisation dies out, we, in all likelihood, will die with it.

Don't misunderstand: Culture and society are not intrinsically evil! It's more along the lines of the birds of paradise found in Papua-New Guinea. The colourful and dramatic plumage of the males apparently distracts predators from females and the young. Natural selection has led these birds towards more and more elaborate tail feathers, until in some species the male can no longer get off the ground. At that point, being colourful doesn't do the male or the species much good! In the same way, our elaborate societies, complex cultures, incredible technologies, for all that they have helped us to survive and prosper, may at the same time serve to harm us, and possibly even destroy us.

Roger told us that organisms know what is good for them. Evolution has provided us with the senses, the tastes, the discriminations we need. For example, when we are hungry, we find food and not just any food, but food that tastes good. Food that tastes bad is likely to be spoiled, rotten, and unhealthy. That what good and bad tastes are, our evolutionary lessons made clear! This is called *organismic valuing*.

Among the many things that we instinctively value is *positive regard*, Roger's umbrella term for things like love, affection, attention, nurturance, and so on. It is clear that babies need love and attention. In fact, it may well be that they die without it. They certainly fail to thrive, that is become all they can be.

Another thing — perhaps peculiarly human is that we value *positive self-regard*, which is, self-esteem, self-worth, a positive self-image. We achieve this positive self-regard by experiencing the positive regard that others show us over our years of growing up. Without this self-regard, we feel small and helpless, and again we fail to become all that we can be!

Like Maslow, Roger also believed that, if left to their own devices, animals will tend to eat and drink things that are good for them, and consume them in balanced proportions. Babies, too, seem to want and like what they need. Somewhere along the line, however, we have created an environment for ourselves that is significantly different from the one in which we evolved. In this new environment there are such things as refined sugar, flour, butter, chocolate, and so on, that our ancestors in Africa never knew. These things have flavours that appeal to our organismic valuing yet they do not serve our actualisation well. Over millions of years, we may evolve to find broccoli more satisfying than cheesecake — but by then, it'll be way too late for you and me.

Our society also leads us astray with *conditions of worth*. As we grow up, our parents, teachers, peers, the media, and others only give us what we need when we show we are “worthy”, rather than just because we need it. We get a drink when we finish our class, we get something sweet when we finish our vegetables, and most importantly, we get love and affection if and only if we “behave”!

Getting positive regard “on condition” was termed by Roger as *conditional positive regard*. Because we do indeed need positive regard, these conditions are very powerful, and we bend ourselves into a shape determined, not by our organismic valuing or our actualising tendency, but by a society that may or may not truly have our best interests at heart. A “good little boy or girl” may not be a healthy or happy boy or girl.

Over time, this “conditioning” leads us to have *conditional positive self-regard* as well. We begin to like ourselves only if we meet up with the standards that others have applied to us, rather than if we are truly actualising our potential. And since these standards were created without keeping each individual in mind, more often than not we find ourselves unable to meet them, and therefore unable to maintain any sense of self-esteem.

Incongruity: The aspect of your being which is founded in the actualising tendency, follows organismic valuing and needs, and receives positive regard and self-regard, was called the *real self* by Roger. It is the “you” that, if all goes well, you will become.

On the other hand, to the extent that our society is out of synch with the actualising tendency, and we are forced to live with conditions of worth that are out of step with organismic valuing, and receive only conditional positive regard and self-regard, we develop instead an *ideal self*. By ideal, Roger was suggesting something not real, something that is always out of our reach, the standard we can't meet.

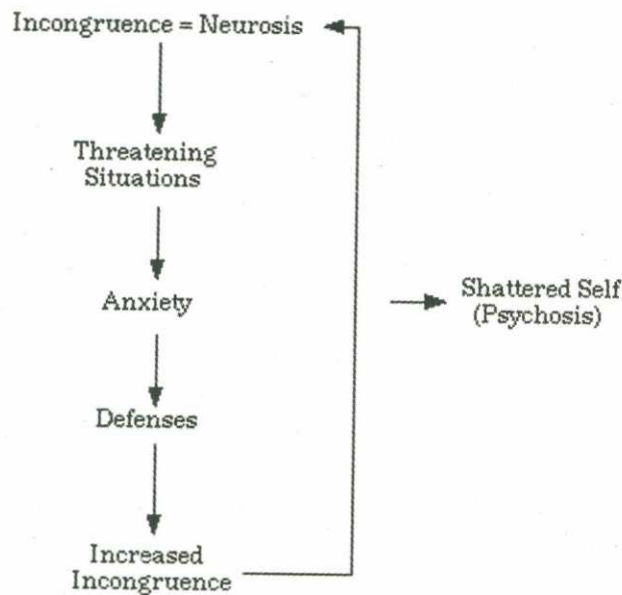


Fig. 5.2: Incongruity

This gap between the real self and the ideal self, the “I am” and the “I should” is called *incongruity* (see Fig. 5.2). The greater the gap, the more the incongruity. The more the incongruity, the more the suffering (see Fig. 5.3). In fact, incongruity is essentially what Rogers means by *neurosis* — being out of synch with your own self. If this all sounds familiar to you, it is precisely the point that has been made by Karen Horney (Unit 3).

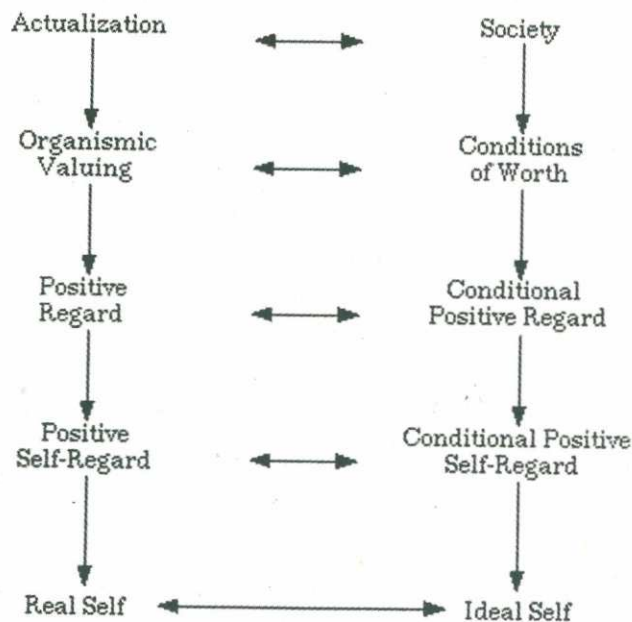


Fig. 5.3: Incongruence = Neurosis.

Defenses: When you are in a situation where there is an incongruity between your image of yourself and your immediate experience of yourself (that is between the ideal and the real self), you are in a *threatening situation*.

For example, if you have been taught to feel unworthy, if you do not get A's on all your tests, and yet you aren't really all that great a student, then situations such as tests are going to bring that incongruity to light and tests will be very threatening.

When you are expecting a threatening situation, you will feel *anxiety*. Anxiety is a signal indicating that there is trouble ahead, that you should avoid the situation. One way to avoid the situation, of course, is to run for the hills. Since that is not usually an option in life, instead of running physically, we run psychologically, by using *defenses*.

Roger's idea of defenses is very similar to Freud's, except that Roger considered everything from a perceptual point-of-view, so that even memories and impulses are thought of as perceptions. He propounded only two defenses: denial and perceptual distortion.

Denial means very much what it does in Freud's system. The person blocks out the threatening situation altogether. An example might be the person who never picks up his test or asks about test results, so he doesn't have to face poor grades (at least for now!). Denial for Roger also includes what Freud called repression; that means keeping a memory or an impulse out of one's awareness by refusing to perceive it. In this way one may be able to avoid (again, for now!) a threatening situation.

Perceptual distortion is a matter of reinterpreting the situation so that it appears less threatening. It is very similar to Freud's rationalisation. A student that is threatened by tests and grades may, for example, blame the professor for poor teaching, tricky questions or bad attitude. The fact that sometimes professors are poor teachers, write tricky questions, and have bad attitudes only makes the distortion work better — if it could be true, then may be it really was true. It can also be much more obviously perceptual, such as when the person misreads his grade as better than it is.

Unfortunately for the poor neurotics (and, in fact, most of us), every time they use a defense; they put a greater distance between the real and the ideal. They become ever more incongruous, and find themselves in more and more threatening situations, develop greater and greater levels of anxiety, and use more and more defenses. It becomes a vicious cycle that persons eventually are unable to get out of, at least on their own.

Roger also had a partial explanation for *psychosis*. Psychosis occurs when a person's defenses are overwhelmed, and their sense of self becomes "shattered" into little disconnected pieces. Their behaviour likewise has little consistency to it. We see them as having "psychotic breaks", that is episodes of bizarre behaviour. Their words may make little sense. Their emotions may be inappropriate. They may lose the ability to differentiate self and non-self, and become disoriented and passive.

The fully-functioning person: Roger, like Maslow, is just as interested in describing the healthy person. His term is "*fully-functioning*", and involves the following qualities in the healthy person:

- 1) *Openness to experience*: Openness to experience is the opposite of defensiveness. It is the accurate perception of one's experiences in the world, including one's feelings. It also means being able to accept reality, again including one's feelings.
- 2) *Existential living*: Existential living is living in the here-and-now. Roger as a part of getting in touch with reality, insists that we do not live in the past, the one which is gone or the future, which isn't anything at all, yet. The present is the only reality we have.
- 3) *Organismic trusting*: We should allow ourselves to be guided by the organismic valuing process. We should trust ourselves; do what feels right and what comes naturally. In fact, many of the excesses of the sixties and seventies were blamed on this attitude. But keep in mind that what Roger meant is trusting one's real self, and one can only know what one's real self has to say if one is open to experience and living existentially! In other words, organismic trusting assumes that the person is in contact with the actualising tendency.
- 4) *Experiential freedom*: Roger felt that it was irrelevant whether or not people really had free will. We feel very much as if we do. This is not to say, of course, that we are free to do anything at all. We are surrounded by a deterministic universe, so that, flap my arms as much as I like, I will not fly like Superman. It means that we feel free when choices are available to us. Roger said that the fully-functioning person acknowledges the feeling of freedom, and takes responsibility for her or his choices.
- 5) *Creativity*: If one feel free and responsible, one will act accordingly, and participate in the world. Fully-functioning persons, in touch with actualisation, will feel obliged by their nature to contribute to the actualisation of others, even life itself. This can be through creativity in the arts or sciences, through social concern and parental love, or simply by doing one's best at one's job. Creativity as Roger used it is very close to Erikson's generativity.

Application: Therapy

Carl Roger is best known for his contributions to therapy. His therapy has gone through a couple of name changes along the way. He originally called it *non-directive*, because he felt that the therapist should not lead the client, but rather be there for the client, while the client directs the progress of the therapy. As he became more experienced, he realised that, as "non-directive" as he was, he still influenced his client by his very "non-directiveness". In other words, clients look to therapists for guidance, and will find it even when the therapist is trying not to guide.

So he changed the name to *client-centered*. He still felt that the client was the one who should say what is wrong, find ways of improving, and determine the conclusion of therapy. This therapy was still very "client-centered" even while he acknowledged the impact of the therapist. Unfortunately, other therapists felt that this name for his therapy was a bit of a slap in the face for them — aren't most therapies "client-centered"?

Now-a-days, though the terms non-directive and client-centered are still used, most people just call it *Rogsonian therapy*. One of the phrases that Roger used to describe his therapy is "supportive, not reconstructive", and he used the analogy of learning to ride a bicycle to explain. When you help children to learn to ride a bike, you can't just tell them how. They have to try it for themselves. And you can't hold them up the whole time either. There comes a point when you have to let them go. If they fall, they fall, but if you hang on, they never learn.

It's the same in therapy. If independence (autonomy, freedom with responsibility) is what therapists are helping clients to achieve, then they will not achieve it if they remain dependent on you, the therapist. They need to try their insights on their own, in real life beyond the therapist's office. An authoritarian approach to therapy may seem to work marvelously at first, but ultimately it only creates a dependent person.

There is an important technique that Rogerians are known for; that is, *reflection*. Reflection is the mirroring of emotional communication. For example, if the client says "I feel like shit", the therapist may reflect this back to the client by saying something like "So, life's getting you down, hey?" By doing this, the therapist is communicating to the client that she or he is indeed listening and cares enough to understand.

The therapist is also letting the client know that what the client is communicating. Often, people in distress say things that they don't mean but only because it feels good to say them. For example, a woman once came to the therapist and said "I hate men!" The therapist reflected by saying "You hate all men?" "Well", she said, "Maybe not all" — she didn't hate her father or her brother or, for that matter, the therapist. Even with those men she "hated", she discovered that for the great majority of them she didn't feel as strongly as the word hate implies. In fact, ultimately, she realised that she didn't *trust* many men, and that she was afraid of being hurt by them the way she had been by one particular man.

Reflection must be used carefully, however. Many beginning therapists use it without thinking (or feeling), and just repeat every other phrase that comes out of the client's mouth. They sound like parrots with psychology degrees! Then they think that the client doesn't notice, when in fact it has become a stereotype of Rogerian therapy — the same way as sex and man have become stereotypes of Freudian therapy. Reflection must come from the heart, that is, it must be genuine and congruent.

This brings us to Roger's famous requirements of the therapist. Roger felt that a therapist, in order to be effective, must have three very special qualities, which are:

- 1) *Congruence*: Congruence is genuineness and honesty with the client.
- 2) *Empathy*: Empathy is the ability to feel what the client feels.
- 3) *Respect*: Respect is shown by acceptance and unconditional positive regard towards the client.

He said these qualities are “*necessary and sufficient*”. If the therapist shows these three qualities, the client will improve, even if no other special “techniques” are used. If the therapist does not show these three qualities, the client’s improvement will be minimal, no matter how many “techniques” are used. Now this is a lot to ask of a therapist. They’re just human, and often enough a bit more “human” (let’s say unusual) than most. Roger gave in a little, and he added that the therapist must show these things in the therapy relationship. In other words, when the therapist leaves the office, he can be as “human” as anybody.

Many people agree with Roger, even though these qualities are quite demanding. Some of the research does suggest that techniques don’t matter nearly as much as the therapist’s personality, and that, to some extent at least, therapists are “born” and not “made”.

Check Your Progress Exercise 1

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

Define the following terms:

i) Physiological needs

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ii) Self-actualisation

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iii) Self-esteem need

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iv) Actualising tendency

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v) Need for positive regard

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vi) Phenomenal field

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vii) Self concept

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5.3 ETHOLOGICAL THEORIES

Ethology is concerned with the adaptive, or survival, value of behaviour and its evolutionary history. It was first applied to research on children in the 1960s, but has become more influential in recent years.

According to the ethological view, babies are biologically prepared to contribute actively to the establishment of a bond with their caregivers, which promotes the chances for their individual genes to survive. Since ethologists believe that children's behaviours can be best understood in terms of their adaptive value, they seek a full understanding of the entire organism that is, their environment system, including physical, social and cultural aspects. Although ethology emphasises the genetic and biological roots of development yet, learning is also considered important because it lends flexibility and adaptiveness to behaviour.

5.3.1 John Bowlby's Ethological Theory

John Bowlby (1907-1990) in 1969 first applied the idea that many human behaviours have evolved over the history of our species because they contribute to the infant-caregiver bond and promote survival. He believed that the human baby, like the young of other animal species, is equipped with a set of built-in behaviours that help in keeping the parent nearby and increase the chances that the infant will be protected from danger. Contact with the parent also ensures that the baby will be fed, but Bowlby was careful to point out that feeding is not the only basis for attachment. Instead, the attachment bond has strong biological roots.

According to Bowlby, the infant's relationship to the parent begins as a set of innate signals that call the adult to the baby's side. Over time, a true affectional bond develops, which is supported by new emotional and cognitive capacities as well as a history of sensitive and responsive care.

Bowlby explained that the mother also inherits a genetic blue print that programmes her to respond to the baby. There is a critical period during which the meshing together of the mother's and baby's behaviour produces an attachment.

According to Bowlby, the development of attachment takes place in four phases which have been described below:

- 1) *The pre-attachment phase (birth to 6 weeks):* A variety of built-in signals like grasping, smiling, crying and gazing into the adults eyes; help bring newborn babies into close contact with other human beings.
- 2) *The attachment-in-the-making phase (6 weeks to 6-8 months):* During this phase, infants start to respond differently to a familiar caregiver than to a stranger (see Fig. 5.4).



Fig. 5.4: Infants of 6 weeks to 6-8 months start to respond differently to a familiar caregiver than to a stranger.

- 3) *The phase of clear-cut attachment (6-8 months to 18 months-2 years):* Now attachment to the familiar caregiver is evident. Babies of this period show *separation anxiety*, in that they become very upset when the adult on whom they have come to rely leaves.
- 4) *Formation of reciprocal relationship (18 months to 2 years and beyond):* By the end of the second year, rapid growth in representation and language permits, the toddler to understand some of the factors that influence the parents' coming and going and to predict their return.

Out of their experiences during the four phases, according to Bowlby, children construct an enduring affectional tie to the caregiver. Once firmly established, it bridges time and distance. This inner representation of the parent-child bond becomes an important part of personality. It serves as an internal working model or set of expectations concerning the availability of attachment figures, the likelihood of receiving support from them during times of stress and the interaction with those figures throughout future relationships.

5.3.2 Harry Harlow's Attachment Theory

There is no shortage of theories about infant attachment. Two theorists, Freud and Erikson proposed influential views, as did John Bowlby. Freud believed that infants become attached to the person or object that provides oral satisfaction. For most infants, this is the mother since she is most likely to feed the baby. Is feeding as important as Freud thought? A classic study in 1958 done by Harry Harlow (1905-1981) with rhesus monkeys cast doubt on this speculation.

Harlow was inspired by studies that showed that infants raised in orphanages without handling or loving attention withered away, and often died. He designed an experiment with infant rhesus monkeys, which he took away from their mother shortly after birth, and raised with two different artificial surrogate mothers. One surrogate was made of wire; the other was covered with terry cloth and possessed a more rhesus-looking face. Both “mothers” were equipped with baby bottles placed through a hole in the chest, which allowed nursing to take place. Regardless of which mother provided food, the baby rhesus spent as much time as possible cuddling and hugging the cloth mother. Even rhesus monkeys fed by only the wire mother formed strong attachments to the cloth mother and spent most of their time hugging it.

This clearly demonstrated that feeding is not the crucial element in the attachment process and that *contact comfort* is important. This experiment seriously challenged the view of social learning theories and psychoanalysts who view attachment mainly as a function of feeding.

5.3.3 Mary Ainsworth's Attachment Theory

Mary Ainsworth (1913-1999) was influenced by studies on attachment among monkeys and their babies. After studying attachment in Ugandan babies in 1967, she tried to replicate her studies in Baltimore. But because of cultural differences between Africa and the United States, she changed her approach which had relied on naturalistic observation in babies homes and devised the now famous strange situation. *Strange situation is a procedure involving short separation from and reunions with the parent that assesses the quality of the attachment bond.* The strange situation takes infants through eight short episodes during which separations from and reunions with the parent occurs. By observing the responses of infants in these episodes she has identified a secure attachment pattern and two patterns of insecure attachment. These are:

- *Secure attachment:* Infants protested and cried on separation, but when the mother returned, they greeted her with pleasure and were easy to console.
- *Avoidant attachment:* Infants did not show distress during parental separation and avoided parent upon return.
- *Resistant attachment:* Infants, who respond in this way, approach their mothers, cry to be picked-up and then fight to get free, as though they aren't sure what they want.

According to Ainsworth, a baby builds a “working model” of what can be expected from the mother. As long as the mother continues to act in basically the same way, the model holds up. But if she changes her behaviour toward the baby, not just once or twice but consistently, the baby can revise the model, and the nature of attachment may change.

Ainsworth believed that the secure attachment in the first year of life provides an important foundation for psychological development later in life.

Application of Ethological Theories

Ethological attachment theories have generated an incredible body of research which focused on understanding the social, emotional and interpersonal development of children. According to the ethological theory the attachment bonds are important as they promote survival.

The strange situation is the most widely used technique for measuring the quality of infant-caregiver relationship. Strange situation also generated lots of cross cultural research.

A number of studies have been undertaken to study factors that affect attachment security like maternal deprivation, quality of care giving, infant characteristics, and family circumstances. Researchers, parents and policy makers have been interested in maternal employment and effects of day care on attachment. The relationship between the infant and the father is of interest to developmental researchers and laymen alike (see Fig. 5.5).



Fig. 5.5: Developmental researchers have noted a strong relationship between the infant and the father.

The potential role played by the father during infancy was ignored by researchers for a long time. To a large extent this can be attributed to the nature of our society and to the relative unavailability of fathers for the purpose of conducting systematic research. Studies that have been conducted in this area have noted a strong relationship between the infant and the father.

Check Your Progress Exercise 2

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

- 1) What are the behaviours of babies that help to keep the parents nearby?

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2) Name the phases of development of attachment.

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3) What do you understand by the phrase 'strange situation' as used by Ainsworth?

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4) List the patterns of attachment.

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5) What is the important element in attachment as described by Harlow?

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5.4 CONTEXTUAL THEORIES

5.4.1 Bronfenbrenner's Ecological Theory

Ecological theory, also called "Development in Context" or "Human Ecology" theory was developed by Urie Bronfenbrenner (1917-2005), generally regarded as one of the world's leading scholars in the field of developmental psychology.

Since its publication in 1979, Bronfenbrenner's major statement of this theory in the form of the book "The ecology of human development" has had widespread influence on the way psychologists and others approach the study of human beings and their environments. As a result of his ground breaking work in "human ecology", these environments; ranging from the family to

economic and political structures, have come to be viewed as part of the life course from childhood through adulthood. Bronfenbrenner has identified Soviet developmental psychologist Lev Vygotsky and German-born psychologist Kurt Lewin as important influences on his theory.

According to Bronfenbrenner the social context of individual interaction and experiences determines the degree to which individuals can develop their abilities and realise their potentials. His conceptual model for studying human beings in their various social environments like the ecology of human development, allows for a systematic study of interactions and serves as a guide for future research on the very complicated process of socialisation.

Bronfenbrenner's complicated but inclusive definition of the *ecology of human development* is as follows:

The *ecology of human development* involves the scientific study of the progressive, mutual accommodation between an active, growing human being and the changing properties of the immediate settings in which the developing person lives, as this process is affected by relationships between these settings and by the larger contexts in which the settings are embedded.

More simply, ecology involves interrelationships between human beings and their environments, including the consequent psychological, social and cultural process overtime.

Bronfenbrenner's ecological theory holds that development reflects the influence of several environmental systems. The theory identifies five environmental systems (see Fig. 5.7). These five environmental systems are:

- **Microsystem:** Microsystem is the setting in which the individual lives. These contexts include the person's family, peers, school and neighbourhood (see Fig. 5.6). It is in the microsystem that the most direct interactions with social agents take place, for example, with parents, peers and teachers. The individual is not a passive recipient of experiences in these settings, but someone who helps to construct the settings.



Fig. 5.6: Children's development is influenced by the people in their microsystems.

- **Mesosystem:** Mesosystem refers to relations between microsystems or connection between the contexts. The mesosystem includes the relation of family experiences to school experiences, school experiences to religious experiences and family experiences to peer experiences. For example, children whose parents have rejected them may have difficulty developing positive relations with teachers.
- **Exosystem:** Exosystem involves links between a social setting in which the individual does not have an active role and the individual's immediate context. For example, a husband's or child's experience at home may be influenced by mother's experiences at work place. The mother might receive a promotion that requires more travel, which might increase conflict with the husband and change patterns of interaction with the child.
- **Macrosystem:** Macrosystem describes the cultures in which individuals live. Cultural contexts include developing and industrialised countries, socio-economic status, poverty, and ethnicity.
- **Chronosystem:** Chronosystem is a fifth system, which was added later. It involves temporal changes in ecological systems, or within individuals, producing new conditions that affect development. The negative effects of divorce on children often peak in the first year after the divorce. By two years after the divorce, family interaction is less chaotic and more stable. As an example of socio-historical circumstances, consider how the opportunities for women to pursue a career have increased during the last thirty years.

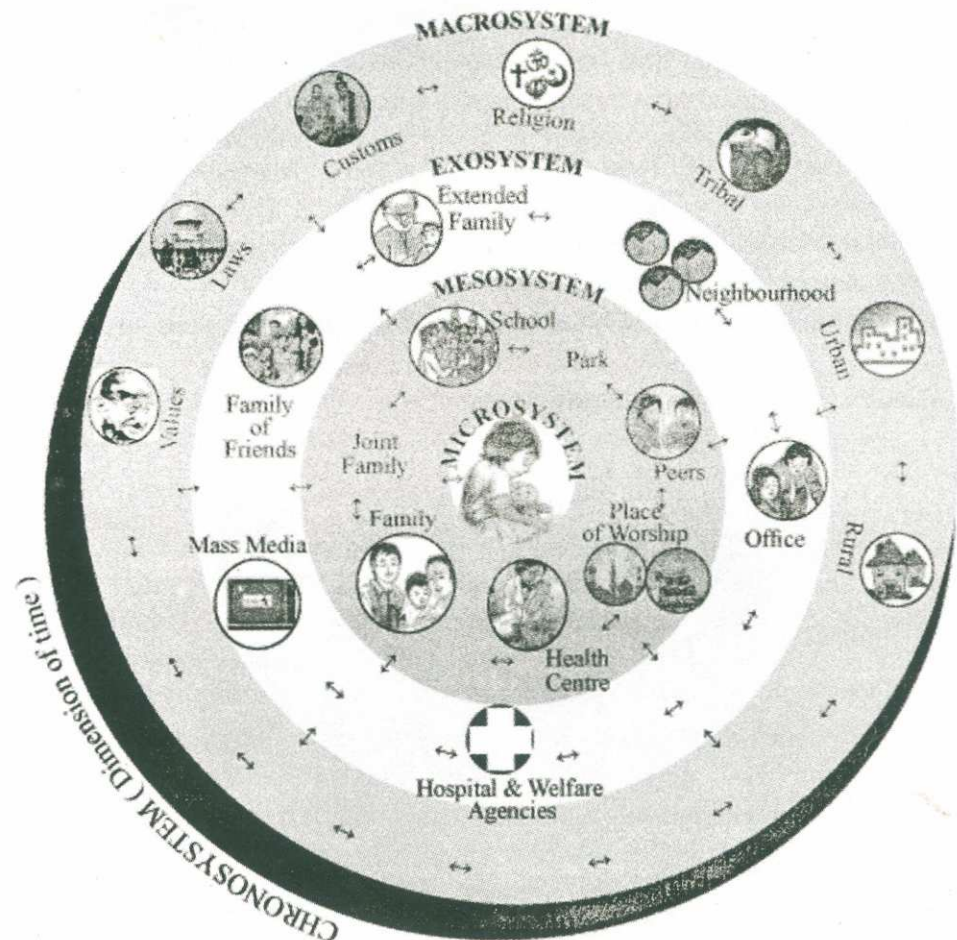


Fig. 5.7: Bronfenbrenner's ecological model of the environment as a series of nested structures.

The importance of Bronfenbrenner's ecological scheme stems from the fact that it stresses the importance of analysing relationships between the child and a variety of environmental systems. In addition, it emphasises that the ecology of the child is never static. Development involves the interaction of the growing child with a changing matrix of ecological systems. The child's subjective experience or understanding of the environment and the child's active role in modifying the environment are important aspects of ecological theory.

Application

Ecological system theory has tremendous applied significance, since it suggests that intervention at any level of the environment can enhance development. For example, at the level of the ecosystem, providing socially isolated parents of disabled children with access to parenting groups where they can discuss their problems and experience gratifying social relationships helps relieve distress and improve conditions and provision of requisite intervention for children. Bronfenbrenner in 1989 emphasised that change at the level of the macrosystem is particularly important, since the macrosystem affects all other environmental levels. For example, revising established values and government programmes in ways more favourable to child development has far-reaching impact on the well-being of children.

Check Your Progress Exercise 3

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) What do you understand by ecological theory?

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2) What is exosystem?

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3) What does the macrosystem involve?

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4) Which is the fifth system propounded by Bronfenbrenner?

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5.4.2 Life Course Theory

Life course theory, more commonly termed the life course perspective, refers to a multidisciplinary paradigm for the study of people's lives, structural

contexts, and social change. This approach encompasses ideas and observations from an array of disciplines, notably history, sociology, demography, developmental psychology, biology and economics. In particular, it directs attention to the powerful connection between individual lives and the historical and socioeconomic context in which these lives unfold. As a concept, a *life course* is defined as "a sequence of socially defined events and roles that an individual enacts over time". These events and roles do not necessarily proceed in a given sequence, but rather constitute the sum total of the person's actual experience. Thus, the concept of life course implies age-differentiated social phenomena distinct from uniform life-cycle stages and the life span. *Life span* refers to the duration of life and characteristics that are closely related to age but that vary little across time and place.

In contrast, the life course perspective elaborates the importance of time, context, process, and meaning of human development and family life. The family is perceived as a micro social group within a macro social context; "a collection of individuals with shared history who interact within ever-changing social contexts across ever increasing time and space". Aging and developmental change, therefore, are continuous processes that are experienced throughout life.

Many researchers identify the life course perspective as a "new" paradigm in the behavioural sciences because it was not formally advanced until the 1990s. During this decade, rapid change and population aging drew attention to historical influences and to the complexity of processes underlying family change and continuity.

Early applications of life course theorising can be traced to the beginning decades of the twentieth century. Until the mid-1960s, however, no distinct field of life course studies, with a focus on the variability of age patterns, developmental effects, and the implications of historical change had gained prominence. At this time, researchers from diverse social science disciplines examined various aspects of these themes, including the joint significance of age, period and cohort in explaining the relationship between individual and social change. "Social time tables" and their variability were also used to study development, aging, and cohorts. For example, Bernice Neugarten pioneered a research programme that considered individual deviations from widely shared age expectations about the timing of major transitional events (for example, when to marry or to have children).

Research conducted in the 1970s and 1980s continued to incorporate these themes, as well as to focus attention on historical changes in life patterns, the consequences of life course experiences (such as the Great Depression) on subjective well-being, the interlocking transitions of family members, and integrating kin and age distinctions, among others. By the end of the twentieth century, the life course approach was commonly considered an "emerging paradigm" with both a distinctive theory and methods. Glen Elder, in particular, began to advance core principles of life course theory which he describes as defining "a common field of inquiry by providing a framework that guides research on matters of problem identification and conceptual development". This perspective has also been (and continues to be) synthesised with other theories or fields of study, such as family development, human development, status attainment, stress theory, demography, gerontology and Bronfenbrenner's ecological perspective.

Several fundamental principles characterise the life course approach. They include: socio-historical and geographical location; timing of lives; heterogeneity or variability; "linked lives" and social ties to others; human agency and personal control; and how the past shapes the future. Each of these tenets will be described below and the key concepts will be highlighted. This will be followed by an overview of selected example of empirical application from an international and cross-cultural perspective.

- 1) *Socio-historical and geographical location*: An individual's own developmental path is embedded in and transformed by conditions and events occurring during the historical period and geographical location in which the person lives. For example, geopolitical events (like war), economic cycles (like recessions), and social choices and cultural ideologies (like patriarchy) can shape people's perceptions and choices and alter the course of human development. Thus, behaviour and decisions do not occur in a vacuum, because people and families interact within socio-historical time. Indeed, an understanding of the location of various cohorts in their respective historical contexts aids scholars and policy makers to identify circumstances that have differentially affected people's respective life histories.
- 2) *Timing of lives*: Three types of time are central to a life course perspective; these are individual time, generational time and historical time. *Individual* or *ontogenetic time* refers to chronological age. It is assumed that periods of life, such as childhood, adolescence and old age influence positions and roles in society and that these may be based on culturally shared age definitions. *Generational time* refers to the age groups or cohorts in which people are grouped on the bases of their age. People born between 1930 and 1940 witnessed freedom struggle in India. Finally, *historical time* refers to societal or large scale changes or events and how these affect individuals and families, such as political and economic changes, war and technological innovations. For example, information access through the Internet. Furthermore time can also be envisioned as a sequence of transitions that are enacted over time. A *transition* is a discrete life change or event within a trajectory (for example, from a single to married state), whereas a *trajectory* is a sequence of linked states within a conceptually defined range of behaviour or experience (for example, education and occupational career). Transitions are often accompanied by socially shared ceremonies and rituals, such as a graduation or wedding ceremony, whereas a trajectory is a long-term pathway, with age-graded patterns of development in major social institutions such as education or family. Moreover, transitions typically result in a change in status, social identity and role involvement.
- 3) *Heterogeneity or variability*: Heterogeneity or diversity in structures or process is another life course principle. One must consider not only the average developmental and transitional trends, but also the variability. Indeed, generations or cohorts are not homogeneous collections of people. Rather they differ in terms of influential dimensions such as gender, social class, family structure, ethnicity and religion. Moreover, the ability to adapt to the life course change can vary with the resources or supports

inherent in these elements in the form of economic or cultural capital (for example, wealth, education) or social capital (for example, family or social support). Finally, there is also the recognition of increasing diversity associated with aging. The longer one lives, the greater the exposure to factors that affect the aging process.

- 4) *Linked lives and social ties*: The fourth tenet emphasises that lives are interdependent and reciprocally connected on several levels. Societal and individual experiences are linked through the family and its network of shared relationships. As a result, macro-level events such as war could affect individual behaviour (for example, enrolling in military service), and this can significantly affect other familial relationships. Stressful events, such as the death of a family member, can also affect family coping styles, functioning and well-being.

In addition, family members can also synchronise or coordinate their lives with regard to life planning and matters related to the timing of life events. This can sometimes generate tensions and conflicts, particularly when individual goals differ from the needs of the family as a collective unit.

- 5) *Human agency and personal control*: According to the life course perspective individuals are active agents who not only mediate the effect of social structure but also make decisions and set goals that shape social structure. Individuals are assumed to have the capacity to engage in planful competence, which refers to the thoughtful, proactive, and self-controlled processes that underlie one's choices about institutional involvements and social relationships. However, it should be recognised that the ability to make specific choices depends on opportunities and constraints. Parallel to this idea is the concept of *control cycles* whereby families and individuals modify their expectations and behaviour in response to changes in either needs or resources. It is seen that families in the Great Depression regained a measure of control over their economic hardship through expenditure reductions and multiple family earners. In this way, families and individuals can construct, negotiate and traverse life course events and experiences.
- 6) *How the past shapes the future*: Finally, another hallmark of this perspective is that early life course decisions, opportunities and conditions affect later outcomes. The past, therefore, has the potential to shape the present and the future, which can be envisioned as a ripple or domino effect. This can occur at various levels, that are the cohort/ generational level and the individual/familial level. For example, one generation can transmit to the next generation the reverberations of the historical circumstances that shaped its life history (living through the feminist movement, for example). The timing and conditions under which earlier life events and behaviour occur (for example, dropping out of school, witnessing domestic abuse) can also set up a chain reaction of experiences for individuals and their families (for example, reproduction of poverty, a cycle of family violence). The past, therefore, can significantly affect later life outcomes such as socioeconomic status, mental health, physical functioning and marital patterns.

Application

The life course perspective has been applied to several areas of family inquiry internationally. In the United States, researchers have adopted this framework to investigate men's housework, the timing of marriage and military service, work history and timing of marriage, families, delinquency and crime as well as many other substantive areas.

In Canada, researchers have used a life course approach to study the transition to grandmotherhood and youth transitions into adulthood, especially leaving and returning to home. It should also be noted that this perspective is becoming popular in studies of ethnic diversity, social inequality, and aging families and that numerous cross-national comparisons of life patterns have been conducted (for example, between Germany and the United States).

Futhermore, the life course approach is being used more and more in countries such as Japan and other East Asian countries, as well as Great Britian, Germany, Italy, Norway, the Netherlands and India. Applications of the life course perspective are illustrated in research on generational relations and family support in Thailand and Sri Lanka, caregiver's material histories in Britian, the German life history study, young adults from the Netherlands; changing patterns of age, work and retirement in Europe; and patterns of household formation and inheritance in pre-industrial northern Europe and in northern India.

Check Your Progress Exercise 4

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) What is the life course perspective?

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2) List the principles that characterise the life course approach.

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3) What is generational time?

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4) What do you understand by the term 'linked lives'?

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5.5 LET US SUM UP

In this Unit, we studied that Maslow and Roger basically agree that man is an integrated whole, and basically good, creative being. Both emphasised on the study of psychological health. Maslow depicts human motivation in terms of a hierarchy of ascending priorities. For Roger, all human motives are subsumed under a single master motive that is the actualising tendency, which means the innate tendency of the individual to actualise, maintain and enhance himself.

Ethological theories emphasise the genetic and biological roots of behaviour. According to this view, babies are biologically prepared to contribute actively to establish a bond with their caregivers, which promotes the chances for their survival.

Ethological approach is concerned with understanding the adaptive or survival value of behaviour and its evolutionary history. The foremost authority on the development of attachment is John Bowlby who developed a four phase theory of attachment. John Bowlby applied ethological theory to the understanding of human mother-infant relationship. Bowlby argued that attachment behaviours of infants to their mothers in the form of smiling, babbling, grasping and crying were built-in social signals that encourage the mother to approach the infant. Bowlby updated the psychoanalytic perspective by emphasising that the newborn baby is biologically prepared to contribute actively to the attachment relationship. Mary Ainsworth conducted laboratory investigation to study attachment in human infants in strange situation. Ainsworth observed infant's responses to a series of brief separations from and reunions with their mothers. On the basis of the babies' reactions, Ainsworth identified a secure attachment pattern along with two insecure patterns that are avoidant and resistant. These patterns describe the quality of parent-child relationship. Harry Harlow challenged the statement that attachment bond depends on satisfying an infant's hunger. Harlow found that comfort is central in the development of attachment.

Bronfenbrenner's ecological theory emphasises environmental contexts. In Bronfenbrenner's theory of ecology of human development, the environment is envisioned as a series of nested structures that extend beyond the home, school and neighbourhood settings in which children spend their everyday lives. According to Bronfenbrenner, environment is not a static entity. It is a dynamic ever changing force in development. In ecological theory development is neither driven by inner forces nor automatically controlled by environmental circumstances. Children are products as well as producers of their environments both of which form a network of interdependent effects on development.

Life course theory refers to a multidisciplinary paradigm for the study of people's lives, structural contexts and social change. As a concept, a life course is a sequence of socially defined events and roles that the individual enacts over time. The fundamental principles that characterise the life course approach are: socio-historical and geographical location; timing of lives; heterogeneity or variability; "linked lives" and social ties to others; human agency and personal control and how the past shapes the future. The life course perspective has been applied to several areas of family inquiry to study domains such as men's housework, the timing of marriage and military service, work history and timing of marriage, families, delinquency and crime as well as many other substantive areas.

5.6 GLOSSARY

- Actualising tendency** : Built in motivation present in every life form to develop its potentials to the fullest extent possible.
- Adaptive value behaviour** : A means of determining the normalcy of behaviour. This determination is made based on how functional the behaviour is for that individual. Behaviours that decrease the individual's ability to get along in the world are considered abnormal.
- Attachment** : The development of specific behaviours whereby an infant seeks to be near certain people.
- Avoidant attachment** : An attachment to the mother wherein the infant does not appear upset about the mother's absence and avoids interaction with her upon reunion.
- Congruity** : State of harmony that occurs when there is no discrepancy between the person's experience and his or her self-concept.
- Critical period** : A specific period in the child's development when he or she is sensitive to a particular environmental stimulus but if the same stimulus comes either before or after the critical period it does not produce the same effect in the individual.
- Ethological perspective** : The perspective in child psychology that development is a process of adaptation to the environment. In accordance with its evolutionary emphasis, this perspective places great importance on cross cultural comparisons and on comparisons of children with other species.
- Exosystem** : An environmental system that, according to Bronfenbrenner, comprises settings which affect the child but are not affected by the child, that is, settings in which the child plays no direct role.
- Fully functioning person** : Individual who is utilising her or his potential to the maximum.
- Humanistic communitarian society** : An ideal democratic society in which all individuals would have input into the decisions that affect their lives and in which they would also be able to develop their potential to the fullest, without fear of exploitation.
- Hierarchy of needs** : The arrangement of the needs from the lowest to highest in terms of their potency.

- Humanistic psychology** : Type of psychology primarily concerned with helping individuals to reach their maximum. It is also a psychology that emphasises and tries to foster the dignity and worth of each human being.
- Macrosystem** : According to Bronfenbrenner, the environmental level that comprises the set of ideological institutional patterns of a particular culture.
- Maternal deprivation** : An insufficient interaction with the primary caretaker. The lack of this interaction can have a profound negative effect on the physical and emotional development of an infant.
- Mesosystem** : According to Bronfenbrenner, the environmental level that comprises the interrelationships among contexts of the microsystems in which the child actively participates, such as those between home and school.
- Microsystem** : According to Bronfenbrenner, this represents the actual setting in which the child lives and interacts with other people.
- Need for positive regard** : Learned or innate tendency on the part of individuals to seek the approval of others.
- Organismic valuing process**: According to Rogerian principle, experiences which are perceived as maintaining or enhancing oneself are sought after and valued positively, whereas experiences which are perceived as negating or opposing one's maintenance or enhancement are valued negatively and avoided.
- Secure attachment** : An attachment to the mother wherein the infant occasionally seeks to be close to her, intensifies the contact-maintaining behaviour after being left alone in an unfamiliar situation, and is actively curious in dealing with new objects in unfamiliar situations when the mother is present.
- Self actualisation** : Involves the healthy development of the abilities of people so that they can live a meaningful and fulfilling life.
- Strange situation** : In attachment research, a means of assessing the quality of attachment relationships in infants through the infants' reactions to a series of situations involving the presence or absence of the mother and a stranger.
- Unconditional positive regard** : Rogers' term for respect and acceptance given to another whether or not that person behaves in accordance with the accepting person's expectations.

5.7 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

- i) Physiological needs are our basic needs for survival, for example food, water, sleep, oxygen, etc.
- ii) Self-actualisation is the desire to become a kind of person that one wants to become and living a meaningful and fulfilling life.
- iii) Self-esteem need is a basic need that motivates the individual to gain recognition and respect from others.
- iv) Actualising tendency is the primary motive to maintain and enhance oneself.
- v) Need for positive regard is learned tendency on the part of individuals to seek acceptance, respect and love from significant others.
- vi) Phenomenal field is the totality of the individual's experience.
- vii) Self concept is the individual's conception of the kind of person she or he is.

Check Your Progress Exercise 2

- 1) Babies have a set of built-in behaviours that help keep the parent nearby, such as smiling, crying, gazing, etc.
- 2) The development of attachment takes place in four phases namely, the pre-attachment phase, the attachment-in-the-making phase, the phase of clear-cut attachment and the formation of reciprocal relationship.
- 3) Strange situation is a procedure involving short separations from and reunions with the parent that assesses the quality of the attachment bond.
- 4) Patterns of attachment are secure attachment, avoidant attachment and resistant attachment.
- 5) Contact comfort is the crucial element in attachment as described by Harlow.

Check Your Progress Exercise 3

- 1) Ecological theory is Bronfenbrenner's view that development is influenced by multiple levels of environmental systems, from immediate settings of family and school to broad cultural values and programmes.
- 2) Exosystem refers to social settings in which the individual does not have an active role but which influence what the individual experiences in an immediate context.
- 3) Macrosystem involves the culture in which the individual lives. Culture refers to the behaviour patterns, beliefs and values that are passed on from one generation to another generation.
- 4) Chronosystem is the fifth environmental system in Bronfenbrenner's human ecological framework. It involves the changes in ecological systems or within individuals, transitions over the life time as well as socio-historical circumstances.

Check Your Progress Exercise 4

- 1) Life course perspective studies the importance of historical time, socio-cultural contexts and processes that affect people's life.
- 2) The principles that characterise the life course approach are:
 - a) Socio-historical and geographic location,
 - b) Timing of lives,
 - c) Heterogeneity or variability,
 - d) Linked lives and social ties,
 - e) Human agency and personal control, and
 - f) How the past shapes the future.
- 3) Generational time refers to the age groups or cohorts in which people are grouped, on the bases of their age.
- 4) Linked lives mean that individuals are interdependent and reciprocally connected through the family and network of shared relationships.

5.8 UNIT END QUESTIONS

- 1) Critically analyse the theory of hierarchy of needs by Maslow.
- 2) Discuss the characteristics of fully functioning persons as stated by Carl Roger.
- 3) How can you apply ethological theories in day-to-day life?
- 4) Discuss the different ecological systems of adolescents living in a school hostel. Explain with the help of a diagram.
- 5) Explain the principles of life course theory in your own words.

5.9 FURTHER READINGS AND REFERENCES

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MCFT-001

Human Development and Family Relationships

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BLOCK 5 MANUAL FOR SUPERVISED PRACTICUM (MCFTL-001)

