

INTRAPSYCHIC DOMAIN – I

Unit Structure:

- 1.0 Objectives
- 1.1 Psychoanalytic Aspects of Personality
 - 1.1.1 Theory of Mind
 - 1.1.2 Structure of Personality
 - 1.1.3 Defense Mechanisms
 - 1.1.4 Stages of Personality Development
 - 1.1.5 Psychoanalytic Techniques
 - 1.1.6 The process of Psychoanalysis
- 1.2 Psychodynamic Perspective: Contemporary Issues
 - 1.2.1 Criticisms of Freud's theory
 - 1.2.2 Neo-Analytic Movement/ Approach
 - 1.2.3 Carl Jung
 - 1.2.4 Alfred Adler
 - 1.2.5 Karen Horney
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1.0 OBJECTIVES

- To understand the structure of mind as presented by Freud
- To study the structure of Personality as presented by Freud
- To know about Psychoanalytic techniques of therapy
- To know about Freud's Theory of Personality Development
- To gain an understanding on Freud's defense mechanisms

- Study Neo-Analytical Approach
- To know about Alfred Adler's theory on personality
- To study Karen Horney's theory on personality

1.1 PSYCHOANALYTIC ASPECTS OF PERSONALITY

Sigmund Freud was the proponent of the Psychoanalytic school of thought. In this chapter, we will learn about his theories of Personality development and theories of mind, but before proceeding further it is imperative to understand the concept of Psychoanalysis.

Freud's theory of Psychoanalysis emphasized the unconscious as the driving force behind Personality. Freud believed that all individuals have a form of Psychic energy that drives our behaviours. This Psychic energy is limited and he said that our lives are governed by two conflicting forces which are Eros (Life instinct) and Thanatos (Death instinct). He emphasized that Sex and Aggression were two basic drives that influenced all our behaviour.

Freud's theory of Personality is a deterministic theory as it stated that much of an individual's behaviour is predetermined and an individual has no choice while responding to an environment.

1.1.1 Theory of Mind:

Freud stated that our mind is made of three parts:

1. **Conscious:** The smallest part of the mind is known as the Conscious. It contains thoughts, feelings that are currently in our conscious awareness.
2. **Pre-conscious:** The second part of the mind, which is slightly bigger than the conscious, is known as the pre-conscious. It is made up of thoughts and feelings that are currently not a part of our conscious awareness, but can be brought to mind, if the need arises. It includes memories, thoughts, dreams which can be easily retrieved and brought into the conscious.
3. **Unconscious:** The third and the largest part of our mind is known as the unconscious. It is composed of thoughts, desires, urges, conflicts and memories which are out of our conscious awareness. The unconscious contains memories, thoughts, unacceptable urges which are hidden from awareness, the knowledge and experience which is so troubling that it may cause anxiety to the individual.

1.1.2 Structure of Personality:

According to Freud, Personality was composed of three parts - id, ego, and superego.

Id is the primitive part of personality and is considered to be the reservoir of energy. According to Freud, it is something we are born with and contains all primitive urges and drives. Id operates on the 'Pleasure

principle', which demands immediate gratification of wishes. Id is engaged in primary process thinking which is thinking devoid of logical rules. Id may also engage in wish fulfilment wherein when something is unavailable, one imagines that object/event which leads to temporary satisfaction of that urge. The Id cannot tolerate any delay in gratification of urges.

The superego is the part of the personality that develops after id and is the part of the personality that develops when a child undergoes potty training. It operates on the 'Morality principle'. The superego is that part of the mind that internalizes ideals, values and morals of society. Whenever we do something wrong, it is the superego which makes us feel guilty, ashamed or embarrassed. It sets moral standards for individuals and acts as a source of judgement. It may be referred to as our conscience as it helps in enforcing and deciding what is wrong and what is right. Superego uses guilt as a tool to enforce moral standards.

The Ego was the part of the personality that aimed at striking a balance between the Id's wishes and ego's rules. It operates on the 'Reality principle'. Ego delays gratification of the id's urges until it is appropriate to do so. It may be understood as the executive part of our personality. Ego engages in secondary process thinking which can be understood as the process of development of strategies for problem solving and obtaining satisfaction. The ego takes into consideration constraints in reality and then decides the appropriate situation where id's urges can be satisfied.

CHECK YOUR PROGRESS:

- Write a short note on Id, Ego and Superego.

1.1.3 Defense Mechanisms:

Freud posited that whenever material from the unconscious comes into conscious awareness, it disturbs the individual and causes anxiety. Thus, individuals may employ various cognitive processes and behaviours that help keep anxiety at bay. Some of these are:

- 1. Repression:** Pushing down unacceptable thoughts, desires, uncomfortable memories and experiences into the unconscious without conscious awareness. For example, a girl who was sexually abused as a child, forgets about that experience and suddenly remembers years later when she sees a similar scene in a movie.
- 2. Regression :** Going back to an earlier stage of personality/ behaviour which was secure. For example, curling up while sleeping represents the position of babies when they are secure in their mother's womb.
- 3. Displacement:** Redirecting a threatening impulse from a more threatening to less threatening object. For example, when your boss yells at you, you are frustrated and when you reach home you have an angry outburst at your sibling when he/she teases you about something trivial. In the current example, you cannot yell back at your boss as it is

a threatening impulse, expressing it would get you fired; hence you suppress your anger and frustration. This frustration later comes out in the form of yelling at your sibling. It is important to note that displacement is not conscious redirection of anger or a threatening impulse.

- 4. Projection:** Act of externalizing one's own needs/desires/feelings onto someone else or something else. For example, a cheating spouse might suspect their partner is unfaithful.
- 5. Rationalization:** Giving logical, but not real reasons for behaviour, which sometimes might have been driven by unconscious motives. For example, Ashwin does not invite Sandeep (a coworker, whom Ashwin dislikes) for his birthday party but reasons it out to himself saying the venue would be too far for Sandeep, therefore it is better that he doesn't have to take the trouble travelling such a long distance.
- 6. Sublimation:** Channeling your unacceptable urges, desires, and impulses into a desirable, socially acceptable and more productive art form. For example: Ramesh channeled his traumatic feelings into his paintings.
- 7. Reaction Formation:** Projecting a completely outward response which is completely opposite to what one feels inside. It is the process of pushing away threatening impulses by over-emphasizing the opposite reaction. This is done to prevent the anxiety that occurs when one comes in contact with unconscious urges and desires. For example, if a person has feelings of attraction towards the same gender and acknowledgement of those feelings causes him anxiety then he/she will oppose homosexuality in the outside world as the desire for same sex attraction is threatening to the individual.
- 8. Denial:** Refusal to acknowledge anxiety producing stimuli. For example, a smoker denies that smoking is bad for his or her health.

CHECK YOUR PROGRESS:

- What is Defense Mechanism and explain its types.

1.1.4 Stages of Personality Development :

Freud believed that all individuals pass through a set series of stages of Personality development. Each of these stages is characterized by a conflict and resolution for that conflict determines one's personality. Freud's theory of personality development is known as the psychosexual stages of development as each stage is characterized by sexual gratification obtained through a particular body part. If at any stage, sexual gratification remains incomplete then fixation of libido occurs at that stage. Fixation is understood as the excessive investment of sexual energy at a particular stage.

Oral Stage: The first stage is the oral stage of psychosexual development, which begins from birth and lasts up to 1 and a half years. The mouth is the center for gratification and babies seek pleasure through thumb sucking, biting or other activities. Fixation of libido at this stage results in an oral receptive or oral aggressive personality. Such individuals might derive pleasure from biting, sucking, chewing, sucking hard candy and smoking cigarettes. They may also derive pleasure by talking and constantly seeking knowledge.

Anal Stage: The second stage of psychosexual development is referred to as the anal stage and it lasts from 1 and a half to 3 years of stage. This is the stage where children are exposed to toilet training and are exposed to societal rules for the first time. Pleasure is obtained through the anus through the acts of expelling feces or retaining bodily waste material. Fixation of libido results in development of an anal-expulsive or anal-retentive personality. When toilet training has been too harsh and the child lives in constant fear of punishments, the child may grow up to have an anal-retentive personality. Such individuals may be too stingy and may be overly concerned with order, neatness and organization. While some children, who have had very lenient toilet training, may develop an anal expulsive personality. They may derive pleasure by not following rules or regulations that constrain their freedom of action.

Phallic Stage: The third stage of psychosexual development is referred to as the phallic stage of development. The genitals are the source for gratification at this stage. This stage roughly corresponds to when a child is 3- 6 years old. Children develop feelings of attraction towards parent of the opposite sex while harboring dislike towards parent of the same sex. In boys, this attraction towards the mother and rivalry towards the father is termed as the Oedipal Complex. In the case of girls, these feelings of sexual attraction towards their father while rivalry towards the mother is known as the Electra complex. Boys feel that they have to compete with their father for the love of their mother. They also feel anxious that their father might punish them for having feelings of attraction towards their mother and might castrate their penis. This fear held by boys is known as Castration anxiety. Little girls on the other hand, might realize that they do not have a penis like boys and might resent their mother for it. This resentment is understood as Penis envy. These feelings of anxiety are reduced when children begin to imitate behaviours of parent of the same sex. This process is known as Identification.

Latency stage: The fourth stage is understood as the latency stage. This is the stage that begins when a child begins formal schooling. It roughly corresponds to when a child is 5 or 6 years of age. The child is engrossed in school activities and sexual feelings are dormant at this stage. Sexual energy is channeled into activities conducted in school.

Genital stage: The fifth stage is known as the genital stage. At this stage, adolescents begin having feelings of sexual attraction towards members of the opposite sex in their peer group. They are now capable of intense

feelings of love and intimacy and might engage in deep relationships with others. This stage lasts till adulthood.

1.1.5 Psychoanalytic Techniques:

There are three techniques that are majorly used by psychoanalysts for revealing the unconscious. These are:

- A. Dream Analysis:** In this technique, the content of dreams is analyzed and interpreted in order to understand unconscious and unacceptable urges. Often interpretation of dreams leads for uncovering of two types of content namely, manifest content and latent content. Manifest content are the symbols and images, which are expressed as part of the dream. Latent content is the content which is hidden, which is not expressed as part of the dream. Often direct contact with one's unacceptable urges or deep desires may cause distress to the individual, hence most of the latent content is disguised into forms and symbols which are then expressed in the dream as manifest content. For example, an individual may dream that he/she is complimented by a teacher for their work on a presentation. This scenario would be understood as the latent content. However, Freud may interpret this dream as the individual having feelings of attraction towards that teacher. This interpretation of what the symbols in the dream signify is understood as manifest content.
- B. Free Association:** This technique involves letting the patient say whatever comes to his or her mind. This method aids in removing the censor that frequently blocks significant information from entering our conscious awareness.
- C. Projective Techniques:** These techniques rely on the idea of the Projective Hypothesis. Projective hypothesis states that when an individual encounters relatively unstructured, ambiguous stimuli, he/she projects their inner thoughts, desires, urges, conflicts onto that stimuli.

Some of the common projective techniques include Draw a Person Test, Draw a House Test, Thematic Apperception Test, Rorschach Inkblot Test and so on. In Draw a Person test, an individual is asked to draw a person and the drawing helps the therapist to interpret the personality of the patient. For example, if a patient draws an excessively large head which is disproportionate to the other parts of the body, then one can infer that person thinks highly of himself. Likewise, other projective Techniques may be used to understand the conflicts and desires of the patient.

CHECK YOUR PROGRESS:

- What are different Psychoanalytic techniques?

1.1.6 The Process of Psychoanalysis:

With the help of dream analysis, free association and projective techniques, the psychoanalyst is able to uncover material from the

unconscious which may be the source of the patient's problems. It is imperative that the patient also begins to understand his or her conflicts and suppressed urges that contribute to the problem. After conducting a number of sessions, the analyst offers his or her interpretation of the situation. The analyst might confront the patient with an explanation of something she has been keeping away from herself. This understanding that the patient begins to possess about the unconscious source of the problem is understood as insight. It may be defined as an intense emotional experience that accompanies the release of repressed material.

At times, the process of gaining insight may be interrupted through the development of a cognitive process known as resistance. Resistance is the process where the patient unconsciously sets up obstacles to progress when material from the unconscious threatens the individual. Thus, the patient might display behaviours, such as forgetting appointments, not paying the analyst's bill, arriving late at sessions or spending enormous amounts of time in sessions talking about trivial matters.

It is important to deal with resistance in a correct manner so that it should not hamper progress. Another phenomenon that might occur during the process of psychoanalysis, is the phenomenon of transference. Transference involves the patient transferring feelings and thoughts held towards a significant other in the patient's life into the therapist. For example, if a person holds feelings of resentment towards his or her father and begins to see the therapist as a father, he or she might transfer the feelings of resentment towards the therapist. Transference is an important step in the Psychoanalysis process as it may help uncover repressed feelings and attitudes that may contribute to the patient's problems.

CHECK THE PROGRESS:

- Explain structure of Personality.
- What are the techniques used in Psychoanalyses?

1.2 PSYCHODYNAMIC PERSPECTIVE: CONTEMPORARY ISSUES

1.2.1 Criticisms of Freud's Theory:

One of the major strengths of Freud's Psychoanalytic theory was that it was one of the earliest and the most comprehensive theories of human nature. His theory had a major impact on Western thought and played a significant role in sociology, literature, history and other social sciences.

One of the major criticisms of Freud's theory is that it is untestable and unverifiable. One of the major strengths of any theory is that it can be tested and can be falsified. Since it is almost impossible to test his theory, therefore it is impossible to falsify it.

Another major criticism for Freud's theory was that it had no empirical basis. Thus, the manner in which observations were made which served as

the foundation for theory was challenged by a lot of researchers. Much of his theory was based on interpretations of observations that he wrote and not actual observations.

Another major criticism of Freud's theory was that, a small unrepresentative sample was used as a basis to develop a general theory of human population. Much of Freud's observations on human nature is based on Freud's interactions with his patients. Most of these patients were aristocratic upper-class, middle-aged women who were very verbal in nature and had a lot of time to spare during their sessions. Hence, his sample was very limited and the results of which could not be generalized to the entire population.

Many researchers disagree with Freud's negative view on personality. Freud suggested that the human nature is violent, self-centered and impulsive. He stated that in the absence of the superego, humans would self-destruct. This view was contested by a number of other researchers.

Freud through his writings implied that women were inferior to men (Koffman 1985). He suggested that women's superego was weaker than men and it was more difficult to cure women.

1.2.2 Neo-Analytical Movement/Approach:

The Neo-Analytic Movement/Approach was an approach developed by followers of Freud who had worked with Freud initially, but later disagreed with Freud on some major theoretical concepts. These included Carl Jung, Karen Horney, Alfred Adler, Erik Erikson and others. Some of the postulates of the Neo-Analytic school of thought were:

- Childhood continued to play an important role in personality development of an individual.
- Personality development involves not just regulating sexual & aggressive feelings, but also moving from an immature socially dependent way of relating to others to a mature independent relationship style (Westen 1990).
- Reduced focus on sexuality and sexual libido as factors influencing personality development.
- Unconscious still plays an important role in Personality.
- Behaviour often reflects compromises between forces of conflicting nature.

While Classical Psychoanalytic theory believed that unconscious was the basis of all behaviour, Neo-Analytic approaches distinguished between the idea of a motivated and cognitive unconscious. Cognitive view of unconscious believed that thoughts were considered to be unconscious as they were beyond our conscious awareness and not because they represented unacceptable urges or because they were repressed. Researchers like Kihlstorm (1999) recognized that information could be

part of our memories without us being aware of that information. This was evident in the case of subliminal perception, where information presented at sub-optimal levels of sensory perception, could still be recorded in our perception without conscious awareness.

The phenomenon of priming where subliminal perception made material more accessible in our brain was a prime example of cognitive unconscious. Thus, the cognitive view of the unconscious was very different from the view of the unconscious put forth by Freud who regarded it as a reservoir of primitive and irrational urges that had an overarching impact on behaviour and personality development.

1.2.3 Carl Jung:

Carl Jung theorized that the mind has four functions namely, thinking, feeling, sensing and intuiting. Thinking refers to reasoning. Sensing refers to gaining knowledge through senses. Feeling refers to trusting one's emotions. And, intuition refers to trusting one's instincts. Jung stated that people tend to view the view using one of the four functions which serves as the primary or superior function.

Jung also spoke about two attitudes in personality development. These were Extroversion and Introversion. Extroverts focus their psychic energy into the outside world while introverts focus their psychic energy inwards. The four functions along with the two attitudes played a major role in determining behaviour patterns of an individual.

Jung made a distinction between 'personal unconscious' and 'collective unconscious'. Personal unconscious consists of deep hidden thoughts, memories and urges, while the collective unconscious consists of experiences and symbols that are shared collectively by others. The collective unconscious consists of archetypes which are emotional symbols and ideas that are shared by people which exist from the beginning of time. For example, the archetype of a mother is a person who is caring, nurturing, loving towards the offspring. He also explained some of the important archetypes part of our unconscious.

Jung also spoke about the concepts of the persona and the shadow. The persona is the part of personality which is seen by others, while the shadow is the part of personality which is hidden from others.

Another set of important archetypes explained by Jung were the concepts of anima and animus. Anima referred to the unconscious feminine side of males, while animus referred to the unconscious masculine side of females.

1.2.4 Alfred Adler:

Alfred Adler believed that one of the major driving forces for our personality and interaction pattern is the idea of "Striving for superiority". He theorized that when individuals encounter events that leave them powerless, they are overcome with an overwhelming sense of helplessness

and a sense of inferiority. Inability to overcome these feelings of inferiority over a long period of time results in an inferiority complex for that individual. Thus, the individual may feel that it is impossible to achieve goals. For example, A Sports person who is consistently unable to perform at sports events may believe he or she is inferior to others and may not try to put in efforts to improve his or her performance.

Sometimes individuals may try to overcompensate these feelings of inferiority by having an inflated sense of self-worth. These inflated feelings of self-worth are understood to be part of a Superiority complex.

Adler emphasized that birth order, that is, the position in which one is born in the family also plays an important role in determining personality characteristics. First-borne children receive special treatment, are given independence, learn responsibility, and must adjust to losing their status as the favourite kid. Children who are second-borne are born into a hostile and competitive environment. Last-borne children are frequently treated better and may continue to be treated as the family's infant. Only children may develop independence and may face problems in sharing resources.

1.2.5 Karen Horney:

Karen Horney was one of Freud's followers that disagreed with the concept of 'penis envy'. She was one of the first researchers who recognized the importance of culture and society in determining Personality. She stated that women are not envious of the penis, but rather are envious of the power and status that men hold in society and are denied to women. She also stated that societal restrictions imposed on women and lead women to envy the status and power men hold in society.

She theorized that men experience the feelings of womb envy. Womb envy refers to the phenomenon that men are envious of women's ability to give birth. Thus, men seek to control women in order to compensate for their lack of ability to bring life into this world.

Horney noted that many women also experience a cognitive process known as 'fear of success'. Many women believe that if they were to be successful, they would lose their friends and hence may unconsciously prepare themselves for failure.

She theorized that since children have to rely on adults to get their basic needs met, they might experience powerlessness and may fear being left alone. This fear of the child of being abandoned, helpless and insecure is understood as basic anxiety. Individuals may try to deal with basic anxiety by adopting one of three ways of behaviour namely moving towards people, moving away from people by becoming aggressive and moving against others. People who move towards others adopt a passive approach and are people pleasers while those who move against others adopt an aggressive approach and those who move away from others adopt a withdrawn style and feel it is best to not engage emotionally with others.

CHECK THE PROGRESS:

- Explain the contribution of Karen Horney, Alfred Adler and Carl Jung in Neo- Analytical approach.

1.3 SUMMARY

This unit focused on Freud's contributions to Psychology. The theory of mind with reference to preconscious, conscious and unconscious was discussed. Conscious is the part of the mind that contains thoughts, ideas in our conscious awareness. Preconscious is the part of the mind that contains memories and thoughts that are currently not in conscious awareness but can be brought back to mind easily. The unconscious is the largest part of our mind which stores our memories, unacceptable desires, primitive urges, conflicts that are hidden from our awareness.

The structure of personality with reference to id, ego, and superego was discussed. Id was the primitive part of personality which worked on the pleasure principle. Superego was the part that developed next and worked on the morality principle. Ego was the executive part of personality which worked on the reality principle.

We talked about Freud's theory of psychosexual stages of personality development and emphasis was laid on oral, anal, phallic, latency and genital stages. The techniques of dream analysis, free association and projective techniques were focused on. Dream analysis is a process wherein a patient's dreams are analyzed to understand the unconscious conflicts troubling him/her. Free association is the process of allowing the patient to say whatever comes to his or her mind.

A critical review of Freud's contributions was given followed by emphasis on the Neo-Analytic Movement. The second half of the unit focused on the Neo-Analytic Movement and theories given by Karen Horney, Alfred Adler and Carl Jung. Carl Jung's typology of personality with reference to introverts and extroverts along with Anima (feminine side of male personality) and Animus (masculine side of female personality) were elaborated. Adler's theory of personality with reference to inferiority complex, striving for perfection and superiority complex were discussed. Karen Horney's work on culture and feminism was described with reference to the concept of womb envy and fear of success. Horney's concept of basic anxiety which referred to a child's fear of being abandoned, helpless and powerless was described in the unit.

1.4 QUESTIONS

Long answers:

- Write a detailed answer on theory of mind and theory of personality given by Freud.
- Describe in detail Freud's theory on personality development and write a critical review of Freud's psychoanalytic perspective

- Describe in detail the techniques and process of Freudian psychoanalysis

Short notes :

- Write a short note on Alfred Adler's view of personality
- Write a short note on Karen Horney

1.5 REFERENCES

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INTRAPSYCHIC DOMAIN – II

Unit Structure:

- 2.0 Objectives
- 2.1 Psychodynamic Perspective: Contemporary Issues
 - 2.1.1 Erik Erikson
 - 2.1.2 Object Relations Theory
- 2.2 Motives and Personality
 - 2.2.1 Basic Concepts
 - 2.2.2 Big Three Motives
- 2.3 Humanistic Tradition
 - 2.3.1 Maslow's hierarchy of needs
 - 2.3.2 Characteristics of Self-actualizing persons
 - 2.3.3 Roger's Contributions to Humanistic Psychology
- 2.4 Summary
- 2.5 Questions
- 2.6 References

2.0 OBJECTIVES

- To study Erik Erikson's stages of personality development
- To know about Object Relations Theorists
- To understand what is the need for achievement
- To gain knowledge about the need for power
- To understand Maslow's hierarchy of needs
- To know about the core conditions of Client-Centred therapy
- To gain an understanding of Rogers's contributions to therapy

2.1 PSYCHODYNAMIC PERSPECTIVE: CONTEMPORARY ISSUES

In the previous chapter, we studied about Freudian psychoanalytic perspective and the theories of Carl Jung, Alfred Adler and Karen Horney. In this chapter, we will discuss the rest of Neo- Analytic scholars: Erik Erikson and Object Relation Theorists. We will focus on Erik Erikson's stages of Identity development. We will also learn about the big three motives namely the need for achievement, the need for power and the need for intimacy. We will focus on Humanistic Psychology with reference to Abraham Maslow's hierarchy of needs and Carl Rogers' contribution to Humanistic Psychology.

2.1.1 Erik Erikson:

Erik Erikson postulated a theory of personality development, which is known as the psychosocial theory of personality development. He stated that individuals pass through a series of eight stages of personality development, where each stage represents a conflict between two behaviours. Successful completion of each stage leads to the development of virtue at the end of each stage. These stages are as follows:

- 1. Trust v/s Mistrust:** This stage represents a conflict between whether an infant can trust and depend on their environment and caregivers or not. If the infant is well taken care of and is provided love and affection, the infant develops the value of trust. If the infant is not provided with care or love, they may develop the idea of mistrust, that is, others can never be trusted. Successful navigation of this stage results in the experience of hope as a virtue.
- 2. Autonomy v/s Self-Shame and Doubt:** This stage corresponds with what is referred to as the Terrible Twos. Children might begin exploring their environment and their skills and abilities. If the child develops a sense of control and mastery over things, he or she develops autonomy and the virtue of confidence. If the parents of the child are restrictive and the child is not allowed to be independent, the child may develop shame. If all goes well, the infant develops the virtue of will.
- 3. Initiative v/s Guilt:** During this stage, children enter preschool and would play together, organize goals and work with a leader. If all goes well, children develop a sense of initiative and purpose, while if they do not succeed at tasks; they may develop a sense of guilt and may become resigned to failure.
- 4. Industry v/s Inferiority:** At around age four, children may begin trying out new activities and comparing themselves to their peers. If they achieve success in their activities, they develop a sense of competence and achievement. If the child is unable to succeed in a task or find an area in which he or she excels, they may develop a sense of inferiority.

- 5. Identity v/s Role Confusion:** This stage occurs during adolescence. Adolescents experience an identity crisis at this stage and are often trying to find answers to the question “Who am I?” They may try out various activities and various roles to find an answer about their identity. Some individuals might have their identity pre-decided and would not like to explore alternatives. Such individuals might experience identity foreclosure. While some individuals might take time in exploring options and making a commitment to any Identity. This process is known as identity moratorium. Successful navigation of this stage results in the ego developing the skill of loyalty.
- 6. Intimacy v/s Isolation:** This stage involves developing friendships and intimate relationships with people. If the individual is able to make relationships that are nurturing, caring and mutually satisfying, he or she develops the virtue of love. If the individual is unable to develop meaningful friendships or relationships with people, he or she may experience isolation. Successful navigation of this stage results in experiencing the virtue of love.
- 7. Generativity v/s Stagnation:** This stage occurs during adulthood. During this stage, individuals may think about whether they have created something that they really care about. Sometimes this may be in the form of a career or may be in the form of a family that an individual has. On the other hand, some individuals when they look back at their life may experience stagnation, where they are no longer experiencing growth in terms of personal or professional life. Successful completion of this stage leads to the development of the virtue of care.
- 8. Integrity v/s Despair:** This is the last stage of life often coinciding with late adulthood. In this stage, individuals look back at their life thinking over whether they led a coherent happy life without regrets or whether they are unhappy with the decisions they made in their life. If they lead a happy life, they experience ego integrity; otherwise, they lead a life of despair. Successful navigation of this stage results in developing the virtue of wisdom.

CHECK YOUR PROGRESS:

- Explain Erik Erikson’s theory of personality.

2.1.2 Object Relations Theory:

Object Relations theorists focus on an individual's relations with significant others. Thus, mental representations of significant others play an important role in determining an individual's personality. Otto Kernberg and Heinz Kohut were prominent researchers in this paradigm. According to Kernberg, the self is socially produced as a result of certain interpersonal experiences with other people. Some individuals may constantly try to appear more powerful, more independent and more liked than others. This style of inflated self-esteem is referred to as narcissism.

John Bowlby was another prominent Object Relations theorist. Bowlby studied the infant's attachment relationship with the mother and determined whether the infant's needs for protection, nurturance and support were met by the mother. He introduced the concept of separation anxiety, which refers to the distress and agitation experienced by an infant when the mother leaves.

Mary Ainsworth and her colleagues used a technique known as the 'strange situation procedure' to study separation anxiety in infants. This strange situation procedure was a 20-minute procedure in which the mother left the infant alone for a few minutes and the infant's reactions to this act were recorded. In this procedure, the infant and the mother enter a room with a lot of toys. After some time, a stranger enters the room in the presence of the mother. Shortly after, the mother leaves the infant alone in the room with the stranger. After a few minutes are passed, the mother returns to the room. Upon examining the patterns of behaviour of the infants in the strange situation procedure, infants were categorized as having three types of attachment styles.

1. **Securely attached:** These infants explored the new environment, approached the stranger at times wanting to be held by them then, and when the mother returned, they sought contact with the mother and finally went on to explore the environment. These were calm in the absence of the mother.
2. **Avoidantly attached:** These infants were unbothered by the mother's departure and continued to remain unbothered even after the mother returned. They avoided contact with the mother and continued to be engrossed in their own world.
3. **Ambivalently attached:** These infants expressed distress in the absence of the mother. When the mother returned, they first sought contact with the mother and then expressed their anger by avoiding their mother.

Later research on mothers of these three groups of infants revealed that there was a difference in behaviour among mothers of infants of the three groups. Mothers of securely attached infants provided more stimulation and affection to their babies and responded to their babies much more as compared to mothers of infants from the other two groups. Mothers of both avoidantly attached babies and ambivalently attached babies paid lesser attention and were less responsive to their babies.

According to Bowlby, the infant's early experiences and responses to the parents served as the basis for subsequent adult interactions. Thus, these experiences subconsciously influenced expectations for later relationships. Therefore, if an infant had their needs for love and care met by their parents, they were likely to feel that they could trust others and their needs for love and affection would be met by other individuals. However, if an infant felt that they are unwanted or they cannot trust their parents to take care of them, they might come to believe that no one else would want them either.

Research has also shown that parent-infant attachment style was positively associated with relationship style developed later during adulthood.

CHECK YOUR PROGRESS:

- Explain 3 types of attachment styles.

2.2 MOTIVES AND PERSONALITY

2.2.1 Basic Concepts:

What is a Need?

Before we delve into the big three motives, it is important to understand the concepts of motives, needs and the difference between the two. Motives are “internal states that arouse and direct behaviour towards a specific object or goal”. These may be caused by a deficit or lack of something.

While needs can be understood as states of tension within the individual. Motives are based on needs. As a need is satisfied, the state of tension is reduced. For example, the need to drink water creates the motive for thirst. Thus, a thirsty person might see an oasis in the middle of a desert as he or she wants to reduce the state of tension caused by thirst. Motives force people to perceive, think and act in specific ways that fulfil a need. Thus, the motive for hunger might prompt individuals to work in exchange for food.

Apperception and TAT

The Thematic Apperception Test is a projective technique, which involves presenting a few cards with images on them to individuals and noting down the individual's responses to the cards. Apperception refers to the process in which an individual attaches meaning to stimuli he or she perceives. This test was developed by Henry Murray and Cristina Morgan in 1935. The client is presented with 30 cards and for each card, the client has to narrate a story about what is happening in the picture, what led to this event and what will happen in the future. Through the responses, the clinician is able to identify the needs and presses of the environment. Presses are need-relevant aspects of the environment. Murray postulated that there is a so-called real environment and a perceived environment. There are two types of presses, namely Alpha Press and Beta Press. The alpha press is understood as the objective reality, which is the so-called real environment. The beta press is understood as reality as perceived by the individual.

TAT can also be used to determine both state levels and trait levels of a need. State levels of a need refer to the "Momentary amount of a specific need, which can fluctuate under specific circumstances." Trait levels of a need refer to "measuring a person's average tendency on a specific trait."

2.2.2 Big Three Motives:

1. Need for Achievement:

Major research on the need for achievement was done by David McClelland. People who are high on this need, tend to be competitive, have the desire to do better, to be successful. Challenges and a variety of tasks seem to energize this need. This need is associated with curiosity, interest and exploration. People with high trait levels of Need for Achievement prefer tasks with moderate levels of difficulty. This is because an easy task poses no challenge as everybody else can accomplish the task and an impossible task will not provide an opportunity to do better as there is fear of failure. People with high trait levels of Need for Achievement prefer situations in which they are responsible for an outcome and prefer tasks in which feedback is provided.

Sex Differences in Need for Achievement: Research has found that differences might exist between the sexes in terms of life outcomes among those with a high need for achievement. A high need for Achievement in men is usually associated with successful business outcomes, while for women, outcomes associated with a high need for Achievement may depend on whether the woman values family life, career or both. With respect to women, who valued family more, the need for Achievement was observed in women's investment in activities of dating and courtship such as talking to their friends about their boyfriends more frequently and being more concerned about the one's physical appearance. While for women, who valued both family and career, the need for achievement was associated with getting higher grades, completing college, marrying and starting a family life later. (Kostner and McClelland, 1990)

It has been found that the women with high levels of need for achievement had mothers, who were always critical, demanding and unsupportive of their daughter's achievements, while men with high levels of need for Achievement had come from families that provided high emotional support and motivation to them.

Promoting the Need for Achievement in Children: Research has found that setting challenging tasks/standards for children can foster a need for achievement in children. Such tasks need to have moderate difficulty levels, such that they are not too easy, while at the same time, successful completion of the task results in a feeling of accomplishment in children.

Parenting practices that encourage independence training in children also help foster a high need for achievement in children. Independence training refers to a parenting practice that allows autonomy and independence to children. For example, giving a child the freedom to choose their own outfit would give them a sense of independence.

Research has also shown that individuals who are securely attached develop a higher need for achievement as compared to those with an ambivalent or avoidant attachment style.

2. Need for Power:

Research on the need for power was done by David Winter. Winter (1973) defines the need for power as a 'readiness or preference for having an impact on other people'. This need is exerted when people are in situations or positions that present an opportunity for exerting power. Research on the need for power has found that people with a high need for power tend to behave assertively in small group situations, take big gambling risks, are likely to assume office in college, acquire more prestige possessions such as sports cars, credit cards, etc. (McAdams 1990).

While research has found that there are no sex differences in average levels of need for power, men with a high need for power may perform a wide array of impulsive and aggressive behaviours. Men with a high need for power have more dissatisfying dating relationships, arguments with others, higher divorce rates and are more likely to engage in the sexual exploitation of women. They may have sex at an earlier age than their counterparts and may have more frequent sex partners compared to men with a low need for power.

Impulsive behaviours such as drinking, aggression and sexual exploitation can be avoided, if individuals are given responsibility training. For example, taking care of a sibling may constitute part of responsibility training.

It has been observed that when people with a high need for power face challenges to their authority or are unlikely to get their way, then they are likely to show a stress response. This stress response is understood as power stress and it makes them more vulnerable to disease and illnesses.

3. Need for Intimacy:

Dan McAdams is the researcher, who is associated with the work on the need for intimacy. This need refers to an individual's repeated preference for warmth, close and communicative interaction with others (McAdams 1990).

Research has found that people with a high need for intimacy:

1. Spend more time during the day thinking about relationships,
2. Report more pleasant emotions when they are around people,
3. Smile, laugh more and make more eye contact,
4. Start up conversations more frequently and write more letters.

When asked to describe a typical time with a friend, people high on the need for intimacy, report more one-on-one interactions instead of group interactions. They are likely to listen to their peers and discuss intimate personal topics such as feelings, hopes, and beliefs with them. This may lead them to be rated as "sincere", "not self-centred", "loving" and "not dominant by their peers" (McAdams, 1990).

Research has shown that the need for intimacy has been correlated with positive life outcomes for both men and women. Among women, the need

for intimacy is correlated with higher life satisfaction and happiness while among men need for intimacy has been associated with less strain in life. With respect to the sex differences in the need for intimacy, it has been observed that on average, women have a higher need for intimacy than men.

CHECK YOUR PROGRESS:

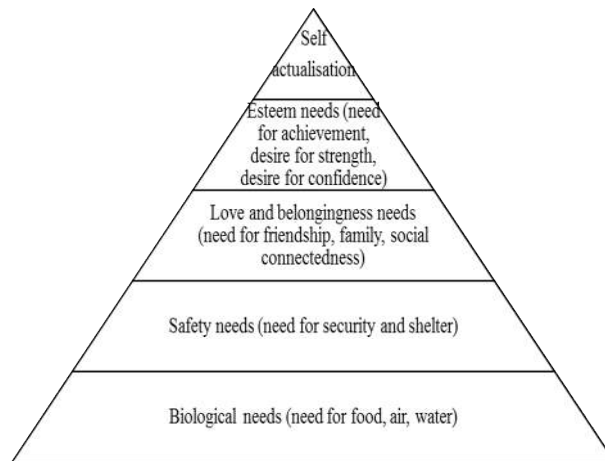
What are the three big motives?

2.3 HUMANISTIC TRADITION

Carl Rogers and Abraham Maslow were the main proponents of Humanistic Psychology. This field/ perspective of psychology believed that humans are innately good and know what is best for themselves. If left to their own free will, humans will choose a path which is best for themselves. Humanistic psychology was one of the first theories to emphasize the idea of the free choice of an individual. This theory was not deterministic in nature.

2.3.1 Maslow's Hierarchy of Needs:

Abraham Maslow developed a theory on personality and motivation, which was known as the hierarchy of needs. In this theory, he postulated that our needs are arranged at five different levels. The needs at the first level are known as the physiological or biological needs and include needs, such as hunger, thirst, sex, etc. These needs have a biological basis as they help maintain homeostasis and are necessary for survival. Thus, the need for food, air, water, and sleep are part of physiological needs. Once an individual is able to fulfil physiological needs, he or she moves on to fulfil the next level of needs. The needs at the second level are known as the safety needs and include needs, such as the need for security and shelter. The needs at the third level are known as love and belongingness needs and include needs, such as the need for friendship, family, social connection, etc. The needs at the fourth level are known as esteem needs and include needs, such as the desire for strength, confidence, achievement, recognition, etc. The needs at the fifth level are self-actualizing needs or needs for self-actualization. Self-actualization refers to the process of fulfilling one's highest potential. Maslow believed that lower-order needs must be fulfilled before the higher-order needs. Therefore, only if a person is able to fulfil all other needs, he or she will be able to concentrate on the need for self-actualization.



2.3.2 Characteristics of Self-Actualizing People:

Maslow highlighted a list of characteristics that are common to people who have attained self-actualization. They include an affinity for solitude, an efficient perception of reality, spontaneity, deep ties with relatively few people, a genuine desire to help the human race, acceptance of others, themselves and fate, the continued freshness of appreciation, more frequent peak experiences, democratic values, an ability to discriminate between means and end, philosophical sense of humour, creativity, independence from culture and environment, problem-focused.

CHECK YOUR PROGRESS:

- Explain the characteristics of a self-actualizing person.

2.3.3 Roger's Contributions to Humanistic Psychology:

Rogers believed that humans are innately good and basic human nature is benevolent and positive. Thus, each individual if left to his or her own will and would follow a path that is conducive to his growth and would do what is best for him or her. He introduced the idea of a fully-functioning person, which is an individual who is on the path of self-actualization. Fully-functioning persons are a) centred in the present, b) do not dwell upon the past, c) trust themselves, their feelings and judgements, and d) when faced with decision-making, such individuals are less likely to look for guidance from others and are more likely to trust their own thoughts and instincts.

Carl Rogers spoke about all children wanting to be accepted and loved by parents and others. This inborn need for acceptance is known as the need for positive regard. Parents often put conditions in front of children that must be fulfilled by children in order to obtain love and affection from the parents. These conditions are known as conditions of worth.

Positive regard, when earned by meeting specific conditions, is known as conditional positive regard. Often these conditions of worth prove as obstacles to the growth of an individual. Individuals become preoccupied

with what others want and may lose touch with their own desires and wants. They may behave in ways that ensure others' approval and not out of their wishes or desires. This may lead to problems for their individual. This outcome may be avoided if the individual is given unconditional positive regard. Unconditional positive regard refers to loving and valuing an individual for who he or she is without conditions or contingencies. By providing unconditional positive regard, the therapist can allow the client to be aware and accepting of his or her own true self.

Rogers viewed anxiety as a process which resulted from having an experience that did not fit with one's self-perception. He also spoke about the defence mechanism of distortion, whereby an individual modifies their experience rather than their self-image to reduce the threat. For example, if a person got a low grade in a subject, he or she would say that the professors are unfair or may take an easy class next semester to modify his or her experience.

Another important concept given by Rogers is the concept of unconditional positive self-regard. Such individuals are able to trust themselves and their feelings, are able to accept themselves for who they really are, follow their own interests and therefore are able to give themselves Unconditional positive regard.

His approach to therapy is designed to let a person back on the path of self-actualization. Rogers' style of therapy also known as client-centred therapy, is a form of therapy in which the client directs the course of the therapy and no guidance or interpretation is given to the client and no actions are made to change the client directly. Rogers gave three core conditions for therapy. These include:

- a) Unconditional positive regard from the therapist where the therapist says everything the client says without passing judgement on the client.
- b) Genuine acceptance of the client by the therapist
- c) Empathetic understanding: the client must feel that the therapist understands him or her. According to Rogers, empathy is understanding the other person from his or her point of view. The therapist is able to display empathy by restating the client's thoughts and feelings.

2.4 SUMMARY

In this unit, we learnt about motives and needs. The big three motives namely, the need for achievement, the need for intimacy, and the need for power were discussed in detail. The need for achievement refers to the need to be successful and competitive in tasks. The need for power refers to the tendency to use power as a way to influence people when they are in certain positions. The need for intimacy refers to the preference or readiness for warmth and close and deep relationships with others.

The latter half of the unit focused on humanistic psychology and the contributions of Maslow and Rogers to the humanistic tradition. We gained an understanding of Maslow's hierarchy of needs and learnt about

self-actualization and the characteristics of self-actualizing persons. Maslow's theory on motivation stated that needs can be organized at five levels namely, physiological needs, safety needs, love and belongingness needs, esteem needs and self-actualization needs. Maslow said that lower-order needs need to be fulfilled before higher-order needs are fulfilled. We learnt about Rogers's ideas about conditions of worth, positive conditional regard and unconditional positive regard. Roger's concept of a fully-functioning person was also elaborated upon. Conditions of worth are conditions set by family and friends in front of individuals in order to gain their acceptance and love. Positive regard refers to love and acceptance provided to an individual by family and friends.

Finally, Carl Rogers' three core conditions of client-centred therapy, namely, genuine acceptance, empathetic understanding and unconditional positive regard were discussed.

2.5 QUESTIONS

Long answers :

- Write a detailed answer on humanistic Tradition in psychology.
- Describe in detail the need for achievement and need for intimacy.
- Elaborate on Erik Erikson's stages of personality development.

Short notes :

- Need for power
- Object Relation Theorists
- Characteristics of people with Self-Actualization

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BIOLOGICAL AND COGNITIVE- BEHAVIOURAL DOMAIN - I

Unit structure:

- 3.0 Objectives
- 3.1 Genetics and Personality
 - 3.1.1 The Human Genome
 - 3.1.2 What is Heritability?
 - 3.1.3 Behavioural Genetic Methods
 - 3.1.4 Major Findings from Behavioural Genetic Research
 - 3.1.5 Shared versus Non-Shared Environmental Influences
 - 3.1.6 Genes and Environment
 - 3.1.7 Molecular Genetics
- 3.2 Evolutionary Approach to Personality
 - 3.2.1 Evolution and Natural Selection
 - 3.2.2 Evolutionary Psychology
 - 3.2.3 Human Nature
 - 3.2.4 Sex Differences
 - 3.2.5 Individual Differences
 - 3.2.6 The Big 5, Motivation, and Evolutionarily Relevant Adaptive Problems
- 3.3 Physiological Approaches to Personality
 - 3.3.1 Physiological Measures Commonly Used in Personality Research
 - 3.3.2 Physiologically-Based Theories of Personality
- 3.4 Check Your Progress
- 3.5 Summary
- 3.6 Questions
- 3.7 References

3.0 OBJECTIVES

- To explain the physiological approaches to studying personality
- To study the association between genetics and personality
- To familiarise the learner with the evolutionary approach of personality psychology.

3.1 GENETICS AND PERSONALITY

3.1.1 The Human Genome:

Genes are inherited by human beings in the form of sets, known as chromosomes, one from our biological mother and one from the biological father. The complete set of genes a human contains is called the human genome, which has about 20,000 to 30,000 genes. We have about 100 trillion copies of the genome in our bodies. The decoding of these genes led researchers to a couple of premises:

1. Despite having a similar number of genes as mice and worms, the decoding of genes for humans varies significantly compared to any other species. This decoding creates a variety of proteins which explains the complex differences between humans and other species (Plomin, 2002).
2. These protein-coding genes only make up about 2 per cent of the total genome, while the rest of the 98 per cent is human chromosomes. These chromosomes used to be called “**Genetic Junk**” because scientists did not think they were useful. But now we know that these can affect everything from a person’s physic to their personality (Gibbs, 2003; Plomin, 2002).

The 98% of the genome that is not protein-coded genes is the same for all human beings (e.g. having two legs, two eyes, etc.). Phenotype variations may still occur, for example, not all humans have one common eye colour. These individual differences then influence the characteristics of behaviours of a person which then defines personality.

3.1.2 What is Heritability?

A proportion of observed variance can be attributed to a genetic variance for a group of individuals (Plomin et al., 2001). Phenotypic variance is the observed individual differences like height or weight. Meanwhile, genotypic variance is the individual differences in total genes. A heritability score of 0.70 tells us that 70 per cent of phenotypic variation is attributed to genotypic variation, where the remaining 0.30 or 30 per cent is a component, which is not attributed to genetic variance, known as the environmental component or environmentalism. This suggests that there is no correlation or interaction between environmental components and genetic factors.

1. Misconceptions:

- One of the misconceptions of heritability is that it can be applied to a single individual. While you can say that individual differences in height are 80 per cent heritable, you cannot say that 80 per cent of XYZ's are due to genes and 20 per cent due to the environment. This is because their contribution to height cannot be separated.
- Another one is that heritability is constant. If an environment changes, then heritability can change too. It can also vary across time.
- The third misconception is that an absolutely precise statistic or measurement in error can distort it. The value is mostly calculated as a correlation and since it changes from population to population, it can cause problems in precision due to the fluctuations. Hence, it is better to call it an estimate of the percentage of phenotype differences attributed towards genotype differences.

2. Nature-Nurture debate:

The argument on genes or environmental factors is more important considering personality determinants. This can be clarified on a population level, where we can try to differentiate between the influence of genes and the influence of environmental factors. To better understand, questions like “which factor contributes more to X trait, genes or environment?” can be asked. At a population level, it is possible to identify these differences in genes and differences in environment. At a given moment, we can also make statements about which attribute is more important in the given context. Individual differences in height are said to have 0.90 heritability which is around 90% which suggests that 90% of individual differences in height contribute to genes/heredity, more than environmental differences.

3.1.3 Behavioural Genetic Methods:

1. Selective Breeding:

It is a process of breeding which is done to identify the desired characteristics of an animal and have them mate with other animals possessing the same desired characteristics. If dogs are used for selective breeding, the observable hereditary qualities that often come up are size, ear length, wrinkled skin, coat of hair etc.

Other than this, selective breeding can also be used to identify behavioural characteristics (Gosling, Kwan, and John, 2003). For example, Pitbull seems more aggressive than other dogs. If such characteristics have zero heritability, then selective breeding will fail. Whereas if heritability is very high, then selective breeding has a very high chance of success.

For ethical reasons, selective breeding studies are not permitted with human participants. However, there are other ways of doing studies using other behavioural genetic models, which are discussed below.

2. Family Studies:

These are studied by doing a correlation of genetic-relatedness with family members to the degree of personality similarities. Parents do not share any genetic relatedness, but they share 0.50 genes with their offspring. Similarly, their offspring share 0.25 per cent of genes with their grandparents, which is similar to aunts and uncles to their nieces and nephews.

Members, who have a close genetic-relatedness, would share highly heritable personality characteristics, but not the characteristics that have low heritability.

A limitation of this approach is that genetically close families also typically share the same environment. So, it is not always necessary that all the characteristics were inherited, but some can be similar due to the shared environment.

3. Twin Studies:

Monozygotic (MZ) twins, also called identical twins, come from a single fertilised egg, while dizygotic (DZ) twins, also called fraternal twins, are born when two eggs are fertilised, hence there is only 50% genetic relatedness.

Twin studies are a method used to estimate the heritability of a trait by comparing the degree of similarity shared by monozygotic and dizygotic twins on the trait. If the trait is heritable, the monozygotic (identical) twins would be more similar to each other than the dizygotic (fraternal) twins.

If fraternal twins are as similar as identical twins when it comes to a particular personality characteristic, then we can assume that the characteristic in question is not heritable. On the other hand, if there is a substantial difference between them for a characteristic, then it can be said that this particular characteristic is heritable. For example, twin studies have been conducted on eating disorders where the influence of genes and environment on the disorders are estimated. Results showed more environmental contribution along with genes, however, the magnitude of it is still unclear. The genetic contribution was also observed, which suggests some sort of difference in MZ and DZ twins when it comes to eating disorders (Bulik et. al., 2000).

4. Adoption Studies:

In adoption studies, a correlation between adopted children and their adoptive parents is studied, where there is no genetic relatedness, and if there is a positive correlation between a characteristic, then it can be attributed to environmental influence. Similarly, a correlation between adopted children and their genetic parents can be done to find what characteristics can be attributed to genes. It is especially useful since their genetic parents have zero influence on their environment. So, if a zero correlation is found then a particular characteristic can be fully attributed

to environmental influence. And if a positive correlation is found with zero environmental influence, then it indicates a high heritability of a particular characteristic.

Unlike twin studies, where it is difficult to remove the aspect of environmental influence because the parents typically provide a similar type of environment, and that is why their influence can be difficult to differentiate. However, that is not the case with adopted children, because both influences get separated. One of the problems faced with adoption studies is their assumption of representativeness. They assume that the adopted children, their adoptive parents and genetic parents are representatives of the general population. For example, assuming couples who adopt children and those who do not adopt children are the same. Selective placement is another problem of adoption studies. If adopted children are placed with parents who are similar to their genetic parents, then there will be some change in the correlation. However, such selective placement is not something that is commonly encountered and hence can be neglected in studies (Plomin et al., 2008).

3.1.4 Major Findings From Behavioural Genetic Research

1. Personality Traits

The majority of research done on behavioural genetics is for the traits of extraversion and neuroticism. Research on 25,000 pairs of twins was reviewed, which showed that extraversion had around 0.60 heritability (Henderson, 1982). The same kind of results was found for neuroticism, which suggests that both extraversion and neuroticism are responsible for approximately 0.50 heredity due to genes.

Traits, such as openness, extraversion, agreeableness, neuroticism, and conscientiousness have also shown a 50% of heredity (Caspi et al., 2005). It should be noted that heredity of personality factors is highly possible, since they remain stable over time.

Activity level is another trait, which has a behavioural aspect to it, which has shown heritability. A study conducted in Poland showed a 50% of heredity of activity level (Oniszczenko et al., 2003), whereas a study conducted in Dutch found values ranging from 51 to 72% (Hudziak et al., 2003). Both of these were twin studies.

One of the classic twins studies is Minnesota (Tellegen et al., 1988), which studied twins that were reared apart, 46 sets were identical while 26 sets were fraternal. Correlation between the twins was studied on different personality factors. Traits that one normally thinks come from learning and environment (traditionalism, self-esteem, for example) showed a high heritability. Many such unusual results were found in this study, which challenged many popular pre-suppositions in the field of personality.

2. Attitude and Preferences:

A longitudinal study conducted on a group of adopted and non-adopted children from Colorado showed the influence of genetics on conservative attitudes (Abrahamson, Baker, and Caspi, 2002). Attitude markers were “gay rights”, “censorship”, “death penalty”, and “Republicans”. This influence was seen right from the young age of 12. Some twin studies about political ideologies show a heritability of between 0.30 to 0.60 (Hatemi, 2014).

The influence of genes on occupational preference has been studied as well. For example, A study was conducted by Ellis and Bonin (2003) in the US and Canada between adopted children and genetic offspring. Fourteen different aspects of jobs were answered by the participants. Then these aspects were correlated with different aspects of their life, such as parental social status, their jobs and education level, income, etc. Out of them, 71% of the correlations were significant for genetic offspring and 3% for adopted ones. The research concluded that the results do not necessarily mean that the occupational preferences are entirely influenced by their families - genes only have a partial influence on them.

However, genetics does not always have some type of influence on attitudes and beliefs. A study was conducted on 400 twins and it showed that there is zero heritability of religious beliefs (Loehlin & Nichols, 1976). Another study between adopted and non-adopted children confirmed that there is no evidence of religious beliefs being hereditary (Abrahamson et al., 2002). In contrast, studies from adolescence and adulthood suggest that with an increase in age, belief in religion does increase (Button et al., 2011).

All things considered, there is still little that is known about the heritability of attitudes and the explanation of its influence on attitudes due to lack of research. More research is needed on this.

3. Drinking and Smoking:

Drinking habit is said to have come from the sensation-seeking characteristic of personality, extraversion and neuroticism (Eysenck, 1981).

Individuals differ widely, when it comes to drinking and smoking, though, some heritable characteristics contribute to them as well. One twin study conducted on Australian twins showed that an MZ twin who smokes, is 16 times more likely to have a twin, who smokes than a twin who doesn't smoke. For DZ twins it is only a seven times increase which suggests that there is a heritable factor that influences drinking and smoking (Hooper et al., 1992).

For drinking alcohol, the studies are mixed for both males and females when it comes to heritability. The studies of alcoholism show a stronger heritability than daily drinking habits (Kendler et al., 1992).

4. Marriage:

A study by Johnson and colleagues (2004) revealed that genes can influence the decision of getting married or stay single. Men who were married, compared to their peers who stayed single, were higher on mobility, success in career and financial achievement, which are some of the characteristics that women look for when it comes to prospective marriage partners (Buss, 2016).

Genes also play a role in marriage satisfaction. A woman's personality characteristics lead to their as well as their husband's marital satisfaction (Spotts et al., 2005). The personality traits that contribute to this are optimism, warmth, and low aggressiveness, which have partial attribution to heredity.

Following heritable personality characteristics play a partial role in marriage satisfaction - having a sense of purpose, personal growth, control over your life, and positive social relationships are predictors of life satisfaction (Archontaki et al., 2013).

3.1.5 Shared versus Non-Shared Environmental Influences:

Behavioural genetics makes a critical distinction between shared and non-shared environmental influences. In a family, siblings share most of their environment: the number of books in the house, the types of TV shows, that they watch, food at home, parents' values and attitudes, the religious places parents send their children to, schools that they are enrolled in, and so on (**shared environment**). However, these same siblings will have features which are not shared by the other one, which is known as a **non-shared environment**. Some siblings may get different treatments from their parents, they may have different groups of friends and so on. Their interests may differ as well. These two influences may have a differential impact on personality.

Adoption studies have proved that a shared environment has little to no influence on personality. The correlation is only 0.5 between the personality variables of adopted siblings, who do not share any genes. This suggests that whatever is happening in their environment is not contributing much to their personality. Most differences between siblings come from the difference in experience that they have with the environment they are in.

Non-shared environments are relatively new when being studied and one possibility of why a non-shared environment works could be an environmental variable was overlooked peer influences (Harris, 2006). Another possibility is that there might be multiple environmental variables that may be influencing personality together as a mix and not separately (Willerman, 1979). Studies on shared environments also have revealed their importance in influencing attitudes, religious beliefs, political orientation and to some degree, and even intelligence (Segal, 1999).

3.1.6 Genes and Environment:

1. Genotype-Environment Interaction:

Gene-Environment interaction is observed as an effect that occurs when environmental risks are accounted for by a person's genotype and vice versa (Caspi et al., 2003). An example of this can be Extroverts-Introverts (genotype) and how they react to the environment.

Depending on the environment, there is a difference between how an introvert and an extrovert will react to it. The differences that exist between these genotypes will determine the way their interaction with the environment will affect their behaviour. For example, at a party, an extrovert is more likely to be one of the most social people in the room whereas an introvert is more likely to keep to themselves or just be around a few people.

The very first study of gene-environment interaction was conducted to study adolescence and how likely they are to show aggressive behaviour. The variation in a monoamine oxidase (MAO-A) shows its relationship with early childhood maltreatment (environment). This relationship was seen to be stronger when the gene variation has low activity than those with high-activity-variant, which shows the interaction effect (Caspi et al., 2003). But one difficulty with such studies is its environmental effects. It is possible to accurately measure a genotype, but the environmental effects are reported by self or parent reports, and constructs can become vague because of their subjective nature.

2. Genotype-Environment Correlation:

Genotype-environment correlation is studied when different genotypes get exposed to different environments. For example, if a child has great Mathematical ability, then their parents will help provide an environment, which is helpful to increase this ability. On the other hand, a child who is not particularly good at maths, their parents may not do the same.

Three Genotype-Environment correlations included here are:

1. Passive Genotype-Environment Correlation: Parents provide both genotype and environment and the offspring have not done anything to obtain the environment. For example, if parents are in academics who study literature, they pass on their genes to their children, which makes them inclined towards a similar interest. Because of that, the parents create an environment that provides the child with more books. Hence, there is a correlation between genotype and environment, but it is passive because the child has not done anything for the environment to be modified according to their abilities.

2. Reactive Genotype-Environment Correlation: Parents (or others) react to the child differently depending on the child's genotype. For example, there are two children in the house. One is more into athletics, while the other is fond of reading. At first, the parents might try to get

both children to do one of these two activities. But once they realise what each of their children likes, they will not try to get the other child to participate in sports or read books; and will modify each child's environment according to their needs. This shows a correlation between the genotype and environment as a response to the child's needs.

3. Active Genotype–Environment Correlation: A person who possesses a genotype will look for a particular environment for themselves. For example, those who are more likely to be high-sensation seekers will look for any opportunity to do so; such as participating in adventure sports like scuba diving, bungee jumping, skydiving, etc. Since the person takes all the actions by themselves, the process becomes active.

These correlations can be both positive and negative. In the case of positive correlation, the expression of genotype is encouraged, while in the case of negative correlation, it is discouraged. An example of a negative correlation is - when a parent tries to get their introverted child to socialise and play more, and an extroverted, highly active child is told to sit quietly, which leads to a negative genotype-environment correlation (Buss, 1981). One possible research path for the genotype-environment correlation is **peer studies**. For example, a study on the correlation between alcohol consumption and socialisation in the teenage years (Loehlin, 2010).

3.1.7 Molecular Genetics:

Molecular genetics involves the study of genetics to identify specific genes, which are related to personality traits. Once the heritability of personality traits was established, researchers shifted their attention to identifying the functions of specific genes. Molecular genetics has helped with the diagnosis and prognosis of chronic illnesses (Guan et al., 2017; Kunkel et al., 1989; DiNardo & Cortes, 2016). In order to study the specific genes linked to psychological traits, researchers most commonly use the **association method**, which identifies whether individuals with a particular gene (or allele) have higher or lower scores on a particular trait measure (Larsen et al., 2020, p.GL-15). Among the most frequently studied protein-coding genes, using the association method is the dopamine receptor DRD4. Its association with the novelty-seeking trait, especially regarding risky behaviours, has widely been studied, but not always replicated. Benjamin et al. (1996) estimated that only 4% of the variance in novelty-seeking behaviour would be explained by DRD4. Many other genes and alleles like the A1 allele of the gene DRD2 (Berman et al., 2002) could also account for the variances.

Researchers have also found that the gene 5-HTTLPR is associated with the Five-Factor Model construct of neuroticism. Since the associations of the same gene were not significant for other variables, it was concluded that neuroticism is separate from other related measures, like Eysenck's neuroticism, and anxiety-related personality traits.

Other methods like Genome-wide linkage studies, Genome-wide complex trait analysis (GCTA) and Genome-wide association studies (GWAS)

have also been used in the effort to unravel the link between genetics and personality (de Moor, 2021).

Due to the onset of molecular genetics in relation to psychological traits, much is yet to be learnt regarding the roles of specific genes as well as the gene-environment interaction that takes place. Findings regarding specific genes and their role to play in human psychology must not be considered the final verdict without replication and thorough exploration in different samples.

3.2 EVOLUTIONARY APPROACH TO PERSONALITY

3.2.1 Evolution and Natural Selection:

Introduction to evolution or the evolutionary perspective is incomplete without mentioning Charles Darwin, and his formulation of "survival of the fittest." So, to produce variations or to evolve into current personality traits, survival is the very basic requirement. Survival here refers to overcoming hardships, and evolution refers to change over time. Darwin refers to as "hostile forces of nature" which is the physical environment, struggles with other species, and struggles with conspecifics (members of the same species).

Charles Darwin proposed the Theory of Natural Selection in his book *Origin of Species*, back in 1895. To reinforce the importance of his role in evolutionary psychology, most contemporary evolutionary personality psychologists have concluded that individual differences in personality traits are evolutionarily adaptive mechanisms and the result of Darwin's selection, that is natural and sexual selection. Darwin rationalised that evolutionary changes or variations allow an organism to reproduce more and hence have more heirs. These heirs would then inherit those traits that helped their previous generations or ancestors to survive, and the chain of passing down traits most helpful for survival goes on. These survival-inducing traits or genes passed down are natural selection. And adaptation is simply a trait or pattern resulting from long-term repeated processes of natural selection. But it must be noted that natural selection is not the only cause of evolutionary change. Also, natural selection is not strategic or intentional.

Darwin's theory on natural selection gave the scientific community and general humankind a strong foundational explanation for many aspects of life, which kept baffling scholars. Larger questions, like the origin of new species, the difference between similar species, and the similarity between totally different species were all accounted for with the introduction of his theory. The theory of natural selection is dependent on the modification of organic structures over time. And these structures of change are intended to serve a purpose for the species. And in evolutionary terms, the two most crucial purposes of the entire existence of any organism depend on survival and reproduction. These two terms can be referred to as the pillars of the evolutionary perspective. And to those philosophical minds of his times, Darwin's theory of natural selection explained the

interconnectedness of every living species. Natural selection, as proposed by Darwin, brought all species together into a single, expansive family tree. The same selective cause-and-effect connection must persist across a wide region and for many generations for a change to be adapted into a function or structure.

Nonetheless, the theory of natural selection was met with its share of rejections, objections and controversies. The connection made by Darwin that human beings descended from apes itself was enough to hurt the pride of many. Objections like lack of solid theory of heredity (Darwin initially preferred blending theory of heredity, that is, red and white parents may have pink offspring, but this understanding was later rejected), or the evolutionary ladder shows partial structures formed before adaptive features got evolved as partial wing developed before wing as an adaptive structure was evolved. But Darwin's theory also focused on the importance of having a survival value for each variation in this species, which these partial structures mostly did not follow. And the loudest objection was raised from religious communities as Darwin stated that the emergence of new species is a result of an unplanned, cumulative process of selection, which contrasted with religious beliefs that every species is part of God's grand plan.

In response to these flaws or projected objections in the theory of natural selection, Darwin developed another evolutionary theory: the theory of sexual selection. In contrast to the theory of natural selection, which focuses on adaptations that have arisen as a result of successful survival, the theory of sexual selection concentrates on adaptations that arose as a result of successful mating or sexual reproduction. Sexual reproduction concentrates on two forms:

1) intrasexual mating: where competition among same-sex within a species is seen, and whichever qualities help one of the contenders to win the competition gets to mate, and ultimately those qualities or traits are passed down to subsequent generations.

2) intersexual mating: in this type, whoever possesses the desired qualities gets to mate. Mating in this is based on a partner's preference for particular types of qualities over other qualities, and whoever tends to have these preferred qualities would get to sexually mate and pass down their traits to further generations.

Thus, the lesser preferred quality (in intersexual mating) or the losing competition's qualities (intrasexual mating) gets eliminated from the world with time.

Even though controversies around Darwin's theories still exist, one cannot disagree that Darwin's theories of evolution are the unifying and globally acknowledged theory of the explanation of our origin. Sociologically speaking, the single most significant factor in triggering the renewed efforts to apply evolution to behaviour was the selectionist's revolution in evolutionary biology, which subsequently became known as socio-biology (Wilson, 1975).

3.2.2 Evolutionary Psychology:

In the twentieth century, a few critical thinkers, moving away from the common psychology norms, started exploring the theories of Darwin and how the theories of natural or sexual selection could provide us with insights into applied behaviour and this began a new school of thought. This could be traced to the origin story of evolutionary psychology. A major goal of evolutionary psychology is to understand the nature of psychological adaptations. A genuine, detailed specification of the circuit logic of human nature and its evolutionary understanding is gaining more theoretical popularity as one of the central explanations for the current set of social sciences. The strain of theoretical evolutionary biology that began in the late 1950s and early 1960s, particularly with the work of George Williams (Williams, 1966), William D. Hamilton (1964), and John Maynard (1982), was the first building block of evolutionary psychology. Evolutionary psychology involves three key premises: Domain Specificity, Numerousness and Functionality.

1. Domain Specificity:

As the term indicates, here we focus on very specific precise domains and understand how the interchange of features with that domain plays. Adaptive features that we discussed previously under natural selection are such features that are evolved to address a particular domain. More extensive studies on domain specificity can be seen in cognitive sciences and how the human brain has different allocations for different domains. One of the logical explanations of domain specificity is that each environmental situation calls for different solutions and thus there cannot be a generalised pattern of adaptation.

2. Numerousness:

To put it simply, the more the number the greater the chances of survival. It is common to see herds of sheep, goats and such animals that have a greater risk of being prey. This very mechanism works within us and our behavioural psychology too. Numerousness is the mechanism of expectation that there exist multiple and varied forms of psychological adaptations, which are essentially required to solve different adaptive problems and hence increase the chances of survival and reproduction. The likelihood of continuing increases with the numerousness. And it is frequently referred to in evolutionary psychology as the numerous mechanisms we have developed that have guided our path throughout. Biologically, we have the heart to pump blood and lungs to circulate air within us, allowing us to be terrestrial organisms. Similarly, psychologically, evolutionary processes have also done their work, and as a result, many different types of phobias exist, the most common of which is fear of snakes or reptiles. These fears most likely evolved as a result of the threat-signalling effect that snakes have on us.

3. Functionality:

Functionality is as simple and direct as the word. It simply refers to the notion that psychological mechanisms have developed to accomplish an adaptive goal just like their physiological counterparts. Advanced cognitions, affect mechanisms and behavioural responses all have been crucial for the functionality of humans.

Evolutionary psychology suggests that variations of human psychology or even different personalities in existence are a source of meaningful human diversity. This is achieved through different combinations of heritable personality traits passed down generations to prepare us as individuals (our personality) to utilise the social habitat we accommodate to ensure our survival and that of our heritable personality trait. These personality traits can either be adaptive to current social existence or even a harmful dysfunctional trait with current trends. Evolutionary psychology, like all philosophies, has limitations too. Human adaptations are the result of millions of years of adversity, and we find it difficult to trace back and state in absolute terms the reasons and explanations they provide. Second, it only scratches the surface.

3.2.3 Human Nature:

Evolutionary psychologists argue that human nature is not a collection of universal human behavioural repertoires, but rather the universal psychological mechanisms underlying these behaviours (Tooby & Cosmides, 1990). Sigmund Freud developed grand theories to define personality universally in terms of sexual desires and instinctive motives. Alternatively, behaviourist theories concentrate on the outward manifestations of behaviours. Evolutionary psychologists attempt to incorporate a viewpoint that emphasises the process of evolution. Personality, according to them, is the result of evolutionary processes. Human nature can be understood through the help of different characteristics popularly seen:

1. Need to belong:

The hypothesis argues that one of the basic needs of humans is to be accepted by the group. We, humans, tend to imitate the clothing styles of celebrities or socially considered high-status members of their local groups or the groups to which they aspire to belong. These cultural phenomena are examples of transmitted culture. The aim is to establish positive contact with others, which could be established through cooperation, helping, or altruistic behaviours. The need to belong leads to kinship, and throughout history, we have studied the benefits of social cooperation as one of the strongest suits towards the survival of species.

2. Kinship:

Kinship is one of the first areas that fundamentally challenge the theories of natural and sexual selection. And this is where evolutionary psychology becomes interesting as it supports these theories, yet perfectly explains the

concept of kinship. Many of the adaptive problems that each species has faced throughout evolution are unique to that species, but different species can arrive at similar solutions to common adaptive problems. An individual would prefer good health, vigour, intelligence, generosity, dependability, and loyalty in a partner. Different preference mechanism suites are expected to have evolved in response to various adaptive problems and the stimuli associated with them.

Even though natural selection is competitive, it is selfish, it is a mechanism made to surpass counterparts to increase the chance of individual survival, yet we see the earliest traces of kinship or social alliance formed among various organisms. One explanation for this was the need to protect and partner with your genetic relatives to ensure the transmission of your factors. But then our friends are not just our relatives, and this puzzling dilemma is answered through the theory of reciprocal altruism (Trivers, 1987) and social exchange theory (Homans, 1961). According to the theory of reciprocal altruism, adaptations for providing benefits to nonrelatives can evolve as long as such benefits are reciprocated in the future. The beauty of reciprocal altruism is that it benefits both parties. Social exchange theory explains social cooperation across different cultures, and groups and this can be found in the hunter-gather community where the hunter community forms a cooperative alliance with the gatherer community. Individual difference in personality and characteristics tells us that every individual may have different special abilities and in such a case, kinship ensures each party can avail benefits from each other and this adds to the individual chances of survival.

3.2.4 Sex Differences:

Biological sex differences can be credited to adaptation to changes present in the environment from an evolutionary perspective. As clarified previously, evolutionary psychology focuses on the reproduction of further generations. From an evolutionary standpoint, human sex differences reflect the pressures of differing physical and social environments in primitive times between females and males. It is thought that each sex faced different pressures and that the different reproductive status was the most important aspect of life at the time. Hence, evolved mechanism, specific to sex differences, causes sex-differentiated behaviours. To ensure their survival and reproductive success, the sexes devised distinct strategies. This is a possible explanation for different psychological characteristics among men and women. Meanwhile, when we talk about genders, it is a socially driven difference rather than biological. Environmental situations faced by each sex differ with different cultures and societies across varied historical periods. Men with great socially powerful roles exhibit more dominant behaviour than women. In other words, the one who is considered socially lesser powerful will have subordinate behaviour. This hierarchy is related to the evolutionary prioritising of survival and competition, which is favoured by men's physical characteristics of stronger and bigger built.

1. Mate Preferences:

Sex difference in mating preference is one of the adaptive features of sexual selection itself. Displayed mating preferences ensure a filter to promote healthy and more survival increasing traits. The evolutionary psychology of mating preference observed across the two sexes shows a definite pattern of differences. Women's mating preference primarily revolves around the need to receive resources and protection to ensure child-rearing. Meanwhile, men's mating preference also involves the scope of paternal non-conformity hence seeking multiple sexual partners is a trait observed in historical studies.

Women's preference includes men with strong physical structures like muscular build, denser beards (an indication of higher levels of testosterone), and clear skin as a sign of healthier individuals for higher success of fertility. Apart from these physiological characteristics, men with greater resources like intellectual, financial, and social skills with the assurance of long-term commitments are among the preferences of women. Women's preference also shows a higher preference for older men which could be possibly an indicator of more pooled resources, more intellectual understanding with experiences, or even the hunting skills tend to peak around the late twenties or early thirties.

The mating preference of men starts with a women's reproductive value that can be indicated by her age as a sign of youthfulness. The reproductive value of a woman is higher with younger age (the frequency of children one is likely to have in future based on their given age). The preference of men for younger women ensures a higher probability of having multiple offspring with her which is one of the primary motives of men. Features of physical appearance were another indicator of women's reproductive value like full lips, clear skin, a certain body fat distribution and length and quality of hair.

One of the most widespread arguments against mating preference is that these theories merely provide explanations of existing conditions, but are insufficient to predict differences. Furthermore, from a moral perspective, these deterministic evolutionary theories are often criticised for justifying male dominance and abuse of females, and therefore sexual inequality.

2. Aggression:

Aggressive traits have been traditionally found to have higher occurrence in males than females. There is agreement that on average, males are more likely to display aggression than females, and possible explanations for this can be traced to evolutionary explanations. Women's preference for mating men with higher social status and resources also may have increased intra-sex competition among males to ascertain and dominate over others and one of the commonly used techniques to involve aggressive confrontations and physical fights. This extended to defending self against threats, causing damage on potential mating rivals, negotiating hierarchies, discouraging rivals from potential violence, and discouraging contemporaries from sexual infidelity to ensure paternity. Hence, the

theory of sexual selection can be considered as the one reason for a sex difference in aggression.

3. Emotion:

Men's and women's emotional differences can be classified into three categories: expression, recognition, and experience. Women perform better than men in emotional interpretation (recognition), such as facial expression recognition as an adaptation to mate preference or conflict avoidance. In terms of emotional expression, women are better than men at suppressing potentially maladaptive emotional, social, and sexual responses. There are also significant differences in the types of emotions associated with men and women in society. Some theorists propose that the importance of emotion differed for men and women in understanding some of these emotional differences from an evolutionary perspective. Understanding, tracking, and reading the emotional states of others was especially important for women in child rearing and caring.

3.2.5 Individual Differences:

The Evolutionary perspective and its persistence in explanations give us a logical link to why any given traits are in existence and how they could have been diversified to an adaptive feature. The evolutionary psychology of personality suggests that existing human personality variation is a source of meaningful human diversity. This is achieved through different combinations of heritable personality traits passed down generations. These prepare us as individuals to utilise the social habitat we accommodate to ensure the survival of the species and its heritable personality traits. These personality traits can be either adaptive to current social existence or even a harmful dysfunctional trait with current trends. The individual difference found in personality traits is established as adaptive and also a result of natural and sexual selection.

Individual differences can be accounted for by gene-environment interaction. At a certain level of abstraction, all species consist of a universal, species specific evolved structure of architecture like all humans have a heart, two kidneys, a liver, and so on. All intestines have the same primary design of functioning: they are connected to the stomach, they receive the same chemicals required for digestion, they are made of the same cell types, and so on. When humans are described from this perspective, differences tend to fade in light of their complex adaptations, and a universal architecture emerges. But this similarity is limited to much of the physiology only like the structure of the brain but in the case of behavioural adaptation, it displays a common pattern, yet varied differences from individual to individual. A major reason for individual differences seen within the personalities is a possible adaptation of different social group dynamics established along the ancestral history, like individuals with higher cognitive intelligence, academic motivation and conscientiousness may be good professionals in neurosurgery or aeronautical science. Also, individuals who possess individual traits like empathy, patience, and compassion may be good professionals in nursing,

psychology, or social work. Both these clusters of professions are highly skilled and persistent-based yet they require different personality characteristics and different individuals. The evolution of a spectrum of individual traits incorporating a range of different social functions may be one of the frequency dependent selection. When a particular trait's fitness value is dependent on its occurrence in the population, then it can also lead to frequency-dependence. Social competition motivates individuals towards different social functions, and compensating these alternative functions gives some relief from the social competition.

Individual differences psychology is primarily concerned with group differences. This study categorises people based on their age, traits, gender, race, social class, and so on, and examines the differences within and between those groups. Individual differences include physical, mental, social, and cultural differences, among others. Individual differences can also be found in physical and mental abilities, knowledge, habits, personality, and character traits. There are different personalities. Based on personality differences, individuals are classified into many groups. Carl Jung proposes three groups of personality, which are among the most commonly used introvert, extrovert and ambivert. Wilfred Trotter proposed two groups of personalities which were stable-minded and unstable-minded (individuals who can cause potential harm to the state).

3.2.6 The Big 5, Motivation, and Evolutionarily-Relevant Adaptive Problems

1. The Big 5:

Individual differences in personality traits are adaptive in nature, according to most evolutionary personality psychologists, and thus the result of natural and sexual selection. People within human social groups differ in the effectiveness with which they can play different roles within human societies due to differences in personality traits. The tradition of studying traits or personality characters was started by Odbert and Allport in the by 1930s, sustained by Cattell in the decade of 1940s. The dispositional tendencies to understand personality through behaviour patterns has led us to one of the most commonly accepted theories of big five personality traits. The widely accepted theory of personality which itself has evolved from a 3 factor model to a five factor structure, which is credited to Robert McCrae and Paul Costa and known as The Big Five. These big five traits include the following factors, often remembered with the acronym of OCEAN.

1. Openness (O): People with a greater score of openness tend to have multiple interests sets. They are curious for exploring the world and other people, and eager to acquire new experiences. They also tend to be more adventurous and creative.

2. Conscientiousness (C): It is characterised by thoughtfulness, good impulse control, and goal-directed behaviour. They plan ahead of time, consider how their actions and behaviours affect others, and keep deadlines in mind.

3. Extraversion (E): Excitability, sociability, talkativeness, assertiveness, and a high level of emotional expressiveness are characteristics of extraversion. Introverted people possess less energy to spend in social situations, and gets exhausted in social gatherings.

4. Agreeableness (A): People with high levels of agreeableness are more cooperative. Trust, altruism, kindness, affection, and prosocial behaviours are examples of this personality trait.

5. Neuroticism (N): It is a personality trait characterised by sadness, moodiness, and emotional instability.

The recent focus of personality studies on non-human animals have led to evolutionary questions about the role of individual differences within evolution. One set asks the range of behaviours and traits that reliably vary across individuals within any species. Evolutionary psychology separates actual behaviour from evolved mechanisms, thus further clarifying the role of personality. We see highly complex social patterns in mammals, and even more so in primates. The introduction of mammals into the primate world adds a self-other relational dimension. These creatures must specifically navigate the interests of the self in relation to the interests of the other. Neuroticism, extraversion, and agreeableness can be easily identified in social mammals, such as monkeys; but conscientiousness and openness, on the other hand, are much more difficult to detect in these creatures. However, we can recognise them as distinct dispositional tendencies in humans.

2. Motivation:

Motivation addresses to something that drives you to keep going ahead or initiate a new mechanism. And when we talk of evolutionary perspective of motivation, we talk about the 'how' and 'what' of human behaviour. Evolutionary approach to human motivation is underlined by motivation for natural selection, which can be credited to survival of species and sexual selection can be credited to genetic reproduction.

Successful reproduction was achieved by solving distinct environmental problems by our ancestors, which included defending themselves against predators and parasites, resource collection and maintaining social status. The psychological mechanisms evolved to solve such kinds of problems, which were earlier referred to as instincts. In modern psychology, these instincts are known as motivational systems that tend to solve the purpose of regulating functionality by evolutionary process. These motivational systems are adapted to regulate behavioural exchanges with environment as well as other organisms. The evolutionary perspective distinguishes and complements other perspectives that define motivation in terms of human goals or needs by characterising motivation through evolved behaviour regulatory systems. Motivational systems that seems to be functionally specific are suited to different ranges of stimuli that, when perceived, trigger various types of emotional, cognitive, and behavioural responses.

There may be functional adaptive linkages between various motivational systems and other systems of regulation, typically outside the scope of psychological analysis. For example, disease avoidance motivational psychology has implications for immune responses to infection, and vice versa.

3. Evolutionarily Relevant Adaptive Problems:

Although most humans have functionally similar ears, limbs, and organs, but there are heritable individual differences in the structural forms these adaptations take. This variation is largely neutral in terms of selection. However, there may be cases where genetic variants co-occur to cause adaptation failures. These variants do not harm when present alone, but they are dysfunctional in rare combinations. Some studies believe that certain types of schizophrenia may be caused by rare gene couplings. Mutations are source of variation too. Although mutations ensure variations required for facilitating natural selection, isolated individual mutations rarely improve any adaptive functioning and can be harmful, resulting in adaptation failures. Some psychological phenomena may appear maladaptive, disordered, expensive, maladjusted or subjectively distressing, but they are not dysfunctions. They are not caused by the inability of evolved adaptations to function as they were intended.

Also, we need to consider the difference between ancestral environment and current environments; our current environment differs in many ways, sometimes dramatically, from the environments that existed for most of human evolution. An evolved adaptation may be performing exactly as intended, but since the environment also varies, the outcome may seem non-adaptive in nature. Similarly, perceiving a dangerous animal behind a tree when none exists is an error, but it is not necessarily dysfunctional, and such errors occur because adaptive features evolved on an average needs basis and the scope of exceptions remains. The reasoning behind mental disorders, where even normal functioning of adaptations still tends to produce distress to levels, which collapses the entire being for whom the function was evolved in the first place, may be the last major adaptive concern.

3.3 PHYSIOLOGICAL APPROACHES TO PERSONALITY

Ever wondered why when we are hungry or sleepy, we tend to lose all sense of self-control? Researchers have come to think that blood glucose levels might be a part of the answer! Not only do activities requiring self-control (for example attention regulation, stress management) reduce blood glucose, but lower levels of glucose were also associated with lowered self-control seen in terms of reduced attentiveness among school children, and compromised performance levels under stressful conditions (Gailliot and Baumeister, 2007).

The physiological approach to personality operates on the assumption that changes in a specific physiological factor would be associated with, or

cause a change in specific elements of personality. It is a fine example of how the mind and body work in harmony to affect each other. This approach, as Larsen et al. (2020) put it, is characterised by:

- Highly reliable measures of assessing physiological characteristics; and
- A parsimonious understanding of psychological traits

This often implies that a personality trait or state can be explained sufficiently by relatively simple, concrete and specific physiological factors - for example, consider the case of low glucose levels (a physiological factor) affecting the self-control of individuals (a personality component). However, few psychologists will claim that a singular physiological phenomenon is a sole reason for the expression of a trait in a given situation. Primarily, the question asked in research using the physiological approach is – “will (some people) exhibit more or less of a specific physiological response than others under certain conditions? (Larsen et al., 2020, p.195).” Carrying forward the example of associations between glucose and self-control, we may ask, will participants’ blood glucose levels affect their risk-taking tendencies in a gambling task?

The physiological approach to personality has come a long way since the attempts of the Sankhya tradition, Hippocrates, Kretschmer Ernst and William Sheldon to classify personalities into types using body fluids and physical build. The methods to study the biological underpinnings have become notably more precise and touched with advancements in the field of medical technology. The next section will contain an overview and use cases of some of the most used physiological measures in personality research.

3.3.1 Physiological Measures Commonly Used in Personality Research:

Empirical research to study physiological correlates of psychological constructs mostly falls into one of the following three categories –

- i) Electro-dermal activity/galvanic skin response,
- ii) Cardiovascular activity,
- iii) Brain activity.

1. Electrodermal Activity:

Before an important competition, exam, theatre performance, or in any nerve-wracking situation, most of us have sweaty palms that we keep brushing off. What causes this, is the sympathetic nervous system (SNS) - the branch of the autonomic nervous system responsible for our fight-or-flight mechanism.

However, things are set in motion before we experience sweaty palms. With the activation of the SNS, the sweat glands below our skin start to fill up with salty water - which is a good conductor of electricity! In

simple words, the greater the amount of sweat in the glands, the higher would be the resulting electrodermal activity (EDA) when an electrical current pass through the skin. This bioelectrical reaction is also known variously as the galvanic skin response (GSR), psychogalvanic reflex (PGR), Skin conductance and sympathetic skin response (SSR).

To measure electrodermal activity, two electrodes are placed on one of the palms and a low-voltage electric current is then sent through one electrode into the skin. EDA is measured as the difference between the current passed in the first electrode and the current received in the second. Smaller the difference, the better the conduction of electricity through the skin, which is in turn associated with the activation of the sympathetic nervous system.

A review of research regarding liability (ease of change/alteration) in EDA was conducted by Crider (2008). It was found that although EDA liability in non-provoking situations is considered to be evidence for trait anxiety, correlations between EDA results and self-report measures are inconsistent, and therefore by large inconclusive. Moreover, a change in perspective reflected that greater EDA liability is a correlate of agreeableness. On the other hand, EDA stability can be a marker of expressiveness and antagonistic behaviour, which is also associated with antisocial tendencies.

2. Cardiovascular Activity:

Another physiological response that occurs with the activation of the sympathetic nervous system is a change in one's cardiovascular activity. Researchers are primarily interested in blood pressure and heart rate as records of cardiac activity.

An important variable studied about personality is cardiovascular reactivity (CVR), which is defined as the degree of change in cardiovascular responses (e.g., blood pressure, heart rate) to a psychological or physiological challenge or stressor (APA Dictionary of Psychology). It has been an important variable in studying differences between personality types. For example, Fichera and Andreassi (2000) experimented to study the difference in CVR as a response to real-life stressors based on (a) gender, (b) trait hostility and (c) personality type (A and B). It was found that when asked to speak in public, the CVR (heart rate, systolic and diastolic BP and mean arterial pressure) of all participants was high from the baseline. While hostile men had a much greater CVR than non-hostile men, contrary to expectations, the CVR of Type A personalities was not significantly greater than those with a Type B personality. Previous research upholds the association between hostility and a greater risk of cardiac failure (Larsen et al., 2020).

Research has also found that high neuroticism and low conscientiousness have a significant association with high blood pressure in older adults, and this relationship is mediated by state anxiety (Stone et. al., 2020). Activation of the autonomic nervous system, as reflected in electrodermal

and cardiovascular activity, thus provides useful insights into the field of personality research and needs to be explored further.

3. Brain Activity:

Due to the advancements made in brain imaging, personality neuroscience is progressing accordingly. Techniques used to study brain activity include fMRI, EEG and PET scan among others.

The inquiry explores structural differences in the brain correlated with personality, as well as activation patterns that emerge in response to stimuli, or while completing tasks. Several studies conducted after the year 2000 have reported results that point towards the existence of a neurobiological basis for the big five traits (Pedrero-Pérez et al., 2015).

In landmark research, Canli et al. (2001) employed FMRI to scan participants' brains. Participants were asked to look at 20 negative images (spiders, crying people), and 20 positive images (cute puppies, flowers). It was discovered that the responses to both negative and positive pictures activated different regions of the brain. Additionally, a significant relationship between personality and the emotional reaction was found. Particularly, higher frontal brain activity in reaction to unfavourable imagery was correlated with neuroticism. Extroverted individuals, on the other hand, had higher frontal brain activity in reaction to the positive imagery.

Studies, conducted using such physiological methods, are often criticised for some critical points including i) questionable representativeness due to limited sample size; and ii) lack of compatibility of laboratory and external conditions. Studies like the ones conducted by De Young et al., (2012) overcome these challenges by testing their predictions on a relatively large sample. However, they focussed on structure instead of a function, and this came with its limitations - i) there is no evidence that structure and function are related; or that they occur in the same region; ii) the size of the region is uncorrelated with the level of functioning.

For an emerging field that has plenty of scope for growth and refinement, current neuroscientific advances are providing unprecedented insight into the foundations of human personality.

3.3.2 Physiologically-Based Theories of Personality:

The knowledge gathered from personality research methods in the physiology was used to arrive at theories that received the most attention in personality psychology over the years. We shall discuss six of them here, namely i) Extraversion-Introversion, ii) Reinforcement theory, iii) Sensation seeking, iv) Colinger's Tri-dimensional Personality theory, v) Morningness-Eveningness and vi) Affective styles.

1. Extraversion-Introversion

If you would answer a 'yes' to being a talkative, lively person who likes going out then according to Eysenck's Personality Questionnaire, you are

an Extrovert person. But, on the other hand, when you could be labelled as someone who likes to read more than meet new people, it would add a point towards the Introversion dimension. Eysenck's theory proposed a biological basis for these expressed traits of Extraversion and Introversion. In his book, *A biological basis for Personality* (1967), he explained the ascending reticular activation system or ARAS that is seen to be higher in introverts as compared to extroverts. The ARAS is a brain region that acts as a gateway for nervous stimulation entering the cortical areas of the brain. An opening in the gateway would result in a higher arousal in the resting state. A closed gateway would lead to a lower level of cortical arousal as the ARAS has a weak stimulation. The baseline arousal of introverts is always more as compared to extraverts, they engage in introverted behaviours to keep their heightened arousal levels low (Claridge et al., 1981).

Here according to Hebb (1955), and later on even Eysenck, (1967, 2012), (following the Yerkes- Dodson law) an optimum level of arousal is important for the efficient functioning of the body. Depending on the opening of the gateway, the stimulation reaches an '**optimal level**' to arouse the individual. An over-aroused state can lead to anxiety and an under-aroused person leading to feeling lethargic. The theory states that introverts have a baseline arousal that is already high during their resting period, therefore continued inhibition over outside activities or more restrained behaviours are expressed as it might overstimulate them.

This can be understood with the help of EEG studies on participants who were given mild forms of stimulation. They observed an enhanced physiological reaction in the introverted participants as compared to the extraverted in presence of a mild stimulus (Gale, 1987).

2. Reinforcement Theory (Sensitivity to Reward and Punishment)

A few important theories proposed by Jeffery Gray (1975) are linked to the way we show physiological sensitivity to reward and punishment, one of which is the Reinforcement theory.

i) Just by hearing the sound of the recess bell, we would immediately get the urge to open our tiffin. ii) To avoid failing a test, we would try to reduce our tendency to get distracted.

The **Reinforcement theory** makes note of two biological systems in the brain (through animal studies). They are the **Behavioural Activation System** (or BAS) and the **Behavioural Inhibition system** (or BIS). Both these systems react to the incentives presented. The BAS regulates approach behaviour (opening a tiffin) towards cues of rewards and incentives present around (recess bell ringing). On the other hand, the BIS regulates behaviour in the presence of cues of punishment or a negative experience. It acts as a behaviour inhibitor. For example, to avoid the negative experience (failing a test), the BIS would inhibit you from being too distracted.

Both the BAS and the BIS lie on the dimension of relative sensitivity. A person high on BAS would experience positive emotions and approach the stimulus (like a cute dog) and a person high on BIS would like to run away from the stimulus (e. g., an angry teacher). This theory also accounted for the personality dimensions of impulsivity and anxiety. Here the inability to inhibit would lead to impulsivity and a very high BIS would result in anxiety, the experience of negative emotions, frustrations, etc. On the lower end of both impulsivity and anxiety lie emotionally stable personalities and on the other end when both impulsivity and anxiety are high, a person can be labelled as Neurotic.

3. Sensation seeking

Have you ever wondered why some of your friends love to ride a free-fall or a rollercoaster ride again and again but some of them don't wish to even step a foot close to it? These individuals could be high on their need for sensation seeking. Hebb's (1955) experiments engaged with sensory deprivation and developed a theory of **Optimal Arousal**. This concept of optimal arousal was also incorporated by Eysenck in the explanation of the physiological basis of extraversion. In their experiments, Zuckerman and Hebb (1965) realised that some people were more likely to feel distressed in the absence of sensation. They would ask for more reading materials or tapes to look out for some sort of sensations.

They then theorised that the ones who are high on sensation-seeking tend to seek out more and more thrilling experiences, adventure, etc. Zuckerman developed a scale called the SSS or The sensation-seeking scale (1964) to assess and predict toleration of sensory deprivation. Here the physiological basis of this theory emphasises the role of neurotransmitters. Zuckerman (1991) accounted for a balance of neurotransmitters in the brain. Enzymes like **Monoamine Oxidase** or MAO keep this balance intact, however, a reduced level of MAO would lead to the transmission of more neurotransmitters and a behavioural result of it would be jitteriness and wanting to do more and feeling more. When MAO is high, it would inhibit the transmission of the optimal level of neurotransmitters and eventually, the person may become down and feel dull and would not wish to engage in any sensations.

4. Neurotransmitters and Personality

MAO is not the only neurotransmitter that may be related to, or cause differences in personalities. Dopamine also has a lot of relevance in explaining the feeling of pleasure through the mesolimbic pathway which runs from the ventral tegmental area to the forebrain. Drugs like cocaine also produce an effect similar to dopamine and produce pleasure, however, when it wears down, the body experiences displeasure. This is the major reason behind the recurring urge for using the drug.

Serotonin is another neurotransmitter which induces happiness. It plays a major role in depression, which is a negative state of mind. Mood disorders like depression are associated with either an increase or a decrease in serotonin. Another important neurotransmitter is

norepinephrine. When we see a snake, the sympathetic nervous system is activated and starts a fight-or-flight response within us. Norepinephrine is involved in the activation of the Sympathetic nervous system.

Based on these three NTs (dopamine, serotonin and norepinephrine), Cloninger (1986) developed a **Tri-dimensional Personality** theory that expresses three different traits.

The First is **Novelty seeking**. a lower level of dopamine increases the urge to want more experiences or substances. this urge to experience more thrill and novelty leads to a balance that is left by the reduced level of dopamine. **harm avoidance** is the second trait discussed in the theory. it is associated with abnormalities in the level of serotonin metabolism. these abnormalities do not have a linear relation with harm avoidance but when the principal serotonin metabolite 5-hiaa is found at a lower level in the cerebrospinal fluid it is associated with a propensity to depression. the Third trait is called **Reward dependence**. A lower level of norepinephrine is associated with wanting to behave in a manner that produces rewards. Workaholism may be a way in which individuals try to put in more effort as compared to others to express their reward dependence.

5. Morningness-Eveningness

A clear preference for a time of the day may indicate the morningness-eveningness dimension of personality. For example, a morning type of person is someone who likes to wake up early and finish most chores then. An evening type person is someone who likes to stay up for long in the night and has difficulty waking up in the morning. Horne and Ostberg (1976) talk about differences in underlying circadian rhythms, body temperature, and endocrine secretion throughout this 24 to 25-hour sleep-wake cycle. Some may have a shorter **Circadian rhythm** of 22 hours and wake up earlier in the morning feeling fresh. But when a person with a larger circadian rhythm of 26 hours is forced to wake up at the same time, two hours before their sleep cycle is complete, they would not like it and have a groggy start to their day.

Researchers make use of this '**Free running**' process where they allow participants to sleep whenever they want to and wake up when they wish to. No external influence would determine their sleep schedule. Here, their temperature would be taken every hour of the day. In these experiments, they found a pattern of a rise in body temperature when the participants were about to wake up and a fall in temperature when they were about to sleep. Horne and Ostenberg also developed a self-report questionnaire (MEQ, 1991) that helps determine morningness-eveningness in human circadian rhythms.

6. Brain Asymmetry and Affective styles.

Brain Asymmetry is a neuropsychological concept that means a neuroanatomical difference between the left and right hemispheres of the brain. The brain divides its load between both parts laterally to help enhance its functioning. This asymmetry affects the release of

neurotransmitters, electrodermal activities, and cognitive activities. Essentially, an asymmetry in the brain can help us understand how a personality would express itself (Zaidel, 2001).

Individuals' differences in personality can also be associated with alpha waves from an **EEG** measurement and levels of **cortisol**. Researchers have found a lot of evidence of the effect of brain asymmetry on the affective styles of people. An affective style is a manner in which they choose to regulate their emotions. A study by Hagemann and colleagues in 1998 demonstrated an accurate prediction of a negative or a positive reactivity with the help of an EEG that showed asymmetry in the frontal regions of the brain. Another study in 1995 by Davidson showed the association of anterior asymmetry with the phasic arousal of emotions. In an interesting study by Fox and Davidson in 1987, 10-month-old infants were given a taste of either a bitter or sweet-tasting solution. The affective reaction to the sweet solution was a feeling of pleasantness and showed more reaction in the left brain as compared to the unpleasant feeling that arose after they were given the bitter solution which showed more activity in the right part of the brain (Fox and Davison, 1987).

These psychophysical theories of personality then paved the way for understanding the interface between genes and Personality Psychology.

3.4 CHECK YOUR PROGRESS

Write short notes on:

1. Brain activity
2. Extraversion – Introversion
3. Neurotransmitter and personality
4. Twin studies and adoption studies
5. Personality traits
6. Molecular genetics
7. Selective breeding
8. Natural selection and sexual selection
9. Need to belong
10. Individual differences

3.5 SUMMARY

A physiological variable contributes to providing the physiological substrate for the personality characteristic. The six personalities covered are extraversion, sensation seeking, tri-dimensional personality, sensitivity to cause rewards and punishments, morningness-eveningness and affective styles. Electrodermal activity lability in non-provoking situations is

considered to be evidence for trait anxiety. EDA stability can be a marker of expressiveness and antagonistic behaviour, also greater EDA lability is a correlate of agreeableness. High neuroticism and low conscientiousness have a significant association with high blood pressure in older adults, and this relationship is mediated by state anxiety. Physiological methods-based studies are criticised for limited sample space, limited representativeness, compatibility of laboratory and external conditions. ascending reticular activation system or ARAS (gateway for cortical arousal) is seen to be higher in introverts as compared to extroverts. An over-aroused state can lead to anxiety and an under-aroused person leading to feeling lethargic. Reinforcement theory – Behavioural Activation System (BAS) and Behavioural Inhibition System (BIS) accounted for personality dimensions of impulsivity and anxiety.

Neurotransmitters like MAO, Dopamine, serotonin and norepinephrine can also cause differences in personality. Individuals' differences in personality can also be associated with alpha waves from an EEG measurement and levels of cortisol. Genes are inherited by human beings in the form of sets, known as chromosomes. Phenotypic variance includes observed differences like height, weight that varies from one person to another. Genotypic variance includes individual differences seen in totality of their genes. Drinking habit is said to have come from the sensation-seeking characteristic of personality, extraversion and neuroticism Adoption studies have given proof that a shared environment gives little to no influence on personality. The very first study of gene x environment interaction was done to study adolescence and how likely they are to show aggressive behaviour. Genotype-environment correlation is studied when different genotypes get exposed to different environments – active genotype environment correlation, reactive genotype environment correlation, and passive genotype environment correlation. Gene 5-HTTLPR is associated with the Five Factor Model construct of neuroticism. Darwin proposed the theory of natural selection and the theory of sexual selection in 1859. Darwin rationalised that evolutionary changes or variations allow an organism to survive and reproduce more. An adaptation is simply a trait or pattern resulting from long-term repeated processes of natural selection. Sexual selection is done through two forms – Intrasexual mating and intersexual mating.

Sex differences can be observed in patterns of mating preference, aggression and emotion. Kinship challenges the theory of natural selection but the model of reciprocal altruism and social exchange theory explains the co-occurrence of alliance and competition within a species for survival. Personality variations account for individual differences because of gene environment interactions, which includes physical and mental abilities, knowledge, habits, personality, and character traits. The big five traits or OCEAN personality include: Openness to experience, Neuroticism, Extraversion, Conscientiousness and Agreeableness. Isolated mutations rarely improve functioning and can be harmful, resulting in adaptation failures.

3.6 QUESTIONS

- Explain the physiological measures used in personality research.
- Discuss physiologically based theories of personality in detail.
- What is the human genome?
- Elaborate upon the behavioural genetic methods.
- Write a note on 'genes and environment'.
- Explain evolution and natural selection.
- Describe the relevance of evolutionary psychology to personality.
- Discuss sex differences in aggression and jealousy.
- Elucidate sex differences in mate preferences and desire for sexual variety.
- Write a detailed note on 'human nature'.
- Clarify individual differences in detail.

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BIOLOGICAL DOMAIN AND COGNITIVE-BEHAVIOURAL DOMAIN - II

Unit structure:

- 4.0 Objectives
- 4.1 Behaviourist and learning aspects of Personality
 - 4.1.1 The Classical conditioning of Personality
 - 4.1.2 The Origin of Behaviourist approaches
 - 4.1.3 The Radical behaviourism of B. F. Skinner
- 4.2 Cognitive and Cognitive-experiential aspects of Personality
 - 4.2.1 Personality revealed through Perception
 - 4.2.2 Personality revealed through interpretation
 - 4.2.3 Personality revealed through goals
- 4.3 Summary
- 4.4 Questions
- 4.5 References

4.0 OBJECTIVES

- Understanding how personality gets influenced by classical conditioning.
- Understanding how personality can be studied by the means of Perception, Interpretation, and Goals.

4.1 BEHAVIOURIST AND LEARNING ASPECTS OF PERSONALITY

4.1.1 The Classical Conditioning of Personality

- **Conditioning a Response to a Stimulus**

Evan Pavlov (1927), the Nobel Prize winner, was a Russian physiologist who was interested in the digestive system. However, his experiments on digestion coincidentally led him to a discovery of, what is known today as classical conditioning, which has a far-reaching influence on the field of psychology. In simple words, classical conditioning is a form of learning in which a neutral stimulus acquires the power to elicit a response that

normally does not elicit that kind of response. In one of his experiments on a dog, Pavlov paired the sound of bell with meat powder so that after hearing that sound just after some time dog received food. After some trials, he found that a dog started giving a response of salivation to the sound of the bell as well. There are four important concepts in classical conditioning: i) neutral stimulus which is not able to produce any response before conditioning; ii) unconditioned stimulus which brings forth a response without any learning like the food; iii) unconditioned stimulus which is a previously neutral stimulus (like a sound of the bell) which acquires the power to bring forth the response caused before by the unconditioned stimulus by being repeatedly paired with it, and iv) conditioned response, which is a response that follows a previously neutral stimulus (salivation at the sound of the bell) after conditioning.

Let us take an everyday example. Small kids, initially, do not give a response to a doctor, but to the injection. However, after the repeated experience of the association of a doctor and the injection, the kids start giving a response (i.e., crying) just after seeing the doctor.

Further, the following two are important principles in classical conditioning:

- 1) **Stimulus generalisation:** It is a process through which a conditioned response follows a stimulus that is similar to the original conditioned stimulus. The more there is a similarity, the more generalisation. In the above example, the small kids may start giving the response to a clinic, to the nurse, or smell of the clinic.
- 2) **Stimulus discrimination:** Through stimulus discrimination, individuals learn to differentiate among various stimuli and to limit response to one stimulus to others. For example, the kids learn to give a different response to the sight of a garden.

- **Behavioural Patterns as a Result of Conditioning:**

In this section, we will see how behavioural patterns can be caused and explained by classical conditioning. When neutral stimuli are repeatedly paired or associated with enjoyable and positive incidences or situations, they become 'likes' of the person. On the other hand, when they are paired or associated with negative events, the person will dislike them. In other words, the stimuli which had been originally neutral in nature, get liked or disliked. For example, a teenager learns to associate or pair drinking with having fun or a teenage girl harassed by boys outside during the night may become afraid of going out at night and develop a 'personality' that fears boys. In this manner, Pavlov's constructs help us explain aspects of personality which are emotional in nature, such as why certain people have some kind of phobia or fear and others do not. Usually, such phobias have their origin in classical conditioning. Such as drinking milk and then having a very upset stomach in childhood can make that person aversive to milk.

- **Extinction process**

Extinction occurs when the pairing of the unconditioned and conditioned stimulus stops. It simply means that the conditioned response (CR) becomes rare or uncommon. This means that the association is weakened and it keeps weakening over time until it vanishes or disappears. In a sense then, the personality changes (as a result of changes in the pattern of response). Continuing the example of the teenage girl who is afraid of going out at night with boys, her personality could change if she repetitively experienced going out at night with elders, who are supportive. Sadly, when people develop some kind of fear, they avoid it and refuse to face it due to which they never overcome their fear.

Conditioning of neurotic behaviour

Pavlov was able to explain the personality dimension of neuroticism with the help of behaviourism. He conditioned a response which was identical to neurotic behaviour in a dog. He paired or associated the presentation of food with a circle and not with an ellipse (oval) due to which the dog started having a conditioned response to the circle and not an ellipse, which also meant that it could discriminate between the circle and the ellipse. Slowly and over time, Pavlov started to increase the roundness of the ellipse so that it almost looked like a circle. When the dog was unable to discriminate the ellipse from the circle, it started showing neurotic behaviours (Pavlov, 1927). “This suggests that neuroticism may be a conditioned response, fostered by an environment that needs the individual to discriminate between events under conditions in which that judgment is almost impossible” (Wolpe & Plaud, 1997, p. 966). For example, it is impossible for some children to foresee how their unsteady parents are going to react. They may feel depressed, frustrated or angry if they cannot guess what they are going to receive- punishment or praise.

4.1.2 The Origin of Behaviourist Approaches:

- **Conditioned Fear and Systematic Desensitization**

Watson applied Pavlov’s theory (which, as we saw, developed by studying animals) to show how emotional responses are conditioned. He did this by conditioning Little Albert, an 11-month-old boy (Watson & Rayner, 1920). Little Albert was accustomed to fearing a rat; he was initially not afraid of them. They did this by repetitively making a loud and sudden noise (which made him extremely afraid), making the baby startle, whenever he was in the presence of a rat. Soon, he started crying just by seeing the rat.

Little Albert’s case also showed generalization as he started getting afraid of other ‘furry’ objects similar to a rat, such as a dog, a rabbit and a fur coat. He even started fearing the Santa Claus mask. This study shows us that an emotional response which was conditioned to a stimulus can be generalized and can become an emotional reaction to different stimuli. It shows how any neutral stimulus can evoke an emotion. Watson believed

that this was how the majority of personality was formed (Larsen & Buss, 2010).

The approach by Watson and Rayner was also used to counter condition the fear of rabbits, rats, fur and such things in a boy named Peter (Jones, 1924). Peter played with 3 children when a fear-provoking rabbit was present. Slowly and over time, as the rabbit was brought closer and closer while keeping Peter happy, his fear disappeared. This was one of the first documented cases of what has come to be called **systematic desensitization** (Larsen & Buss, 2010).

The principles of conditioning were also applied to treat bedwetting (Mowrer & Mowrer, 1938). When even a little amount of bedwetting was detected, an electrical device (like a loud bell) would wake up the child. In a short period of time, the child learns to respond to the sensations before getting wet. The application of behaviourist conditioning techniques to therapy developed into a sub-field that is sometimes referred to as behaviour modification or applied behaviour analysis.

4.1.3 The Radical Behaviourism of B. F. Skinner:

Burrhus Frederick ("Fred") Skinner (1904-1990) emphasised that who he was, and his personality was clearly the result of his reinforcement history as a child - the rewards and punishments he experienced. According to him, environmental events controlled and determined his personality and life.

- **Operant Conditioning as an Alternative Description of Personality**

Skinner developed some principles under operant conditioning and by using those, he became somewhat like an animal trainer. In **operant conditioning**, behaviour is transformed or changed by its consequences; Skinner manipulated or controlled the environment in such a manner which enabled him to train animals to do things, which did not come naturally to them (He trained pigeons to play badminton!). He did this by gradually *shaping* consecutive (back-to-back) approximations to the actual desired behaviour. His theory of operant conditioning gave more importance to the function of behaviour (what it does) instead of what the structure of personality is. It is also a **deterministic theory**, in which there is no free will.

Skinner thought that the internal components of personality such as traits, instincts, needs, and psychical structures (id, ego, superego) were of no importance and only observable behaviours were important. Such refusal of cognitive processes and advocacy of behaviours that we can observe directly has been one of the crucial issues of contestation between behaviourism and other schools of thought in psychology (Uttal, 2000).

Skinner was able to analyse a superstitious person's behaviour without the help of internal aspects of personality. For example, to understand why a girl might wear only a purple coloured dress on an exam, Skinner explained that if wearing that dress (a person's experience) coincides with

scoring high marks, specifically on a few random occasions, then she will continue wearing that colour as the reinforcement strengthens the performance of the behaviour without any cause-effect relationship. Skinner found that any animal's learning and behaviour did not look like the typical or average animal's behaviour, emphasising the *individuality* of environmental conditions and responses. Therefore, he emphasized that we should apply the principles of learning individually to each organism. Accordingly, his approach was idiographic rather than nomothetic.

- **Controlling the Reinforcement**

Like Watson, Skinner also believed that just like a pigeon, a child was also a function of the environment. So he started making designs regarding the best ways for child-rearing and even building entire communities. His studies led to the creation of the Skinner box. In the operant or experimental chamber, an animal was kept separated and detached from the outside world so that the chamber was under the control of the experimenter and all other environmental influences could be kept at bay. The chamber was controlled by the experimenter in the sense that the chamber included something like a lever or a key, which when used (pressing the lever or pecking the key) would release a food pellet intended to provide positive reinforcement or to stop some kind of harmful stimulus, such as a shock, thereby providing negative reinforcement.

The rate of reinforcement or the frequency of how often the reinforcement would be provided was controlled and regulated. When the rewards are given irregularly, they are called partial reinforcement schedules and it was found that these types of schedules were most efficient at shaping behaviour patterns. Later on, self-paced teaching regimes and teaching machines started applying these techniques in which as the students become better at something or some skill, they receive rewards. Skinner (1938) also discusses at length the applications of reinforcement principles to a wide variety of life domains.

- **Skinner's Behaviourist Utopia**

Skinner (1948) wrote a novel called 'Walden Two' that systematically demonstrates the application of his theory of learning to build an idealistic community. Precisely, socially appropriate and positive behaviours of the citizens in such a community are reinforced as the government bestows rewards for the same. In this book, only positive reinforcement is used. Citizens are not given negative reinforcement or punishments. The question of freedom doesn't arise as Skinner believes that free will is only an illusion. As a result, in this book, there is no freedom, only perceived freedom, as the community engineers everyone's behaviour.

- **What About Maladaptive Behaviours?**

According to Skinner, psychopathy is learned just like all other behaviours. Irrespective of whether the personality is adaptive or maladaptive, it is learned by the environment. Either people have not learned the correct response or have learned the wrong one. It may also

happen that some people may have been punished for adaptive or good behaviours. So, setting up environmental likelihoods that provide rewards for desirable and appropriate behaviour can treat mental illnesses. For Skinner neuroticism is also the outcome of one's reinforcement history in life.

4.2 COGNITIVE AND COGNITIVE-EXPERIENTIAL ASPECTS OF PERSONALITY

Cognition refers to awareness and thinking, and specific mental acts, such as perceiving, attending to, interpreting, remembering, believing, judging, deciding, and anticipating. All these mental behaviours add up to what is called **information processing**, or the transformation of sensory input into mental representations and the manipulation of such representations (Larsen & Buss, 2010. p. 369).” In this section, we will study about three levels of cognition in which personality psychologists are interested. The first level is “**perception** or the process of imposing order on the information our sense organs take in; the second level is **interpretation**, or the making sense of, or explaining, various events in the world; (interpretation concerns giving meaning to events) and the third level is **people's conscious goals**, the standards that people develop for evaluating themselves and others” (Larsen & Buss, 2010. p. 369, 370).”

4.2.1 Personality Revealed through Perception:

- **Field Dependence**

On the basis of his innovative tool, the Red and Frame Test (RFT), Witkin (1973) was able to demonstrate two types of cognitive styles which individuals can be categorized into. The two cognitive styles he mentioned included field dependency and field independency. People who are able to perceive the object independently from the visual world or cues present are known as field independent. And those who always require to rely on the background or external cues are known as field dependent.

- **Field Dependence/Independence and Life Choices**

People who are field-dependent rely usually on social information and keep asking others for their opinions. Their orientation is towards others which is very evident as they mingle easily with others, like to be surrounded by others, and need continued social interactions with others. On the contrary, people who are field-independent are more autonomous, have an indifferent orientation towards others, are not bothered much about what other people think and like to be alone (Goodenough & Witkin 1977).

- **Current Research on Field Dependence/Independence**

Studies have found that compared to field-dependent people, field-independent people make greater progress in second language acquisition (learning a second language). Field-independent people are more skilful at evaluating complex situations and filtering information from the mess of

background distractions. They are also more creative (Miller, 2007). However, they like to remain alone and away from others and have very few social skills. In contrast, field-dependent people possess good social skills, are attracted towards others, and pay more attention to the social context (Tamir & Nadler, 2007). Both these styles have their own advantages and disadvantages and hence are adaptive in certain settings, which makes it next to impossible to say which one is more beneficial (Collins, 1994).

Pain Tolerance And Sensation Reducing/Augmenting.

People differ regarding how much pain they can tolerate. “In **pain tolerance**, people undergo the same physical stimulus (e.g., to get an injection from the doctor) but react quite differently from each other in terms of the pain they report experiencing” (Larsen & Buss, 2010. p. 375).

- **Petrie’s Research**

In order to measure how much pain could a participant tolerate, Petrie studied people who were in hospitals going through hurtful operations and normal people in whom pain was induced by employing heat or putting heavy weights on the middle joint of people’s fingers. Her theory says that people who have low pain tolerance have a nervous system which enlarges or amplifies the individual effect of sensation. On the other hand, people who have high pain tolerance have a nervous system which reduces or dulls the sensory stimulation effects. As a result, this theory is called **the reducer/augmenter theory** which “refers to the dimension along which people differ in their reaction to sensory stimulation; some appear to reduce sensory stimulation, whereas some appear to augment stimulation (Larsen & Buss, 2010. p. 375).”

4.2.2 Personality Revealed through Interpretation:

- **Kelly’s Personal Construct Theory**

George Kelly (1955) was a psychologist who believed that people are able to make sense of or understand their situations and circumstances and they are also able to predict what is going to happen to them in the future. According to him, psychoanalysis was effective because it helps people to explain psychological problems. For example, you are addicted to smoking because you are fixated on your oral stage. He believed that as long as people believed and used the explanations to make sense of their circumstances, the content of explanations was not that important. “Kelly felt that a primary motivation for every person was to find meaning in their life circumstances, and to use this meaning to predict their own future, to anticipate what is likely to happen next (Larsen & Buss, 2010. p. 377).” Kelly viewed human nature as ‘humans-as-scientists’. People try to understand, predict, and control their lives just like scientists do in their respective fields.

Scientists make use of constructs to understand the world. But a construct does not exist physically, it only exists in our mind. “It is a word that

summarizes a set of observations and conveys the meaning of those observations (Larsen & Buss, 2010. p. 378).” For example, gravity is a construct. It cannot be seen but can be verified. Constructs are also applied to people, such as shy, smart, short-tempered, etc. “In Kelly's theory, the constructs a person routinely uses to interpret and predict events are called **personal constructs**” (Larsen & Buss, 2010. p. 378).” Each individual has a different personal construct system. That is why their interpretation of the world is also different and unique. All constructs are bipolar in the sense that every construct has its opposite. For example, introvert – extravert, boring – interesting, etc.

- **Locus of Control**

Locus of control (LOC) refers to where a person locates responsibility for things that happen in his life. Does he or she locate responsibility within himself - internally or to other factors like destiny, luck and fate – externally? During the 1950s, when Julian Rotter was examining social foundations of learning, that was the time when the research for the locus of control started. Rotter extended traditional learning theory (learning through reinforcement) and advised that learning also depends on how much a particular reinforcer is valued – its reinforcement value. For example, some people may value praise and appreciation and hence it will aid their learning but other people may not value it much resulting in them not being motivated by it. The expectations for reinforcements are also different among people. One may expect that a certain kind of behaviour will help them get a reinforcer. In simple words, they believe that they can control events in their life. Whereas, other people cannot understand the connection between their behaviour and reinforcement. This portrays Rotter's “**expectancy model**” of learning behaviour.

As cited in Larsen & Buss (2010. p. 380) “Rotter stressed that a person's expectations for reinforcement held across a variety of situations, what he called **generalized expectancies**”. When encountering a new situation, people's expectancies about what is going to happen will be based on their general expectancies of whether they can or cannot influence the situation.” Further “A generalized expectancy that events are outside of one's control is called an **external locus of control**. Contrastingly, an **internal locus of control** is the generalized expectancy that reinforcing events are under one's control and that one is responsible for the major outcomes in life (Larsen & Buss, 2010. p. 381).” People who are high on internal LOC believe that consequences or outcomes are dependent on their efforts and people who are high on external LOC believe that outcomes or circumstances are dependent on factors that are beyond their control. Further, the same individual may have a different LOC depending on the specific situation. This is called **specific expectancies**.

- **Learned Helplessness**

While studying avoidance learning in dogs, psychologists started working on learned helplessness. The dogs were put in a condition where they were given shock from which they could not escape. In the first few shocks, the

dogs tried to escape by turning, twisting, jumping and pulling at their binds. But after some time, they stopped trying and accepted the shocks passively as they had learnt that they will not be able to escape. After that, the dogs were transferred to a different cage from which escape was easily possible by merely jumping over a small fence or wall. However, the dogs did not even try to escape the shocks. It appeared as if they “had learned that their situation was hopeless, and they gave up seeking to avoid their painful circumstance” (Larsen & Buss, 2010, p. 382). Other dogs, who had not been given a shock in an inescapable situation earlier, easily jumped over the fence and protected themselves from the shock. Due to learned helplessness, dogs were not even trying to escape. The researchers lifted and put the dog outside the fence. In a way, they showed them that there is an escape, after which these dogs also learnt that they could jump and save themselves from the shocks. But if this had not been shown to them by the researchers, then they would not have attempted jumping as they had learnt to passively bare the pain of shock.

In real life, when people think or perceive that an undesirable situation is beyond their control, they can develop learned helplessness. For example, a woman who is being abused by her husband will initially try everything to make him stop, such as threatening him that she will leave him if he does not stop abusing her, etc. But if the husband keeps abusing her irrespective of what she is trying to make him stop, eventually she may develop learned helplessness and stop trying. However, if someone helps her and shows or suggests to her how she can escape that situation, then she can overcome this learned helplessness and save herself (Seligman & Csikszentmihalyi, 2000).

4.2.3 Personality Revealed through Goals:

Personal Projects Analysis

A personal project analysis is a set of suitable actions with the intention of accomplishing a goal. Psychologist Brian Little (e.g., Little, 2007) holds that these personal projects are naturally occurring units that help to understand how personality works because personal projects show the different ways in which people solve different problems in their life. Most people have a number of projects that they work on in their daily life. For example, to score high marks in exams, get a job, exercise, maintain weight, have healthy relationships, etc. People high on neuroticism think that their personal projects are stressful, hard, and beyond their control; and that they will fail. There is also a high possibility that they might think that they have not made much progress in reaching their goals. People high on neuroticism usually experience hurdles and discontent in achieving their personal projects (Little, Lecci, & Watkinson, 1992).

Cognitive Social Learning Theory

Personality theories which are built on the idea that personality is revealed through goals and how people “think about themselves relative to their goals collectively form the cognitive social learning approach to personality” (Larsen & Buss, 2010. p. 386)

- **Albert Bandura and the Notion of Self-Efficacy**

Self-efficacy is a very important concept given by Albert Bandura, which is also a part of his theory. In simple words, it refers to one's belief in his or her capabilities to perform a given task. For example, a child who is learning to fill in the colour in the drawings may believe that she will be able to fill in the colour inside the boundaries and that the colour will not cross the boundary. In this case, the child has high self-efficacy beliefs for colouring skills. In contrast, if the child doubts herself regarding her colouring skill, then she has low self-efficacy beliefs. Research shows that when people have high self-efficacy beliefs, they put in more effort in the task, are persistent and set high goals compared to those who have low self-efficacy.

Self-efficacy affects performance and vice versa. So, if self-efficacy leads to better performance, then that better performance, in turn, will enhance self-efficacy. When we start some task, self-efficacy is most important during that time. A complex task can be divided into goals and subgoals. Achieving a subgoal boosts overall self-efficacy. Researchers also distinguish between generalised self-efficacy that cuts across the life domains and specific self-efficacy that is limited to a certain domain (like colouring). Self-efficacy is also affected by the means of modelling, that is, observing other people performing successfully in different domains.

- **Carol Dweck and the Theory of Mastery Orientation**

The early research of Carol Dweck focused on helpless and mastery-oriented behaviours in schoolchildren (Deiner & Dweck, 1978, 1980). She noticed that when facing failure, some students persist and others give up at the first hint of difficulty. She examined the cognitive beliefs that caused such kinds of behaviour patterns. For example, she found out that the implicit beliefs that students hold about intelligence can have a great impact on the way in which they deal with challenging intellectual tasks. Students who viewed intelligence as something that cannot change and is a fixed internal feature (Dweck named it 'entity theory') do not like to face academic tests or challenges. On the contrary, students who hold the view that intelligence is not only changeable but can be enhanced through persistence and effort (Dweck named it 'incremental theory') seek academic challenges (Dweck, 1999a, 2002; Dweck, Chiu, & Hong, 1995). This also shows that if we do not praise a student for their intelligence, then they will view intelligence as something as unchangeable. They will also start to think that success and failure are beyond their control.

- **Tory Higgins and the Theory of Regulatory Focus:**

Higgins proposed two types of regulatory focus, namely promotion focus and prevention focus. In promotion focus, a person cares more about achieving positive outcomes and goals in their lives that lead to growing, advancing, and accomplishing stories. "Promotion focus behaviours are characterized by eagerness, approach, and "going for the gold", in other words, striving for the best" (Larsen & Buss, 2010. p. 388). In prevention

focus, a person cares more about avoiding negative outcomes in life and focuses rather on safety and protection. These people are more cautious and vigilant. Promotion focus has been found to be associated with extraversion, while prevention focuses on neuroticism (Grant & Higgins, 2003).

- **Walter Mischel and the Cognitive-Affective Personality System (CAPS)**

Walter Mischel, in his cognitive-affective personality system (CAPS) visualized that personality is a build-up of cognitive and affective activities and that personality is not merely just a collection of traits. And these activities affect the ways in which we tend to respond to situations (Mischel, 2000, 2004). These cognitive and affective activities or processes include mental activities like construal (how one views a situation), abilities, feelings, plans, beliefs, goals, expectations, strategies, and self-regulatory standards. This theory states that every person has in themselves such a relatively stable network of mental activities which they acquire by means of their biological and learning history, genetic endowment and the culture and subculture they belong to. According to Mischel, as and when people face different kinds of situations in life, based on the situation their cognitive and affective processes get triggered or activated. Mischel emphasised the person-situation interaction at the root of a wide variety of behaviours that we observe.

Intelligence

One of the many definitions of intelligence takes into account educational attainment, which means how much knowledge has a person attained relative to other people in his/her age cohort. Some of the other definitions see intelligence as an ability or competence to become knowledgeable or educated, as an aptitude to learn. This view is called the aptitude view of intelligence. The early intelligence measures or IQ tests are based on the aptitude view. Earlier, psychologists viewed intelligence as a trait. They also thought that individuals differed from each other only because of the different amounts of intelligence they had. Intelligence was also thought of as a single factor; it was called the *g* factor, in which *g* stands for general intelligence. In due course of time, different tests of intelligence were made and researchers became aware that separate abilities exist, like verbal, perceptual, arithmetic, and memory ability.

Howard Gardner (1983) proposed a widely accepted definition of intelligence according to which intelligence is the application of cognitive skill and knowledge to solve problems, learn, and achieve goals that are valued by the individual and the culture (Larsen & Buss, 2010. p. 390). He gave a theory of intelligence called 'the theory of multiple intelligences', according to which intelligence has seven forms, like intrapersonal and interpersonal intelligence, kinaesthetic intelligence, musical intelligence, visual-spatial intelligence, linguistic-verbal intelligence, logical-mathematical (Gardner, 1999). Peter Salovey and Jack Mayer (1990) put forward the concept of emotional intelligence, on which Daniel Goleman

(1995) wrote a book by the same name, thus making it more popular. Emotional intelligence includes the ability to know your own emotions (self-awareness), regulate one's own emotions (self-management), recognise the emotions of other people, and manage social relationships (social skills).

CHECK YOUR PROGRESS

Write short notes on:

- a) Self-efficacy
- b) Conditioning of a response to a stimulus
- c) Systematic desensitization
- d) Operant conditioning
- e) Pain tolerance
- f) Locus of control
- g) Learned helplessness

4.3 SUMMARY

Classical conditioning, popularised by Ivan Pavlov, is a form of learning in which a neutral stimulus (bell ringing) is repeatedly paired with an unconditional stimulus (food) to elicit a response that was not associated with the neutral stimulus previously (salivation). Stimulus generalisation is a process through which a conditioned response follows a stimulus that is similar to the original conditioned stimulus. Through stimulus discrimination, individuals learn to differentiate among various similar stimuli and to limit responding to one stimulus to others. Extinction occurs when the pairing of the unconditioned and conditioned stimulus ceases to exist.

In operant conditioning, behaviour is encouraged or discouraged as a result of consequences (reinforcement or punishment respectively).

Cognition is an umbrella term used to represent a wide variety of higher mental abilities like perception, thinking, decision-making, reasoning, language use etc. All these mental abilities add up to what is called information processing.

Witkin's field-dependence and field-independence are widely studied cognitive styles. Field-independent participants can perceive objects as having an identity beyond the field they are situated in (e.g., trees in a forest) whereas field-dependents do not demonstrate this ability (Witkin, 1973). Field-dependents rely on social information, and social proof and seek to act in a socially conforming manner. In contrast, the field-independents demonstrate higher autonomy, have an indifferent orientation towards others, are not very bothered about what other people think, and like to be alone.

The reducer/augmenter theory refers to the dimension along which people differ in their reaction to sensory stimulation; some appear to reduce sensory stimulation, whereas some appear to augment stimulation (Larsen

& Buss, 2010). For example, pain tolerance - even when the physical stimulus is the same (e.g. injection via needle), people report differing levels of pain.

In Kelly's theory, the constructs a person routinely uses to interpret and predict events are called personal constructs. They are the lens through which each individual sees the world.

Locus of control refers to one's beliefs about how much control he or she has over his or her life. An external locus of control reflects a generalized expectancy that events are outside of one's control. Contrastingly, an internal locus of control is the generalized expectancy that life is in our hands. For an individual with an internal LoC, the responsibility of outcomes lies within the person whereas if they have an external LoC, outcomes will be attributed to chance or luck.

A personal project analysis is a set of suitable actions with the intention of accomplishing a goal.

Proposed and theorised by Albert Bandura, self-efficacy refers to the belief in one's own ability to successfully pursue a task or goal.

4.4 QUESTIONS

1. What is Classical conditioning? Explain its role in personality.
2. Explain in detail the radical behaviourism by B. F. Skinner.
3. Explain what is field-dependence and the field-independence with suitable examples.
4. How is personality revealed through interpretation?
5. Explain cognitive social learning theory in detail.

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DISPOSITIONAL DOMAIN: TRAIT APPROACH - I

Unit Structure:

- 5.0 Objectives
- 5.1 Introduction
 - 5.1.1 What is a trait?
 - 5.1.2 Identification of important traits
- 5.2 Allport
- 5.3 Cattell
- 5.4 Eysenck's Three Factors
- 5.5 The Big-Five and Five-Factor Model
 - 5.5.1 Theory/Model
 - 5.5.2 Empirical Evidence
 - 5.5.3 Circumplex Taxonomies of Personality
 - 5.5.4 HEXACO
- 5.7 Summary
- 5.8 Questions
- 5.9 References

5.0 OBJECTIVES

After studying this unit, you should be able to:

- Understand what are traits.
- Know the different properties of traits.
- Study act frequency formulation to understand traits.
- Know how to identify important traits.
- To know Allport's theory of personality
- Understand the personality taxonomy given by Eysenck.
- Know the taxonomy of personality developed by Cattell.

- Know the Five-Factor model
- To understand the circumplex taxonomies of personality

5.1 INTRODUCTION

Imagine a situation where your friend introduces you to their colleague from work at a party. When your friend asks you what you thought about the colleague, you say that you found them to be friendly, generous, poised, etc. These descriptions are exactly what make up the *trait-descriptive adjectives* - words that describe traits, and *attributes* of a person that are reasonably characteristic of the person and perhaps even enduring over time. (Larsen & Buss, 2009, p. 61). This means that they are consistent and stable. Most personality psychologists state that personality characteristics are fairly stable over time, which means they do not go through significant change over even as time passes by.

Researchers, when studying personality often ask three important questions?

- a. How should we conceptualize traits?
- b. Which are the most important traits and how do we identify them?
- c. How often can we formulate a comprehensive taxonomy of traits, that is a system that includes all major traits of personality?

5.1.1 What Is a Trait?

There are two broad views of personality according to personality psychologists. First, *internal properties* (hidden) that *cause* behaviours to occur. The other does not attempt to explain the cause, they simply describe the enduring and consistent aspects of the person's behaviour.

• Traits as Internal Causal Properties:

People tend to carry certain desires, needs or wants, that drive their behaviour and change from one situation to the other. For example, Dinesh needs excitement, Dhruv has the *desire* for materialistic things and Dhaval *wants* to have power over others. The traits shown in the above examples are all internal to those individuals. They also cause certain behaviours to occur. So, Dinesh will engage in certain behaviours to fulfil his need for excitement, for example, going for sky-diving. Similarly, Dhruv may go for shopping frequently and Dhaval may take up leadership roles at his workplace to be able to have power over others. This is how *internal* desires influence *external* behaviour.

Just because an individual possesses these internal desires does not mean they will constantly exhibit behaviours in line with the desires. For example, you may be craving a cheeseburger and fries but you have also made a new year's resolution to eat healthy food and lose weight, so you do not give in to your craving and end up not eating the burger and fries. Similarly, in the earlier example, just because Dhruv loves materialistic

things and loves to go for shopping frequently, that does not mean he can afford to shop every day.

Dispositional Domain:
Trait Approach - I

Psychologists also use the example of glass. Glass is brittle (the *ability* to break), but that does not mean that the glass will break without any reason. Thus, psychologists view traits as an internal state that people have the *capacity* for, Although the related behaviours are not always displayed. Traits can exist in the absence of observable expressions. This view helps us to rule out other possibilities when we are trying to explain the cause of people's behaviour. For example, when Dhruv goes to the mall frequently because he loves shopping and because he loves materialistic things helps us understand his behaviour.

- **Traits as Purely Descriptive Summaries:**

Psychologists who follow this alternative formulation, define traits simply as descriptive summaries of attributes of persons; they make no assumptions about internality or causality (Hampshire, 1953). For example, the trait of jealousy may come across through several behaviours. Jay may possess this trait because of which he may engage in certain behaviours with his partner like restricting her from going out alone, expecting her to dress a certain way, etc. All these behaviours *describe or summarize* the trait of jealousy. those who view traits as descriptive summaries do not prejudge the cause of someone's behaviour. They merely use traits to describe, in a *summary* fashion, the trend in a person's behaviour. Personality psychologists of this persuasion (e.g., Saucier & Goldberg, 1998; Wiggins, 1979) argue that we must first identify and describe the important individual differences among people; and then subsequently develop causal theories to explain them (Larsen and Buss, 2008, p. 63, 64).

- **The Act Frequency Formulation of Traits – An Illustration of the Descriptive Summary Formulation:**

Several psychologists who support the descriptive summary formulation of traits have explored the consequence of this formulation through a research program called the “act frequency approach” (Amelang, Herboth, & Oefner, 1991; Angleiter, Buss, & Detroder, 1990; Buss & Craik, 1983; Romero et al., 1994).

The act frequency approach begins with the notion that *traits are categories of actions*, like “animals” which is a category that includes dogs, tigers, elephants, etc. Similarly, traits like dominance or aggression will have specific behaviours that fall under this category. For example, in the category of dominance, you will see acts like constantly ordering people to do things, wanting control over the situation, wanting to assign roles to other people in a group task, etc. Thus, dominance is a *trait category* comprising such and several other acts that fall under it. Someone who is highly dominant will thus engage in a large number of such acts. Hence, according to the act frequency formulation, a trait like dominance is a descriptive summary of the large number of behaviours that people engage in.

• **Act Frequency Research Program:**

The act frequency approach includes three important elements: act nomination, act prototypicality judgment and recording of activity performance.

Act Nomination:

Act nomination is a procedure designed to identify which acts belong to which trait categories (Buss & Larsen, 2008, p. 64). Think about someone who is “impulsive”. Now list the specific acts or behaviours that fall under this. One might say “she immediately accepted a dare given to her even though it could have been dangerous”, “he agreed to go to the party even if he was unwell”, and “she decided to bunk the lecture just to go watch a movie with friends”. By inquiring about such *nominations* researchers try to identify the several acts that fall under the category.

Prototypicality judgment:

The next step in this research is to identify which acts are the most prototypical or central to each of the trait categories. For example, animals like dogs, cats, tigers and lions may be the ones to come to your mind when you hear the word “animal”. But animals like koala bears, hedgehogs, and iguanas may not be the first to come to your mind. Thus, dogs, cats, lions and tigers are better examples or they are more *central* to the category of animals.

Similarly, the acts that are most typical of that particular category will become the prototypes. There may be a panel of raters who would be asked to rate which acts are prototypical of the category. For example, raters find the acts “She controlled the outcome of the meeting without the others being aware of it” and “She took charge after the accident” to be more prototypically dominant than the act “She deliberately arrived late for the meeting.” All three examples could be considered to be part of the dominant category, but the first two are more prototypical of the category.

Recording of act performance:

This stage includes securing the information on the actual act or performance of individuals in daily life. Most researchers have used self-reports or collected data from family or close friends. Here is an example:

Table 5.1: Self-Report of Impulsive Acts

Instructions: Following is a list of acts. Read each act and circle the response that most accurately indicates how often you typically perform each act. Circle “0” if you never perform the act; circle “1” if you occasionally perform the act; circle “2” if you perform the act with moderate frequency; and circle “3” if you perform the act very frequently.				
Circle	Acts			
0 1 2 3	1. I say what I think without thinking about the			

	possible consequences.
0 1 2 3	2. I react quickly and aggressively to verbal thoughts.
0 1 2 3	3. I bought a new car without giving it too much thought.
0 1 2 3	4. I decide to live with somebody without due reflection.
0 1 2 3	5. I make hasty decisions.
0 1 2 3	6. I speak without thinking about what I am going to say.
0 1 2 3	7. I am led by feelings of the moment.
0 1 2 3	8. I spend my money on whatever strikes my fancy.
0 1 2 3	9. Having made definite plans, I suddenly change them and do something totally different.
0 1 2 3	10. I do the first thing that comes to my mind.

{Source: Adapted from Romero et al. (1994) and Buss & Larsen (2008), from among the most prototypical impulsive acts. According to the act frequency approach, you would be judged to be “impulsive” if you perform high (overall frequency of these impulsive acts), relative to your peer group}.

Critique of the Act Frequency Formulation:

This formulation has been criticized by several researchers (Angleitner & Demtroder, 1988; Block, 1989). Most of the criticism is aimed toward technical implementation. It does not specify how much context should be included in the trait-relevant act. Consider the following dominant act: Rahul insisted others go to his favourite restaurant. To understand this act as a dominant act, we might need to know (1) the relationships among the people involved, (2) the occasion for going out to eat, and (3) who is paying for the dinner. How much context is needed to identify the act as a dominant act? Thus, we need more information to understand if these acts are truly frequent and prototypical of the category.

Another criticism of this approach is that it is only applicable to overt actions, that is to the actions that are observable easily. It does not apply to actions that are not observable directly. A person may be very courageous but we may fail to identify their courageousness as they might not get an opportunity or need to show their courageousness in daily life. Another challenge to the approach is whether it can successfully capture complex traits, such as the tendency of narcissistic individuals to oscillate between high and low self-esteem (Raskin & Terry, 1988).

Despite its limitations, the act frequency formulation has its fair share of advantages. It has helped in making behavioural phenomena explicit, simply because this may be the primary way to understand behaviours.

“Behavioural acts constitute the building blocks of interpersonal perception and the basis for inferences about personality traits” (Gosling, John, Craik, & Robins, 1998). Therefore, understanding behaviours as a way to understand personality is essential, even though there may be difficulties that could occur. The act frequency approach is also helpful in identifying behavioural regularities (behaviours that occur on a regular and constant basis). This approach also helps in understanding the *meaning* of some traits that were difficult to be studied such as creativity and impulsivity.

Understanding the act frequency approach also helps identify the domains in which it provides insight into personality. One study examined the relationship between self-reported act performance and observers’ reports of individuals’ actual behaviour (Goslin et al., 1998). Some acts like extraversion and conscientiousness showed higher agreement when measured using self-report. This meant that for such acts the self-report and the observer reports showed a greater match. Other acts like agreeableness showed lower agreement. It was concluded that the more observable the act, the higher the agreement between self-report and observers’ ratings. For example, acts that are associated with extraversion like going out to a party, having a larger number of friends, and frequency of talking to strangers, are more observable and thus there is a greater agreement between self-report and observer’s report.

There are other researches which have shown that the act frequency approach can also be used to predict essential outcomes in everyday life like job, salary, promotions, business acumen, etc. (Kyl-Heku & Buss, 1996; Lund et al., 2006).

To conclude, there are two formulations of traits. One that looks at the internal cause that affects observable behaviour. The second considers the traits to be descriptive summaries of the observable behaviour.

5.1.2 Identification of Important Traits:

There are the following three essential ways to identify important traits:

i) Lexical Approach:

According to this approach, all traits listed and defined in the dictionary, form the basis of the natural way of describing differences between people (Allport & Odbert, 1936; Larsen & Buss, 2008, p. 67). This approach suggests that we begin with language as a source of identifying important traits.

This approach is based on the lexical hypothesis which states that “all-important individual differences have become encoded within the natural language” (Buss & Larsen, 2008, p. 67). Over time, the differences among people are identified and noted and subsequent changes or additions are made in the natural language as and when required. People will invent words like hot-headed, hot-tempered, self-centred, etc. which help describe people and is useful for communicating information about them. Thus, these terms begin to be used frequently. But words that do not communicate information accurately are not used frequently and thus are eliminated from the natural language over a period of time.

There are several words in the English language that are used as adjectives, for example - manipulative, arrogant, warm, etc. A perusal of the dictionary yields about 2,800 trait-descriptive adjectives (Norman, 1967). This highlights how trait terms are extremely essential to communicating with others.

There are two ways in which important traits can be identified according to the lexical approach – **synonym frequency** and **cross-cultural universality**. For the synonym frequency criteria, the idea is that if there are more than two or three trait adjectives associated with a dimension, it must be important. The more the number of trait adjectives, the more important it seems to be. “More the attribute is important, the more synonyms and subtly distinctive facets of the attribute will be found within any one language” (Saucier & Goldberg, 1996, p.24). For example, the trait of dominance has several synonyms to it dominant, bossy, assertive, powerful, pushy, forceful, leaderlike, domineering, influential, ascendant, authoritative and arrogant. Each synonym has a subtle and minor difference and it conveys important aspects of the dominance trait. All these adjectives are important to understand the trait and for social communication.

Cross-cultural universality states that “the more important is an individual difference in human transactions, the more languages will have a term for it” (Goldberg, 1981, p. 142). Also, “the most important phenotypic [observable] personality attributes should have a corresponding term in virtually every language” (Saucier & Goldberg, 1996, p. 23). The logic used is that if the trait is important then it will be frequently used across cultures. Contrary to this, if the trait is specific to one or two cultures, there may not be a word or adjective for it in all cultures. Hence, for the cross-cultural universality criteria, researchers must examine the natural language and trait usage across cultures.

Though the lexical strategy has made remarkable contributions to identifying important individual differences, several problems can occur with the lexical strategy. Many trait terms are ambiguous like elliptical, snaky, and stygian. There may also be terms that are difficult to understand like clavering (inclined to gossip or idle talk), davering, gnathonic and theromorphic (Saucier & Goldberg, 1998). These terms are not often used and are eventually eliminated from natural language. Another issue with the lexical strategy is that personality is not always conveyed through adjectives but can also be communicated through nouns and adverbs. For example, there are also dozens of noun terms encoded within the English language to describe someone who is not too smart: birdbrain, blockhead, bonehead, chucklehead, cretin, deadhead, dimwit, dolt, dope, dullard, dumbbell, dummy, dunce, jughead, lunkhead, moron, peabrain, pinhead, soft head, thickhead, and wooden head. However, researchers choose to focus on trait-adjective for personality description.

ii) Statistical Approach:

This approach uses statistical methods like factor analysis to identify major personality traits. This approach begins with a pool of personality items. Similar to the lexical approach, it starts with trait words or a series

of questions about behaviour, experience and emotion. Frequently, those researchers who begin with the lexical approach turn to the statistical approach to help form basic categories of personality traits. Researchers can begin with self-ratings of trait adjectives on a large collection of personality-relevant sentences (For example – I find that I am easily able to persuade people to my point of view). Once a large enough number of adjectives, items and statements are generated the statistical approach is applied. A large number of people begin to rate themselves on these items and then statistical procedures are applied to identify categories or clusters. The major goal of the statistical approach is to cover all the trait adjectives that fall under a category.

A procedure called factor analysis is most commonly used. It is a complex mathematical procedure, which essentially identifies groups of items that co-vary (i.e., vary together), but tend not to vary with other groups of items (Buss & Larsen, 2008, p. 69). Take for example, in the university, the cabins of psychology professors, sociology professors, history professors, etc. Each psychology professor's cabin will be near the each other, in the department building. Similarly, the sociology department will have the cabins of the sociology professors nearby. Thus, after factor analysis, we will be able to understand which traits are similar to each other and which traits can be clustered together. This also helps us understand which traits have some common properties. Factor analysis reduces a large number of factors or traits into understandable and easily usable clusters or categories.

Here is a tabular example of factor loadings (which are indexes of how much of the variation in an item is “explained” by the factor.) Factor loadings indicate the degree to which the item correlates with, or “loads on,” the underlying factor. (Buss & Larsen, 2008, p. 69).

Table 5.2 Factor Loadings for Adjective Rating

Adjective Rating	Factor 1 (Extraversion)	Factor 2 (Ambition)	Factor 3 (Creativity)
Humorous	.66	.06	.19
Amusing	.65	.23	.02
Popular	.57	.13	.22
Hard-working	.05	.63	.01
Productive	.04	.52	.19
Determined	.23	.52	.08
Imaginative	.01	.09	.62
Original	.13	.05	.53
Inventive	.06	.26	.47

{**Source:** Adapted from Matthews & Oddy (1993)}.

Note: The numbers refer to factor loadings, which indicate the degree to which an item correlates with the underlying factor.

Dispositional Domain:
Trait Approach - I

The first factor of extraversion has the highest loadings on humorous, amusing and popular. The second factor of ambition has the highest loading on hard-working, productive and determined. The third factor of creativity has the highest loadings on imaginative, original and inventive. Because of the factor analysis, the researcher may be able to cluster the trait adjectives appropriately rather than looking at all these nine traits independently.

One important thing to keep in mind while using factor analysis is that if you miss out on putting in the data for a particular trait adjective, the results will not account for it. Thus, what input you give when calculating the factor loadings will be critical.

iii) Theoretical Approach:

In this approach, researchers rely on theories to explore important personality traits. This approach begins with a theory that determines which variables are important. It begins with a strong assumption of which traits are important. For example, the sociosexual orientation theory was developed by psychologists Jeff Simpson and Steve Gangestad (1991). This theory states that men and women pursue either one of the sexual relationship strategies. First, seeking a single committed relationship that entails monogamy (having one partner at a given time) and having a significant investment in children. The second includes a great degree of promiscuity (having multiple sexual partners), frequent partner switching and less investment in children. Based on this theory, we can identify traits that are essential to explain the mate selection strategy. Psychologists have also developed a scale to measure these aspects of mate selection.

Thus, under this approach, the theory and what we know about it will be the driving force to understanding personality and the various traits that are included under those categories. It lets theory determine which traits are important.

The drawback of the theoretical approach is that we must have a strong enough theory to support the understanding of the personality traits being studied. If the theory is weak it may lead to omission or misinterpretation.

There is no consensus amongst researchers about which of the three approaches is the best to be used. The researchers most often use a combination of all three strategies to understand personality traits. For example, Norman (1963) and Goldberg (1990) started their work with the lexical strategy to identify their first set of variables for inclusion. Then they applied factor analysis to selected traits and reduced the set of five variables. In this way, they used the lexical strategy to sample the traits and the factor analysis strategy to find statistical support and structure.

CHECK YOUR PROGRESS:

- What are the approaches to identifying important traits?

5.2 ALLPORT

Gordon Allport was born on November 11, 1897, in Montezuma, Indiana, USA. He developed a theory of personality that emphasizes the uniqueness of the psychologically healthy individual who strives proactively towards a goal that they have consciously set. He viewed traits as the basic structural elements of personality. He used the term “predisposition to respond”. Allport stated that the traits brought together a set of behaviours. These behaviours lead to consistency in the kind of response that could be expected from a person who possessed the traits. These behaviours are viewed as forms of adaptive and expressive behaviour. For example, a highly sociable person will be friendlier and more outgoing. They will view these situations as opportunities to meet and interact with people and relate to them. This helps them function better in the world. Traits represent a readiness to respond to a certain situation in a particular way. Allport believed that traits existed as a “neuropsychic system”. He could not show how one could measure them but he believed they were rooted in biology and are seen through the individual difference among people.

Allport suggested different categories of traits. The first distinction he made was whether traits could be used to describe just a single individual or people in general. This is known as the nomothetic-idiographic issue. The nomothetic approach emphasizes that it's important to develop traits that could be applied to all. The idiographic approach insists that traits are unique to individuals. The second distinction Allport makes is among cardinal, central and secondary traits. A cardinal trait expresses a disposition that is so pervasive in a person's life that virtually every act is traceable to its influence. Central traits (e.g., honesty, kindness, assertiveness) express dispositions that cover a more limited range of situations than cardinal traits but still represent broad consistencies in behaviour. And secondary dispositions represent tendencies that are the least conspicuous, generalized, and consistent (Pervin, 2002, p. 39).

Allport rejected factor analysis as a method to understand personality clusters. He identified important terms from the English dictionary, added some slang terms and classified almost 18,000 terms. These included stable and enduring categories, temporary mood and activity-based, social evaluations and physical characteristics and talent or abilities. The stable category was most significantly related to traits (which are known to be fairly enduring). Although Allport's method of coming up with the categories was not based on research, his work initiated the movement to understand how ordinary language could be used to develop a taxonomy.

Allport emphasized the idiographic approach and was critical of those research studies that attempted to identify individual differences or compare individuals to other large groups. He believed that people's

behaviour cannot always be predicted and that there was always a strong influence of situational factors. He also that believed motives are included in the trait approach. He believed motives/motivation was important to the understanding of traits and behaviours.

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5.3 CATTELL

Cattell worked closely with Charles Spearman who was the inventor of factor analysis. Cattell was very impressed by the potential and utility of factor analysis and realized how important it is for developing a scientific taxonomy of personality. He devoted much of his career to using factor analysis to apply and develop factor analytic techniques to understand personality.

Cattell followed the work of biochemists, who back then were discovering the basic vitamins. He was influenced by how they used the alphabet from the English language to name the vitamins. He followed a similar system. He believed that true factors of personality can be found across different sets of data such as self-report (S-data) and laboratory tests (T-data). Cattell developed a 16-factor taxonomy which was one of the largest taxonomies. Here is a brief description of the 16 factors identified and developed by Cattell:

Table 5.3 Sixteen Factors Developed by Cattell and Their Description

Factor	Name	Description
Factor A	Interpersonal warmth	Warm-hearted, personable, easy to get along with, likes being with other people, likes helping others, adapts well to the needs of others rather than has others adapt to his or her needs; this is similar to Eysenck's extraversion
Factor B	Intelligence	A rough indicator of intellectual functioning or efficiency in processing information
Factor C	Emotional stability	A high level of emotional resources with which to meet the challenges of daily life, ability to work toward goals, not easily distracted, good emotional control, ability to "roll with the punches," tolerates stress well; this is similar to Eysenck's neuroticism factor (reverse scored).
Factor E	Dominance	Self-assertive, aggressive, competitive, forceful and direct in relations with others, and like to put their ideas into practice and have things their way. Occupational groups scoring high on this dimension include athletes and judges, and low-scoring groups include janitors, farmers, and

		cooks.
Factor F	Impulsivity	Happy-go-lucky, lively, enthusiastic, enjoy parties, likes to travel and prefers jobs with variety and change. Occupational groups scoring high on this dimension include airline attendants and salespersons. Adults scoring high on impulsivity tend to leave home at an earlier age and move more often during their adult lives.
Factor G	Conformity	Persistent, respectful of authority, rigid, conforming, follows group standards, likes rules and order, and dislikes novelty and surprises. Military cadets score above average, along with airport traffic controllers; university professors, however, tend to be below average on conformity.
Factor H	Boldness	Likes being the centre of attention, adventurous, socially bold, outgoing, confident, able to move easily into new social groups, not socially anxious, and has no problems with stage fright.
Factor I	Sensitivity	Artistic, insecure, dependent, overprotected, prefers reason to force in getting things done. High scorers are found among groups of employment counsellors, artists, and musicians, whereas low scorers are found among engineers
Factor L	Suspicious-ness	Suspecting, jealous, dogmatic, critical, irritable, holds grudges, worries much about what others think of him or her; tends to be critical of others; accountants are one group scoring high on this dimension.
Factor M	Imagination	Sometimes called the “absent-minded professor” factor; unconventional, impractical, unconcerned about everyday matters; forgets trivial things, and is not usually interested in mechanical activities. High-scoring groups include artists and research scientists; high scorers are more creative than low scorers but also tend to have more automobile accidents.
Factor N	Shrewdness	Polite, diplomatic, reserved, good at

		managing the impression made on others, socially poised and sophisticated, and good control of her behaviour; high scorers may appear “stiff” and constrained in their social relations.
Factor O	Insecurity	Tends to worry, feels guilty, moody, has frequent episodes of depression often feels dejected, sensitive to criticism from others, becomes upset easily, anxious, often lonely, self-deprecating, and self-reproaching. Extremely low scorers come across as smug, self-satisfied, and overly self-confident. Low-scoring persons may not feel bound by the standards of society and may not operate according to accepted social conventions (i.e., may be somewhat antisocial).
Factor Q1	Radicalism	Liberal attitude, innovative and analytic; feels that society should throw out traditions, and prefers to break with established ways of doing things. High scorers tend to be effective problem solvers in group decision-making studies. However, high scorers, because they tend to be overly critical and verbally aggressive, are not well-liked as group leaders.
Factor Q2	Self-sufficiency	Prefers to be alone, dislikes being on committees or involved in group work, and shuns support from others. Social workers tend to be below average on this dimension; accountants and statisticians tend to be high, with Antarctic explorers among the highest groups ever tested on self-sufficiency.
Factor Q3	Self-discipline	Prefers to be organized, think before talking or acting, is neat, and does not like to leave anything to chance. High-scoring persons have strong control over their actions and emotions; airline pilots score high on this dimension.
Factor Q4	Tension	Anxious, frustrated, takes a long time calming down after being upset, irritated by small things, gets angry easily, and has trouble sleeping.

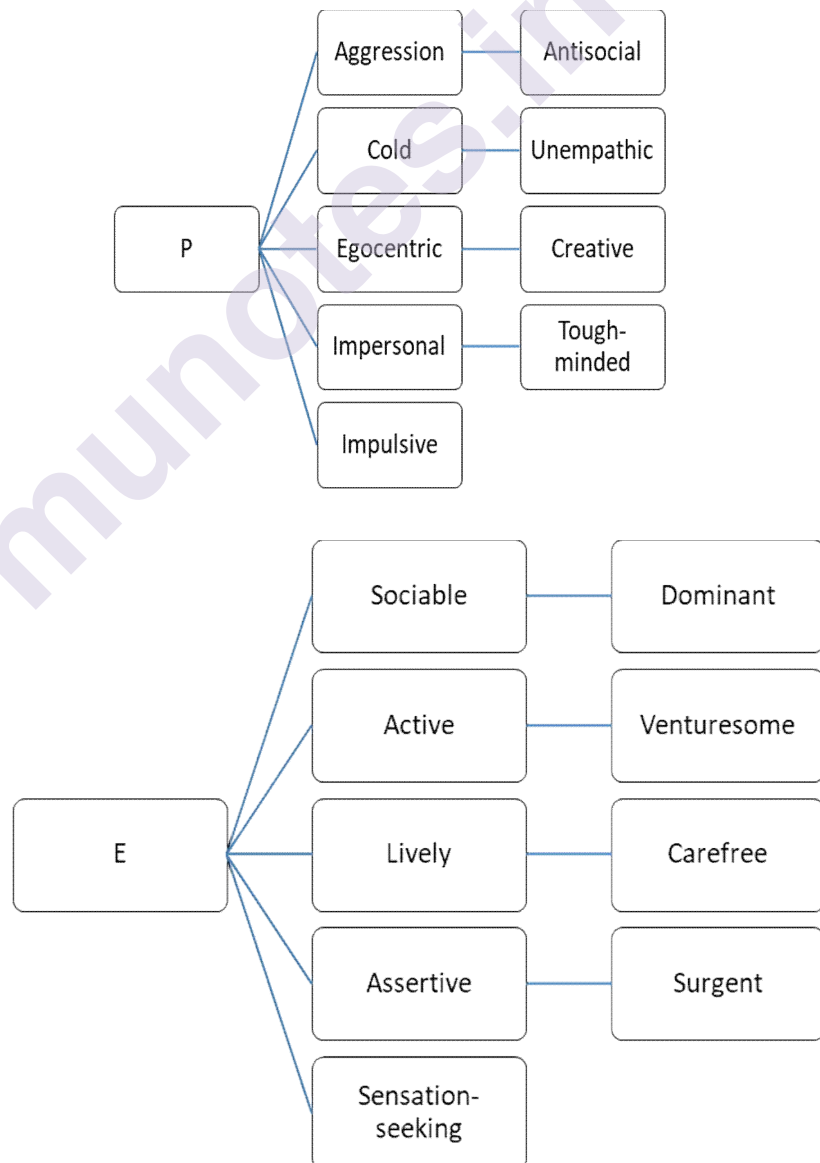
{Source: Adapted from Krug (1981); Buss and Larsen, (2008), p. 78-79}

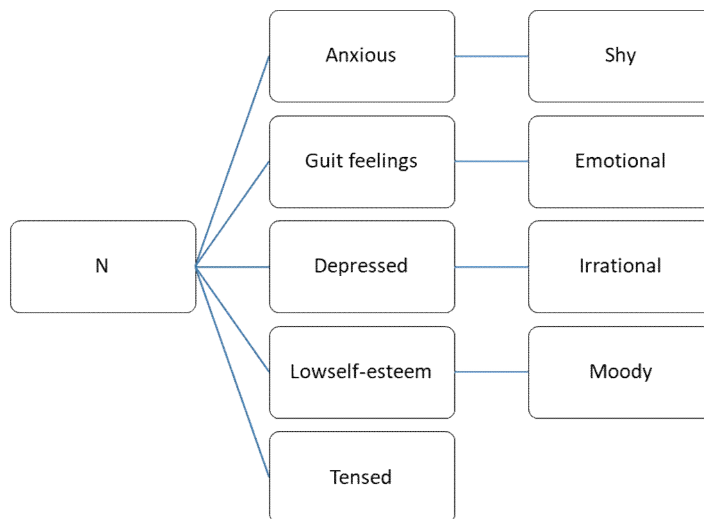
Cattell has developed a strong system for studying personality traits, but there is some criticism associated with his work. Some researchers have failed to replicate his taxonomy and some argue that a smaller number of factors can explain the individual difference.

5.4 EYSENCK'S THREE FACTORS

Hans Eysenck proposed the hierarchical model of personality. He developed this based on the traits which he believed were highly heritable, that is they could be passed on from one generation to the next and they also had a psychophysiological foundation (based on psychology and physiology). According to Eysenck, the three main traits that met this criterion include extraversion-introversion (E), neuroticism-emotional stability (N) and psychoticism (P). Together they were abbreviated as PEN.

Figure: 5.1: Distribution of Specific traits for Eysenck's hierarchical model





Eysenck described extraversion to include traits like sociable, active, lively, venturesome, dominant, etc. Eysenck described extraverts to be people who enjoy going to parties frequently, have many friends, and constantly want to have several people around them to talk to them, enjoy playing practical jokes on people, are carefree and easy manner and high level of activity (Eysenck & Eysenck, 1975). On the contrary, introverts were described as people who enjoy spending time alone, prefer quiet time and solitude and seek activities accordingly. They are sometimes aloof and distant but often have a small number of intimate friends with whom they share confidence. They are described to be more serious than extroverts and prefer a moderate pace. They are well-organized, prefer and a routine and predictable lifestyle (Larsen & Kasimatis, 1990; Buss & Larsen, 2008)

The trait of neuroticism (N) includes specific traits, such as anxiety, irritability, guilty, lacking self-esteem, tension, shy, and moody. Generally, anxiousness and irritability may be viewed differently, but factor analysis has helped us understand that these two traits are related to each other. When one is anxious, they can become irritable and factor analysis has confirmed this. Those high on neuroticism are worriers and they get easily anxious and depressed. They also have trouble sleeping and can experience a wide range of psychosomatic symptoms (when the conflict and trouble from the mind begin to influence or show itself through bodily symptoms). Another key characteristic of those high in neuroticism is that they experience high emotional arousal in response to normal stresses of life. That means that even if the stressors in their life are similar to those experienced by others, they have a stronger emotional response to them. Those who score low on neuroticism are found to be emotionally stable, even-tempered and calm and they react slowly to stressful events. They also can return quickly and easily to a normal emotional state after a stressful event has occurred.

The third target trait proposed by Eysenck is psychoticism (P). Those, who are high on this trait, exhibit narrower traits like aggression, egocentric, creativity impulsiveness, lacking empathy, and antisocial. Factor analysis has helped us understand that lack of empathy and impulsivity co-occur.

This means that those who tend to act without thinking (impulsivity) also find it difficult to see situations from other people's perspectives (lack of empathy). Those scoring high on psychoticism are typically solitary individuals, often called loners. They also are cruel in many ways they may show cruelty to animals as well (e.g., laughing when an animal gets hurt). They also show insensitivity to the pain and suffering of others even /her family members. They are physically and verbally aggressive with their family members. They show deep interest in strange and unusual things and do not get scared of dangerous things/act simply out of curiosity. They enjoy making a fool of other people and in extreme cases, they can display symptoms of antisocial personality disorder.

Several interesting correlations have been studied by researchers in line with psychoticism. High scorers tend to show a strong preference for violent films and rate violent scenes from films more enjoyable and even more comical than those who score low on P (Bruggemann & Barry, 2002; Buss & Larsen, 2008). High scorers on P, prefer unpleasant paintings and photographs more than do low-P individuals (Rawling, 2003; Buss & Larsen, 2008). Men, but not women, who score high on Machiavellianism (which is highly correlated with P) endorse promiscuous and hostile sexual attitudes - they are more likely than low scorers to divulge sexual secrets to third parties, pretend to be in love when they are not in love, ply potential sex partners with alcoholic drinks, and even report trying to force others into sex acts (McHoskey, 2001; Buss & Larsen, 2008). Low scorers of P tend to be more deeply religious, whereas high-P scorers tend to be somewhat cynical about religion (Saroglou, 2002; Buss & Larsen, 2008). Also, high scorers are predisposed to getting into severe and life-threatening events, such as violence and criminal activity (Pickering, Farmer, Harris, Redman, Mahmood, Sadler, & McGuffin, 2003; Buss & Larsen, 2008).

There are two characteristics of Eysenck's theory which also need to be discussed: hierarchical structure and biological underpinnings.

Hierarchical Structure:

As seen in Figure 5.1, there are two levels of the traits. The first level includes the super traits, the second level includes narrower traits, and the third level includes habitual acts. For example, one habitual act under sociable might be talking on the telephone; another might be taking frequent coffee breaks to socialize with other students. Narrow traits include a variety of habitual acts. At the very lowest level in the hierarchy is a specific act (e.g., I talked on the telephone with my friend and I took a coffee break to chat at 10:30 A.M.). If enough specific acts are repeated frequently, they become habitual acts at the third level. Habitual acts when clustered together become narrow traits at the second level and these narrow trait clusters become super-traits at the top of the hierarchy. This hierarchy helps understand behaviours.

Biological Underpinnings:

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The second aspect of understanding Eysenck's hierarchy is by understanding the biological underpinnings. Biological underpinnings include two components: heritability and identifiable physiological substrate. Eysenck's criteria for any basic personality trait is that it has high heritability. Behavioural genetics show evidence to support that the three super traits given by Eysenck have moderate heritability. The second criterion is that basic personality traits must have an identifiable physiological substrate. This means that one can identify the brain and nervous system that corresponds to the traits and are known to be partly involved in producing these traits. According to Eysenck, extraversion is supposed to be linked with central nervous system arousal and reactivity. Eysenck predicted that introverts would be more easily aroused as compared to extroverts. Also, he predicted that neuroticism was linked with a high degree of changeability. High scorers are also shown to have high testosterone (a sex hormone) levels and low levels of MOA (Monoamine Oxidases) which is an inhibitory neurotransmitter.

Despite the admirable qualities associated with Eysenck's taxonomy, there are some limitations. One, there are many other traits aside from the one prescribed that show heritability. Second is that some psychologists argue that Eysenck may have missed some important traits in his taxonomy. This point was argued by several prominent psychologists, such as Raymond Cattell, Lewis Goldberg, Paul Costa, and Robert McCrae.

CHECK YOUR PROGRESS:

- What are the two characteristics of Eysenck's theory?

5.5 BIG-FIVE AND FIVE-FACTOR MODEL

5.5.1 Theory/Model:

This model has received the most attention and support. It is also called the Big-Five model. The broad categories have been provisionally named as follows:

1. Surgency or extraversion
2. Agreeableness
3. Conscientiousness
4. Emotional stability
5. Openness-intellect

The model was based on a lexical and statistical approach. The lexical approach was developed by Allport and Odbert (1936) who identified around 17,953 traits from the dictionary. Allport and Odbert then divided the original set of trait terms into four lists: (1) stable traits (e.g., secure, intelligent), (2) temporary states, moods, and activities (e.g., agitated, excited), (3) social evaluations (e.g., charming, irritating), and (4) metaphorical, physical, and doubtful terms (e.g., prolific). From this

original list, Cattell used 4,500 as a starting point for his work. Due to the limited advances in computers, Cattell could not use factor analysis. He limited his list to 171 clusters by clubbing some traits together and eliminating some. He ended up narrowing it down to 35 traits.

Fiske (1949) used 22 subsets of Cattell's list of 35 clusters and by using factor analysis he identified a five-factor taxonomy. He was the first known researcher to develop a five-factor model.

Tupes and Christal (1961) made the subsequent major contribution to the five-factor taxonomy. They examined the factor structure of 22 simplified descriptions: surgency, agreeableness, conscientiousness, emotional stability, and culture. This factor structure was subsequently replicated by Norman (1963), and then by a host of other researchers (e.g., Botwin & Buss, 1989; Goldberg, 1981; Digman & Inouye, 1986; McCrae & Costa, 198).

This model has seen a tremendous amount of literature and research generated around it. There is also great consensus amongst research studies for this model. However, there are key questions and controversies raised.

1. What is the empirical evidence?
2. What is the identity of the fifth factor?
3. Is the Big Five taxonomy comprehensive, or are there major trait dimensions that lie beyond the Big Five?

5.5.2 Empirical Evidence:

The five-factor model has generated tremendous research. Studies have been conducted over a decade with varying samples in different formats. In the modern format, the model was measured using two ways. One way is based on self-ratings of single-word trait adjectives like talkative, shy, warm, etc. (Goldberg, 1990) and the second is based on self-ratings of sentence items like "Life is fast-paced." (McCrae & Costa, 1999).

Lewis Goldberg has conducted extensive research surrounding the five-factor model. According to Goldberg (1990), some key adjectives are:

- 1. Surgency or extraversion:** talkative, extraverted, assertive, forward, outspoken versus shy, quiet, introverted, bashful, inhibited.
- 2. Agreeableness:** sympathetic, kind, warm, understanding, sincere versus unsympathetic, unkind, harsh, cruel.
- 3. Conscientiousness:** organized, neat, orderly, practical, prompt, meticulous versus disorganized, disorderly, careless, sloppy, impractical.
- 4. Emotional stability:** calm, relaxed, stable versus moody, anxious, insecure.

5. Intellect or imagination: creative, imaginative, intellectual versus uncreative, unimaginative, unintellectual. (Larsen & Buss, 2008, p. 83)

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Paul T. Costa and Robert McCrae developed a measure of the Big Five model using sentence structures called NEO-PI-R (the neuroticism-extraversion- openness (NEO) Personality Inventory (PI) Revised (R) (Costa & McCrae, 1989).

Each of the five factors has a host of specific facets which cover subtle components of personality. For example, the trait of conscientiousness includes facets like self-discipline, competence, order, dutifulness, achievement striving and, deliberation. The global trait of neuroticism includes facets like anxiety, angry hostility, depression, self-consciousness, impulsivity, and vulnerability.

- **What is the identity of the fifth factor?**

There is still a lack of consensus regarding the fifth factor of this model. Different researchers have labelled it differently, such as culture, intellect, intellectance, imagination, openness, openness to experience, and even fluid intelligence and tender-mindedness (see Brand & Egan, 1989; De Raad, 1998). The reason for the difference is that different researchers begin from different starting points. Some have begun from the lexical approach and prefer intellect as the meaning and label (Saucier & Goldberg, 1996) and those who began with the questionnaire items prefer openness or openness to experience (McCrae & Costa, 1997; 1999).

To resolve this issue, cross-cultural research could be conducted. Traits that emerge universally rather than in specific cultures can be considered. Unfortunately, there is still a lack of consensus even in the various cross-cultural or culture-specific research conducted. In a study conducted in Turkey, a clear fifth factor emerged that is best described as openness (Somer & Goldberg, 1999). A separate Dutch study found a fifth factor marked by progressive at one end and conservative at the other (DeRaad et al., 1998). In German, the fifth factor represents intelligence, talents, and abilities (Ostendorf, 1990). In Italian, the fifth factor is conventionality, marked by the items rebellious and critical (Caprara & Perugini, 1994; Larsen & Buss, 2008, p. 85). More extensive research, especially cross-cultural and beyond the Western cultures is required to further understand the fifth factor.

- **What are the empirical correlates of the fifth factor?**

Tremendous literature has been generated surrounding the five factors. Below is the summary of some of the important research findings:

- **Surgency or extraversion:** Those high on extraversion love to party, they engage in frequent social interaction, take the lead in livening up dull gatherings, and enjoy talking a lot. Recent evidence suggests that social attention is the key feature of extraversion (Ashton, Lee, & Paunonen, 2002). Extraverts have a greater impact on their social environment, often assuming leadership positions, whereas introverts

tend to be more like wallflowers (Jensen-Campbell & Graziano, 2001). Extraverted men are more likely to be bold with women they don't know, while introverted men tend to be timid with women (Berry & Miller, 2001). There are also downsides to having high scores on extraversion such as wanting to drive fast, and listening to music while driving, and as a consequence, they tend to get into more car accidents, and even road fatalities, than their more introverted peers (Lajunen, 2001) (Larsen & Buss, 2008, p. 86).

- **Agreeableness:** Those high on agreeableness favour using negotiation to resolve conflicts; low agreeable persons try to assert their power to resolve social conflicts (Graziano Tobin, 2002; Jensen-Campbell & Graziano, 2001). They are agreeable and more likely to withdraw from social conflict, avoiding unharmonious situations. These individuals like harmonious social interaction and cooperative family life. Agreeable children tend to be less often victimized by bullies during early adolescence (Jensen-Campbell et al., 2002). (Larsen & Buss, 2008, p. 86).
- **Conscientiousness:** Those who are high on this trait, are hardworking and punctual which leads to several positive outcomes such as higher-grade point average, greater job satisfaction, greater job security, and more positive and committed social relationships (Langford, 2003). On the contrary, those who score low are likely to perform poorly at school and work. They tend to procrastinate more than the high scorers. High scorers are more industrious and put in long working hours (Lund et al., 2006). Those scoring low on conscientiousness exhibit risky sexual behaviours and are likely to have multiple romantic relationships at a time (Trobst, Herbst, Masters, & Costa, 2002). They also tend to have higher arrest rates (Clower & Bothwell, 2001; Larsen & Buss, 2008, p. 87)
- **Emotional stability:** This taps into people's emotional ability to cope with life stresses. The hallmark of those who show emotional stability is mood fluctuations. They can manage their mood swings (Murray, Allen, & Trinder, 2002) which leads them to experience fatigue over the day (De Vries & Van Heck, 2002). People with emotional instability are more likely to have dissociated experiences, where they cannot remember incidents/life events properly, they may feel disconnected from others around them and can often feel like they have woken up in a strange and unfamiliar place (Kwapil, Wrobel, & Pope, 2002). Those high in neuroticism also have frequent suicidal thoughts as compared to those who score low (Chioqueta & Stiles, 2005). High scorers show poorer physical health, and more physical symptoms and engage in fewer health-promoting behaviours (Williams, O'Brien, & Colder, 2004). Those scoring high on neuroticism show ups and downs in their social relationships. Emotionally unstable individuals experience more sexual anxiety (e.g., worried about performance) as well as a greater fear of engaging in sex (Heaven, Crocker, Edwards, Preston, Ward, & Woodbridge, 2003; Shafer, 2001). Self-handicapping is defined as a tendency to "create obstacles to achievement in

performance or competitive situations to protect one's self-esteem" (Ross et al., 2002, p. 2). Such self-handicapping is observed frequently in those with emotional instability. Those high on neuroticism seem to undermine themselves and create roadblocks to their achievements.

Dispositional Domain:
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- **Openness:** This trait has been linked to experimentation with new foods, novel experiences, and sometimes even openness to extramarital affairs (Buss, 193). Peterson, Smith & Carson (2002) found that those high on openness had more difficulty in ignoring previously experienced stimuli. The process of information processing is different and people who are high on openness are even open to receiving information.

Some research findings with combinations of Big Five variables:

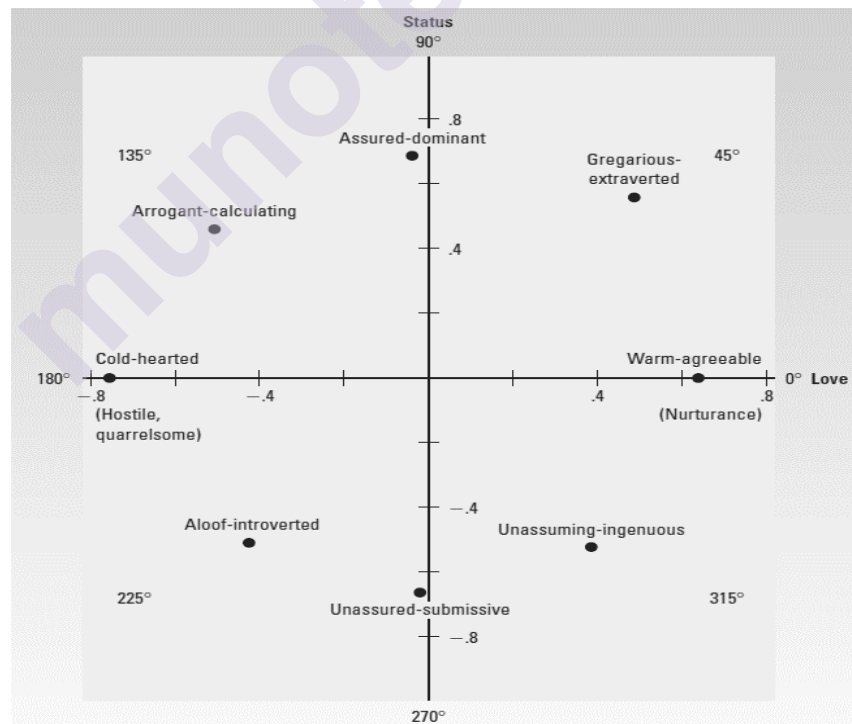
- Good grades are best predicted by high conscientiousness and high emotional stability (Chamorro-Premuzic & Furnham, 2003). Watson (2001) attributes this to emotionally stable and conscientious people as they are less likely to procrastinate (Watson, 2001).
- Risky sexual behaviours, such as having many sex partners and not using condoms, are best predicted by high extraversion, high neuroticism, low conscientiousness, and low agreeableness (Miller et al., 2004; Trobst et al., 2002).
- Alcohol consumption is best predicted by high Extraversion and low conscientiousness (Paunonen, 2003). A study by Grano et al. (2004) showed that more than 5,000 workers in Finland found that low conscientiousness also predicts increases in alcohol consumption over time, that is, who ends up becoming a heavy drinker.
- Egan and Stelmack (2003) found that mountain climbers that climbed Mount Everest tend to be extraverted, emotionally stable, and high on psychoticism.
- Happiness and experiencing positive affect in everyday life are best predicted by high extraversion and low neuroticism (Cheng & Furnham, 2003; Steel & Ones, 2003; Stewart, Ebmeier, & Deary, 2005; Yik & Russell, 2001).
- The likelihood to engage in volunteer work, such as campus or community services, is best predicted by a combination of high agreeableness and high extraversion (Carlo et al., 2005).
- Forgiveness, the inclination to forgive those who have committed something wrong, characterizes individuals who are high on agreeableness and high on emotional stability (Brose, Rye, Lutz-Zois, & Ross, 2005).
- Silverthorne (2001) found that leadership effectiveness in business settings is best predicted by high extraversion, high agreeableness, high conscientiousness, and high emotional stability.

5.5.3 Circumplex Taxonomies Of Personality:

Timothy Leary and Jerry Wiggins were the most prominent advocates of the circular representation of personality spheres. The circumplex model tries to explain personality traits using a circular representation.

Wiggins (1979) started with a lexical assumption that all individual differences can be depicted within the natural language. He went further in his efforts by arguing that trait terms specify different types of ways in which individuals differ. One of the ways prescribed was intrapersonal traits. Other kinds include temperament traits like gloomy, nervous, sluggish, and excitable. Then there are character traits like moral, principled, and dishonest. There are material traits like miserly and stingy; attitude traits such as pious, and spiritual; mental traits such as clever, and logical; physical traits such as healthy and tough. Wiggins was only concerned with intrapersonal traits. Based on the theory given by Foa and Foa (1974), he defined interpersonal as interactions between people involving exchanges. The two resources that define social exchange are love and status: “interpersonal events may be defined as dyadic interactions that have relatively clear-cut social (status) and emotional (love) consequences for both participants” (Wiggins, 1979, p. 398). Thus, the love and status dimensions are two major axes in the circumplex.

Figure 5.2 Dimensions in the Circumplex Taxonomies of Personality



{Source: Adapted from “Circular Reasoning About Interpersonal Behaviour” by J. S. Wiggins, 1989, *Journal of Personality & Social Psychology*, 56, p. 297. Copyright 1989 by the American Psychological Association}.

Love and status are two axes of Wiggins' model. For example, someone who is cold-hearted will be low on love and maybe high on status. Someone assured and dominant may be below the status and moderate in love. This model helps explain traits in a circular manner where every trait can be explained in the context of love and status and a circular relationship of some kind can be established.

The advantages of Wiggins circumplex include firstly, that it provides an explicit definition of interpersonal behaviour. We can explain any behaviour or transaction about this circumplex. For example, acts of giving love (giving a hug), granting status (showing respect and honour to a parent), denying love (shouting at your partner) or denying status (disrespectfully talking to a colleague). The model gives explanations for everyday interactions.

The second advantage is that it specifies the relationship between each trait and every trait within the model. There are three types of relationships specified by this model.

1. **Adjacency:** how close the traits are to each other in the circumplex (traits close to each other are positively correlated to each other)
2. **Bipolarity:** traits which are bipolar, that is on the opposite ends of the circumplex are negatively correlated to each other.
3. **Orthogonality:** traits that are perpendicular (90-degree separation or at right angles to each other) to each other are entirely unrelated to each other. There is zero correlation with each other. Orthogonality allows us to specify with greater precision the different ways in which traits are expressed in actual behaviour.

The third advantage of the model is that it alerts investigators to the gaps while studying interpersonal behaviour. The model directs the attention of researchers to unexplored areas associated with personality.

The major limitation of this model is that it is limited only to two dimensions. Some argue that other traits have not been captured by the model. And those that have not been captured, hold important explanations for interpersonal behaviour. For example, traits like conscientiousness, neuroticism and emotional stability.

5.5.4 HEXACO:

There are critiques of the models who believe that the model leaves out key aspects of personality. Almagor, Tellegen, and Waller (1995) suggest that there are two more factors namely positive evaluation (e.g., outstanding vs. ordinary) and negative evaluation (e.g., awful vs. decent). Goldberg (1995) suggested components like religiosity or spirituality also emerge as factors. Lanning (1994) found a sixth factor which he labels attractiveness which includes items tapping on physical attractiveness, and seeing the self as attractive and charming. Schmitt and Buss (2000) found individual differences in the sexual sphere, such as sexiness (e.g., sexy,

stunning, attractive, alluring, arousing, sensual, and seductive) and faithfulness (e.g., faithful, monogamous, devoted, and not adulterous). They found sexiness is positively correlated with extraversion, and faithfulness is positively correlated with both agreeableness and conscientiousness (Larsen & Buss, 2008, p. 89). Proponents of the model encourage the addition of more dimensions if there is sufficient empirical evidence (Costa & McCrae, 1995; Goldberg & Saucier, 1995).

An alternative to the Five-Factor Model is the personality descriptive nouns rather than adjectives. Saucier (2003) discovered eight personality domains of personality nouns like Dumbbell (e.g., dummy, moron, twit), Babe/Cutie (e.g., beauty, darling, doll), Philosopher (e.g., genius, artist, individualist), Lawbreaker (e.g., pothead, drunk, rebel), Joker (e.g., clown, goof, comedian), and Jock (e.g., sportsman, tough, machine) (Larsen & Buss, 2008, p. 90).

A second approach is to adopt the lexical approach focusing on large pools of adjectives in different languages. One study of seven languages (Dutch, French, German, Hungarian, Italian, Korean, and Polish) found variants of the Big Five, plus a sixth-factor Honesty-Humility (Ashton et al., 2004). At one end of the Honesty-Humility factor lies trait adjectives, such as honest, sincere, trustworthy, and unselfish; the other end is anchored by adjectives, such as arrogant, conceited, greedy, pompous, self-important, and egotistical (Larsen & Buss, 2008, p. 90). The inclusion of the sixth factor by Ashton et al. is labelled as the HEXACO model. Where H stands for Honesty-Humility, E is emotionality, X is extraversion, A is agreeableness, C is conscientiousness and O is openness to experience. Based on this model, an inventory was also developed called the HEXACO-PI-R by Lee and Ashton (2004). The HEXACO-PI-R assesses the six broad HEXACO personality factors, each of which contains four "facets", or narrower personality characteristics (An additional 25th narrow facet, called Altruism, is also included and represents a blend of the Honesty-Humility, Emotionality, and Agreeableness factors). The six factors, their facets, and the personality-descriptive adjectives that typically belong to these six groups are as follows (Ashton & Lee, 2007):

Table 5.4 Six HEXACO Personality Factors with Their Facets and Adjectives

Factors	Facets	Adjectives
Honesty-Humility (H)	Sincerity, Fairness, Greed Avoidance, Modesty	Sincere, honest, faithful, loyal, modest/ unassuming versus Sly, deceitful, greedy, pretentious, hypocritical, boastful, pompous
Emotionality (E)	Fearfulness, Anxiety, Dependence, Sentimentality	Emotional, oversensitive, sentimental, fearful, anxious, vulnerable

		versus Brave, tough, independent, self-assured, stable
Extraversion (X)	Social Self-Esteem, Social Boldness, Sociability, Liveliness	Outgoing, lively, extraverted, sociable, talkative, cheerful, active versus Shy, passive, withdrawn, introverted, quiet, reserved
Agreeableness (A)	Forgivingness, Gentleness, Flexibility, Patience	Patient, tolerant, peaceful, mild, agreeable, lenient, gentle versus Ill-tempered, quarrelsome, stubborn, choleric
Conscientiousness (C)	Organization, Diligence, Perfectionism, Prudence	Organized, disciplined, diligent, careful, thorough, precise versus Sloppy, negligent, reckless, lazy, irresponsible, absent- minded
Openness Experience (O)	Aesthetic Appreciation, Inquisitiveness, Creativity, Unconventionality	Intellectual, creative, unconventional, innovative, ironic versus Shallow, unimaginative, conventional

{Source: Ashton & Lee, 2007}

Aside from extending the Big Five factor and adding more factors, there is also research which is exploring predicting behavioural criteria from within the Big Five using facets. Paunonen and Ashton (2001a) found significantly greater predictability from the facet subscales of need for achievement (a facet of Conscientiousness) and need for understanding (a facet of Openness) than from the higher-level factor measures of conscientiousness and openness themselves. Dudley et al. (2006) found greater predictability for job performance by including facets such as achievement, dependability, order and cautiousness with conscientiousness.

Thus, to conclude whether the Big Five model is comprehensive or not, there is evidence to support its robustness and replicability. Four out of the five factors have shown replicability across investigators, formats, data sources, samples, languages and cultures. This model also is the basis for several personality inventories. But as a limitation, Block (1995b) states that the model fails to establish the causal personality processes that

researchers are trying to establish. For example, describing someone as high on neuroticism may be helpful in social communication or global character descriptions, but it does not capture the underlying psychological processes involved in things like feeling guilty, obsessing over worst-case scenarios, and worrying excessively when someone fails to respond to an e-mail.

There continues to be scope for further research in the area to develop a comprehensive personality taxonomy.

CHECK YOUR PROGRESS:

- Write a Short note on six broad HEXACO personality factors

5.6 SUMMARY

In this unit, we began by explaining what are traits. We tried to see how traits are related to behaviours and how they offer explanations of behaviours. Then we began looking into how important traits can be identified. Identification of important traits follows three methods: lexical approach, statistical approach and theoretical approach. We then moved to understand the theory of personality and the personality traits identified by Allport. Then we looked into the taxonomy proposed by Eysenck who proposed three primary personality factors and some secondary factors. Lastly, we discussed Cattell's personality taxonomy. Cattell proposed 16 factors that he viewed to be essential in understanding personality. We then tried to understand the widely used and popular Five-Factor Model and also the circumplex taxonomy. We critically evaluated them to understand if they can be useful in understanding personality traits.

5.7 QUESTIONS

1. Write long answers:

- Discuss in detail how important traits are identified.
- Discuss Allport's theory of personality.
- Discuss Eysenck's three-factor theory.
- Explain Cattell's 16-factor theory of personality.
- What is the frequency formulation of traits?
- Write about the circumplex taxonomy of personality.
- Explain the Five-Factor Model in detail.

2. Write short notes:

- Lexical approach.
- Statistical approach.
- Act frequency research program.
- Limitation of act frequency formulation program.

- e) Evaluate if the Five-Factor model is comprehensive.
- f) Explain the identity of the fifth factor in the Five-Factor model.

Dispositional Domain:
Trait Approach - I

5.8 REFERENCES

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DISPOSITIONAL DOMAIN: TRAIT APPROACH - II

Unit Structure:

- 6.0 Objectives
- 6.1 Introduction: Personality Trait
- 6.2 Personality Disorders
 - 6.2.1 The Concept of Disorder
 - 6.2.2 What is a personality disorder?
- 6.3 Measurement of Traits and Theoretical Measurement Issues
 - 6.3.1 Theoretical Issues
 - 6.3.2 Measurement Issues
- 6.4 Personality Dispositions Over Time
 - 6.4.1 Three Levels of Analysis
 - 6.4.2 Personality Change Over Time
 - 6.4.3 Personality Stability Over Time
 - 6.4.4 Personality Coherence Over Time
- 6.5 Summary
- 6.6 Questions
- 6.7 References

6.0 OBJECTIVES

After studying this unit, you should be able to:

- Understand the concept of disorders.
- Know various personality disorders.
- Understand the measurement of traits and theoretical and measurement issues.
- Know the personality disposition over time.
- Know the three levels of analysis.

- Understand personality changes and stability that occur over time.
- Know the personality coherence over time.

6.1 INTRODUCTION: PERSONALITY TRAITS

Personality traits are described as consistencies in behaviour, thought, or action and they represent meaningful differences between persons. Thus, personality disorders can be viewed as maladaptive variations or combinations of normal personality traits. Extremes on either end of the personality spectrum can be associated with personality disorders. Widiger and colleagues demonstrated how being extremely high or low on a trait would be associated with a personality disorder. Someone with extremely high hostility and low trust might be predisposed to paranoid personality disorder. Someone else with extremely high sociability and low anxiety has a likelihood of developing a histrionic personality disorder.

Motivation is another factor that can contribute to understanding personality disorders. Motives describe what people want and why they behave in a particular way (Larsen & Buss, 2008, p. 622). A common theme across all personality disorders is the maladaptive variation of the common motives, especially factors, such as power and achievement. In some personality disorders, there may be extremely low motivation to engage in intimacy. Another factor could be an extremely high need for power over the situation or people, wanting to be superior and receive praise from others (usually observed in narcissistic personality disorder).

Cognition also will contribute to the understanding of personality and personality disorders. It would involve perceiving, interpreting and planning. These factors are prone to distortions. Some disorders involve routine and consistent misinterpretations of the intentions of others. This would also involve impairment of social judgment, for example, an individual with paranoia may think others are out to get them or a person with borderline personality may misinterpret innocent comments as signs of criticism or rejection.

Emotions also help in understanding personality disorders. Usually, people with a personality disorder do not present a normal range of emotions. They usually depict an extreme variation of inexperienced emotions. Some may show extreme volatility in emotions (e.g., borderline) whereas some may show instability with a specific emotion like anxiety, fear or rage.

Another building block is self-concept (the person's collection of self-knowledge – one's understanding of oneself). Most personality disorders exhibit some distortion in this area. There is a lack of stability in their self-concept. Related to self-concept is self-esteem which is also an important part of the self and some disorders are associated with extremely high or extremely low levels of self-esteem. The self provides an important perspective on understanding personality disorders.

Social relationships are also frequently affected by maladaptive personality disorders. This includes issues with sexual and emotional

intimacy. They may also showcase issues with interpersonal skills which are the basis for any social relationship. This would include empathy (usually an extreme lack of empathy). They may also struggle with poor social skills such as maintaining a healthy or appropriate conversation with someone.

Biology is another essential building block for personality and personality disorders. Some personality disorders have been found to have a genetic component. Others have been studied via physiological components, such as examining the brain functioning of antisocial persons. There has even been an evolutionary theory proposed to explain the existence of personality disorders (Millon, 2000a; Larsen & Buss, 2008, p. 623).

6.2 PERSONALITY DISORDERS

6.2.1 The Concept of Disorder:

According to the American Psychiatric Association (1994), a disorder is something distressing and painful to the person, that leads to disability or impairment in important life domains (e.g., problems with work, marriage or relationship difficulties), and that is associated with increased risk for further suffering, loss of function, death, or confinement (Larsen & Buss, 2008, p. 624). An early concept derived by French psychiatrist Philippe Pinel was *manie sans delire* (madness without loss of reason). This applied to those individuals who demonstrated disordered behaviour and emotions, but who did not lose contact with reality (Morey, 1997; Larsen & Buss, 2008, p. 624). Kurt Schneider an influential psychiatrist proposed the term psychopathic personality which referred to the behaviour patterns that caused the person and the community to suffer. He emphasized statistical rarity that hurts the person and the community in which those individual lives. This idea proposed by Schneider highlights how all forms of personality disorders have an impact on social relationships and the people associated also suffer in some way or the other.

The concept of a disorder helps us identify the difference between normal and abnormal or pathological behaviour. The field of abnormal psychology studies this in-depth. There are multiple perspectives to defining what is abnormal. One definition may look at anything that is away or different from the normal to be considered abnormal. A statistical way of defining abnormal may be to observe how often something occurs and how rare is this abnormal behaviour. The social definition may be to consider those behaviours abnormal that are socially unacceptable. The statistical and social definitions are subject to changes in society and culture, what may be abnormal today, may not be considered so 10, 15 or 50 years later. For example, 20 to 30 years ago homosexuality was considered abnormal, but that is not the case now (American Psychiatric Association, 1994).

6.2.2 What Is a Personality Disorder?

A personality disorder is an enduring pattern of inner experience and behaviour that deviates markedly from the expectations of the individual's

culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment (American Psychiatric Association, 2013, p. 645). If a trait becomes maladaptive and inflexible and causes significant impairment or distress, then it is considered to be a personality disorder. As per the American Psychiatric Association (1994), a personality disorder reflects itself in many forms: in the person's thoughts, emotions, behaviours, ability to control their behaviour, beliefs, how they get along with other people, etc. They display rigidity in many ways which increases distress and impairment in a variety of situations.

To understand personality disorders, researchers have assumed two views: categorical and dimensional views. The categorical view is the one that is dominant in psychiatry and clinical psychology. This view tries to categorize people as either having the disorder or not. Contrary to this, the dimensional view assumes personality disorders to be placed on a continuum. This view assumes that the only difference between people with and without a diagnosis of a personality disorder is based on intensity. This means that those who are diagnosed with a personality disorder, have a higher degree of intensity of the symptoms as compared to those without the diagnosis. Since it is a continuum, some will be on the end as well, those who exhibit severe and intense symptoms. This view suggests that a person diagnosed with a personality disorder engages in behaviours which pose to be a problem to others and themselves.

- **The Effect of Context:**

An individual's culture, age, gender, the social and ethnic background has a definite impact on our understanding of personality disorders. For example, immigrants, those who have relocated to a different country will have difficulty fitting into the new culture. They will be influenced by the culture, customs, traditions, religion, habits, expressions, values, etc. of their country of origin. Thus, before judging whether an individual should be diagnosed with a personality disorder, we must take into consideration their cultural background.

Age is also an important consideration that must be kept in mind. For example, adolescents may go through a phase of instability and rebellion and it may also include identity crises. They may be rebellious, challenge authority, not follow instructions given by parents and elders, behave recklessly, etc. This may be misinterpreted as a form of personality disorder. This is why the American Psychiatric Association (1994) cautions against diagnosing an individual with a personality disorder before the age of 18. Besides, those who experience loss, trauma and abuse may also exhibit certain behaviours of instability or impulsive behaviours, which may look like a personality disorder. Those who experienced such a traumatic event may also suddenly behave violently or may enter sexual relationships impulsively.

Gender is also an important influencing factor. Certain personality disorders like antisocial personality disorder are frequently found to be

diagnosed among men more than women. Other disorders are more frequently diagnosed among women than men. There is a gender difference in how men and women respond to a distressing situation, which may influence the diagnosis or decision to diagnose. Studies by Huselid and Cooper (1994) found that males exhibit externalizing problems, such as fighting and vandalism, while females tend to exhibit relatively more internalizing problems, such as depression and self-harm.

Following are the clusters of personality disorders along with the types of disorders included in them.

A. The Erratic Cluster:

This cluster has trouble with emotional control and has difficulties getting along with other people. This group includes antisocial, borderline, histrionic and narcissistic personality disorders.

1) Antisocial Personality Disorder:

People with this diagnosis show a general disregard for other people and care very less about peoples' feelings, rights and happiness. Those adults who have been given this diagnosis usually have faced a troubled childhood with behavioural issues. They end up violating rules, violating the rights of others (minor thefts), and breaking age-related social norms (smoking at an early age or fighting other children). They also behave aggressively or cruelly with animals, scare young children, destroy property, lie and break rules in general. They may also use harmful weapons which may be a threat to themselves and others. When childhood behavioural problems are identified as a pattern, the likelihood of the diagnosis becomes higher. As this person grows up the issues also worsen because they are growing in their strength, cognitive power and sexual maturity. The issues begin as minor behavioural problems, but worsen into more serious issues. For example, it may start as simply shoplifting and escalate to theft, vandalism, etc. Thus, the key features of a person diagnosed with an antisocial personality disorder are lack of concern for social norms or rules, repeated lying and conning people for their profit, impulsivity, becoming easily irritated, being irresponsible, lack of remorse (not feeling sorry for whatever bad they have done), disregard for the safety of themselves and others.

2) Borderline Personality Disorder:

People with this personality disorder are marked by extreme amounts of instability. This instability is seen in their relationships, behaviours, emotions and their view of themselves. They have intense, emotional and sometimes potentially violent relationships. They have a constant fear of abandonment. When their relationship goes through difficulties, they may become angry and aggressive. This may also lead to self-harm (burning or cutting oneself or attempting suicide). They also have a constantly shifting view of themselves. Their values and goals are shallow and change constantly. Their opinions also tend to change constantly, and they may experiment with their friendships and even sexuality. They experience

strong emotions and they are usually due to interpersonal events. They frequently experience feeling empty and lonely. They may experience anger and bitterness followed by shame and guilt. This cycle of negative emotions may quickly continue and occurs frequently. They show major swings between their positive and negative emotions.

3) Histrionic Personality Disorder:

The hallmark of this personality disorder is excessive attention-seeking and emotionality. They are found to be overly dramatic and want to be the centre of attention constantly. They can come across as charming and flirtatious. And they also tend to thus be sexually provocative. They show excessive and strong emotions in public which may be embarrassing for friends and family members. They get influenced by people's opinions easily, that is they are suggestible. They take up whatever the popular opinion is. Their excessive need for attention makes them often act impulsively and they may manipulate others to care for them.

4) Narcissistic Personality Disorder:

The important feature of this disorder is that they want to be admired by everyone, they have a strong sense of self-importance and they lack an understanding and insight into other people's feelings. Those with Narcissistic personality disorder will overstate their accomplishments and undervalue other people's work. They constantly want people to appreciate, value and compliment them, that is they exhibit constant feelings of entitlement. They believe that they should receive special treatment, respect and privilege from everyone. They always showcase a sense of superiority over others. They also cannot recognize the needs or desires of people. This is seen through their conversations, which will constantly revolve around "I" and "myself". Ironically there is a narcissistic paradox. This paradox states that although people with narcissistic personality disorder demonstrate that they have high self-esteem, they have fragile self-esteem. Even though they may appear confident and strong, internally they are sensitive to any minor criticism and get into a rage if they are criticized or hear something negative about themselves. They are also envious of other people and their successes.

B. The Eccentric Cluster:

The second cluster under personality disorders is defined by their oddness. This oddness is seen most commonly in the way they interact with others. Some have no interest in others, some are suspicious and some are extremely uncomfortable.

1) Schizoid Personality Disorder:

The word schizoid is derived from the word *schism*, which means split off or detached from normal social relations. They show no desire to be attached to their friends or family members. They do not derive any satisfaction from being around family members which usually other people would experience. They have few or no friends and even choose

hobbies that can be done alone. They also experience little or no pleasure from bodily or sensory experiences, such as eating or having sex. Their emotional life is limited. They also appear to be socially clumsy and they are also usually passive in the face of unpleasant social situations.

2) Schizotypal Personality Disorder:

Those with schizotypal personality disorder are anxious in social situations, especially around strangers. And unfortunately, they are not typically found to be comfortable around familiar people either. For example, we all experience mild discomfort around strangers at a party or in a new setting, but we can overcome that and become comfortable in the presence of a known person or as we begin to interact with others. But people with this personality disorder may not become comfortable at all, no matter what. They may become anxious and eventually begin to become suspicious as well. They constantly feel like they do not fit in and are different from others. They behave in odd and eccentric ways. They have unusual perceptions that may border around delusions and hallucinations. They believe in superstitions, psychics and other paranormal phenomena. Because of social discomfort and eccentricity, they violate common social conventions like the inability to make eye contact, not dressing in a tidy way, etc. They also exhibit disorganized thoughts and speech where they may not always make sense in the way they behave or what they speak. This leads to a tendency to avoid people and they exhibit nonconformity in many ways.

3) Paranoid Personality Disorder:

This personality disorder is characterized by major mistrust of others and they see others as a constant threat. They believe people are going to take undue advantage of them and cheat and deceive them always, even though they do not have sufficient evidence to support this idea. People with this disorder feel that others may injure them and they constantly are seen doubting the intentions of people in their life. They also tend to misinterpret social events and fear sharing information with others assuming that the information may be misused. They also tend to hold bitterness against someone who may have insulted them in the slightest way possible. They also may look out for unnecessary hidden meaning in the things people say and do. They also are seen be experiencing pathological jealousy. This is an extreme form of jealousy where the person may misinterpret the situation and go out of their way to act upon these feelings of jealousy. For example, a man may suspect that his wife is unfaithful to him without any objective evidence/proof. He may restrict her activities, prohibit her from going out of the house, or meeting friends or family members, he may also track her activities, etc. Due to the mistrustful nature of people with paranoid personality disorder, they may also show argumentative and hostile behaviour which may provoke others. This in turn will feed the person's paranoid beliefs.

C. The Anxious Cluster:

Dispositional Domain:
Trait Approach - II

This cluster exhibits the neurotic paradox: a behavioural pattern that may successfully solve a problem but may also give rise to a new set of equally or even more severe problems.

1) Avoidant Personality Disorder:

They experience a constant sense of inadequacy, that is they feel like they are insufficient. These people are also poor at handling criticism and are sensitive. Generally, no one likes being criticized, but people with an avoidant personality disorder will go out of their way to avoid situations at home, work, or school, where they believe they may stand a chance of being criticized. They experience anxiety around their performance for the fear of being criticized. This leads them to avoid making friends and going out to new places even though friends and family may be encouraging. They end up losing out on important opportunities due to anxiety. They are seen as shy, quiet, lonely and solitary. They also show low self-esteem, their feelings are easily hurt and because they keep away from people at most times, they may find it difficult to find a constant source of social support. The paradox is that they avoid social interactions and avoid supportive relationships with caring others that could improve their self-esteem.

2) Dependent Personality Disorder:

People with this disorder have an excessive need to be taken care of, nurtured and told what to do. They act in an extremely submissive manner and encourage people to take care of them or be in charge of the situation. They need constant advice and encouragement from others and have great difficulty in making decisions. They rarely will take initiative in things for making big or small decisions like what to eat at a restaurant or which course to choose in college. They fear losing people, so they avoid disagreement. These people are also not able to work independently, so they will wait for others at school or work to take initiative and begin working. They may also avoid becoming experts on a task, so that they can always be dependent on someone to help them with it. Their dependence can make them bear extreme situations simply to obtain assurance and support from others. They may go to the extent of tolerating abuse.

3) Obsessive-Compulsive Personality Disorder:

A person with an obsessive-compulsive personality disorder is worried about perfection and order. They pay unnecessary attention to small and trivial details, rules, rituals, procedures and schedules. They tend to hold very high standards for themselves and end up working so hard at being perfect that they may never be satisfied with their work. For example, a student may not submit their assignment in time, because it was not perfect as per their standards. This may lead them to not take a break and find leisure time leading to extreme fatigue and burnout. They may also tend to work at the cost of leisure and friendships. They may also select

leisure activities or hobbies that are tiring and demanding or require attention to detail like stitching, or computer programming. These people may also come across as being inflexible with their ethics and morals and may not mould as per the situation's demands. They believe there is one right way to do things, and that is their way. Several people with this personality disorder are also stingy and miser.

This disorder may be often confused with Obsessive-Compulsive Disorder (OCD), which is an anxiety disorder. However, people with Obsessive-Compulsive Personality Disorder (OCPD) have a high risk of developing OCD.

- **Dimensional Model of Personality Disorder:**

Theorists are now moving to a dimensional model instead of the prior categorical model. This model states that personality traits lie on a continuum where the traits when present at normal levels are on one end and those exhibited at an extreme, rigid and maladaptive level are to be diagnosed as a disorder. Widiger (1997) states that personality disorders are simply rigid and extreme presentations of normal-range personality traits.

This view accounts for how there may be variations between people with the same diagnosis. This view also allows people to be diagnosed with multiple types of personality disorders. And finally, the fact that something is categorized as abnormal may be a matter of degree than a qualitative break. These points make for the advantages of the dimensional model.

- **Causes of Personality Disorder:**

Some researchers have attempted to find the causes of specific personality disorders. Researchers have examined both biological and environmental factors that may contribute to the development of personality disorders (Nigg & Goldsmith, 1994). For example, persons who suffer from borderline personality disorder experienced poor attachment relationships in childhood (Kernberg, 1975, 1984; Nigg et al., 1994), and several borderline personality persons were the target of sexual abuse in childhood (Westen et al., 1990). There is sufficient evidence that most people with borderline personality disorder grew up in chaotic homes, with a lot of exposure to the impulsive behaviours of adults in their life (Millon, 2000b). There is also evidence to implicate that loss or neglect by parents is another contributing factor to borderline personality disorder.

Schizotypal personality disorder shows causes associated with genetic factors. Several families, twin, and adoption studies suggest that schizotypal disorder is genetically similar to schizophrenia (Nigg & Goldsmith, 1994). Prevalence rates for paranoid and avoidant personality disorders were also high among the relatives of the schizophrenia patients which suggests that these disorders may be genetically related to schizophrenia (Kendler et al., 1993). There are several explanatory theories for antisocial personality disorder too. Several antisocial persons

were abused and victimized when they were children themselves (Pollock et al., 1990). A high proportion of antisocial persons also abuse multiple illegal drugs or alcohol, thus, some researchers propose biological changes associated with drug abuse are responsible for antisocial behaviour. There are also clear familial trends suggesting that antisocial personality disorder is partly due to genetic causes (Lykken, 1995). Some other researchers have proposed learning theories of antisocial personality disorder, due to research showing that such persons are deficient in learning through punishment (e.g., Newman, 1987).

There are biological, learning, psychodynamic and cultural explanations for several personality disorders. Biology and experiences are strongly interconnected. Further research can help clarify the causes in due course of time.

CHECK YOUR PROGRESS:

- Explain three clusters of personality disorder.

6.3 MEASUREMENT OF TRAITS AND THEORETICAL AND MEASUREMENT ISSUES

Personality measures can be used in several settings like in an organization for a job interview selection process, they may be used also by dating apps to help people find the right partner for them. Personality evaluations may be used in legal matters to understand the personality characteristics of the individuals involved in the case. It could also be part of aptitude testing for college admissions for specialized courses and high education. Some theoretical issues may arise while conducting or developing such personality scales, which will be discussed further.

6.3.1 Theoretical Issues:

Trait theories are one of the most prominently used sets of theories when understanding personality psychology. They share some common assumptions and are the basic foundation of trait psychology. These include the following:

1. Meaningful individual differences: Trait psychologists want to identify how people are different from each other and these differences help them to identify personality traits. For example, some people talk a lot, some do not talk much; some people are more active than others, some people enjoy challenges, and some love to relax more than others. Thus, trait psychology sometimes is also called **differential psychology**. Differential psychology includes the study of other forms of individual differences in addition to personality traits, such as abilities, aptitudes, and intelligence.

The trait approach takes a quantitative approach which attempts to understand the emphasis on the difference between individuals and the agreed-upon average. This means, trying to understand how much a person differs from the average that has been defined by theory. This

approach is the most systematic and statically oriented. We can compare trait psychologists to chemistry scientists. They believe that by combining a few primary traits in various amounts, one can distil the unique qualities of an individual. So no matter how complex or unusual someone's personality is, it is a combination of basic or primary elements.

2. Stability and consistency: This assumption believes that personality traits will be consistent over time. If someone is highly extroverted when a psychologist observes them, it can be assumed that the extroverted tendency will remain stable over long periods. Especially those personality traits that show biological basis like extraversion, sensation seeking, activity level, shyness, etc. tend to show consistency over time. Attitudes, opinions, and behaviours are less consistent as they tend to change over time based on the social environment that the person is in. Although the assumption states that some traits will be consistent over time, there could be a change in how the traits manifest in particular situations. For example, a child tends to throw temper tantrums frequently which shows high levels of disagreeableness, they may start fist-pounding and may have undirected rage. But as this child grows up their disagreeableness may manifest, that is it may be represented in the form of being uncooperative at work and having difficulty in holding a job. Thus, the same trait of disagreeableness is consistent over time but has managed to manifest itself differently in different situations.

There also may be times when traits decrease as the individual grows older like activity level. An adolescent growing up as a teenager may have high activity levels, but as they grow older into an adult and then as an older adult their activity levels may decrease. Similarly, the trait of being impulsive can also show a reduction in overage. The way a 20-year-old would show impulsivity would be different from how a 5-year-old would. Also, one person who is highly impulsive at age 20 when compared to others of their age, may continue to show high levels of impulsivity at age 50 when compared to other 50-year-olds.

3. Consistency across situations: Trait psychologists believe that people's personalities show consistency from one situation to another. For example, if a young man is "really friendly", he would be this way at work, at home and with friends. This person may also be friendly to strangers and people from different backgrounds and age groups. But there will remain a difference in how friendly the person would be. For example, a person may be more friendly while at home than to strangers or may be more friendly to elderly people than people of their age. Thus, there exists debate in the field about whether traits remain consistent across situations. Walter Mischel in his book called *Personality and Assessment* (1968) published the results of an important study conducted by Hartshorne and May (1928) who were trying to see the consistency of traits across situations. Hartshorne and May (1928) evaluated whether helpfulness and self-control traits were consistent across situations. They observed a large group of elementary school students who were at a summer camp. They observed honest and dishonest behaviours in various situations. For example, a child may cheat while playing football but was

not likely to cheat during an examination. In line with these results, in the book, Mischel reported low correlations for personality scores across situations. Mischel (1968) concluded that “behavioural consistencies have not been demonstrated and the concept of personality traits as broad predispositions is thus untenable” (p. 140). Mischel suggested that differences across situations must be understood as situational differences and not as personality traits changing. This is called situationism. The situationist position can be explained with an example, where a young girl may be friendly with her basketball team and coaches because she wants to pursue her professional basketball career; while she may be more shy, quiet and less friendly with her classmates. Thus, Mischel proposed that behaviour is a function of the situation rather than broad personality traits.

Two changes in theory that have been adopted by trait psychologists are person-situation interaction and the practice of aggregation as a tool for assessing personality traits.

- **Person Situation Interaction:** According to this view, there are two possible explanations for behaviour:

1. Behaviour is a function of personality traits: $B = f(P)$.
2. Behaviour is a function of situational forces: $B = f(S)$.

Thus, we can say that both personality traits and situational forces both work toward explaining behaviour. For example, we would find someone who is quiet and shy across all situations and there could be someone quiet and shy only in some situations.

We can then modify the two formulas: $B = f(P \times S)$. This formula suggests an interaction between personality traits and situational forces. For example, the trait of being hot-tempered is a tendency to respond aggressively to minor frustrations. People who know that a person is hot-tempered may not be aware of the intensity of the trait, unless they have been around the person during minor frustrating situations. The trait may only be expressed when a frustrating situation may arise. Thus, when this person is at the ATM, which does not function properly, he or she may experience frustration and may show hot-tempered behaviour by maybe kicking the ATM or pounding their fist. Thus, the interaction view suggests that the personality trait and the situational factors together help explain this incident. This is known as **situation-person interaction**. In this view, the difference in people will be understood under the right circumstances. Some traits are specific to certain situations, while some are not. For example, the trait of test anxiety will only occur when someone is going to give a test and they will begin to experience anxiety in that specific situation. This is also referred to as **situational specificity**. However, some situations are so strong that everyone may end up reacting in the same way. For example, Larsen, Diener and Emmons (1986) tried to understand who overreacted emotionally to everyday events. Participants in this study were asked to keep a daily diary of life events for two months. They also rated their emotions each day. Based on the emotional reactivity and the events that occurred, some incidents evoked strong

emotions from everyone like the death of a pet. These situations were called **strong situations**. Some situations like funerals, religious services, crowded places, etc. may be vague and ambiguous, wherein different personalities may react differently.

Situational selection is the tendency to choose the situations in which one finds oneself (Ickes, Snyder, & Garcia, 1997; Snyder & Gangestad, 1982). This means people tend to select situations in which they will spend their time. This is viewed as a conscious choice that may reflect the personality's features. So, if someone is extraverted, they may choose situations that bring out this personality trait or go hand in hand with it. Thus, personality influences the kind of situations in which people wish to spend their time. There is also literature to show how personality can be affected due to the situations encountered by the individual. Bolger and Schilling (1991) wanted to understand this by trying to see if those individuals are high on neuroticism, do they experience stressful situations frequently or react to ordinary situations with greater reactivity. They discovered that both were true: high neuroticism led to frequent stressful life events and they reacted to such stressful events with more subjective distress.

Evocation is another form of person-situation interaction. It is how certain personality traits evoke specific responses from the environment. For example, those who are disagreeable and manipulative may evoke certain hostile or avoidant reactions from others.

Manipulation is the third form of person-situation interaction. It is defined as the different means by which people influence the behaviour of others. It is when people intentionally use certain tactics to influence, force or change others. Manipulation involves altering the environment that they are part of. Researchers have found that people use different manipulation tactics, like charm tactics, complementing others, acting in a caring and warm manner and doing favours. People also use the silent treatments, ignoring, failing to respond and coercion (making demands, yelling, criticizing, cursing and threatening) (Buss et al., 1987). Extraverts tend to deploy the charm tactic more than introverts do. Those high on neuroticism tend to use the silent treatments to get their way. And those high on quarrelsomeness tend to use the coercion tactic to get their way. (Larsen & Buss, 2018, p. 106).

Aggregation is the process of adding up and averaging multiple single observations, which results in a better and more reliable measure of personality traits rather than a single observation of behaviours. Personality psychologist Seymour Epstein (1979, 1980, 1983) published several papers showing that aggregating several questions or observations results in better trait measures. Also, longer tests are known to be more reliable than shorter ones and hence are better measures of traits. It helps in improving the trait measures by adding items to a questionnaire and adding observations to an overall score that is obtained. It implies that traits are one of the many factors that influence a person's behaviour in a given situation. Thus, personality becomes an **averaging tendency** and

cannot be very good for predicting a single action in a single event/occasion.

Dispositional Domain:
Trait Approach - II

6.3.2 Measurement Issues:

Most of the personality measures rely on self-report measures although other measurement methods can be used. The rationale is to identify how much an individual differs from the other on a particular trait. Traits are assumed to be on a continuum, that is someone low on conscientiousness is on the end of the continuum and someone extremely high will be on the other end. So, the best way to find out about someone's personality characteristics is to ask them. This assumes that people are willing and able to report accurately on their behaviour. There may be people who may not be willing, some may over-report or under-report. So, the validity, accuracy, reliability and utility must be evaluated carefully.

- **Carelessness:**

Some participants may not be motivated to answer the questionnaire truthfully or carefully. Some may be motivated to complete it carefully, but may rush through the items and answer randomly. Some may accidentally skip items, or they may not read the items carefully enough and respond randomly. Some may even face difficulty in reading and understanding the meaning of the statements presented. A common way of identifying the possible error is by using an infrequency scale which is embedded in the questionnaire items. These scales contain items that almost all participants will answer in the same or similar manner. For example, a statement which says, "I do not believe that wood burns" or "I walk down the stairs using my hands on the steps". Most people should be answering "false" to these statements. Those who answer "true" can be identified as answering the questionnaire in a random and untrue manner. Another way to identify carelessness is to duplicate items, which may come at different sections of the scale. The psychologists can verify if the same participant has given the same answer to the two items.

- **Faking on Questionnaires:**

When personality questionnaires are used to make important decisions like for a job, promotion, etc., there is a strong possibility that the person responding may try to fake their responses. Some may be attempting to "fake good" (wanting to appear to be good) or some may "fake bad" (wanting to appear to be bad or maladjusted). For example, in a legal case, the accused may use want to appear as being maladjusted, so that they can be proven innocent. So they may try to "fake bad" to get a diagnosis from the psychologist. Questionnaire developers must be careful regarding this. Psychologists when interpreting the results may make a mistake in distinguishing between genuine and faked responses. They may conclude that someone truthful may be faking it (called a **false negative**) or someone who is faking it is being genuine (called a **false positive**). This could certainly become a limitation of self-report measures since the true nature of the faking may not be truly understood.

- **Response Sets:**

It is the tendency for some people to respond to a question on a basis that is unrelated to the content of the question. Psychologists may assume that people will be thinking about the content of the item in the context of all the instances that are related. For example, for the item “Have you smashed items when being angry?”, people may not be able to recall all instances when they may or may not have done so. They may not always make a deliberate and conscious effort to consider the content of the question to answer honestly. This tendency is also known as **non-content responding**. An example of this could be **acquiescence** or yes-saying, which is the tendency to simply agree with the questionnaire regardless of the content of the items. Psychologists attempt to counter acquiescence by using reverse scoring the items. For example, they may word an item for extraversion as “I frequently prefer to be alone”. There is also extreme responding that could take place, which is the tendency to give endpoint responses and avoid the middle part response. So, if there are two extreme options like “strongly agree” and “strongly disagree”, they may frequently keep selecting these rather than options, such as “slightly agree” or “slightly disagree”. Response sets may hamper the validity of the questionnaire because the person is not responding to the content of the items.

Another important response set is **social desirability**. It is the tendency to answer items in a way, which comes across as socially attractive, likeable or acceptable. For example, statements like “I am happy most of the time”, or “I do not intentionally harm animals” may evoke social desirability. That is, for both statements, the person may respond as “True”, when it may not be the case. Social desirability represents distortion or error and should be eliminated or minimized as much as possible. While another view states that it is a valid part of other desirable personality traits like happiness, conscientiousness or agreeableness. It may not be an outright effort to distort responses and thus must be differentiated from outright faking or lying. It simply is the case that the person has a distorted view of themselves or may want others to like them. Although several psychologists believe that it must be eliminated as it does create a bias, some psychologists believe the questionnaire must be designed well enough, so that it measures the construct accurately and does not evoke social desirability, to begin with. This can be done by selecting items that have low correlations to social desirability. Another way to solve the issue of social desirability suggested by psychologists is to eliminate those responses statistically. For example, the social desirability scale developed by Crowne and Marlowe (1964) asks about minor mistakes or transgressions we all make and some saint-like behaviour. For example, “I am always willing to admit it when I make a mistake”, and “I like to gossip at times”. Those who show perfect saint-like behaviour and do not admit to committing any mistakes can be judged to be high on social desirability. A third approach is to use a **forced-choice questionnaire** format. Here, the test takers are confined to two pairs of statements and must select one that describes them the best. By forcing the participants to

choose between equally socially desirable items, it may reduce the effect. For example:

Dispositional Domain:
Trait Approach - II

1. a. To read the book.
b. To watch the movie.
2. a. Continuous hallucinations.
b. Continuous anesthesia.

Many psychologists are also of the opinion that it can be considered a valid response. They view social desirability as a trait in itself, which means that some people are prone to giving socially desirable responses regularly. Some research correlates social desirability with happiness, adjustment and conscientiousness. The assumption made is that being mentally healthy involves having an overly positive view of oneself and abilities. Shelly Taylor in her title “Positive Illusions” (1989) summarizes research surrounding positive and self-enhancing illusions to state that they can promote psychological adjustment and mental health. Psychologist Delroy Paulhus has developed a social desirability inventory called the Balanced Inventory of Desirable Responding, which contains two subscales namely the self-deceptive enhancement subscale and the impression management subscale. They help identify self-presentation motives and faking good or bad tendencies. (Paulhus, 1984, 1990).

- **Barnum Statements:**

These are general statements that could apply to anyone. They often appear in astrology advice columns in newspapers and magazines. For example, “You sometimes have doubts about whether you have done the right thing”, “You need others to admire and love you”, or “Although you can deal with confrontation, you tend to avoid it”. One needs to be careful when getting personality testing done by someone who may not be well-trained or unlicensed. They could use the Barnum statements in the interpretation which could be misleading.

CHECK YOUR PROGRESS:

- Explain theoretical and measurement issues of traits.

6.4 PERSONALITY DISPOSITIONS OVER TIME

Personality development is defined as the continuities, consistencies and abilities in people over time and how people change over time (Larsen & Buss, 2008, p. 138). Many forms of personality change and stability have been identified by researchers. This section examines the research evidence surrounding change and stability across infancy, childhood and adulthood.

There are the following three levels of analyses of personality development:

1. Population-level:

This level of personality development is the changes and constancies that apply to more or less everyone. Almost everyone will hit sexual puberty. Overall, there is a decrease in impulsivity levels or risk-taking behaviour as an individual grows up. So, these changes are part of almost the entire population.

2. Group Differences Level:

Some changes affect different groups differently. For example, sex differences. Females go through puberty differently than males. Age-based differences can also be observed. The aggression shown by adolescents versus that shown by adults will vary. Cultural and ethnic groups will also show differences in some aspects. For example, body image satisfaction varies across American, European, and African American women.

3. Individual Differences Level:

Personality psychologists focus on individual differences in personality differences. There are issues related to whether we can predict an individual's change over time in the various characteristics that they exhibit.

CHECK YOUR PROGRESS:

- What are the three levels of analyses of personality development?

6.4.1 Personality Change Over Time:

• Personality Change:

Not all personality changes can qualify as development and not all internal changes can properly be considered development. Like when we fall sick, the way our body changes may not always account for development. Hence, the two qualities of personality change include firstly that changes are usually internal to the person and not just changes that take place in the external surroundings. Second, the changes are relatively enduring over time and not temporary changes.

Most of the global measures of personality traits focus heavily on personality stability. There is very little literature to understand personality change.

• Changes in Self-Esteem from Adolescence to Adulthood:

Block and Robbins (1993) studied self-esteem about the personality characteristics associated with it. They defined self-esteem as “the extent to which one perceives oneself relatively close to being the person one wants to be and/or as relatively distant from the kind of person one does not want to be, concerning person-qualities one positively and negatively

values” (Block & Robbins, 1993, p. 911). It was measured by an overall difference between the current self-description and the ideal self-description. The researchers hypothesized that the smaller this difference, the higher the self-esteem. They assessed the sample at age 14 and then at age 23. There was no change in self-esteem with increasing age for the sample as a whole. When males were compared to females there were stark differences. Males’ self-esteem increased with age, while it showed a decrease for females. There were also interesting differences with the other personality correlates. For those females whose self-esteem was increasing over time, observers judged them to have an excellent sense of humour, be protective of others and be a talkative and giving person. The females whose self-esteem tended to go down over time were judged to be moody, hostile, negativistic, irritable, unpredictable and condescending.

For males whose self-esteem increased over time, they were observed to be socially at ease, regard themselves as physically attractive and were observed to be calm and relaxed. Those who showed a decrease in self-esteem tended to be anxious, easily stressed, ruminative and self-defensive. Thus, there was a significant difference between males and females as they age in self-esteem levels.

- **Flexibility and Impulsivity:**

In a study on creative architects, the researchers measured personality twice with testing across 25 years (Dudek & Hall, 1991). The California Psychological Inventory (CPI) and Adjective Check List (ACL) were administered. The architects were tested at the beginning of their careers and again after 25 years. Some architects turned out to be highly creative and successful while some were just average. The highly creative architects displayed high scores on spontaneity, an intensity of motivation, and independence. The less creative ones showed high scores on conformity even 25 years later. They all showed a decrease in impulsivity and flexibility with age.

- **Autonomy, Dominance, Leadership and Ambition:**

Howard and Bray (1988) conducted a longitudinal study with 266 managerial candidates at AT&T. They tested these men in their twenties and then followed up 20 years later in their forties using the Edwards Personal Preference Schedule. There were several dramatic observations throughout the study. There was a steep drop in the ambition scores which was dropping during the first 8 years and continued to drop for the next 12 years. The men who went to college started with high ambition, but saw a sharp drop compared to non-college men. The men became more and more realistic about their expectations which were discovered through the interviews conducted. Their scores on autonomy, leadership, motivation, dominance and achievement increased over time. The men seemed to become less dependent on others.

- **Sensation Seeking:**

It is commonly believed that people become more cautious and conservative with age. The literature surrounding sensation-seeking confirms that. The Sensation-Seeking Scale (SSS) has four subscales namely thrill and adventure-seeking (e.g., “I would like to try out parachute jumping”), experience-seeking (e.g., “I am not interested in experience for its own sake” vs. “I like to have new and exciting experiences and sensations even if they are little frightening, unconventional or illegal”), disinhibition (e.g., “I like wild uninhibited parties” vs. “I prefer quiet parties with good conversation”), and boredom susceptibility (e.g., “I get bored seeing old faces” vs. “I like the comfortable familiarity of everyday friends”). The trait of sensation seeking is known to increase with age from childhood to adolescence around the age of 18 to 20. Then it begins to fall continuously as one ages (Zuckerman, 1974).

- **Femininity:**

Helson and Wink (1992) examined personality changes in a longitudinal study of women from Mills College in San Francisco. They used the California Psychological Inventory to study the femininity scale. High scorers were described by observers as being dependent, emotional, gentle, feminine, high-strung, nervous, mild, worrying, sympathetic, sentimental, sensitive, and submissive (Gough, 1996). Low scorers, that is those who scored high on masculinity were described as tough, strong, self-confident, masculine, independent, forceful, determined, confident, assertive, boastful and aggressive. An interesting finding is that this sample of educated women showed a consistent drop in femininity as they moved from the age of 40 to 50, but the underlying cause remains undetermined.

- **Competence:**

A key element from the longitudinal study from Mill College mentioned earlier is self-assessment of competence. It was measured using the Adjective Check List (ACL) scale, which contained items, such as goal-oriented, organized, thorough, efficient, practical, clear, realistic, precise, mature, confident, and contented thinking (Helson & Stewart, 1994). The high scorers state that these items describe them well. The women who were part of the sample showed a sharp increase in the self-assessments of competence. Their spouses showed constant scores across two time periods. The scores did not depend on whether they had children or not.

- **Independence and Traditional Roles:**

The study also gave some other fascinating findings. The women in the study were divided into four categories: 1) Homemakers with intact marriages and children, 2) Working mothers with children (neo-traditional), 3) Divorced mothers, and 4) Non-mothers (Helson & Picano, 1990).

The CPI Independence scale measured two related facets. First included self-assurance, resourcefulness and competence. Second, distancing self from others and not bowing to the conventional demands of society. Those who were high on independence tended to set goals for groups that they were part of, they would talk to many people at the party, and they would also take charge of situations when called for. The high scorers also tend to interrupt conversations and do not necessarily follow instructions from those who are in the position to lead. For divorced mothers, working mothers, and non-mothers, the independence scores increased significantly over time. Only traditional homemakers showed an increase over time in independence. Causation cannot be assumed since the data was correlational. The study nevertheless shed light on the idea that specific subgroups will show specific changes in personality characteristics.

- **Personality Changes across Cohorts: Women's Assertiveness in Response to Changes in Social Status and Roles**

Interesting to understand whether personality changes are a function of individual variations or a cohort effect can be observed, that is the effect of the social time that they lived in on the personality. Jean Twenge (2000, 2001a, 2001b) studied the cohort effect extensively. She argues that American society has drastically changed over the past seven decades which has led to a change in women's status and roles. During the 1930s women had more domestic roles which kept changing from the 1960s to the 1990s. Twenge (2001a) also discovered that women's scores on assertiveness also shifted as per the cohort in which they were raised.

6.4.2 Personality Stability Over Time:

- **Rank order stability** is the maintenance of an individual position within a group. This means that if someone scores high on traits like conscientiousness or impulsivity for their age of 15 years, as they grow older, they will continue to have a high-rank order for this trait. So, when this individual high on conscientiousness or impulsivity turns 30 years old, they will continue to remain in the high-rank order when compared to other 30-year-olds.
- **Mean Level Stability** is the constancy level. If there is an average level of religiousness in a group, that average may remain constant even with the increase in age. There could also be a mean level change, maybe due to socio-political conditions and the average level of religiousness may shift.
- **Stability of Temperament During Infancy:** Many parents often state how their children are different from each other. But, Albert Einstein the Nobel prize winner, and father of modern physics who had two sons, is one extreme and a good example of this. The older son, Hans was fascinated by puzzles as a child and he had a gift for mathematics. He went on to become a distinguished professor of hydraulics at the University of California at Berkley. The younger son, Eduard took interest in music and literature, but unfortunately, he

ended up in a Swiss psychiatric hospital and died. This is an example of no matter if you have good genes passed on from your parents, you and your sibling may turn out to be different in many ways.

The most commonly studied aspect related to infancy is temperament, which is the individual differences that emerge very early in life and have been heritable. These are often behaviours like emotionality or arousability. Researcher Mary Rothbart (1981, 1986) conducted a study of a group of infants of different ages starting from three months and examined their temperament using some measures that the infants' caregivers filled out. The measures included:

1. **Activity level:** The overall motor activity of legs, arms, etc.
2. **Smiling and laughter:** How much did the infant smile or laugh?
3. **Fear:** The amount of distress and reluctance shown by the child to approach new stimuli.
4. **Distress to limitations:** How much distress did the child express at being denied food, being dressed, being confined, etc.
5. **Soothability:** It is the degree to which the child reduced stress or calmed down after being soothed.
6. **Duration of orienting:** The degree to which the child sustained attention to objects in the absence of a sudden change.

The results showed that in those infants who scored high on these aspects of temperament, these traits increased with age (3 to 6 months, 3 to 9 months, 3 to 12 months, etc.). Activity level, smiling and laughter showed higher levels of stability over time. Personality traits also showed to be stable at the end of infancy, that is around 9 to 12 months. The limitation of this study by Rothbart is that caregivers may not always be honest or accurate in reporting about their infants. It may be their conception rather than the actual behaviour of the infant. However, we can draw important conclusions from this study which are that stable individual differences appear to emerge early in life, temperament variables show moderate levels of stability overtime during the first few years of life, and the stability temperament tends to be higher over short intervals of time rather than long intervals of time and lastly, the level of stability of temperament tends to increase as infants mature (Goldsmith & Rothbart, 1991; Larsen & Buss, 2008).

- **Stability During Childhood:**

Longitudinal studies which examine the same groups of individuals over time have their set of limitations since they can be costly and difficult to conduct. Because of such limitations, there are few such studies. An important study is the Block and Block Longitudinal Study, which was conducted by testing a sample of more than 100 children from the Berkley-Oakland region of California. This sample has been followed through ages 4, 5, 7, 11 and adulthood. The first publication of this project

was to identify the differences in activity levels of the children. The activity level of the sample when they were 3 years old was measured using an acto-meter, a recording device that is attached to the wrists of the children during playtime. This records the motoric movement. There was also a teacher-observed activity level questionnaire containing three items enquiring whether the child was “physically active”, “is vital, energetic, active” and “has rapid personal tempo”. The acto-meter readings were correlated at ages 3 and 4 and also different sources, such as a judge were given the questionnaire. The correlations between the same measure obtained at two different points in time are called the **stability coefficient**, while those correlations that are different measures of the same trait obtained at the same time are called **validity coefficients**. (Larsen & Buss, 2008, p. 145).

This study helped draw critical conclusions. First, the acto-meter measurements of activity level showed significant positive validity coefficients with the judge-based measurements of activity. This meant that activity levels in childhood can be assessed validly through observational judgements and activity recordings. Second, the activity level measurements are positively correlated with measurements of activity levels taken at different ages. Thus, when the measures were taken at 4 and 7 years, those who scored high at age 3 continued to score high at ages 4 and 7. Third, the measures that are taken early are stable over time and have predictability for later life. If the activity levels are measured between short intervals the predictability may reduce.

In sum, individual personality differences emerge very early in life and they are moderately stable over time. The stability coefficients gradually decline as the distance between testing increases.

• **Rank Order Stability in Adulthood:**

Several studies were conducted to evaluate the stability of adult personality. Costa and McCrae (1994) categorized five personality factors for the five-factor model. The self-report measures data indicated that traits of neuroticism, extraversion, openness to experience, agreeableness and conscientiousness are all moderate to highly stable traits with average correlations between these traits, scales and time intervals was roughly +.65. There were studies with other reports which also showed stability, such as a six-year longitudinal study of adults where spouse ratings were used. Neuroticism, openness to experience and extraversion showed stable correlation coefficients. Some other studies used peer ratings (Costa & McCrae, 1988, 1992). A study conducted by Richard Robins and colleagues (2001) evaluated 275 college students during their freshman year and again in their senior year. They made use of the NEO-PI inventory, which indicated stability for extraversion (.60), agreeableness (.59), conscientiousness (.53) and neuroticism (.70). Trzesniewski, Donnellan, and Robins (2003) also found stability in self-esteem over time. They found consistency in self-confidence levels too. Roberts and DelVecchio (2000) found that personality consistencies have a step-wise pattern with increasing age. The average personality consistency during

teenage years was $+0.47$ which increased to $+0.57$ in the twenties and was $+0.62$ during the thirties. Also, the consistency was found to peak in the fifties. Thus, as people age, their personality traits appear to become more set or stable.

• Mean Level Stability in Adulthood:

The five-factor model by Costa and McCrae shows mean level stability over time. Especially after the age of 50, there are little changes to the average level of stability in openness, extraversion, neuroticism and agreeableness. There is a tendency for openness, extraversion and neuroticism to gradually decline with increasing age, till age 50. Conscientiousness and agreeableness on the other hand show a gradual increase over time. Recent studies confirmed that the mean-level personality traits change is slight but important during adulthood. The most consistent change is in lower levels of neuroticism. Students have shown a decrease in neuroticism (Vaidya, Gray, Haig, & Watson, 2001, 2002). Similar findings were obtained in a massive longitudinal study of 2,804 individuals over a 23-years time span. Negative affectivity decreased consistently as the participants got older (Charles, Reynolds, & Gatz, 2001). A massive meta-analysis of 92 different samples found that both women and men gradually become more emotionally stable as they grow older, with the largest changes occurring between the ages of 22 and 40 (Roberts, Walton, & Viechtbauer, 2006). People were also found to score higher on agreeableness and conscientiousness as they grow older. Studies found that college students became more agreeable, conscientious and extraverted from freshman year to two and half years later, and conscientiousness and agreeableness showed an increase throughout early and middle adulthood (Vaidya et al., 2002; Srivastava, John, Gosling, & Potter, 2003). "The personality changes that did take place from adolescence to adulthood reflected growth in the direction of greater maturity; many adolescents became more controlled and socially more confident and less angry and alienated" (Roberts, Caspi, & Moffitt, 2001, p. 670). Interestingly, Ralph Piedmont (2001) found that the Big Five personality dispositions may change due to therapy. They administered therapy to 82 men and 50 women over six weeks. The sample showed a decrease in neuroticism and an increase in agreeableness and conscientiousness. And these results were maintained post 15 months of follow-up assessment. Thus, predictable changes do occur for certain personality traits but overall stability can be observed.

6.4.3 Personality Coherence Over Time:

Personality Coherence is a change in the manifestation of a trait is personality coherence. Consider the example of dominance at the age of 20. This 20-year-old's manifestation of dominance may be seen among friends and family members. They are known to be high on the dominance trait. As this individual grows old, they continue to show high dominance with friends, coworkers and their partner where the manifestation has become more physical. Thus, this shift in manifestation but maintenance of the rank order is known as personality coherence. Personality coherence

does not require the manifestation to be constant. This includes elements of continuity and change. Personality coherence refers to the predictable changes in the manifestations or outcomes of personality factors over time even if the underlying characteristics remain stable.

Dispositional Domain:
Trait Approach - II

- **Marital Stability, Marital Satisfaction and Divorce:**

Kelley and Conley (1987) studied 300 couples from the 1930s from the time they were engaged to the 1980s. Amongst the couples studied, 22 broke their engagements, 278 couples did get married and 50 ended up divorced. During the first testing in the 1930s, the acquaintances of the participants were asked to give ratings to each participant's personality on several dimensions. There were three predictors of divorce - neuroticism of the wife and the husband and the impulse control of the husband. Those high in neuroticism were found to be high in marital dissatisfaction in the 1930s, 1955 and 1980. When the husband and wife were high on neuroticism and lacked impulse control, it was a strong predictor of divorce. Those husbands who showed low impulse control when first assessed, were more likely to engage in extramarital affairs as compared to those high on impulse control who managed to avoid engaging in flings.

Neuroticism was also important for resilience after losing a spouse. A study found that the best predictor of coping with the death of a spouse was emotional stability (Bonanno, Wortman, Lehman, Tweed, Haring, Sonnega, Carr, & Nesse, 2002). Out of the 205 individuals assessed, several years before the death of their spouse, then 6 and 18 months post the demise, those who were high on emotional stability grieved less, showed less depression and showed quick psychological recovery.

- **Alcoholism and Emotional Disturbance:**

Conley and Angeldes (1984) found that early personality predictions can help understand the development of alcoholism and emotional disturbance. They studied 233 men and 40 were judged to develop serious emotional problems or alcoholism and they were rated as being high on neuroticism by acquaintances. The early personality characteristics helped distinguish between men who had become alcoholics and men who developed emotional disturbance. Impulse control was found to be related to emotional disturbance. Recent studies have found that those who are high scorers on measures of sensation-seeking and impulsivity and low scorers on agreeableness and conscientiousness tend to use and abuse alcohol more than others (Cooper, Wood, Orcutt, & Albino, 2003; Hampson, Severson, Burns, Slovic, & Fisher, 2001; Markey, Markey, & Tinsley, 2003; Ruchkin, Koposov, Eisemann, & Hagglof, 2002).

- **Education, Academic Achievement and Dropping Out:**

Kipnis (1971) conducted a self-report measure of impulsivity. He also obtained their SAT scores which measure academic achievement and potential. Those high scorers on SAT showed high impulsivity. Impulsive individuals were more likely to drop out of college. Impulsivity has also been found to affect workplace performance. A longitudinal study looked

at personality dispositions at the age of 18 and then checked the work-related outcomes at age 26. They found that those high on self-control at age 18, showed higher occupational attainment, were more involved in their work and had superior financial security at age 26 (Roberts, Caspi, & Moffitt, 2003).

Conscientiousness was the best predictor of achievements at work and school. Those who were high on conscientiousness at age 3 were predicted to perform successfully in academics, nine years later. (Asendorpf & Van Aken, 2003). Emotional stability, agreeableness and openness also are predictors of success but conscientiousness is the strongest. As adults these people become less alienated, they are better at handling stress, they show an increase in social closeness, they like people more, and they turn to others for comfort.

- **Health and Longevity:**

High conscientiousness, positive emotionality (extraversion) and low levels of hostility are predictors of longevity (Danner et al., 2001, 2001; Friedman et al., 1995; Miller et al., 1996). Conscientious individuals engage in more health-promoting practices, like maintaining a good diet and engaging in regular exercise; they also avoid unhealthy practices, such as smoking and having a sedentary lifestyle. Those low on conscientiousness in adolescence are more likely to get addicted in young adulthood to all sorts of drugs. Extroverts tend to have lots of friends, so they have a social support network which is linked with positive health outcomes. Those low on hostility put less stress on their heart and overall cardiovascular system.

- **Prediction of Personality Change:**

Caspi and Herbener (1990) tried to answer the question of whether we can predict who is likely to change their personality and who is not. They studied middle-aged couples for over 11 years. They tested the couples twice in 1970 and 1981. The question was if you marry someone similar to you, do you tend to remain more stable over time than if you marry someone different from you? They reasoned that by marrying someone similar you would find a supportive and stable environment and marrying someone different may lead to attitudinal clashes and encountering social and environments that you may not generally seek which may make you uncomfortable. Thus, they divided the sample into those couples who were highly or moderately or least similar to each other. They found that men and women who are married to someone similar to themselves in personality show the highest levels of personality stability over time.

6.5 SUMMARY

In this chapter, we first understood the concept of disorders, specifically personality disorders. We then examined the various types of personality disorders based on the categorization, that is the erratic cluster, the eccentric cluster and the anxious cluster. We then moved on to

understanding the measurement process, and how can psychologists measure the various personality traits and disorders. There could be some possible issues that could arise in the measurement process, those were also examined. We then try to understand how personality characteristics can be used to predict certain everyday aspects of human life. We also attempted to explore the literature surrounding personality change and whether there is stability or change that occurs.

Dispositional Domain:
Trait Approach - II

6.6 QUESTIONS

1. Write long answers:

- a) Explain in detail the erratic cluster of personality.
- b) Explain in detail the eccentric cluster of personality.
- c) Explain in Detail the anxious cluster of personality.
- d) Evaluate personality change with research examples.
- e) Explain measurement issues surrounding personality traits.

2. Write short notes:

- a) Explain the concept of personality disorders.
- b) Write a note on personality coherence over time.
- c) Explain the theoretical issues that can arise during the measurement of personality traits.

6.7 REFERENCES

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SOCIO-CULTURAL AND ADJUSTMENT DOMAIN- I

Unit Structure:

- 7.0 Objectives
- 7.1 Personality and Social Interaction
 - 7.1.1 Selection
 - 7.1.2 Evocation
 - 7.1.3 Manipulation: Social influence tactics
 - 7.1.4 Panning Back: An overview of personality and social interaction
- 7.2 Sex, Gender and Personality
 - 7.2.1 The Science and Politics of studying gender
 - 7.2.2 Sex differences in Personality
 - 7.2.3 Masculinity, Femininity, Androgyny and Sex roles
 - 7.2.4 Theories of sex differences
- 7.3 Summary
- 7.4 Questions
- 7.5 References

7.0 OBJECTIVES

After studying this unit, you should be able to:

- Understand how personality is affected
- Understand the causes of large or small sex differences in different personality traits
- Understand the process of selection, evocation and manipulation.
- Understand how cultures shape personality
- Know the history and study of sex differences

- Know actual sex differences found in research on various psychological variables.
- Know various theories of sex differences.

7.1 PERSONALITY AND SOCIAL INTERACTION

Vanita and Shrikant were discussing her first date with Parag. Vanita said, “Paragat first seemed like a nice guy. But eventually, he started displaying aggression towards the waiter in the restaurant we went. He also dominated what I should eat for the dinner that day. He did not even give me a good night hug, and when I tried, he acted aggressively!”

The personality characteristics of others affect whether we select them as dates, friends, or marriage partners. People's personality characteristics also play a role in the kinds of interpersonal situations they select to enter and stay in. For example, someone with a personality different from Vanita's might have been attracted to a man like Parag and could tolerate his self-centeredness and impatient behaviour. The personality traits of other people evoke certain responses in us. Parag's aggressive displays upset Vanita, evoking an emotional response that would not have been evoked if he had been kinder and more caring.

Personality is also linked to the ways, in which we try to influence or manipulate others. The question here is, “What are the strategies that people use to get what they want from others?” A person may first use a charming tactic to convey to others and then may use the boasting tactic and finally use the aggressive tactic. People have different personalities. So, different people use different tactics of social influence.

7.1.1 Selection:

People choose to face some situations and avoid others. We select social situations often on the basis of our personality characteristics in everyday life. The choices range in importance from trivial (“Should I attend this party tonight?”) to profound (“Should I select this person as my marriage partner?”). Social selections are decision points that direct us to choose one path and avoid another. For example, by selecting a mate, you are altering your social environment as you are simultaneously selecting the social acts you will experience and the network of friends and family in which those acts will be carried out.

Questions arise generally in our mind, whom people select as mates. Are any common personality characteristics highly desired by anyone? Do we look for mates similar to our personality or different from ours? And how is the choice of a mate related to the likelihood that a couple will stay together overtime?

- **Personality characteristics desired in a marriage partner:**

What do people want in a marriage partner?

One research study attempted to learn this. A sample of 37 participants was chosen from 33 countries, representing every major racial group, religious group, and political system including Australian, South African and Zulu people, and Gujarati Indians. The sample varied in socio-economic status. Standardized questionnaires were translated into the native language of each culture and were administered to the samples by native residents of each culture. This study revealed that personality characteristics are important in selecting a long-term mate. It revealed that mutual attraction or love was the most desired or favoured characteristic by almost everyone. After love, other characteristics which were important for participants, are a dependable character, emotional stability, and a pleasing disposition.

- **Assortative Mating: Search for the Similar:**

Two competing theories have been developed regarding who is attracted to whom. Also, many other competing scientific theories have been advanced regarding the same. Complementary Needs Theory postulates that people are attracted to those who have different personality dispositions than they have. For example, submissive people will choose a mate that dominates and controls them. We can think of this theory with the help of the phrase “opposites attract”.

Attraction Similarity Theory says that people are attracted to those who have similar personality characteristics. For example, submissive people will be attracted to people who are submissive. We can think of this theory with the help of the phrase “Birds of a feather, flock together.”

The Assortative Mating phenomenon explains that people get married to people who are similar to themselves. For physical characteristics such as height, weight, and, astonishingly, nose breadth and earlobe length, couples show positive correlations. Couples who have been together for the longest, appeared most similar in personality.

Are these positive correlations due to the active selection of mates who are similar? Or they are by-products of other causal processes? For example, people may marry each other because they stay close by, called “shared proximity.” Since people in proximity may have certain common characteristics, the positive correlations found between married couples may be just a side effect of mating or being with those who are close by, rather than the active selection of partners who are similar. When we are born in a particular culture, or go to a college or school, these institutions may promote associative mating by selecting individuals who are similar with respect to intelligence, social skills, etc.

Research by Botwin, Buss, & Shackelford (1997) found that the correlations between people’s personality traits and the traits they desired in a partner were positive. Those partners who were high on extraversion wanted to select a partner, who is an extrovert. But one caution mentioned in the study is that the preferences people express for the personalities of their ideal mates might be influenced by the mates they already have. If an emotionally stable person has already mated an emotionally stable person, perhaps they justify their choice by claiming that they are truly attracted to

the one they are with. That could result in positive correlations between one's own personality and the personality people express for a desired mate. Even people who are not mated, show a similar pattern of results. They prefer those who are similar to themselves, supporting the attraction similarity theory.

- **Do People Get the Mates They Want and Are They Happy?**

Many people mate with those who fall short of their ideals. Therefore, we can predict that individuals whose mates deviate, or are different from their ideals will be less satisfied than those whose mates embody their desires. But, a research by Botwin et al. (1997) shows that there are modest, but consistently positive correlations between the personality desired in a partner and the actual personality characteristics displayed by the partner. The correspondence or agreement between what one wants and what one gets is strong for extraversion and intellect-openness. But, people seem to get the mates they want in terms of personality.

Let us say if people get what they want in marriage partners, are they happier than those who do not get what they want? To test this, Botwin et al. (1997) created difference scores between the preferences each individual expressed for the ideal personality of a mate and assessments of the spouse's actual personality. The results showed that one's partner's personality had a substantial effect on marital satisfaction. People were happy with their relationships if they were married to partners who were high on agreeableness, emotional stability, and openness. And, the difference scores between the partner's personality and one's ideal for that personality did not predict marital satisfaction. Thus, it seems that the key to marital happiness is having a partner who is agreeable, emotionally stable, and open, regardless of whether the partner departs in specific ways from what one wants. It has been found that people married to agreeable partners are more satisfied with their sex lives, and view their spouses as more loving and affectionate, as a source of shared laughter, and as a source of stimulating conversation.

It was also found that men whose wives score high on conscientiousness are significantly more sexually satisfied as compared to others. Women whose husbands score high on conscientiousness are more satisfied, and happier with their spouses as sources of stimulating conversation. Both men and women whose spouses are high on emotional stability are more satisfied, view their spouses as sources of encouragement and support, and enjoy spending time with their spouses. Both men and women whose spouses score high on openness are generally satisfied with the marriage and perceive that a lot of love and affection are expressed in the marriage. Optimism also predicts high levels of satisfaction in romantic relationships overtime.

- **Personality and Selective Breakup of Couples:**

According to the Violation of Desire Theory, people married to others who lack desired characteristics, such as dependability and emotional stability will frequently dissolve a marriage or a breakup. So, a breakup

should occur more when your desires are violated rather than satisfied. We can also predict that couples who are dissimilar in personality traits will breakup more often than those who fulfil their desires for similarity.

Emotional instability has been a consistent predictor of marital instability and divorce. One reason why this characteristic is associated with marital instability and divorce is that emotionally unstable people may experience jealousy within romantic relationships. Husbands who are low on impulse control and conscientiousness are good predictors of marital dissolution. Low agreeableness also predicts marital dissatisfaction and divorce although this is a less consistent finding. One reason maybe that low agreeableness and low conscientiousness were associated with sexual unfaithfulness. Although extraversion and dominance are also related to sexual promiscuity, these variables are not related to marital breakups and satisfaction.

Other researches point to two other influences of personality on relationship satisfaction or dissatisfaction. One is the similarity in an overall personality profile, rather than the similarity in individual personality traits. The second is the extent of the match between an individual's conception of an ideal mate and their partner's actual personality.

- **Shyness and Selection of Risky Situations:**

Shyness is a tendency to feel anxious, tense, and worried during social interactions and anticipating social interactions. Shyness is not unusual, it is a common phenomenon as more than 90% of people report feeling shy at least at some point in their life or the other. But, some people are dispositionally shy, and they tend to feel awkward in most social situations so, tend to avoid situations in which they will be forced to interact with people. Effects of shyness are well-documented, for example, shy women avoid others by creating social isolation, are less likely to go to the doctor for gynecological exams, put themselves at greater health risk, are less likely to use contraceptives with sexual partners, etc.

It is also seen that shyness also affects whether a person is willing to engage in risky situation such as gambles. In a research study by Addison and Schmidt, 1999, it was found that shy women chose smaller bets that had a high likelihood of winning whereas non-shy women preferred riskier bets with a low probability of winning, but a larger payoff, if they did win. Thus, shy women avoid choosing risky gambles.

- **Other Personality Traits and Selection of Situations:**

Here are listed some other personality traits. It is found that those who are empathetic, choose to volunteer for community activities and similar other activities. People who are high on psychoticism seem to choose volatile and spontaneous situations more than formal or stable ones. Those high on machiavellianism (a personality trait marked by slyness, manipulateness, and the one who strives for money, power etc.) prefer face-to-face

situations, as they give a better chance to practice their socially manipulative skills to exploit others.

High sensation-seekers are more likely to volunteer for unusual things, like experimenting with drugs and sex, in that they may frequently choose to enter risky situations, engage in unwanted sex when drunk or engage in risky sexual behaviour, such as having unprotected sex, etc.

7.1.2 Evocation:

Evocation is a way, in which features of our personality elicit reactions from others. Let us take an example. There are two groups of children. One group of highly active children and the other one with less activity. As compared to less active peers, children who are high in activity elicit or evoke hostility and competitiveness from others. On the other hand, social interactions of less active children are more peaceful and calm, harmonious. Thus, a personality characteristic (in this case, activity level) evokes a predictable set of social responses from others (hostility and power struggles).

- **Aggression and Evocation of Hostility:**

It is seen that aggressive people assume that others will be hostile toward them. One study has shown that aggressive people chronically interpret ambiguous behaviour from others, such as being bumped into or mistakenly clashed with someone, as intentionally hostile. This is known as “Hostile Attributional Bias”- the tendency to infer hostile intent on the part of others in the face of uncertain or unclear behaviour from them.

Because they perceive others being hostile towards them, so they also behave aggressively towards others. And as a result, others aggress back. Thus, it becomes like a cycle. Thus, aggressive reactions from others confirm what the aggressive person suspected all along- that the other person has hostility towards him or her. But, the person with hostile attributional bias fails to realize that aggression on the part of others is a product of his or her own aggression that evokes the same from others by treating them aggressively.

- **Evocation of Anger and Upset in Partners:**

After the initial selection of the partner, there are two ways in which personality can evoke conflict in close relationships. The first way is that the person can perform an action that can evoke an emotional response in a partner. For example, a dominating person can act in a superior manner, habitually, evoking upset in the partner. The second way is that when a person evokes actions from others, those actions can in turn upset the original elicitor. Let us take an example, an aggressive man, may elicit silent treatment from his mate, which may upset him in return, because she will not speak to him.

In order to support these two processes, a research study was carried out. The personality characteristics of both husbands and wives were assessed

through three data sources: self-report, a report by partners, and independent reports by two interviewers. Statistical analyses were performed to determine which personality traits could predict upsetting spousal behaviour. Results indicated that husbands who were high on dominance tended to upset their partners by being superior (treating the opinions of wives as stupid or inferior and putting more value on their own opinions). The husbands who scored low on conscientiousness, in contrast, tended to upset their wives by having extramarital affairs – seeing someone else intimately or having sexual contact with another woman. Husbands low on openness evoked upset in their wives by rejecting (ignoring the wife's feelings), abusing (physically and verbally), exhibiting self-absorbed behaviour (focusing too much on his face and hair), sexually withholding (refusing the wife's sexual advances), and abusing alcohol (consuming alcohol).

The strongest predictors of evoked anger and upsetting behaviour were the personality characteristics, such as emotional instability and disagreeableness. Disagreeable and emotionally unstable husbands upset their wives in many ways, such as being arrogant, neglecting, rejecting, abusing, showing unfaithfulness, being inconsiderate, abusing alcohol, and being moody, jealous, and possessive.

The personality traits that are found to evoke or reduce conflict in interpersonal relationships are agreeableness and emotional stability. It has been found in a study that people high on agreeableness tend to evoke less interpersonal conflict than people low on agreeableness. One reason maybe that they tend to use compromise as a way of dealing with conflicts and people who are low on agreeableness are less willing to use compromise and use physical force and verbal insults to deal with conflict.

The link between personality and conflict can be seen as early as during early adolescence, for example, young teenagers low in agreeableness not only evoke more conflicts, but also are more likely to be victims by their peers in high school. Also, it was found that people high on agreeableness use effective conflict resolution strategies, a path leading to harmonious social interactions. Those high on negative emotionality (high neuroticism) were likely to experience more conflict in all their relationships, whereas those high on positive emotionality (a close cousin of agreeableness) had less conflict in all of their relationships.

Thus, we can say that agreeableness and emotional stability are key traits that are consistently found to be most encouraging in satisfaction in relationships.

- **Evocation through Expectancy Confirmation:**

Expectancy confirmation is a phenomenon which means people's beliefs about the personality characteristics of others cause them to evoke in others, actions that are consistent with their initial beliefs. It is also called a self-fulfilling prophecy.

In one study regarding this, researchers Snyder and Swann(1978) led people to believe that they would be dealing with aggressive and hostile individuals and then researchers introduced two people. People's beliefs caused them to behave aggressively with the unsuspecting target. Then, the behaviour of an unsuspecting target was examined. It was found that the unsuspecting target acted in a more hostile manner, behaviour that was evoked by the person who was led to expect hostility. In this example, beliefs about the personality of the other created the behaviour that confirmed those initial beliefs. In other words, here the belief about the other person as being aggressive led participants to behave in a hostile manner towards the unsuspecting target, and then due to the participant's aggressive behaviour, the target also responded aggressively.

Thus, we often hear about the person's reputation before or following the actual encounters with the other person. Our beliefs regarding these personality characteristics have broad effects on evoking behaviour that confirm our initial beliefs. Sometimes, it is said that if you want to change your personality, move to a place where people do not know you. Through the process of expectancy confirmation, people who already know you may unwittingly evoke in you, the behaviour that confirms their beliefs, thereby constraining your ability to change.

7.1.3 Manipulation: Social Influence tactics:

Manipulation, or social influence, involves all the ways, in which people intentionally try to change the behaviour of others. We influence each other all the time. Thus, the term manipulation is used here descriptively, with no negative connotation. Natural selection favours people who successfully manipulate their objects in the environment. Objects can be unanimated such as tools, and shelter or can be animated, such as parents, members of different species, etc.

Here, two questions that can be asked are 1) "Are some individuals consistently more manipulative than others?" and 2) "Given that all people attempt to influence others, do stable personality characteristics predict the sorts of tactics that are used?" Do extrovert people more often use the charm tactic, and introverts use the silent treatment tactic?

- **A Taxonomy of Eleven Tactics of Manipulation:**

A taxonomy is a classification scheme- the identification and naming of groups within a particular subject field. For example, taxonomies of plants and animals, have been developed to identify and name all the major plant and animal groups. In Psychology, the Big-Five personality traits are a taxonomy, which is an attempt to develop a taxonomy regarding the major dimensions of personality.

A taxonomy of tactics of manipulation was developed through the following steps: (1) nominations of acts of influence and (2) factor analysis of self-reports and observer-reports of the previously nominated acts. The act-nomination procedure is "Please think of your romantic partner or close friend or mother or father, etc. How do you get this person

to do something? What do you do? Please write down specific behaviours or acts that you perform in order to get this person to do things. List as many different sorts of acts as you can.”

After this list was generated, the researchers converted it into a questionnaire that could be administered via self-report or observer report. Several participants completed versions of an expanded instrument, consisting of 83 acts of influence or tactics. Factor analysis was then used to identify clusters of acts of influence or tactics. After doing Factor-Analysis (A statistical technique of the data-reduction). Eleven tactics of manipulation were discovered as shown in the following table:

Table 7.1 Eleven Tactics of Manipulation

Tactic	Sample Act
Charm	I try to be loving when I ask her to do it
Coercion	I yell at him until he does it.
Silent treatment	I don't respond to her until she does it
Reason	I explain why I want him to do it.
Regression	I whine until she does it.
Self-abasement	I act submissive so that he will do it.
Responsibility invocation	I get her to make a commitment to do it.
Hardball	I hit him so that he will do it.
Pleasure induction	I show her how much fun it will be to do it.
Social comparison	I tell him that everyone else is doing it.
Monetary reward	I offer her money so that she will do it.

Source: R.J. Larsen and D.M. Buss (2009). *Personality Psychology: Domains of Knowledge about human nature*(4th ed.). McGraw Hill.

- **Sex Differences in Tactics of Manipulation:**

Do men and women differ in their use of tactics of manipulation? In research by Buss(1992), it was found that women and men equally performed almost all of the tactics of social influence. There was only a small exception regarding the regression tactic. In dating couples and married couples, women more than men reported more frequent use of the regression tactic, including crying, whining, pouting, and sulking to get their way. The difference was quite small. Thus, supporting the overall conclusion that men and women, in general, are similar in their performance of tactics of manipulation.

- **Personality Predictors of Tactics of Manipulation:**

Whether people with particular personality traits are more likely to use particular tactics of manipulation? More than 200 participants rated each act of influence on the degree to which they used it in each of four relationships: spouse, friend, mother, and father. Correlations were then computed between the personality traits of the participants and their use of each tactic of manipulation.

Findings indicated that those scoring relatively high on dominance (extraversion) tended to use coercion, such as demanding, threatening, cursing, and criticizing, in order to get their way. Highly dominant people tended to use responsibility invocation, getting others to make commitments to a course of action and saying that it was their duty to do it. People low on dominance (relatively submissive individuals) used the self-abasement tactic as a means of influencing others. They also tended to use the hardball tactic - deception, lying, degradation, and even violence.

Agreeable people used pleasure induction and reason. Those who were disagreeable used silent treatment and coercion. Low-agreeable individuals are also likely to take revenge on people whom they have perceived as they have done something wrong to them in some way. They tend to be more selfish in their use of collective resources, whereas a high agreeable individuals exercise more self-restraining behaviour when the group's resources are scarce or threatened.

Conscientiousness is related to only one tactic of manipulation. They explained why they want the other person to do something, provide logical explanations for wanting it done, and explain the underlying rationale for doing it. People who are low on conscientiousness are more likely to use criminal strategies in gaining resources.

Emotionally unstable individuals use force and also the use of monetary rewards. They also most commonly use regression. Thus, this kind of behaviour comes close to the definition of emotional instability – the display of unstable emotions, some positive and some negative. People high on Intellect-Openness use the tactic of reason above all other tactics as they are smart, perceptive, pleasure inductive and responsibility invocative. On the other hand, people low on Intellect-Openness use the tactic of social comparison, that is comparing the partner with someone else who would do it, and telling others that they will look stupid if they do not do it.

CHECK YOUR PROGRESS:

- What are tactics of manipulation?

7.1.4 Panning Back: An overview of Personality and Social interaction:

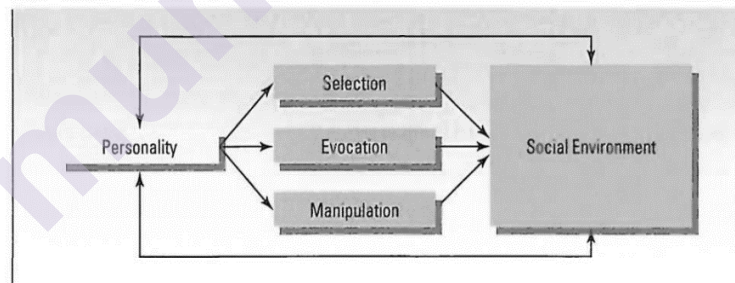
The most important message we should take is that personality does not passively reside within the individual, but reaches out and profoundly

affects each person's social environment. Let us consider selection first. In the physical habitat, an introvert is more likely to "choose/select" a rural habitat whereas an extrovert is likely to choose a city with a lot of opportunities for social interaction. In the social domain, an extrovert will select a mate, who is extraverted and an introvert will select a mate, who is introverted.

For the process of evocation, in the social domain, narcissistic people evoke admiration from their followers and contempt from those who dislike their unbridled self-centeredness. For the process of manipulation, research has shown that personality affects how people mould and modify the rooms in which they live. Those who are high on openness will decorate their rooms with unconventional, fashionable and stylish objects, books and CDs that are highly varied in genre. People low on openness have fewer and more conventional decorations, a narrower range of books and a limited collection of CDs. In the social area, disagreeable individuals are more likely to use "silent treatment" as a tactic of manipulation than emotionally stable people. Those high in Intellect-Openness tend to use reason and rationality to get their way.

Thus, personality affects the mates and friends that a person chooses as well as the environments a person decides to enter or avoid (selection); the reactions elicited from others and the physical environment (evocation); and the ways, in which one's physical and social environments are altered once inhabited (manipulation). See Figure 7.1.

Figure 7.1 Personality and social interaction



{Source: Buss D.M. & Larsen R.J. (2009). Personality Psychology: Domains of knowledge about human nature (4th ed.). McGraw Hill.}

Further research is needed to determine whether the causal arrows in the figure run in both directions. Does the choice of a mate who is similar in personality, for example, create a social environment that reinforces the personality and makes it more stable over time? Does the wide variety of manipulative tactics used by emotionally unstable individuals (from hardball to threats to sulking, whining, and pouting) create a social environment that is indeed rocked with greater turmoil, thus maintaining the personality disposition of neuroticism?

7.2 SEX-GENDER AND PERSONALITY

People are intrinsically fascinated with the psychological sex differences mentioned here. First, average differences between women and men in personality or behaviour. Second, many people are concerned with the political implications of findings of sex differences. Will such findings be used to foster gender stereotypes (beliefs about how men and women differ or are supposed to differ, in contrast to what the actual differences are)? Will such findings be used to oppress women? People are concerned with the practical implications of sex differences in their everyday lives. Will knowledge of sex differences help us, for example, understand and communicate better with others?

7.2.1 The Science And Politics of Studying Sex and Gender:

Few topics have generated as much controversy as the topic of sex differences. Some people worry that findings of sex differences might be used to support certain political agendas, such as excluding women from leadership or work roles. Still, others worry that findings of sex differences might be used to support the status quo, such as keeping men in power and women out of power. Some people argue that findings of sex differences merely reflect gender stereotypes rather than real differences. Some psychologists argue that any discovery of sex differences merely reflects the biases of the scientists and they are not an objective description of reality.

Psychologist Roy Baumeister advocated that the study on sex differences must be stopped because sex differences may conflict with the ideas of egalitarianism, although he has reversed his views on this and published articles on sex differences.

On the other hand, the Feminist Psychologist Alice Eagly (1995) argues that sex differences exist, they are consistent across studies, and they should not be ignored merely because they are perceived to conflict with certain political agendas. She says that feminists who try to minimize these differences or pretend that they do not exist, actually hamper the feminist agenda and present a dogma that is out of touch with reality. Janet Hyde, argue that sex differences have been exaggerated and there is so much overlap between the sexes on most personality traits that the differences are minimal.

- **History of the Study of Sex Differences:**

The study of sex differences has a fascinating history within psychology. Little attention was paid to sex differences before 1973 and in psychological research, participants used to be of only one sex, males. And even when participants were of both genders, a few articles analyzed or reported whether the effects differed for men and women.

All these things changed in the early 1970s. In 1974, Eleanor Maccoby and Carol Jacklyn published a classic book titled '*The Psychology of Sex Differences*', in which they reviewed hundreds of studies and then drew

conclusions about how men and women differed. Their conclusion was that women were slightly better than males in verbal ability and men were slightly better than women in mathematical and spatial ability. In terms of personality characteristics, they concluded that men were more aggressive than women. With other aspects of personality and social behaviour, they concluded that there was not enough evidence to determine whether men and women differed. They concluded that sex differences were less or few in number and trivial in importance.

Many research studies were conducted on the topic after this book. The book itself was criticized on various grounds. Some argued that many more sex differences existed than mentioned in the book by the authors. Also, the method by which authors drew their conclusions was crude with respect to today's standard. Following the publication of the book, the journals began to change their reporting practices. There began the explosion of research and thousands of studies conducted on sex differences.

Since Maccoby and Jacklyn's early work, researchers have developed a more precise quantitative procedure for examining conclusions across studies and for determining sex differences, called a meta-analysis. Meta-analysis is a statistical method for summarizing the findings of large numbers of individual studies. Meta-analysis allows researchers to calculate with greater objectivity and precision whether a particular difference (such as a sex difference) is consistent across studies. It also allows researchers to estimate how large the difference, in reality, is called the effect size.

• Calculation of Effect Size: How Large are the Sex Differences?

The most commonly used statistic in meta-analysis is effect size or 'd' statistic. It is used to indicate a difference in standard deviation units. How to interpret "d"?

A d of 1.00 means that the difference between the groups is one full standard deviation (S.D.). A d of 0.25 means the difference between the groups is one-quarter of S.D. An effect size can be calculated for each study of sex differences and then averaged across studies to give a more precise and objective assessment of whether and how much sex differences exist.

Most meta-analyses have adopted a convention for interpreting effect sizes as follows:

Table 7.2 Interpretation of Effect Sizes

d score	Meaning
0.20 or -0.20	Small difference
0.50 or -0.50	Medium difference
0.80 or -0.80	Large difference

Positive d-scores, such as 0.20 or 0.50, indicate that men score higher than women. Negative d-scores, such as -0.20 or -0.50, indicate that women score higher than men. For example, a d-score of -0.85 means that women score much higher on a particular trait.

Let us take an example. Which sex can throw the ball faster? Although individual differences in ball throwing exist, it is generally clear that men, on an average, throw the ball faster than women. One researcher reported that d is approximately 2.00. It means that the sexes differ, on average, by 2 standard deviations, which is quite large.

Let us take another example. Which sex scores higher in verbal ability? It turns out that women are slightly better than men, but the d is only - 0.11. Findings from most research tell us that men and women are generally the same with respect to cognitive abilities, but only one exception is in the realm of spatial ability. The d value for spatial ability is 0.73, which comes close to the standard for "large".

It is important to keep in mind that even large effect sizes for average sex differences do not necessarily have implications for any one particular individual. Even with a d of 2.00 for throwing a ball (distance/spatial ability), some women can throw a ball much farther than the average man and some men cannot throw a ball as far as the average woman.

- **Minimalists and Maximalists:**

Those who describe sex differences as small and inconsequential are called "Minimalists". They say, first, empirically most research findings show a small magnitude of effect arguing that any personality variable shows tremendous overlap in men and women. Second is that if the sex differences are small, they have little practical importance and do not have much consequences on people's lives, so it is important to focus on other psychological issues.

Maximalists argue that the magnitude of sex differences is equal to the magnitude of other effects in psychology and should be regarded as small or trivialized. Accordingly, some sex differences tend to be small in magnitude, whereas others are large in magnitude, and many are in the moderate range. Eagly, a Maximalist, notes that even small sex differences can have large practical importance. A small sex difference in the proclivity to help other people, for example, could result in a large sex difference in the number of lives each sex aids over the long run in times of distress.

7.2.2 Sex Differences in Personality:

The five-factor model of personality provides a convenient framework for organizing many findings about sex differences in personality.

- **Temperament in Children:**

Temperament reflects biologically-based emotional and behavioural consistencies that occur early in life and predict in conjunction with other factors-patterns and outcomes in several other domains, such as psychopathology and personality.

One research included a massive meta-analysis ever undertaken on sex differences in temperament in children. The researchers found that inhibitory control (the ability to control inappropriate responses and behaviours) showed the largest sex difference, $d = -0.41$, considered in a moderate range. Inhibitory control is related to the later development of conscientiousness. The sex difference appears to get less or fade, as adult men and women do not differ much in conscientiousness. Perceptual sensitivity (The ability to detect subtle stimuli from the environment) showed a sex difference favouring girls. Thus, girls are more sensitive than boys in perceptual sensitivity.

Surgency (A cluster of approach behaviour, high inactivity and high impulsivity) showed a sex difference with boys scoring higher than girls. The combination of high surgency and low inhibitory control may account for the fact that boys land up with more disciplinary difficulties in school than girls in early life. In addition, this combination may also account for males scoring high on physical aggressiveness than girls. The contexts in which this sex difference emerged, however, were quite specific, leading the authors to suggest that "gender differences in personality can be conceptualized as patterns of social adaptation that are complex and context-specific".

Is there any dimension in which boys and girls show no sex difference? Yes! That is the negative affectivity, which includes anger, difficulty, amount of distress, and sadness. Only on the component of fearfulness, it was found that girls were slightly more fearful than boys. This general lack of gender difference in negative affectivity is interesting, because it is closely connected with emotional instability, which does show a moderate sex difference in adulthood. Else-Quest and her colleagues (2006) speculate that gender stereotypes – beliefs that females are more emotional than males – may lead to the actual development of the gender difference in adulthood, given the negligible gender difference among children.

- **Five-Factor Model:**

The Five-Factor Model is a broad set of personality traits within which we can examine whether men and women differ.

- 1) **Extraversion:**

Three facets of extraversion have been examined for sex differences: gregariousness, assertiveness, and activity. A study of personality in 50 different cultures revealed a relatively small gender difference. Women score slightly higher on gregariousness than men, but the difference is quite small. Men score very slightly higher on activity level. A study of

personality in 50 different cultures revealed a relatively small gender difference in extraversion. The only subscale of extraversion showing observable gender difference is Assertiveness, with men scoring moderately higher than females on that. A related study also showed that men placed more importance on the value of power than women. It means that men value social status and dominance more than women. Thus, men are more likely to interrupt the conversation than women. An important source of conflict between the sexes – unwanted interruptions of dialogue – may stem from this moderate sex difference in assertiveness.

2) Agreeableness:

The 50-culture study revealed a small to medium sex difference ($d = -0.32$) was found in agreeableness, with women scoring higher than men. Older adults (age 65-98) also show a similar pattern with women scoring higher on this facet than men. On the facet of trust in agreeableness (the proclivity to cooperate with others, giving others the benefit of the doubt, and viewing one's fellow human beings as basically good at heart), women scored higher than men. On tender-mindedness, another facet of agreeableness (a nurturant tendency – having empathy for others and being sympathetic with those who are downtrodden), women scored substantially higher than men.

Meta-analyses of smiling show that women smile more often than men, with an effect size of -0.60 . If smiling reflects agreeableness, we can conclude that women are more agreeable than men. Aggressiveness is at the opposite end of agreeableness. In general, the effect sizes for aggression are largest for projective tests, such as the TAT ($d = 0.86$), the next largest for peer report measures of aggression ($d = 0.63$), and the smallest for self-report measures of aggression ($d = 0.40$). Worldwide, men commit roughly 90% of all homicides, and most of the victims of these homicides are other than men. Men are also involved in gang wars and various violent crimes. The largest sex differences in violent crimes show up just after puberty, peaking in adolescence and the early twenties. After age 50, violent crimes of all sorts start to reduce, and men and women become much more similar to each other in criminal aggressiveness.

3) Conscientiousness:

The 50-cultures study revealed a negligible sex difference on this factor. The effect size of sex differences in conscientiousness is $d = -0.13$. This means that women and men are essentially the same on this dimension. Even very small effects can sometimes have large cumulative effects over time. For example, a small difference in offering an order between marriage partners may result in a large number of arguments about the house-cleaning over the course of a year.

4) Emotional Stability:

At one end of the dimension are those who are steady, calm, and stable. One can label this end "emotionally stable." The opposite end is

characterized by volatility and changeability of mood. The 50-cultures study revealed the largest sex difference ($d = -0.49$) in emotional stability which indicated that women are moderately lower than men on this dimension. This pattern is true even in the case of older adults.

5) Intellect-Openness to Experience:

The 50-cultures study revealed no sex differences on this factor ($d = -0.05$). Openness means the range of thoughts or concepts that a person entertains. Botwin et al. (1997) studied sex differences in Intellect-Openness to experience using three data sources: self-report, spouse report, and independent interviewer reports (one male and one female interviewer). Separate analyses of these three data sources yielded no sex differences in Openness-Intellect.

• Basic emotions: Frequency and Intensity:

The most extensive research studied 2,199 Australians and an international sample of 6,868 participants drawn from 41 different countries (Brebner, 2003). Eight fundamental emotions were studied, four "positive" emotions (Affection, Joy, Contentment, and Pride) and four "negative" emotions (Fear, Anger, Sadness, and Guilt). Participants used rating scales to indicate how frequently or often they experienced each emotion and the intensity with which they experienced each emotion. Table 3 summarizes the basic findings of the research.

Table 7.3 Basic Emotions: Frequency and Intensity

Emotion	Frequency	Intensity
Positive emotions	0.20	0.23
Affection (Positive emotion)	0.30	0.25
Joy	0.16	0.26
Contentment	0.13	0.28
Pride	NS	NS
Negative emotions	0.14	0.25
Fear	0.17	0.26
Anger	0.05	0.14
Sadness	0.16	0.28
Guilt	NS (Not significant)	0.07

{Source: Buss D.M. & Larsen R.J. (2009). Personality Psychology: Domains of knowledge about human nature (4th ed.). McGraw Hill}.

As shown in the table, there are small, but statistically significant differences in the experience of emotions in this international sample. The study has shown that women experience both positive and negative emotions more frequently and intensely than men. In the positive areas, affection and joy show the largest sex differences. Pride, shows no sex difference in either frequency or intensity. In the negative areas, women experience fear and sadness more than men, especially in the reported intensity of the experience. Guilt, in contrast, shows a minimal sex difference in intensity and no sex difference in frequency—perhaps contradicting the stereotype that women are more guilt-prone than men.

These results must be qualified in two ways. First, the effect sizes are generally small. Next, other research has revealed that more specialized explorations of emotions reveal some reversals of these sex differences, such as women experiencing more intense jealousy in response to the emotional infidelity of a partner. One of the most common complaints that women express about men is that they do not express their emotions enough (Buss, 2003). Men often complain that women are too emotional. The results point to one possible reason for these complaints – perhaps men do not express their emotions, because they literally do not experience emotions as frequently or as intensely as women do.

- **Other Dimensions of Personality:**

Self-Esteem: It is how we feel good about ourselves. Research has explored many facets of self-esteem, such as self-esteem in athletic abilities, social skills, etc. One far-measured component is Global Self-Esteem- “The level of global regard one has for self as a person.” It can range from highly positive to highly negative and reflects an overall evaluation of self.

People with high self-esteem appear to cope better with the stresses and strains of daily life. When faced with negative feedback about one's performance, people with high self-esteem perform better on cognitive tasks. They tend to take credit for their successes, but deny responsibility for their failure.

The overall effect size is relatively small, with men scoring slightly higher than females in self-esteem ($d = 0.21$). Young children (ages 7-10) showed only a slight sex difference in self-esteem ($d = 0.16$). As the children approached adolescence, the gap between the sexes widened or expanded. At ages 11-14, d was 0.23. The sex difference was at its peak during the ages of 15-18 ($d = 0.33$).

Females seem to have lower self-esteem than males as they hit their mid-to late teens. In adulthood, the self-esteem gap starts to close. During the age range 19-22, the effect size shrinks to 0.18. During the ages of 23-59, the sexes come even closer, with a d of 0.10. From age 60 on up, the d is only 0.03, which means that the males and females are virtually identical in self-esteem.

The magnitude of all these effects is very small, and even during adolescence, the gap between the sexes is the widest. So, it is not true that women's self-esteem is permanently ruined. Even small differences in self-esteem can be extremely important to day-to-day well-being, so this sex difference cannot be dismissed.

Sexuality and Mating: Meta-analyses show profound sex differences in certain aspects of sexual desire, motivation, and attitudes. It was found that men have a more favourable attitude towards casual sex than women ($d = 0.81$). Can men and women be just friends? It turns out that men have more difficulty than women in just being friends with the opposite sex. Men are more likely than women to initiate a friendship with someone of the opposite sex because they are sexually attracted to them; more likely to become sexually attracted to the opposite sex friends in reality, and men dissolve friendships if such friendships do not result in sex.

Not all men, but men who have hostile masculinity (domineering and degrading attitudes towards women), men who lack empathy and are narcissistic, are more sexually aggressive than women in the form that forcing women to have sex when they express an unwillingness to have sex.

People-Things Dimension: People who score toward the "things" end of the dimension prefer vocations that deal with impersonal objects, like machines, tools, or materials. Examples of such people include carpenters, auto mechanics, building contractors, tool makers, and farmers. Those scoring toward the "people" end of the dimension prefer social occupations, which include thinking about others, caring for others, or directing others. The correlation between sex and the people-things dimension is .56, or a d of roughly 1.35, which means that men are more likely to score at the things end of the dimension, and women are more likely to score at the people end of the dimension.

When girls are asked to describe themselves spontaneously, they are more likely than boys to make references to their close relationships. They value personal qualities linked to group harmony, such as sensitivity to others. They are more likely to identify their personal relationships as central to their identity.

7.2.3 Masculinity, Femininity, Androgyny and Sex roles:

In the 1930s, it was found that men and women differed on personality items in large inventories. Researchers assumed that the differences could be described by a single personality dimension, with masculinity at one end and femininity at the other end. A person who scored high on masculinity was assumed to score low on femininity. Researchers thought that all could be located on this single personality dimension known as Masculinity-Femininity. But does a single scale with masculinity and femininity really capture the important individual differences? Can't someone be both masculine and feminine? This question takes us to a new concept- Androgyny.

- **The Search for Androgyny:**

New researchers started with the premise that masculinity and femininity are independent dimensions. Thus, one can be high on both, or, low on both. Or, one can be stereotypically masculine, which means high on masculinity and low on femininity or stereotypically feminine, which means high on Femininity and low on masculinity. Two major personality instruments were published in 1974 to assess people using this new conception of sex roles (Bern, 1974; Spence, Helmreich, & Stapp, 1974). The masculinity dimension contained items reflecting assertiveness, boldness, dominance, self-sufficiency, and instrumentality.

The femininity dimension contained items that reflected nurturance, expression of emotions, and empathy. Those who agreed with personality trait terms connoting these qualities scored high on femininity. Those who scored high on both dimensions were labelled androgynous, to reflect the notion that a single person could possess both masculine and feminine characteristics. Researchers who developed these measures were of the view that androgynous persons are most highly developed as it was believed that they had the most valuable elements of both sexes. They were presumed to be liberated from the shackles of traditional notions of sex roles.

This approach of androgyny led to the concept of feminism in America as women started working in the workforce, and men also began to opt for more nurturant roles. The new androgynous conception of sex roles was not without its critics. The new scales were criticized on several aspects. Like, items on the inventories and their correlations with each other. Researchers assumed that masculinity and femininity were single dimensions. Other researchers argued that both constructs were multidimensional in reality, containing many facets. Another criticism is that masculinity and femininity, indeed, consist of a single, bipolar trait.

In response to these criticisms, the originators of androgyny changed their views as one author believes that their instrument does not measure sex roles, but measures personality characteristics of instrumentality and expressiveness. Instrumentality consists of personality traits that involve working with objects, getting tasks completed in a direct manner, showing independence from others, and displaying self-sufficiency. Expressiveness is the ease with which one can express emotions, such as crying, showing empathy for the troubles of others, and showing nurturance to those in need.

Another author also says that the inventory measures gender schemata and cognitive orientations that lead individuals to process social information on the basis of sex-linked associations. Thus, the idea is not to be androgynous, but to be gender-aschematic. That is, the idea is not to use gender at all in one's processing of social information. Findings generally suggest that genes also play a role, even within each gender in the degree to which the sex roles are adopted, but environmental influences also affect them.

- **Gender Stereotypes:**

Stereotypes are beliefs that we hold regarding the way, in which the sexes differ regardless of whether those beliefs are accurate reflections of reality. Gender stereotypes have three components. The first component is cognitive, which deals with the ways, in which we form social categories. The second component is affective, while the third component is behavioural. For example, you may discriminate against someone (Action/behavioural component) simply because he belongs in a social category—in this case, "man."

In most of the studies, it was found that women, compared with men, were commonly seen as more affiliative, deferent, heterosexual, nurturant, and self-abasing (Communal) oriented towards the group. Men are perceived to be more instrumental, asserting their independence from the group. In addition to general gender stereotypes, studies show that most people have more finely differentiated stereotypical views of each sex. Stereotypes of women fell into a smaller number of subtypes. One might be called the "classically feminine" subtype, which includes housewives, secretaries, and maternal women. A second subtype is defined by short-term or overt sexuality, which includes sex bombs, tarts, and vamps. A third stereotype of women, however, involves a subtype that may have emerged relatively recently, perhaps over the past 20 or 30 years – the confident, intellectual, liberated career woman.

CHECK YOUR PROGRESS:

- Explain the concept of Androgyny.

7.2.4 Theories of Sex Differences:

- **Socialization and Social Roles:**

The most widely held theory, Socialization theory – the notion that boys and girls become different because they are reinforced by parents, teachers, and the media for boys being "masculine," and girls for being "feminine." For example, boys are given baseball bats and trucks. Girls are given dolls. Boys are praised for engaging in rough-and-tumble play. Girls are praised for being cute, and obedient. Boys are punished for crying. Girls are comforted when they cry. Over time, according to socialization theory, children learn behaviours deemed appropriate for their sex.

In Bandura's social learning theory, boys and girls also learn by observing the behaviours of others, called models of their own sex. Boys observe their fathers, male teachers, and male peers. Girls observe their mothers, female teachers, and female peer models. Overtime, through direct reinforcement, the model provides guidance for behaviours that are masculine or feminine.

Studies of socialization practices have found that both mothers and fathers encourage dependency more in girls than in boys (J. H. Block, 1983). Parents encourage girls to stay close to home, and boys are permitted or

even encouraged to roam. Fathers get involved in more physical play with their sons than with their daughters. Fathers do not interact with their daughters as frequently as with their sons (Whiting & Edwards, 1988). Girls in most cultures tend to be assigned more domestic chores than boys. In most cultures, boys are permitted to stay far from home than girls are and are socialized to be more competitive than girls are. Girls are trained to be more nurturant than boys. In the majority of cultures, the parents tried to teach their daughters to delay having sexual intercourse, whereas the boys were encouraged to have sexual intercourse.

One potential difficulty, however, pertains to the direction of effects – whether parents are socializing children in sex-linked ways or whether children are eliciting their parents' behaviour to correspond to their existing sex-linked preferences. For example, parents may buy a variety of toys for boys and girls. But, if girls show no interest in trucks and boys show no interest in dolls, parents may stop purchasing masculine toys for girls and feminine toys for boys. Another problem with traditional theories of socialization is that they provide no account of the origins of differential parental socialization practices. Why do parents want their boys and girls to grow up differently?

According to this theory, sex differences originate because men and women are distributed differently into different occupational and family roles. Men are expected to devote themselves to the bread-winning role. Women are expected to assume the homemaker role. Over time, children learn these behaviours that are linked to these roles. But, like socialization theory, however, social role theory fails to provide an account of the origins of sex-linked roles. This theory is becoming increasingly testable as family and occupational roles change. Women are pursuing bread-winning roles more often than in the past, and men are pursuing greater responsibility for domestic duties. With these changes, if social role theory is correct, sex differences should decrease as well. The countries that are most sexually egalitarian – which give most equal access to education and knowledge and the greatest levels of economic wealth – show the largest sex differences in personality.

• **Hormonal Theories:**

Men and women differ because the sexes have different underlying hormones. It is these physiological differences, not differential social treatment, that cause boys and girls to diverge over development. There is some evidence that hormonal influences on sex differences begin in utero. The hormonal bath that the developing fetus is exposed to, for example, might affect both the organization of the brain and consequently the gendered interests and activities of the individual. Good evidence for this comes from a condition called Congenital Adrenal hyperplasia (CAH), in which the female fetus has an overactive adrenal gland. This results in the female being hormonally masculinized.

Some research studies have attempted to identify links between hormones, such as testosterone (present in greater amounts in men) and sex-linked

behaviour. There are even sex differences in the circulation of testosterone levels. sex differences in circulating testosterone are linked with some of the traditional sex differences found in behaviour, such as aggression, dominance, and career choice. In women, high levels of testosterone are associated with pursuing a more masculine career and having greater success within the chosen career. Also, higher testosterone levels are linked with greater dominance and aggressiveness in both sexes.

Sexual desire is linked to levels of circulating testosterone. Women's testosterone levels peak just prior to ovulation, and women report a peak in their sexual desire at precisely the same time. Men whose testosterone level is high also report a higher level of sexual motivation. But, correlation does not mean causation. There is some evidence in nonhuman primates that rises in testosterone levels follow rises in status and dominance within the group, rather than cause them.

An additional limitation of hormonal theories of sex differences in personality is one shared with socialization theories – that is, neither of these theories identifies the origins of the differences.

- **Evolutionary Psychology Theory:**

Men and women are predicted to be essentially the same in domains where they have faced similar adaptive problems. They are assumed to be different in those domains where they have faced different adaptive challenges. Here, adaptive problems mean the problems that need to be solved for survival and reproduction. For example, men and women show similarities in food preferences for sugar, fat, protein, etc. These preferences point out an adaptive problem of getting calories and nutrients to survive.

In the domain of mating, men and women have faced different adaptive problems. For example, women must carry and keep an embryo for nine months in order to reproduce and men only do that with a single act of sex. Thus, women have faced the adaptive problem of securing resources to carry them through harsh winters or droughts, when resources might be scarce and a woman's mobility might be restricted by the burden of pregnancy. The costs of making a poor choice of a mate, according to this logic, would have been more damaging to women than to men. Thus, women's mate preferences are for men who have the ability and willingness to invest in them and their children.

On the other hand, men are predicted to be sexually cruel and more aggressive than other men because they compete with other men for opportunities for sexual access to women. Because of women's heavy investment, they become extraordinarily valuable reproductive resources over which men compete. Women are more selective than men. An act of casual sex will be more reproductively beneficial for an ancestral man than an ancestral woman. Research has shown us that men desire a larger number of sex partners, seek sex after a shorter time period has elapsed in knowing a potential partner, and have more fantasies about casual sex than women do.

But, this perspective also leaves some questions unanswered for us: What accounts for individual differences within each sex? Why are some women very much interested in casual sex? Why are some men meek, dependent, and nurturing, whereas others are callous and aggressive? Some women benefit greatly from having a short-term sexual strategy, which can lead to obtaining more and better resources, switching to a mate who is better than her regular mate, and possibly securing better genes for her offspring.

- **An Integrated Theoretical Perspective:**

The theoretical accounts we have examined seem very different, but they are not necessarily incompatible. To some extent, they operate at different levels of analysis. An Integrated Theoretical Perspective will take into account all the levels of analysis because they are clearly compatible with one another. It has been found that parents have an interest in socializing boys and girls differently, and these differences are universal. There is also evidence that both sexes change their behaviour according to the roles to which they are assigned. For example, both become dominant in a supervisor role, both become submissive when being supervised. Thus, socialization theories play a role in an integrated theory of sex differences.

Men and women clearly differ in circulating testosterone levels, and these differences are linked with differences in sexuality, aggression, dominance, and career interests. Although, we cannot ignore the casual possibility, that, being in a dominant position causes the testosterone level to rise. Thus, social roles and hormones are closely linked and this finding is important for an integrated theory of sex differences. These proximate paths - socialization and hormones - might provide the answers to how the sexes differ, whereas evolutionary psychology provides the answers to why the sexes differ.

But, it is true that all the 3 levels of analysis- current social factors, circulating hormones and evolutionary processes are needed for a complete understanding of gender and personality.

CHECK YOUR PROGRESS:

- What is Evolutionary Psychology theory?

7.3 SUMMARY

In this unit, we began by understanding the three processes of personality:

i) **Selection**, which means that we select situations or avoid situations based on our personality dispositions, ii) **Evocation**, which means that personality qualities of others evoke certain responses in us, and iii) **Manipulation**, personality influences the ways, in which we try to influence or manipulate others. We also saw the different aspects that selection affects such as personality characteristics desired in marriage partners, the effect of shyness on selecting risky situations, etc. We also saw factors, such as aggression and expectancy confirmation in evocation. We also learned the tactics of manipulation used by both sexes.

Then, we saw how the study of sex differences evolved through History, the important factor of “Effect size” when analyzing sex differences. We also had a look at sex differences in temperament, basic emotions and sex differences on the factors of the Five-Factor model. We were also introduced to a newer concept of androgyny, related concepts of instrumentality and expressiveness, etc.

We also looked at some theories and their varying views regarding why and how sexes differ, namely the socialization, hormonal and evolutionary views on why and how sexes differ.

7.4 QUESTIONS

1. Write long answers:

- a. Explain the concept of “selection” and the related concept of assortative mating, personality characteristics desired in a marriage partner and shyness and selection of risky situations.
- b. Explain the concept of “manipulation”. The taxonomy of 11 tactics of manipulation and sex differences in manipulation and personality predictors of tactics of manipulation.
- c. Comment on the science and politics of studying gender, the history of the study of sex differences, the calculation of effect size, and the views of minimalists and maximalists.
- d. Explain socialization/social roles theory and Evolutionary Theory of sex differences.

2. Write short notes:

- a) Evocation through expectancy confirmation.
- b) Evocation of anger and upset in partners.
- c) Sex differences in the Five-Factor Model.
- d) Hormonal Theories of sex differences.

7.5 REFERENCES

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SOCIO-CULTURAL AND ADJUSTMENT DOMAIN - II

Unit Structure:

- 8.0 Objectives
- 8.1 Culture and Personality
 - 8.1.1 Cultural Violations: An Illustration
 - 8.1.2 What is Cultural Personality Psychology?
 - 8.1.3 Three Major Approaches to Culture
- 8.2 Stress, Coping, Adjustment and Health
 - 8.2.1 The Models of Personality-Illness Connection
 - 8.2.2 The concept of Stress
 - 8.2.3 Coping strategies and styles
 - 8.2.4 Type A and Cardiovascular Disease
- 8.3 Summary
- 8.4 Questions
- 8.5 References

8.0 OBJECTIVES

After studying this unit, you should be able to:

- Understand how culture affects personality
- Understand the three major approaches to understanding personality across cultures
- Understand stress and coping
- Grasp the link between Type A behaviour and cardiovascular disease.

8.1 CULTURE AND PERSONALITY

Let us begin with an example. There are two groups of cultural heritage: High-land Yanomamo Indians and low-land Yanomamo Indians. Both differ in various personality traits, such as the low-land people fighting, raiding the neighbouring villages when food stock goes down, showing aggressive tendencies, beating wives, etc. The high-land people are more

peaceful and dislike fighting, are more agreeable, not raiding the neighbouring villages. The question is how can we understand the differences between the personality of high and low-land Yanomamo Indians? Was one group temperamentally more disposed to aggression than the other group? Or, did the two groups begin the same, and only subsequently did cultural values take place in one group which is different from those that took place in another group? Other questions that we will try to find out in this unit are “What is the effect of culture on personality?”, “What is the effect of personality on culture?”, and “How can we understand patterns of cultural variation amid patterns of human universals?”

Personality psychologists explore personality across cultures because they want to find out whether concepts of personality in one culture are also applicable in other cultures. Another reason is understanding whether cultures differ, on average, in the level of different personality traits. For example, are Indians more agreeable than Americans? The third reason is to see the structure of personality traits across cultures and their universality. For example, will the Five-Factor Model of personality be discovered in American samples, will be replicated in Holland, Germany, and the Philippines? A fourth reason is to see whether certain features of personality are universal, corresponding to human nature and the level of personality analysis.

8.1.1 Cultural Violations: an Illustration:

Consider the following events:

1. One of your family members eats beef regularly (your beef-eating family member).
2. A young married woman goes alone to see a movie without letting her husband know. When she returns home, her husband says, "If you do it again, I will beat you black and blue." She does it again; he beats her black and blue.
3. A poor man goes to the hospital after being seriously hurt in an accident. The hospital refuses to treat him because he cannot afford to pay (the refusing hospital).

Examine each event and decide whether you think the behaviour on the part of the person or institution in parentheses is wrong and a serious violation, a minor offence, or not a violation at all.

If you are a vegetarian by culture, you will believe that the first event is a serious violation, but the second event is not a serious one. If a person is an American, he will not see the first event as a serious violation, he will see nothing wrong in eating beef, but he will see the second event as a serious violation. This points out that some aspects of personality (attitudes, values, self-concepts) are highly variable across cultures, but other aspects are universal. The main question is "What are the ways, in

which people from different cultures differ in personality, and What are the ways, in which people from all cultures are the same?"

8.1.2 What Is Cultural Personality Psychology?

Humans everywhere show striking patterns of local within-group similarities in behaviour and thought and profound intergroup differences (Tooby & Cosmides, 1992, p. 6). These local within-group similarities and between-group differences can be of any sort – physical, psychological, behavioural, or attitudinal. This is known as **cultural variations**. For example, beef eating is rare in some religions and is considered disgusting among people from those religions. Among conservative religions in India, values and behaviours are shared for the most part (within-group similarity). But they differ from widely shared American attitudes towards beef eating (between-group differences). This difference - a local within-group similarity and between-group difference is an example of a cultural variation. But it doesn't explain what has caused the cultural difference or why the groups differ. Cultural personality psychology has three key goals:

- 1) To understand or discover principles underlying cultural diversity,
- 2) To understand or discover how human psychology shapes culture,
- 3) To understand how cultural understanding, in turn, shapes our psychology.

8.1.3 Three Major Approaches to Culture:

Certain traits are common to all, whereas certain traits show differences. Cultural variations are personality attributes that differ from group to group. Psychologists have developed the following three major approaches to explaining and exploring personality across cultures:

1. Evoked Culture:

These are cultural differences, which are caused by differing environmental conditions and activating the predictable set of responses. For example, Kung Bushmen of Botswana tend to have thicker lumps on their feet than most Americans because they walk around without shoes. These differences can be thought of as aspects of evoked culture - different environments have different effects on people's callus-producing mechanisms and sweat glands. People who live near the equator sweat more because they are exposed to more intense heat than people who live in more Northern parts.

Two components are needed to explain cultural variations:

- 1) A universal underlying mechanism (Sweat glands possessed by all people),
- 2) Environmental differences in the degree to which the mechanism is activated (In this case, differences in ambient temperature). Droughts

and snakes are all environmental events that affect some groups more than others. These events cause the operation of mechanisms in some groups that lay dormant in other groups.

This concept provides one model for understanding and explaining cultural variations in personality traits, such as cooperativeness or aggression. It says that all humans have the same potential. The aspects of these potentials that get evoked depend on features of the social or physical environment.

Evoked cooperation: An example of evoked culture is the patterns of cooperative food sharing found among different bands of hunter-gatherer tribes. High-variance foods – the foods that differ in their availability from day to day. For example, on any particular day, one hunter will be successful, whereas another hunter will be empty-handed. Gathered food, is a lower-variance food resource. Under high-variance conditions, there are large and high benefits to sharing. As, you may share your meat with an unlucky hunter today, and next week, the same hunter will share his meat with you. The benefits of sharing are also increased by the fact that large animal contains more meat than a single person or even a single family can share. As if it is not shared, it will get spoiled.

In one research study, it was found that for gathered food (low-variance condition), sharing did not occur outside the family. Cooperative sharing seems to be evoked by the environmental condition of high variance. It has been also found in another research that the degree of egalitarianism is correlated with variance in the food supply. For example, Kung San's food supply is highly variable, and they share food and express egalitarian beliefs. Among the Gana San, where the food variance is low, they show great economic inequality. They tend to hoard their food and rarely share it outside extended families.

Thus, Environmental conditions can activate some behaviours like cooperation and food sharing. Everyone indeed has the capacity to cooperate, but the degree of cooperation depends on external environmental conditions, such as variance in the food supply.

Early experience and evoked mating strategies: Jay Belsky and his colleagues found that harsh, inconsistent, rejecting child-rearing practices, erratically provided resources and marital discord lead children to develop a Personality of impulsivity and mating strategy of early reproduction. On the other hand, sensitive, supportive, responsive child-rearing, reliable resources and spousal harmony foster conscientiousness and mating strategy of commitment marked by delayed reproduction and stable marriage in children.

As children in uncertain and unpredictable environments seem to learn that they cannot rely on a single mate, so opt for a sexual life that starts early and seek gratification from multiple mates. In contrast, children who grow up in stable homes and whose parents predictably invest in their welfare, opt for long-term mating because they expect to attract a stable, high-investing mate. Research shows that children from divorced homes,

reach puberty early, have sexual intercourse earlier, be more impulsive, and have more sex partners than children from intact homes.

The sensitivity of personality and mating strategies to early experiences may help explain the differences in the value placed on chastity across cultures. For example, in China, marriages are lasting, divorce is rare, and parents invest heavily in their children over extended periods. In Sweden, there are many children born out of wedlock, divorce is common, and lesser fathers invest consistently over time. These cultural experiences may evoke in the two groups different mating strategies, with the Swedes more than the Chinese tending toward short-term mating and more frequent partner switching. These examples illustrate how a consistent pattern of individual differences can be evoked in different cultures producing a local pattern of within-group similarity and between-group differences. As, all humans have within them a strategy of short-term mating, frequently switching sexual partners, and a strategy of long-term mating, such as commitment and love. But, these mating strategies may be differentially evoked in different cultures, resulting in enduring cultural differences in mating strategies.

Honours, insults and evoked aggression: Why do people from some cultures engage in killing more, whereas people from some other cultures engage in killing less? Nisbett (1993) has provided a Theory to account for these cultural differences.

Nisbett proposed that the economic means of subsistence of a culture affects the degree to which the group develops what he calls a culture of honour where insults are viewed as highly offensive public challenges, that must be met with a direct confrontation and physical aggression. The differences in the degree to which honour becomes a central part of culture rest ultimately within economics, the manner, in which the food is obtained. In herding economies, one's entire stock could be lost suddenly to thieves.

Cultivating a reputation as willing to respond with violent force – For example, by displaying physical aggression when publicly insulted – presumably deters thieves and others who might steal one's property. In more settled agricultural communities, the cultivation of an aggressive reputation is less important as one's means of subsistence cannot be rapidly undermined or lessened.

Nisbett found that people from Southern parts of the United States (historically using animal herding for subsistence) were more likely to endorse violence for protection and in response to insults as compared to Northerners (historically, who use farming or agriculture for subsistence). Violence rates were higher in the Southern parts as compared to the Northern parts.

Nisbett found the same pattern in the laboratory, where the northern and southern participants were insulted by an experimenter. The experimenter intentionally bumped into the participants and the participants were asked to complete a series of incomplete word stems, such as "hate". The

southerners who had been insulted wrote down more aggressive words, such as hate, than did the northerners who had been insulted, suggesting that the insults had evoked in the southerners a higher level of aggression.

We all have the capacity to develop a high sensitivity to public insults and a capacity to respond with violence. These capacities are evoked in certain cultures and lie dormant in others.

2. Transmitted Culture:

It comprises ideas, values, attitudes, and beliefs that are originally there in one person's mind and those are transmitted to another person's mind through interaction with the original person (Tooby & Cosmides, 1992). For example, among some cultures, the view that it is wrong to eat beef is an example of transmitted culture. This value originated in the mind of one person, who then transmitted it to all others.

Cultural differences in moral values: Cultures differ tremendously in their beliefs about what is morally right and what is morally wrong. For example, consider this statement "It is immoral for adults to disobey their parents." If you are a conservative Indian, you would agree with this statement. If a person is an American, the odds are great that he or she will disagree with the statement strongly. Culturally variable views of morality are transmitted to children early onwards in life.

Views of what is right and what is wrong are important psychological principles that guide behaviour, and they are central to personality. Different cultures differ in their views of what is right and wrong, sometimes in seemingly arbitrary ways. Among the Semang of Malaysia, for example, it is sinful to comb one's hair during a thunderstorm, to watch a dog's mate, and to act casually with one's mother-in-law. There are also universal similarities in what is considered right and wrong. For example, conservative Indian and American agree about the following wrongs: Ignoring an accident victim, breaking a promise, committing brother-sister incest, stealing a flower, etc.

In certain royal dynasties, incest between brother and sister was actively encouraged as a way to preserve the family's wealth and power. Statements about universality are relative in the sense that there are always some cultural or subcultural exceptions. Thus, many moral values are specific to particular cultures and are likely to be examples of transmitted culture. They appear to be passed from one generation to the next, not through genes but through the teachings of parents and teachers or observations of the behaviour of others within the culture.

Cultural differences in self-concept: The ways, in which we define ourselves are self-concepts- which influence our behaviour. For example, A woman who defines herself as conscientious may take pains to show up for classes on time, to return all phone calls from friends and family, etc. So, our self-concepts affect how we present ourselves to others and how we behave in everyday life.

Markus and Kitayama (1991, 1994, 1998) propose that each person has two fundamental "cultural tasks", which have to be confronted. First is interdependence, this cultural task deals with how much you are affiliated with, attached to a larger group of which you are a member, your relationships with other members of the group, and your embeddedness with your group. The second cultural task is independence, which involves how you differentiate yourself from the larger group. It includes your unique abilities, your personal internal motives and personality dispositions- the ways, in which you separate yourself from the larger group.

People from different cultures differ in the ways, in which they balance these two tasks. Western cultures, according to this theory, are characterized by independence. Conversations focus on individual choices (For example, "Where do you want to eat tonight?"). In contrast, many non-Western cultures, such as Japan and China, are characterized by interdependence and value the fundamental interconnectedness among those within the group.

The self is meaningful, only with the reference to the larger group of which the person is a part. The major cultural tasks in these cultures are to fit in and to promote harmony and group unity. Personal desires are to be constrained rather than expressed in a selfish manner (For example, "Where do we want to eat tonight?"). Conversational scripts focus on sympathy, deference, and kindness.

This fundamental distinction between independence and interdependence is similar to a distinction that many other cultural psychologists do. Triandis (1989, 1995) coined the terms individualism (a sense of self as autonomous and independent, with priority given to personal goals) and collectivism (a sense of self as more connected to groups and interdependent, priority given to group goals). In individualist societies, people tend to act independently of their groups, giving priority to personal rather than group goals. They act according to their own attitudes and desires rather than succumbing to the norms and attitudes of their in-group. In collectivist societies, people are interdependent with others in a group, giving priority to the in-group goals. Here, people are especially concerned about social relationships. They tend to be more self-effacing and are less likely to boast about their own personal accomplishments. There is a lot of overlap between the independent-interdependent conception of cultural differences advanced by Markus and Kitayama and the Individualistic-Collectivistic conception of cultural differences advanced by Triandis.

Is there empirical evidence that the way, in which we define ourselves depends on the culture in which we reside? Using the Twenty Statements Test, researchers have discovered that North American participants tend to describe themselves using abstract internal characteristics, such as being smart, stable, dependable, and open-minded (Rhee et al., 1995). Chinese participants, more often describe themselves using social roles, such as "I am a daughter" or "I am Jane's friend".

The study was designed to examine cultural differences in self-concept, but with an interesting twist: do Asians living in New York who self-identify as Asian differ in self-concept from Asians living in the same place who do not self-identify as Asian? In other words, do some people shift their self-concepts and adopt self-concepts similar to those of the adopted culture? The process of adapting to the ways of life in one's new culture is called acculturation. The Asian Americans living in New York who did not self-identify as Asian described themselves using highly abstract and autonomous self-statements, similar to the responses of European Americans residing in New York.

These Asian Americans used even more trait terms in their self-descriptions (45%) than did the European Americans (35%). In contrast, in the study, the New York-dwelling Asians who identified themselves as Asian used more socially embedded self-descriptions, much as the Chinese respondents did. They often referred to themselves by describing their role status (For example, student) and their family status (For example, son). They were more likely to qualify their self-concepts with contextual information. (Rather than describing themselves as reliable, they described themselves as "reliable when I'm at home").

Another study asked Japanese and American College students to complete Twenty Statements Test in four social contexts: With a friend, in a classroom, with other students and in a Professor's office. They found that the Japanese students tended to describe themselves using preferences (I like yoghurt) and context-dependent activities (I like to listen to rock music on weekends). The American students used abstract, context-independent items such as "friendly, and "assertive" to describe themselves. Also, the Japanese students tended to characterize themselves differently in different contexts.

In another study, it was found that 84% of Japanese students described themselves as ordinary, whereas only 18% of American students did. Thus, the theme of standing out and being unique versus fitting in and getting along with the group is seen in the folk sayings of American and Japanese cultural proverbs. In America, people say, "The squeaky wheel gets the grease." In Japanese culture, people say, "The nail that stands out gets pounded down."

These cultural differences may be linked to the ways, in which people process information. Japanese, compared with Americans, tend to explain events holistically – with attention to relationships, context, and the links between the focal object and the field as a whole (Nisbett et al., 2001). Americans, in contrast, tend to explain events analytically – with the object detached from its context, attributes of objects or people assigned to categories, and a reliance on rules about the categories to explain behaviour. So, we can see that the cultural differences in the personality attributes of Individualism-Collectivism or Independence-Interdependence may be linked to underlying cognitive proclivities in the ways, in which individuals attend to and explain events in their world.

Criticisms of Interdependence-Independence and Collectivistic-Individualistic concepts: Matsumoto (1999) contends that the evidence for the Markus-Kitayama theory comes almost exclusively from North America and East Asia and may not generalize to other cultures. Also, there is far more overlap in the self-concepts of people from different cultures than Markus and Kitayama imply. Many people in collectivist cultures, do use global traits (For example, agreeable, fun-loving) when describing themselves. Many in individualist cultures use relational concepts (For example, "I am the daughter of . . .") when they describe themselves. The cultural differences are more a matter of degree.

Church (2000) notes that "attempts to characterize cultures of individuals in terms of such broad cultural dichotomies may be overly simplistic" (p. 688). Views of the self in all cultures incorporate both independent and interdependent self-construals, and self-concepts in all cultures vary somewhat across social contexts. A meta-analysis also suggested that caution needs to be taken in generalizing cultural differences in individualism and collectivism. It is found that even though European Americans tended to be somewhat more individualistic (valuing independence) and less collectivistic (valuing interdependence) than those from other cultures, the effect sizes proved to be small and had important exceptions.

European Americans were not more individualistic than either African Americans or Latinos. Neither were they less collectivistic than Japanese or Koreans – two cultures anchoring one end of the interdependence continuum. In reality, the Chinese, rather than the Japanese or Koreans, were unusually collectivistic and non-individualistic in self-concept. Still, other studies have found little support for the influence of transmitted culture on self-concept. One study of two individualistic and two collectivistic cultures found: 1) People in all four cultures described themselves in trait terms with a high level of frequency, and 2) People in all four cultures mentioned personal rather than collective or social identity as important to their sense of self.

Also, these characterizations such as Individualistic-Collectivistic have been criticized because they are far too general conflating the different kinds of social relationships and ignoring the context-specificity in which they are expressed. For example, Americans may be individualistic and independent at work and while playing computer games, but more collectivistic and interdependent while with their families or in Church.

Despite these criticisms, there are real differences across cultures, and these must be explained. Most researchers have assumed that cultural differences in individualism-collectivism are instances of transmitted culture. Others on the basis of evolutionary psychology and evoked culture, Oyserman, Coon, & Kemmelmeier (2002b) hypothesize that humans have evolved psychological mechanisms for both types of self-concepts and can switch or transfer from one mode to another depending on fitness advantages. When one's group is low in mobility, is limited in resources and has many relatives in close proximity, it has paid fitness

bonuses to be highly collectivistic and interdependent. One's genetic relatives then, tend to benefit. When mobility is high and when resources are relatively abundant, and when few genetic relatives live close by, it has paid fitness dividends to adopt a more individualistic and independent proclivity.

Cultural Differences in Self-enhancement: Self-enhancement is described as a tendency to describe and present oneself using socially valued and positive attributes, such as kind, understanding, being intelligent, industrious etc. One research showed that the self-concepts of American adults contain more than four times as many positive attributes as negative ones (Herzog et al., 1995). Japanese give far fewer spontaneous positive statements about themselves. The Japanese participants score lower than American participants on translations of self-esteem scales (Fiske et al., 1997). Japanese respondents tend to give more negative descriptions of themselves (Yeh, 1995). Even the positive self-descriptions of the Japanese tend to be in the form of negations, such as "I'm not lazy."

Korean participants are more likely to endorse negative statements about themselves, whereas American participants are more likely to endorse positive statements. Differences in self-enhancement also are visible in parents' self-descriptions of the quality of their parenting practices. American parents describe their parenting in generally glowing terms whereas Korean parents give mostly negative self-evaluations. Cultural differences in self-enhancement extend to the evaluation of one's group compared to the evaluation of other groups. Heine and Lehman (1995) asked Japanese and Canadian students to compare their own university with a rival university within their own culture. The two pairs of universities used for the study were matched in reputation. Among the Canadians, there was a strong tendency toward in-group enhancement, with the rival university evaluated negatively by comparison. Among the Japanese, there was no favouritism in the evaluation of one's own university in comparison with the rival university.

Why do these cultural differences in self-enhancement occur? Psychologists have advanced two explanations. One is that Asians engage in impression management – as deep in their hearts, they evaluate themselves positively, but they do not do so publicly as it may damage their reputation. The second explanation is that cultural differences accurately reflect one's deep experiences. Asians, due to profound cultural differences in values, evaluate themselves truly negatively as compared to North Americans. There has been only one empirical research test of these competing explanations (Fiske et al., 1997). When self-evaluations are made in conditions of total anonymity (no one will identify the respondent), researchers still found that the self-enhancement commonly seen among Americans does not occur among Asian respondents. This study supports the theory that these cultural differences reflect the actual subjective experiences of the respondent and are not merely surface differences due to impression management by Asians.

Do cultures have distinctive personality profiles? Are people from the Mediterranean region of Europe or a particular region of the world more emotionally expressive, or is this merely an incorrect stereotype? Robert McCrae and 79 colleagues from around the world studied the personality profiles of 51 different cultures, using 12,156 participants (McCrae, Terracciano, et al., 2005a). They studied the aggregate Big-Five personality scores for each culture. The largest difference they found across cultures was in extraversion. As a general rule, Americans and Europeans scored higher than Asians and Africans on extraversion.

It is important to bear in mind that these differences in average personalities are relatively small. Most of the differences in personality occur within cultures, not between cultures. The most significant finding is how similar the 51 cultures actually are in their overall scores on the Five-Factor Model.

Personality Variations within cultures: Within-culture variations can arise from several sources, including differences in growing up in various socio-economic classes, differences in the historical era, or differences in the racial context in which one grows up. Social class also has an influence on one's personality. Parents from the lower-class value obedience to authority, whereas parents from the upper class emphasize self-direction and nonconformity under the commands of others. According to Kohn, these socialization practices result from the sorts of occupations that parents expect their children to enter. Higher-status jobs (For example, manager, start-up company founder, doctor, lawyer) often require greater self-direction, and lower-status jobs (For example, factory worker, gas station employee) more often require the need to follow rules and permit less latitude for innovation. In studies of American, Japanese, and Polish men, Kohn and colleagues found that men from higher social classes in all cultures tended to be more self-directed, had lower levels of conformity, and had greater intellectual flexibility than men from lower social classes.

These findings are correlational, so, the direction of effects cannot be unambiguously assumed. People with personalities having self-direction and intellectual flexibility tend to move towards the higher social classes. Or the socialization practices of higher-social-class parents tend to produce children with personalities that are different from the personalities of lower-social-class children. Even though cultures can differ in their average level on a particular trait, many people within that one culture can be higher (or lower) than many individuals in the other culture.

Another type of intracultural variation is the effects of the historical era on personality. For example, people who grew up during Great Depression in the 1930s, might be more anxious about job security, adopting a more conservative spending style. Disentangling the effects of historical era on personality is an extremely difficult endeavor because most currently used personality measures were not in use in earlier eras.

3. Cultural universals:

The third approach to culture and personality is to identify features of personality that appear to be universal, or means present in most cultures. In the history of the study of personality and culture, the study of cultural universals has long remained in disfavour. For most of the twentieth century, the focus was almost exclusively on cultural differences. This emphasis was fueled by anthropologists who reported on exotic cultures, which did everything differently than American culture did. Human nature was presumed to be infinitely variable, infinitely flexible, and not constrained in any way by a universal human nature: "We are forced to conclude that human nature is almost unbelievably malleable, responding accurately and contrastingly to contrasting cultural conditions" (Mead, 1935, p. 280).

Over the past few decades, the pendulum has swung to a moderate view. Anthropologists who visited the islands, failed to confirm Mead's findings (For example, Freeman, 1983). In cultures in which sexual jealousy was presumed to be entirely absent, it turned out that sexual jealousy was the leading cause of spousal battering and spousal homicide. In cultures such as the Chambri, where the sex roles were thought to be reversed, anthropologists instead found that men were considered to be in charge (Brown, 1991; Gewertz, 1981). All available evidence back to 1850, suggests that the Chambri's sex roles are, in fact, strikingly similar to those of Western cultures. Now we will see three examples of cultural universals.

Beliefs about Personality characteristics of men and women: Williams and Best (1990) studied 30 countries over a period of 15 years. In each country, university students were asked to examine 300 trait adjectives (For example, aggressive, emotional, dominant) and indicate whether each trait is more often linked with men, women, or with both sexes. The shocking results revealed that many of the trait adjectives were highly associated with one or the other sex and there proved to be tremendous consensus across cultures.

In another study, Williams and Best (1994) scored some trait adjectives on these dimensions: favorability (How desirable is the trait?), strength (How much does the trait indicate power?), and activity (How much does the trait signify energy?). These dimensions originate from older classical work in the field that discovered three universal semantic dimensions of evaluation (good-bad), potency (strong-weak), and activity (active-passive) (Osgood, Suci, & Tannenbaum, 1957). The traits ascribed to men and women were equally favourable. Some masculine traits, such as, "serious and inventive" were viewed as favourable, whereas other traits, such as "arrogant" and "busy" were viewed as unfavourable. Some feminine traits, such as "Charming and Appreciative" were seen as favourable. Whereas others, "Fearful" and "affected" were seen as unfavourable.

How can we interpret these cultural universals in beliefs regarding the personality characteristics of men and women? One is that these beliefs represent stereotypes based on the roles men and women take universally. Williams and Best (1994) argued that society assumes that men are stronger than women and so assigns men to roles and occupations, such as soldiers and construction workers. A second possibility is that the traits ascribed to men and women in all 30 cultures reflect actual observations of real sex differences in personality. Studies of the Five-Factor Model, tell us that women score lower on emotional stability, suggesting that they are more fearful and emotional. Thus, it means universal beliefs about differences between men and women reflect actual differences in personality.

Expression of emotion: It is widely and commonly believed that people in different cultures experience different emotions. Personality psychologists have argued that different cultures have different words to describe the emotional experience. For example, the Tahitians do not experience the emotions of grief, longing, or loneliness, so they have no words in their language to express these emotions.

Thus, cultural variability in the presence or absence of emotion words has been interpreted by some personality psychologists to mean that cultures differ in the presence or absence of experiences of emotions. Are emotions really this culturally variable? Or are there cultural universals in the experience of emotions?

The oldest or earliest evidence of cultural universals in emotions came from Charles Darwin. In gathering evidence for his book on emotions, 'The Expression of Emotions in Man and Animals', Darwin (1872/1965) asked anthropologists and travellers, who interacted with people on five continents to give detailed information about how the native people expressed different emotions, such as grief, contempt, disgust, fear, and jealousy. He summarized the answers he received as "The same state of mind is expressed throughout the world with remarkable uniformity and this fact is in itself interesting as evidence of the close similarity in bodily structure and mental disposition of all the races of mankind".

Darwin's methods are crude by today's scientific standards, but subsequent research over the past few decades has confirmed his basic conclusions. Psychologist Paul Ekman developed a set of photographs of people expressing six basic emotions and then showed them to people in various cultures (Ekman, 1973). Some cultures, such as the Fore foragers of New Guinea, had had almost no contact with Westerners. The Fore spoke no English, had seen no TV/movies and had never lived with Caucasians. He also administered the tests to people in Japan, Brazil, Chile, Argentina, and the United States. Ekman asked each participant to label the emotion expressed in each photograph and to make up a story about what the person in the photograph had experienced. The six emotions – happiness, sadness, anger, fear, disgust, and surprise – were universally recognized by people in various cultures. These findings have been subsequently replicated in other countries also. Further research by Ekman and his

colleagues has grown the list of universal emotions to include contempt, embarrassment, and shame (Ekman, 1999). Ekman also reversed the procedure. He then asked the fore participants to act out situations, such as "Your child has died" and "You are angry and about to fight," and then photographed them. The emotions expressed in these photographs were easily recognized by facial expressions and were strikingly similar to the expressions of the same emotions seen in the photographs of the Caucasian participants.

Further evidence for the universality and possible evolutionary origins of these basic emotions comes from research showing that children who are blind from birth display the same facial expressions as those with full sight display (Lazarus, 1991).

Pinker suggests that whether a language has a word for a particular emotion or not matters little, if the question is whether people experience the emotion in the same way: Tahitians are said not to have a word for grief; however, "when a Tahitian woman says 'My husband died and I feel sick,' her emotional state is hardly mysterious; she is probably not complaining about acid indigestion" (Pinker, 1997, p. 367). People universally may experience the emotion of pleasure in an enemy's misfortunes in the same way, even if all cultures do not have a single word in their language to capture it.

The view that language is not necessary for people to experience emotions may be contrasted with the Whorfian hypothesis of linguistic relativity, which contends that language creates thought and experience. In the extreme sense, the Whorfian hypothesis argues that the ideas that people can think and the emotions they feel are constrained by the words that happen to exist in their language and culture (Whorf, 1956).

The difference between experiencing an emotion and expressing that emotion in public may be important to resolve this debate. Ekman (1973) conducted an experiment to explore the difference between the experience of emotion and its expression in public. He secretly video-taped the facial expressions of Japanese and American students when they watched a graphic film of a primitive puberty rite involving genital mutilation. In one condition, an experimenter wearing a white lab coat was present in the room (Public context). In another condition, the participants were alone. When the experimenter was present, the Japanese students smiled politely during the film, but the American students expressed horror and disgust. If this were the only condition conducted in the study, we might conclude that Japanese and American students experience the emotion of disgust differently. When the students were filmed when they were alone in the room viewing the film, both the Japanese and American students showed equal horror. This result suggests that Japanese and American students experience this emotion in the same way, even if they differ in their expression of it in a more public setting.

Five-Factor Model of Personality: A question is whether there is a universal structure of personality, such as the Five-Factor Model, or

whether different factorial models exist in different cultures. According to some, even the concept of personality lacks universality. For example, Hsu argues that the concept of personality is an expression of the Western ideal of individualism (Hsu, 1985, p. 24). Shweder, a well-known cultural psychologist, argues, "The data gathered from ... personality inventories lend illusory support to the mistaken belief that individual differences can be described in a language consisting of context-free global traits, factors, or dimensions" (Shweder, 1991, pp. 275-276).

These views have been elaborated on: "Universal [personality] structure does not by itself implies that 'personality' as understood within a European-American framework is a universal aspect of human behaviour . . . nor does it imply that the variability that appears as an obvious feature of human life is a function of attributes called 'personality'" (Markus & Kitayama, 1998, p. 67). Cultural Anthropologist Lawrence Hirschfeld argues that in many, perhaps most cultures there is a marked absence of discourse that explains human behaviour in terms of trans-situationally stable motivational (or intentional) properties captured by explanations of trait and disposition (Hirschfeld, 1995, p. 315).

What is reflected in all these quotations is a fundamental challenge to personality psychology – whether the core concept of traits is universal or, instead is a local concept applicable only in Western cultures. The most extreme perspective suggests that the very notion of personality, as an internal set of psychological characteristics is an arbitrary construction of Western culture (Church, 2000). If this extreme perspective were really true, then any attempt to identify and measure personality traits in non-Western cultures would be doomed to failure (Church, 2000). At the other extreme is the perspective that personality traits are universal and precisely the same personality structure will emerge across cultures.

The first source of evidence bearing on this debate pertains to the existence of trait terms in other cultures. Many non-Western psychologists have, in fact, described trait-like concepts that are indigenous to non-Western cultures and that appear strikingly like those that appear in Western cultures. Following are some examples: the Filipino concepts of *pakikiramdam* (sensitivity, empathy), *pakikisama* (getting along with others); the Korean concept of *chong* (human affection); the Japanese concept of *amae* (indulgent dependence), etc.

A second source of evidence in the debate concerns whether the same factor structure of personality traits is found across cultures. The trait perspective does not require the existence of precisely the same traits in all cultures. The trait perspective might be extremely useful even if cultures were to differ radically in terms of which trait dimensions they used. The support for the trait perspective across cultures would be there if the structure of personality traits were found to be the same across cultures. Two approaches have been taken to explore this issue. At first, called the "transport and test" strategy, psychologists translated existing questionnaires into other languages and then administered them to native residents in other cultures. It has generated some findings supporting the

Five-Factor Model. The Five-Factor Model has now been replicated in France, Holland, and the Philippines and languages from entirely different language families, (McCrae et al., 1998).

The most impressive was a massive study of 50 different cultures (McCrae, Terracciano, et al., 2005b). This research, involving 11,985 participants, had college-age individuals rate someone they knew well using the Revised NEO Personality Inventory. Factor analyses of these observer-based ratings yielded the Five-Factor Model, with only minor variations in factor structure across cultures. This study is important in suggesting that cross-cultural evidence for the Five-Factor Model is not limited to self-report data but extends to observer-based data also. Using the transport and test strategy, the five-factor structure of personality appears to be general across cultures only it failed to emerge among those with relatively low levels of intellectual ability.

A more powerful test of generalizability would come from studies that start out using indigenous personality dimensions first, then testing whether the five-factor structure still emerges. This approach has been tried in Dutch, German, Hungarian, Italian, Czech, and Polish (De Raad et al., 1998). The Trait terms in each of the languages were identified. Although the absolute numbers of personality trait terms varied from language to language, the percentage of words in each language that constituted trait terms was remarkably consistent, averaging 4.4% of all dictionary entries. It is similar to the Lexical Hypothesis- which states that the most important individual differences have been encoded within the natural language.

The next step in the study was to reduce this list to a manageable number of several hundred trait terms, identified as indigenous to each culture, which could then be tested in each culture. Factor analyses of each sample within each culture showed that there was tremendous replicability of four of the five factors: extraversion, agreeableness, conscientiousness, and emotional stability. Despite cross-cultural agreement on these four factors, this study found some differences in what constituted the fifth factor. As, in Polish and German, the fifth factor resembled the American fifth factor of Intellect-Openness, in which intelligent and imaginative were on one end and dull and unimaginative at the other end.

Other languages, revealed different fifth factors. For example, in Dutch, the fifth factor seemed more like a dimension of political orientation, ranging from conservative at one end to progressive at the other. Recent cross-cultural research using the lexical approach has found strong evidence for six factors, rather than five (Ashton et al., 2004; Saucier et al., 2005). The new sixth factor - honesty-humility- indicates a major discovery.

Thus, in summary, further indigenous tests are needed to determine whether the five-factor trait model of personality structure is universal or not. Based on the existing data, we can conclude that trait terms appear to be present in all languages. Using the more rigorous standard of

instruments developed indigenously, four of the five factors emerged consistently across cultures. The fifth factor is somewhat variable across cultures and therefore may reflect an important lack of universality of personality trait structure.

CHECK YOUR PROGRESS:

- What is the Five-Factor Model of personality?

8.2 STRESS, COPING, ADJUSTMENT AND HEALTH

AIDS: Its cause is a virus; its transmission is through specific behaviours. For example, unsafe sex practices (For example, not using condoms) and sharing intravenous needles by drug addicts. Psychologists are searching for the best ways to change people's high-risk behaviour. This is one example of the importance of behaviour in understanding illness. In earlier centuries, most of the serious illnesses that afflicted humans were caused by microbe infection, For example, Tuberculosis. As Modern medicine developed effective vaccines, these Microbial diseases disappeared as major causes of death (at least in the United States). Today, many of the leading causes of death and disease are related to lifestyle factors, such as smoking, poor diet, inadequate exercise, and stress.

The fact that psychological and behavioural factors can have important health consequences, has given rise to the field of health psychology. Researchers in this area of psychology study the relationship between the mind and the body, and the ways, in which these two components respond to challenges from the environment (For example, stressful events, germs) to lead to either illness or health. Many of the psychological variables of interest have to do with stable patterns of behaviour – for example, whether a person copes well with stress, exercises some or not at all, etc.

Life-span studies tell us that personality can have lifelong effects on health, though the effects differ depending on the traits being considered (Aldwin et al., 2001) or the specific health outcomes under investigation, such as the cancer-prone personality is characterized by being unassertive and emotionally inhibited, the coronary-prone personality is characterized by being hostile and aggressive.

8.2.1 Models of Personality-Illness Connection:

Stress is the subjective feeling produced by events that are not controllable or threatening. It is important to understand that stress is a response to the perceived demands in some situations. Stress is not in the situation; stress is how people respond to a particular situation.

An early model of the personality health relationship is called the Interactional Model, which suggests that personality factors determine the impact of objective events by influencing people's ability to cope. Personality has its effects on coping responses – that is, on how people respond to the event.

It is called the **Interactional Model** because personality is thought to moderate (influence) the relationship between stress and illness. Events such as exposure to microbes or chronic stress cause illness, but personality factors make a person more or less vulnerable to those events. For example, if a person were infected with a cold virus but had a hard-driving, competitive personality, such that the person would not rest, would not take time off from work, and would not do other behaviours necessary to quickly recover from a cold, this person could become very ill, with the cold turning into pneumonia, because the person's personality influenced how well he or she coped with the viral infection.

One limitation of the above model was that researchers could not find stable coping responses that were adaptive or maladaptive. Then, this model got developed into a realistic model, that is the **Transactional model**. According to this model, personality has these effects:

- 1) It can influence coping,
- 2) it can influence how the person appraises or interprets events,
- 3) it can influence the events themselves.

In this model, we can see that it is not the event itself that causes stress but how the event is appraised, or interpreted, by the person. The third point on the transactional model at which personality can have an impact consists of the events themselves, that is people do not just respond to situations; they also create situations through their choices and actions. As we saw in the earlier unit, people choose to be in certain kinds of situations, they evoke certain responses from others in those situations.

These two parts of the Transactional Model – Appraisal and the Person's influence on events – are why the model is called Transactional. These two elements of the model imply that stressful events do not just influence persons; persons also influence events. And this influence comes through the appraisal of events, as well as the selection and modification of events. This reciprocal influence of persons and events makes this a more complicated, though perhaps more realistic, model of how this process actually works.

The third model is **Health Behaviour Model**, which adds another factor to the transactional model. It says personality does not directly influence the relationship between stress and illness. Instead, personality affects health indirectly, through health-promoting or health-degrading behaviours. Everyone knows that poor health behaviours, such as eating too much fat, and smoking, increase the risk of developing certain illnesses. Personality affects the degree to which a person engages in various health-promoting or health-degrading behaviours. For example, individuals who are low in the trait of conscientiousness engage in a variety of health-damaging behaviours, including smoking, unhealthy eating habits, dangerous driving, and lack of exercise (Bogg & Roberts, 2004).

A fourth model is **Predisposition Model**, which is completely different and holds that personality and illness are both expressions of an underlying predisposition. It suggests that associations exist between personality and illness because of a third variable, which is causing them both. For example, enhanced sympathetic nervous system reactivity may be the cause of further or subsequent illnesses, as well as the cause of the behaviours and emotions that lead a person to be called neurotic.

The **Predisposition Model** has not been the topic of many studies, though it seems likely that this model will guide investigators interested in the genetic basis of illnesses. Some genetic predispositions are expressed both in terms of a stable individual difference and in terms of susceptibility to specific illnesses (Bouchard et al., 1990). For example, some researchers speculate that there is a genetic cause of novelty seeking (a trait like sensation seeking) and that this genetic sequence also causes, or increases the probability of a person more likely to develop, an addiction to drugs (Cloninger, 1999). Consequently, the correlation between the novelty-seeking personality trait and addiction to drugs such as cocaine, meth, or heroin may be due to the reason that these two variables are both independently caused by a third variable – genes. This simple model may be useful as the human genome project progresses from mapping the genome to understanding what specific genes control.

The final and fifth model is the **Illness-Behaviour Model**, in which illness is defined as the presence of an objectively measurable abnormal physiological process, such as fever, high blood pressure, or a tumour. Illness behaviour is the action that people take when they think they have an illness, such as complaining to others about their symptoms, going to a doctor, taking the day off from school or work, or taking medication. Illness behaviours are related to actual illnesses, but not perfectly. Some individuals may tough out an illness, refusing to engage in illness behaviours (For example, refusing to take a day off from work when ill). Other people engage in all sorts of illness behaviours even in the absence of true illness.

Personality influences the degree to which a person perceives and pays attention to bodily sensations and interprets and labels those sensations as an illness. The way, in which a person perceives and labels those sensations, then, influences the person's illness behaviours, such as reporting the symptoms and going to a doctor. For example, the personality trait of neuroticism is associated with a tendency to complain about physical symptoms.

It is important to note that these models linking personality to physical health are not mutually exclusive, that is they may all apply depending on the personality trait and the illness under consideration. For example, hostility may be associated with heart disease because it is a manifestation of the same underlying process (the predisposition model), conscientiousness may relate to illness through specific health behaviours (the health behaviour model), and neuroticism may relate to ill health

through its effects on stress appraisal and stress exposure (the transactional model).

CHECK YOUR PROGRESS:

- What are the Interactional and Transactional Models of personality?

8.2.2 The Concept of Stress:

Events that cause stress are called stressors also appear to have several common attributes:

1. **Stressors are extreme** - They produce a state of feeling overwhelmed or overloaded, that one just cannot take it much longer,
2. **Stressors often produce opposing tendencies**, such as wanting and not wanting an activity or object – as in wanting to study but also wanting to put it off as long as possible,
3. **Stressors are uncontrollable** and are outside our power to influence, such as an exam we cannot avoid.

Stress response: When a stressor appears, people experience a pattern of emotional and physiological reactions. You experience some startle, your heart beats faster and your blood pressure goes up, and your palms and the soles of your feet begin to sweat. This pattern of reaction has been called the fight-or-flight response. This physiological response is controlled by an increase in sympathetic nervous system activity. These physiological reactions prepare you for actions, such as running away or holding a weapon. This physiological response is usually very brief, and, if the stressor is as minor as someone honking a car horn to see you jump, then you return to your normal state in a minute or so.

If, however, a person is exposed to a particular stressor day in and day out, then this physiological fight-or-flight response is just the first step in a chain of events termed the General Adaptation Syndrome (GAS) by Hans Selye (1976), a pioneer in stress research.

- **ALARM STAGE** is a Fight-or-flight response of the sympathetic nervous system and the associated peripheral nervous system's reactions. They involve a release of hormones that prepare the body for the challenge.
- **RESISTANCE STAGE** occurs if the stressor from the Alarm stage continues, The body is using its resources at an above-average rate, even though the immediate fight-or-flight response has subsided. At this point, stress is being resisted, but it is taking a lot of effort and energy.
- **EXHAUSTION STAGE** occurs if the stressor continues, people enter this stage. This is the stage in which a person is most susceptible to illness, as his or her physiological resources are depleted.

4. Major life events:

Holmes and Rahe (1967) studied various major life events that require people to make major adjustments in their lives. Holmes and Rahe wanted to estimate the potential stress value of a wide variety of life events. They started with a long list of events such as the death of a family member, loss of a job, or being put in jail. They then had a large number of subjects rate each of the events for how much stress each was likely to provoke. Each event was then associated with so many stress "points" and, by counting up the events a person had experienced, and adding up the stress points for all of those events, a good estimate of the amount of stress experienced by that person could be achieved. They also developed a "Stressful event schedule." For high levels of stress, there are several things you can do like monitoring for early signs of stress, recurring stomachaches or headaches. Avoid negative thinking, pessimism, or catastrophizing, practising relaxation techniques regularly. Consider your friends and relatives for support. Holmes and Rahe tallied up the stress points that each of the research participants had accumulated in the prior year. They found that the persons with the most stress points were also the most likely to have a serious illness during that year. This research was among the first systematic demonstrations that elevated stress – a psychological phenomenon – was associated with the elevated risk of developing an illness.

Cohen, Tyrrell, and Smith (1997) obtained reports of stressful life events for a group of volunteers and were able to score each participant along the lines of Holmes and Rahe's criteria for stressful points for various events. These researchers then tried to infect half of them with a cold by giving them nose drops containing the cold virus. The other half of them were given plain nose drops; they served as the control group in this experiment. The participants with more negative life events in the previous year like a lot of stress were more likely to develop a cold after being given the cold virus than the participants who had fewer stressors in life (Who were more resistant to a cold virus).

The researchers interpreted this finding as consistent with the General Adaptation Syndrome: persons under chronic stress eventually deplete bodily resources and become vulnerable to microbial infections. Stress is thought to reduce/lessen the functional ability of the immune system to mount an effective response to the presence of microbes, thereby leading to lowered immunity to infection and resulting illness.

5. Daily Hassles

Although only minor, daily hassles can be chronic and repetitive. For example, having too much to do all the time, having to fight the crowds while shopping, getting stuck regularly in heavy traffic, waiting in lines all the time, unpleasant boss at work, and having to worry over money. They can be chronically irritating, though they do not initiate the same general adaptation syndrome evoked by some major life events. People with a lot

of minor stress in their lives suffer more than expected from psychological and physical symptoms.

6. Varieties of stress:

Acute stress is what most people relate to the term stress. It results from the sudden onset of demands and is experienced as tension headaches, emotional upsets, gastrointestinal disturbances, feelings of agitation, and pressure.

Episodic Acute stress is more serious, the repeated episodes of acute stress, such as a weekend job that is stressful or having to meet a deadline each month. It can lead to migraines, hypertension, stroke, anxiety, depression, or serious gastrointestinal distress.

Traumatic stress refers to a massive instance of acute stress, the effects of which can reverberate for years or even a lifetime (For example, Bunce, Larsen, & Peterson, 1995). Traumatic stress is different from acute stress in terms of the symptoms associated with the stress response. This collection of symptoms, called Posttraumatic Stress Disorder (PTSD), is a syndrome that occurs in some persons following the experience of or witnessing life-threatening events, such as military combat, natural disasters, terrorist incidents, serious accidents, or violent personal assaults such as rape. The symptoms can be severe enough and last long to significantly impair the person's daily life.

Chronic stress refers to stress that does not end. Chronic stress grinds us down until our resistance is gone. Serious illnesses, such as diabetes, decrease immune system functioning, or cardiovascular disease, result from chronic stress. Health psychologists believe and think that stress has additive effects; that is, the effects of stress add up and accumulate in a person over time. Stress affects each person differently.

7. Primary and Secondary Appraisal:

According to Psychologist Richard Lazarus (1991), for stress to be evoked in a person, two cognitive events must occur. The first is the primary appraisal, which is for the person to perceive that the event is a threat to his or her personal goals. The second cognitive event, Secondary appraisal, is when the person concludes that he or she does not have the resources to cope with the demands of the threatening event. If either of these appraisals is absent – then stress is not evoked. For example, if an event, such as an upcoming exam, is perceived as threatening to someone's goals, yet the person feels he or she has the resources demanded by that event (i.e., a person has been studying and otherwise preparing for the exam), then the person might experience the event more as a challenge than as stress. Or, the person might feel he or she does not have the resources demanded by the event (secondary appraisal) but might think that the event is very important to his or her long-term goals (primary appraisal) and, so, might not respond with stress.

CHECK YOUR PROGRESS:

- What are the varieties of stress?

8.2.3 Coping Strategies and Styles:

Some people seem better able to cope, get over stressful events, or somehow see such events as challenges rather than as sources of stress.

8. Attributional style:

The attributional style is a dispositional way of explaining the causes of bad events. "Where does the person typically place the blame when things go wrong?" The three dimensions of attribution are – i) external versus internal, ii) unstable versus stable, and iii) specific versus global. Various measures have been developed for assessing people's typical attributional style. One such measure is the **Attributional Style Questionnaire (ASQ)**, developed by psychologist Chris Peterson and his colleagues (1982). Another technique for scoring attributional style is by analyzing the content of people's written or spoken explanations. It is possible to find these explanations in verbatim material and to rate them along the attributional dimensions of internality, stability, and globality. This technique for measuring attributional style was also developed by Peterson and his colleagues (1992), who called it the **Content Analysis of Verbatim Explanations (CAVE)**. The CAVE technique has the advantage of allowing the researcher to study participants who are either not available or not willing to participate in typical research, provided that such participants have made public some material involving causal explanations.

Peterson, who has done a great deal of research on attributional style, now prefers the term optimism to refer to this individual difference construct (Peterson, 2000). Persons who make stable, global and internal explanations for bad events are seen as pessimists, whereas persons who make unstable, specific, and external explanations for bad events are seen as optimists. Optimism/pessimism is viewed as a trait-like dimension along which people differ. Optimists think/believe that life events are unstable and specific and that what influence they have on outcomes in life. Pessimists believe that they are helpless when it comes to bad events, and that bad events have long-lasting causes that adversely affect many aspects of their lives (i.e., they blow things out of proportion). Pessimists believe that their behaviour is not related to outcomes in their lives.

Researchers emphasize dispositional optimism as the expectation that good events will be plentiful in the future, and that bad events will be rare in the future. Another concept related to optimism, called self-efficacy, was developed by Bandura (1986). It is the belief that one can do the behaviours necessary to achieve a desired outcome.

Optimists also perceive that they are at lower risk for such negative events than the average person. Most people generally underestimate their risks, with an average person rating his or her risk as below what is the true

probability. This has been called the optimistic bias, and it may lead people in general to ignore or minimize the risks inherent in life or to take more risks than they should.

9. Optimism and Physical well-being:

Optimism in general has been shown to predict good health as measured by self-report, ratings of general health made by the participants' physicians, immune system functioning, and longer life (Carver et al., 1993; Scheier & Carver, 1992; Scheier et al., 1999). It is found to correlate with many positive health behaviours, such as exercising regularly, avoiding fatty foods, drinking only in moderation or not at all, etc.

The correlations between optimism and health or health behaviours tend to run between .20 and .30. Peterson and colleagues (1998) examined more than 1,000 individuals over almost 50 years period. The researchers found that the participants who scored in the more pessimistic direction were more likely to die at an earlier age than the optimistic participants. They thought that the biggest difference might be in deaths due to cancer and heart disease, and they predicted that pessimists would have more of these lethal medical problems. This was not the case as they found that the real difference between the optimists and pessimists, in terms of the causes of death, was in the frequency of accidents and violent deaths, with pessimists having more accidental deaths and deaths due to violent causes, resulting in a generally shorter life span, than that of the optimists. This effect was strong for the men in this sample.

Pessimists, especially male pessimists, have a habit of being in the wrong place at the wrong time. This research does not actually tell us specifically what the participants were doing when they accidentally or violently died. The link between pessimism and a greater likelihood of mishaps appeared to be due to a preference for potentially hazardous situations and activities on the part of pessimists to escape a gloomy mood. Because of optimism's obvious health benefits, psychologist Martin Seligman and his colleagues are attempting to develop therapeutic ways to increase people's level of optimism (2002; Seligman & Peterson, 2003). Seligman has introduced a "pessimism prevention" program for use in grade schools.

10. Management of Emotions:

We sometimes try to inhibit the expressions of negative emotions under certain circumstances and that is called emotional inhibition. Are there any major consequences of inhibiting one's emotions? Some theorists suggest that it leads to undesirable consequences. For example, Sigmund Freud believed that most psychological problems were the result of inhibited negative emotions and motivations, pushing undesirable wishes and impulses in the unconscious. In other words, repression and other defence mechanisms are mechanisms of preventing an unacceptable emotion from surfacing and being directly experienced and expressed.

Psychoanalytic therapy, or as called "Expressive therapy" (As their goal was to get the persons to release their inhibited feelings), was designed to

bring unconscious emotion into conscious awareness, so that the emotion could be experienced and expressed in a mature manner. The therapeutic relationship was seen as a place to experience and express emotions that had long been inhibited.

The ability to inhibit emotions is acquired at an early age, at around 3 years, and is a major developmental achievement. What are the effects of chronically inhibited emotions? Psychologists James Gross and Robert Levenson (1993, 1997; Gross, 2002) designed studies in which some of the participants were asked to suppress the expression of any emotions they were feeling while they watched a video designed to generate the emotions of happiness (a comedy routine), then sadness (scenes from the funeral of a child, showing a distraught and highly emotional mother). Half were assigned to a suppression condition and another half were assigned to a no-suppression condition. While the participants watched the video, the researchers videotaped them to determine how much they expressed their emotions while watching it and they also asked participants to report their feelings after each segment of the video.

It was found that the participants who were instructed to suppress their emotions showed increased levels of physiological arousal, even before the video began, compared with the no-suppression participants, meaning, they were preparing for the effort necessary to suppress their

emotions. They showed heightened physiological activity during the video, indicating increased sympathetic nervous system arousal, compared with the no-suppression participants. The researchers suggested that suppression of emotion takes effort and exerts physiological costs above and beyond emotional arousal. The participants in the suppression condition displayed less outward expression of emotion than the control participants. The participants who suppressed the emotion reported slightly less amusement in the amusement condition, but not less sadness in the sadness condition, compared with the no-suppression participants.

Gross and John (2003) showed that the suppression of negative emotions was also associated with diminished positive emotions later in the experiment. Butler et al. (2003) showed that people who suppressed their negative emotions had worse interpersonal relations and lower levels of well-being than the more expressive persons. They said that by not expressing themselves, suppressors disrupt what is a normal form of communication. Brain areas associated with the successful regulation of negative emotions were mainly in the prefrontal cortex of the brain. This frontal part of the brain, involved in planning and executive control, is active when people are controlling their emotions.

Problems can arise when someone who chronically and characteristically inhibits the free expression of emotion may suffer the effects of chronic sympathetic nervous system arousal. For example, Levy and colleagues (1985) have shown that people who keep their negative emotions to themselves are more likely than expressive persons to have a higher mortality rate, a greater probability of recurrence of cancer after treatment,

and a suppressed immune system. It also has been found that cancer patients who express their negative emotions and emotionally fight their disease, sometimes live longer than patients who accept their situation, inhibit their emotions, and quietly accept their treatment. Research has also found that emotional expressiveness correlated with higher levels of happiness over the three weeks, lower levels of anxiety and guilt, fewer problems in relationships when partners express their emotions, etc.

11. Disclosure:

Disclosure is telling someone about a private aspect of oneself. Psychologist James Pennebaker has been a pioneer in researching the effects of disclosure. In his studies, he asks participants to think of an upsetting or traumatic event that has happened to them, something they have not discussed with anyone. Then, he asks them to write down these secrets. Pennebaker argues that not discussing traumatic, negative, or upsetting events can result in problems. It requires physical energy to inhibit the thoughts and feelings associated with such events. Thus, it is not easy to keep a secret to ourselves, and keeping something in, especially if it is a major trauma, is upsetting and takes a lot of energy. Over time, this stress builds and, like all stress, can increase the likelihood of stress-related problems, such as trouble sleeping, irritability, physical symptoms (For example, stomachaches and headaches), and even illness resulting from lowered immune system functioning. Telling the secret relieves this stress. Confronting the traumatic memory by telling someone or even writing about it frees the person from the work of keeping the secret.

In a study (Pennebaker & O'Heeron, 1984), researchers contacted participants who had lost a spouse through accident or suicide. Such a sudden and complete loss of a loved one through an unexpected and traumatic death must have a huge impact on the surviving spouse. The survivors were asked how much they discussed the tragedy with friends, family, or other helping professionals, such as a priest, minister, or therapist. Researchers also did a thorough assessment of the survivors' health since the death of the spouse. They found that the more the participants talked about the tragedy with others, the better their subsequent health. Those who kept the trauma to themselves tended to suffer more health problems than those who disclosed their feelings to others.

In another research, one group was asked to recall and write about an experience that they found distressing. The other group was asked to write about a trivial topic, such as what they normally ate for breakfast. The students wrote about their assigned topic for 15 minutes each night for four consecutive nights. The participants writing about the traumatic event reported feeling more distress and discomfort while writing, and measures of blood pressure taken while writing suggested they were feeling more stress than was the trivial topic group. Six months later, the participant's health history was obtained. Students who had written about trauma for four days had fewer illnesses in the next six months, compared to those

who had written about trivial topics. Just the mere act of writing about an upsetting event, even if no one ever reads the writing, may have a beneficial effect on health.

People who keep unpleasant information about themselves a secret, are more likely to develop anxiety or depression than those who tell someone. Being open to others with our feelings may be curative, and one reason why talk therapy may work is that through it we uncover secrets and reveal what we have been keeping to ourselves.

How does disclosure promote healthy adjustment? Pennebaker's first theory of the mechanism concerned the relief that results from telling a secret. It basically says that disclosure reduces the cost of having to inhibit this information. Pennebaker has put forward a second explanation. It concerns how writing about an event allows a person to reinterpret and reframe the meaning of that event. A person writing or talking about a past traumatic event can try to better understand that event, search for some positive meaning in the event (the silver lining that is in every cloud), and can integrate that event into her or his current situation.

8.2.4 Type A and Cardiovascular Disease:

In the 1970s, physicians began to consider a new risk factor, a specific personality trait. This grew out of the observation by some physicians that the patients who had heart attacks often behaved differently, and they seemed to have different personalities, compared with other patients. Heart attack patients were more frequently competitive and aggressive, more active and energetic in their actions and speaking, and more ambitious and driven (Friedman & Rosenman, 1974). They called this cluster or collection of behaviours the Type A personality.

One thing to keep in mind is that Type A and Type B personalities are not categorical variables, but, dimensional variables, ranging from one extreme to the other, with most people falling somewhere around the middle. It is distributed normally, not as a category variable. Type A is a syndrome of several traits. It is a collection of three sub-traits. One is competitive achievement motivation. They like to work hard and achieve goals. These people like recognition, power and the defeat of obstacles and feel that they are at their best when competing with others. The second sub-trait is Time urgency. Type A persons hate wasting time and are always in a hurry and feel under pressure to get the most done in the least amount of time. They do two things at once, quite often, such as eating while reading a book. Red lights are their enemies, and they hate to wait in line for anything. The third sub-trait is Hostility. When blocked from attaining their goals, which means frustration, Type A persons can be hostile and aggressive. They get frustrated easily, and this frustration can make them act in an unfriendly or malicious manner.

Early research studies on the Type A personality found that it was an independent risk factor for developing cardiovascular disease. An independent risk factor operates independently from other known risk factors, such as being overweight or smoking. Physicians conducted most

of the early research studies on Type A personality, and they developed a structured interview to measure this personality variable. The interviewer was very interested in the behaviour of the participants, such as the tempo of their speech, did they frequently interrupt to aggravate the participants by talking very slowly? Type A people are especially aggravated when other people talk slowly, and Type A people interrupt, talk out of turn, or finish sentences for people in order to speed them up.

As research on Type A personality gained momentum in the 1980s, researchers tried to devise a more efficient measure as interviews take a lot of time to measure each participant. Hence, they began using questionnaires as they are much cheaper because they are generally faster, as they can be given to whole groups of people, and one person can assess 100 or more persons at a time. One of the most widely used questionnaire measures of Type A personality is - Jenkins Activity Survey.

In the beginning, researchers using structured interviews often found a relationship between Type A personality and risk for heart attack and cardiovascular disease. Later, using the Jenkins questionnaire, often failed to replicate this finding. This puzzled researchers for several years. Researchers using the questionnaire measure were less likely to find a relationship between Type A and heart disease than the studies using the structured interview (Suls & Wan, 1989; Suls, Wan, & Costa, 1996). Researchers have reached the conclusion that the questionnaire measure taps into different aspects of Type A behaviour than the structured interview measures. The structured interview taps more into the lethal component of Type A. But, what component of Type A behaviour is lethal and related to heart disease?

12. Hostility: the lethal component of type A behaviour pattern:

As researchers began to use the questionnaires more and more, evidence began to accumulate, showing that general Type A personality did not predict heart disease. After comparing the interviews with the questionnaires they learned that the interview method tapped more of the hostility component than the questionnaire method. Researchers began to test the hypothesis that it was the more specific trait of hostility, rather than the general syndrome of Type A personality, that was the better predictor of heart disease.

People who were high in hostility are likely to react disagreeably to disappointments, frustrations, and inconveniences. Frustration is the subjective feeling that comes when you are blocked from an important goal. They are easily irritated, even by small frustrations, become visibly upset, and sometimes even become rude and uncooperative or even antagonistic. Several studies have now established that hostility is a strong predictor of cardiovascular disease. Psychologists Dembrowski and Costa have demonstrated that even a questionnaire measure of the specific trait of hostility is a better predictor of artery disease than are questionnaire measures of Type A. Recent studies have also shown that hostility is associated with systemic inflammation, as indicated by elevated blood

leukocyte counts, also known as white blood cell counts (Surtees et al., 2003). Thus, the correlation with hostility, while not large, was statistically significant and remained so even after accounting for known risk factors for chronic inflammation, such as age, sex, smoking history, and alcohol intake. Chronic inflammation may be the pathway of how hostility is linked to the health endpoint of cardiovascular disease.

13. How arteries are damaged by hostile type A behaviour:

Strong feelings of hostility and aggression produce a fight-or-flight response. This response involves an increase in blood pressure, accompanied by a constriction of the arteries, plus an increase in heart rate and the amount of blood pumped out with each heartbeat. The person's body suddenly pumps more blood through smaller arteries. These changes can lead to wear and tear on the inside lining of the arteries, causing microscopic tears and abrasions. These abrasions then become locations at which cholesterol and fat can become attached. Stress hormones released into the blood during the fight-or-flight response may lead to artery damage and subsequent buildup of fatty deposits on the artery walls causing the arteries to become progressively narrower. This is called Arteriosclerosis, or hardening or blocking of the arteries. When the arteries that feed the heart muscle are blocked, the subsequent shortage of blood to the heart is called a heart attack.

8.3 SUMMARY

In this unit, we began by understanding what is cultural personality psychology. We looked at the three major approaches to studying culture: evocation, transmitted culture and cultural universals. We also tried to understand how cooperation and mating strategies have evoked and how culture affects self-concepts, self-enhancement behaviours, etc. (Aspects of Transmitted culture). We also saw various models that explain the illness-behaviour relationship. Then, we tried to figure out what is stress, and how daily hassles and major life events cause stress. There we also saw varieties of stress and primary and secondary appraisal. Under coping strategies or strategies to deal with stress, we saw attributional style, optimism, management of emotions and disclosure. Finally, we looked at what Type A Behaviour is, how hostility as a Type A component particularly is related to lethality or cardiovascular disease and how arteries are damaged by hostile, Type A behaviour.

8.4 QUESTIONS

1) Write long answers:

- a) Explain transmitted culture as an approach to exploring cultural personality psychology.
- b) Explain cultural universals as an approach to exploring cultural personality psychology.

- c) Explain the models of personality-illness connection and the concept of stress.
- d) Explain the relation between Type A personality and cardiovascular disease.

2) Write short notes:

- a) Explain attributional style and optimism and physical well-being as coping strategies.
- b) How does disclosure help to cope with stress?
- c) Explain evoked culture and evoked cooperation as a related concept.
- d) Explain cultural differences in self-concept.

8.5 REFERENCES

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