

Block-II

Self and its Correlates

UNIT 4 ATTITUDE, PERSONALITY AND THINKING*

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4.1 LEARNING OBJECTIVES

After studying this unit, you would be able to:

- *Explain the nature of attitude and its components;*
- *Understand important factors in attitude change;*
- *Understand the meaning of personality and factors influencing personality development;*
- *Explain the theories of personality;*
- *Describe the Indian perspective on personality; and*
- *Discuss the nature and types of thinking.*

4.2 INTRODUCTION

Self is a term in psychology which refers to how we perceive ourselves, how we think and behave. Factors both in our internal and external surrounding influence

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our thoughts, interactions and reaction patterns to different situations. We usually have a mental image of our self, e.g., a ‘confident person’ or ‘short-tempered’ etc. which are results of our past experiences related to the way we behave as a reaction to situation and people. These mental images then become our beliefs and they keep adding into our mental bank of varied experiences of reactions. Our self consists of self-concept. You have already studied about self and self-concept in earlier units 2 and 3.

Psychologist Dr. Bruce A. Bracken (1992) had explained various dimensions that influence our self-concept. These are:

- *Academic*: how well we do in studies/school/college
- *Affect*: knowledge about our emotions/self-control
- *Competence*: how capable we are of achieving our goals/targets
- *Family*: how adjusted we are in our family/parents/siblings
- *Physical*: how we accept and feel about our body/appearance/image
- *Social*: our ability to get along with people around us/being social

These aspects of our self-concept help us to become individually different from others and impact our attitudes and personality development. In this unit, we will be discussing about attitudes, personality, thinking styles which are important correlates of self, and how they influence our everyday interactions.

4.3 ATTITUDE

4.3.1 Nature and Components of Attitude

When someone asks you about your opinion or when we feel strongly about a situation, person, or an event, it can be explained as an attitude. However, it is not just opinion that is involved in attitude, but also includes how we like or dislike someone/something and how we express our feelings about them. Attitude has been defined by Hogg & Vaughan (2005) as “a relatively enduring organization of beliefs, feelings, and behavioural tendencies towards socially significant objects, groups, events or symbols”.

Triandis (1971) defines attitude as a tendency to respond positively or negatively toward a certain person, object, idea, or situation. It develops through one’s learnings, experiences and interactions with others. One is not born with attitude. Rather, it is influenced and shaped by significant people around such as parents, teachers, friends, community leaders and so on; and also by events and situations. Schools, family, society, and culture – all play a role in formation of attitudes by the individual. Thus attitude formation can have direct sources (e.g., parents, teachers ec.) as well indirect sources (e.g., media, community events etc.).

Attitude interestingly is not only for others but for us as well, we call these self-drawn attitudes or evaluations as self-esteem. How we value ourselves for ourselves is our self-esteem. Calling our self “silly” or “amazing” shows how we value ourselves when a situation is being judged by self.

Attitudes are a combination of three crucial components as explained below.

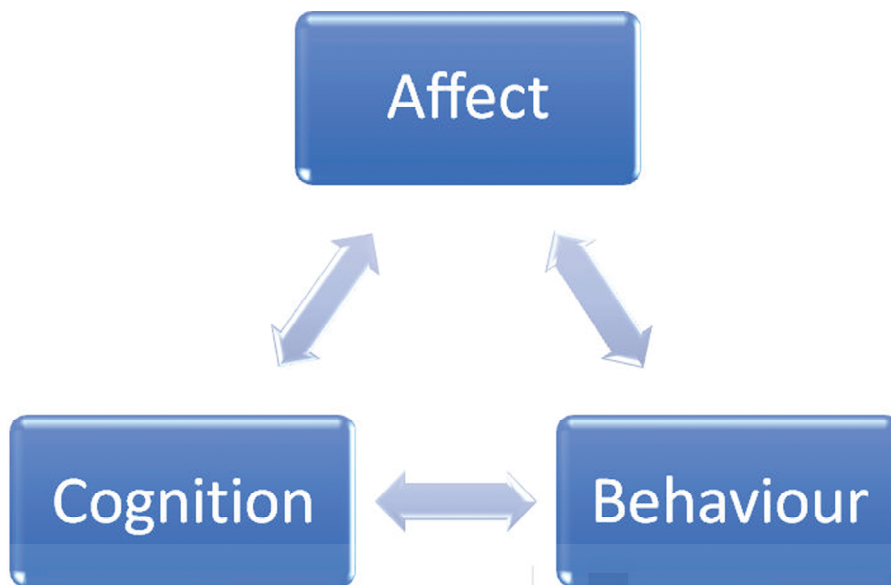


Fig. 4.1: Components of Attitude

- *Emotions component:* It refers to how we feel, what emotions do we experience related to the object of our attitude. It is also called as the affect component of attitude. Emotions in our attitude can bring out both positive and negative changes and influence our decision making and behaviour.
- *Behaviour component:* It refers to how we behave with regard to the focus of attitude. For instance, a positive attitude towards persons with disabilities will make us behave in a positive way when we come across such a person in our college or workplace.

Another example would be our attitude of respect towards people serving in the defence forces. We admire them as we have associated feelings of pride for people who are protecting us and our behaviour towards them would be accordingly marked by respect towards them.

Zajonc (1968) explained behaviour attached to an attitude with the help of exposure effect. He explained our tendency to develop more positive feelings towards objects and individuals when we are exposed to them. We can develop a positive attitude towards a product simply by repeatedly being exposed to it. Thus, advertisements of soft drinks in summers and hot drinks in winters may increase our positive attitude for those drinks and lead to buying coke in summers and coffee in winters.

- *Thoughts component:* It refers to what thoughts are associated with the focus of attitude and how we mentally store information about it. It is also called as the cognitive component of attitude involving our ideas and beliefs about the attitude.

With repeated exposure to an event or a situation we form strong mental constructs around them, and if not changed, such attitudes can become stereotypes. Common gender stereotyping examples are “girls are not

good at sports and boys are messy and unclean”. These attitudes can develop into strong inflexible stereotypes which lead to stubborn mindsets, those that are difficult to mend and create rift in people and society. Thoughts around these attitudes seldom change as they are passed on to us by generations with people confirming to them and we do not see any reason to change them too. When confronted to change our attitudes, we feel something is wrong as no one has changed it before.

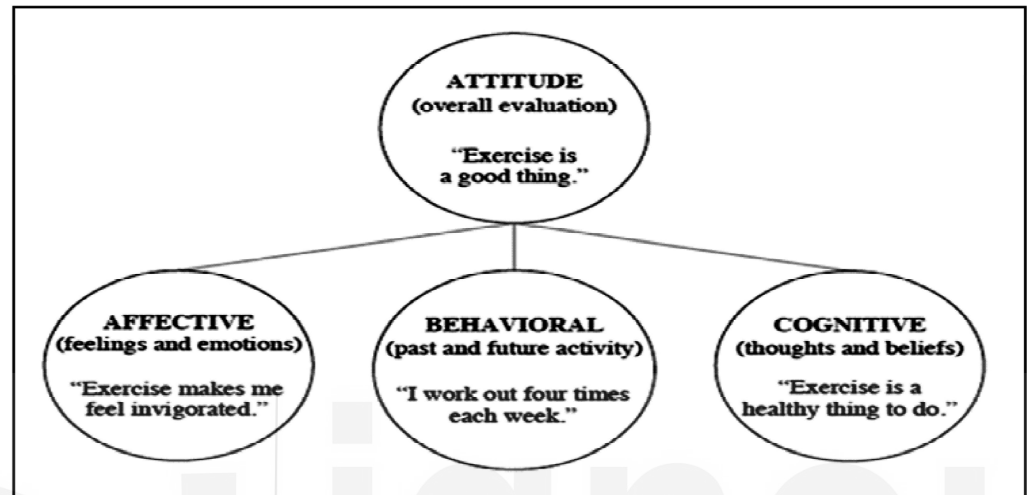


Fig. 4.2: Example of ABC Components in Attitude

(Source: <https://qsstudy.com/organizational-behavior/components-of-attitude>)

Research indicates that not all three of these components need to be in place for the formation of an attitude (Eagly & Chaiken, 1993). Attitudes do influence our behaviour because these are based on our past experiences and learnings. Our thoughts and behaviour also depend on how we are expected to conduct ourselves. However, studies have found that attitudes may not always predict behaviour (Wicker, 1971). A number of factors can influence whether the attitude one holds will translate into actual behaviour by the person. For instance people in general may hold environment friendly attitude and talk about pro environment steps like plastic/polythene bags should not be used. But they may use it for buying vegetables or throwing household garbage etc. citing the reason of convenience or lack of alternatives.

Attitudes can serve the following **functions**:

- **Knowledge-** Human beings always look for a purpose or meaning in anything that is done, e.g., studying a course in psychology subject and to become a psychologist. If the outcome of any action that we take is of our choice, then we put in more effort and value to that particular work. This helps in developing positive attitude towards it.
- **Ego-defense-** Attitude is sometimes used as a shield to guard ourselves against harsh realities of life which can negatively affect our mental health. At times, some people or situations can pose a threat and therefore we develop a certain attitude to safe guard ourselves from being hurt.
- **Instrumental-** We put in more effort and energy into anything that is rewarding. If we are aware of the reward at the end, we develop a positive attitude towards that task, person, or the situation. External motivation

generates a positive attitude towards goal seeking behaviour. So is the case when a situation is not rewarding enough, and we do not feel like investing time and energy into the same.

- Value-expressive— We all have certain value systems, some of those we get from our families, some from the kind of circle of friends we choose to be with and some from the cultural expectations we have from the type of social milieu we live in. Some value-based systems can inculcate positive attitudes like doing community work(seva) in Sikhism; but on the other hand, some value-based system can also inculcate negativity and hatred to the extent that we blindly follow it without looking at a larger picture which is loss to life and property (e.g., communal riots).

4.3.2 Can Attitude be Changed?

Since attitudes are learned, it can be changed also. All our attitudes may not be appropriate and lead to healthy adjustment and well-being. Hence we need to be aware of our attitudes and how they impact our mental health and well-being. Changing attitude is not an easy task. It requires careful attention to different factors involved in forming of an attitude. Four main things that we can focus on in the process of attitude change are:

- The *source of the message* given regarding change of attitude needs to be an expert, a trustworthy and influential person.
- *Content of the message* needs to be clear and structured with no ambiguity.
- *Medium of message delivery* also plays an important role in influencing the change process. For example, social media may be more effective than the print media if we want to change public attitude towards respecting elderly in public transportations or advocating the rights of persons with disabilities.
- *Characteristics of target audience* needs to be considered in the process of attitude change. The content of the message as well as the medium needs to be appropriate as per the target audience.

4.4 PERSONALITY

Personality is a term commonly used in our everyday conversations to explain a person's behaviour, general appearance and reaction patterns. Personality comes from a Latin word 'persona' which explains a mask worn by theatrical performers to enact different roles on stage. Some common definitions of personality are,

- "Personality is the dynamic organization within the individual of those psychophysical systems that determine his characteristics behavior and thought" (Allport, 1961, p. 28).
- "The characteristics or blend of characteristics that make a person unique" (Weinberg & Gould, 1999).

Personality thus consists of our thoughts, feelings, and actions towards others. At times, our personality differs from situation and circumstances as how we are at home may not be how we would like to present ourselves in front of our friends.

However, personality is marked by two salient features such as,

- **Consistency:** Personality shows a set of patterns in a person's behaviour in any situation. E.g., people who are shy to talk, stay quiet in any situation when meeting someone new for the first time.
- **Stability:** Personality is seen stable over a person's entire lifespan, this means an extrovert will stay an extrovert even at 15 years, at 30 and even at 65 years of his age.

People vary in their personality and these individual differences make people behave differently to the same situation. For example, you may have noticed differences in reaction patterns in people involved in a traffic jam, while some would fight, others would stay calm. Many factors influence these differences in our personality and its development.

4.4.1 Factors influencing Personality Development

- **Physical Factors-** our physical structure like height, weight, illness, skin colour, attractiveness influences how we feel about ourselves and this shapes our personality.
- **Social interactions-** Personality is shaped by our social milieu which means people we live with and interact with (e.g., family, community, culture, and our religion) shape our personality.
- **Heredity-** It refers to what we inherit at birth, in the form of physical features, characteristics, cultural factors from the family we are born to.
- **Intelligence-** Research indicates intelligence to be related to development of personality, where people high on intelligence is seen to have an impact on better adjustment at home, school, and work. People with higher intelligence have a better understanding of problem solving thus can make smarter decisions for themselves than the ones who are low on intelligence and depend on others to decide for them.
- **Gender-** Gender as a socio-cultural perspective influences personality of individuals. The sociocultural expectations shape the personality development accordingly. For instance, boys are raised to fight back and be tough whereas girls are raised to be nice and adjusting. If the opposite behaviour is seen in either of the gender, people find it unacceptable to see a girl fighting back and a boy being adjusting. Stereotypes like boys do not cry and girls cannot be good at sports influence the way we naturally are and how we shape our preferences and our personality.

Thus different factors related to biological, psychological, and sociocultural aspects influence the development of personality. It is dynamic in nature and a driving force in our life that determines success and failure in life.

Self Assessment Questions 1

1. What are the three components of attitude?
2. What are the factors that need to be considered in the process of attitude change?
3. Two salient features in defining personality are _____ and _____.

4.4.2 Theories of Personality

- **Sigmund Freud- Psychoanalytic Theory of Personality**

Sigmund Freud is considered to have given first formal theory of personality. He explained personality as a complex part of our existence which is webbed into many facets like biological, cultural, and social. In his Psychoanalytic theory, he explained personality comprising of three components known as Id, Ego and Superego that work together to influence human behaviours.

These are explained briefly as follows:

The Id- this is present in all of us from birth and includes all desires which need immediate satisfaction. For instance, infants if not satisfied with food will cry until they are pacified or have their needs met. Id can be thought of as that child, who needs immediate satisfaction when the need arises. Freud says id is controlled by *pleasure principle*. When needs are not satisfied, it creates anxiety causing confusion and distractedness.

The problem is that we cannot always have all our needs satisfied. As we grow up, we learn to wait for the right moment and at times control those urges. And that natural control mechanism in us comes to us in the form of ego.

The Ego- this develops from id and controls impulses in a socially acceptable manner. Ego works at a conscious level to manage the unconscious impulse motives of id. It acts as a balance between the id and the superego. As ego works with *reality principle*, it looks for a balancing act of satisfying impulses in appropriate ways, thus using delayed gratification.

The Superego- this is the temple of our personality working on *moral principle* or ideals we need to follow as taught by our parents. We all have within us a conscience or moral barometer guiding us in right and wrong doings leading to rewards and punishments. Another component of superego is *ego ideal* which guides our aspirations and the best we want to be in life. Superego works to strive perfection by reducing id impulses and directing ego to behave in an idealistic manner.

According to Freud, id, ego and superego are not separate identities in us but intertwined connections that influences our personalities.

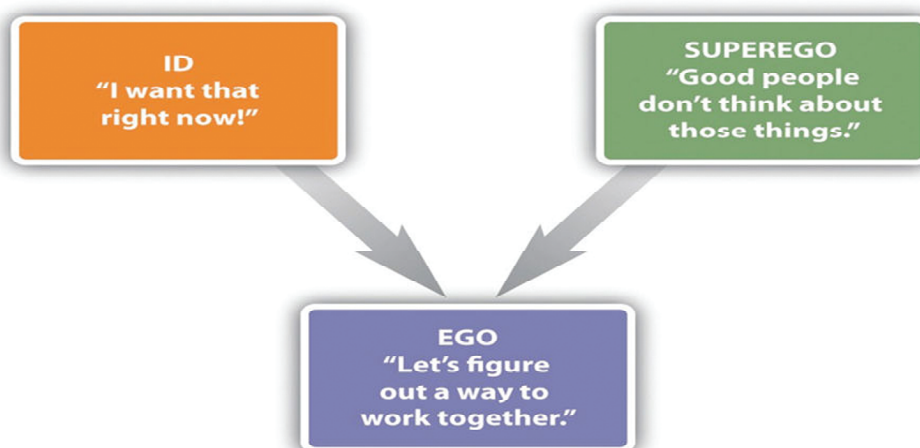


Fig. 4.3: Three Aspects of Personality by Sigmund Freud

- **Abraham Maslow- Humanistic Theory of Personality**

Maslow studied personality by looking at people's experiences and their idea to use free-will to be the best version of themselves. While researching successful people, Maslow felt they all shared similar characteristics of being open, creative, loving and most importantly accepting of themselves. He came to believe that to develop our personalities, in his words, to be actualized, we need to have a hierarchy of needs which starts from basic needs to be fulfilled to higher self-esteem needs and self-actualization needs.

At a basic level, these needs are physical needs for survival to higher level of being self-actualized. These needs are explained very well in the below pyramid with the largest, most fundamental physiological needs at the bottom and the smallest, most advanced self-actualization needs at the top. Each layer of the pyramid must be fulfilled before moving up the pyramid to higher needs, and this process is continued throughout the lifespan.

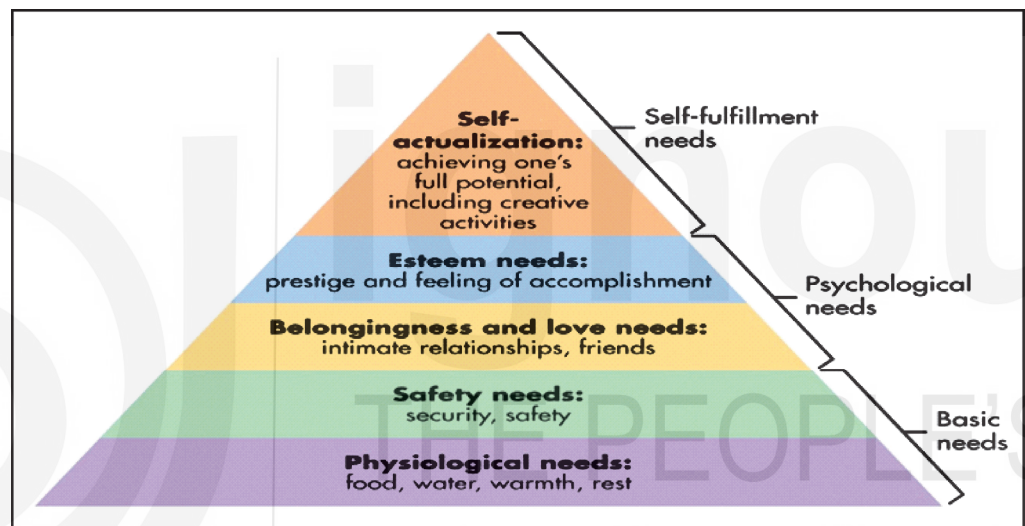


Fig. 4.4: Maslow's Hierarchy of Needs

(Source <https://www.simplypsychology.org/maslow.html#gsc.tab=0>)

According to Maslow people who were more aware of their goals and strived for perfection had *peak experiences* of intense satisfaction when they saw their efforts showing desired results. He believed in people's own potential to create their own destiny.

- **Raymond Cattell- Trait Theory of Personality**

Personality is seen as having some traits or characteristics which can be used as a group to define the way people are similar in their ways of behaviour. Some of their traits are grouped like introvert or extrovert, optimistic or pessimistic. Cattell explained that traits are trends in behaviour which can be seen as individual differences as well as grouped into categories of common reaction patterns in personality.

With an extensive research background, Cattell discussed 16 personality factors and created a personality assessment called as 16PF, where traits are ranged from high to low for everyone. The individual's personality structure is explained by profiling bipolar "source-traits" or "primary factors" (16 in adults, 14 in

adolescents, 12 in children), each shaped by the mix of heredity and environment differently. To understand it, below are 16 traits that were discussed by Cattell.

For example, level of warmth explains how caring and thoughtful a person is towards others. Low score on this index indicates cold and distant personality whereas high score indicates a supportive and a comforting personality type. In the same manner, being low on sensitivity index indicates strong control on emotions and high score indicates being emotionally sensitive.

Factor	Low Score	High Score
Warmth	cold, selfish	supportive, comforting
Intellect	Instinctive, unstable	cerebral, analytical
Emotional Stability	Irritable, moody	level headed, calm
Aggressiveness	Modest, docile	controlling, tough
Liveliness	somber, restrained	wild, fun loving
Dutifulness	untraditional, rebellious	conformity, traditional
Social Assertiveness	shy, withdrawn	uninhibited, bold
Sensitivity	coarse, tough	touchy, soft
Paranoia	trusting, easy going	wary, suspicious
Abstractness	practical, regular	strange, imaginative
Introversion	open, friendly	private, quiet
Anxiety	confident, self-assured	fearful, self-doubting
Open-mindedness	close-minded, set-in-ways	curious, self-exploratory
Independence	outgoing, social	loner, crave solitude
Perfectionism	Disorganized, messy	orderly, thorough
Tension	relaxed, cool	stressed, unsatisfied

Fig. 4.5: Sixteen Personality Factors by Cattell

Source: <https://www.simplypsychology.org/personality-theories.html>

Self Assessment Questions 2

1. Id works on which principle?
2. Which part of our personality tries to manage the unconscious impulse motives of id?
3. What is the highest need in Maslow's hierarchy of needs?
4. How many factors were proposed by Cattell's trait theory of personality?

4.4.3 Indian Perspective on Personality

Indian perspective on Personality is not defined like a clear definition, instead it is examined in scriptures in the form of 'Swabhaaya' known as the essential quality in a being. Sri Aurobindo in his "Essays on the Gita" used the term "spiritual personality" to explain three powers, the 'Purushottama' as the Supreme truth into which we must grow, the 'Self' and the 'Jiva'. To develop spiritual personality, yoga is instrumental in leading to ego-lessness and desire-lessness, without which the development of impersonality is not possible.

The ancient Indian model of "personality" given in the Upanishads, is called the pancha kosha model, and consists of 'five' sheaths or koshas. They are 'Annamaya' (food sheath), 'Pranamaya' (vital air sheath), 'Manomaya' (mental sheath), 'Vijnanamaya' (intellectual sheath), and 'Anandamaya' (bliss sheath). 'Annamaya'; a segment of human system is nourished by 'anna', that is, food. 'Pranamaya' is that segment which is nourished by 'prana', that is, 'bioenergy'.

‘Manomaya’ is the segment nourished by ‘education’. ‘Vijnanamaya’ is nourished by ‘ego’ and ‘Anandamaya’ is the segment nourished by ‘emotions’.

Concept of Triguna and development of Personality

Concept of Guna or qualities dates to Atharva Veda which was also discussed in Bhagawat Gita as Tamas, Rajas, and Sattva.

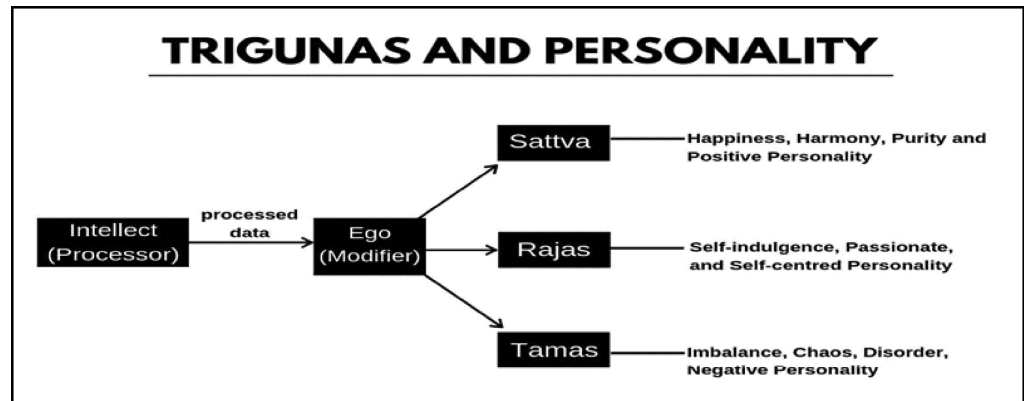


Fig. 4.6: Concept of Trigunas

Source: <https://fitsri.com/wp-content/uploads/2019/07/trigunas-and-personality.jpg>

- a) **Sattva guna** guides us to be good and caring along with wisdom to control mind and urges. This is seen in people who have spiritual values and dedicated to leading a simple life. Qualities like respect for elders, nonviolence, meditation, and self-control are motive force of sattvic action.
- b) **Rajas guna** directs passion, desires which can create restlessness in us as it is tied with attachments. People driven by Rajas Guna are seen to be enthusiastic and activity driven in life.
- c) **Tamas guna** arises from hopes and illusions which creates fantasies and disillusionment in us. People when driven by tamas seek happiness which ends in self-delusion.

Thus personality is the integral part of our self and influences our functioning and well-being. We have a genetic endowment (traits like our parents) that we get in our personality as well our culture (norms and ethics) that shapes our personality. Intelligence that we are born with and develop as we grow influences our social interactions and new associations with our surroundings. Slowly but steadily, we develop a certain character which is unique to ourselves and attracts likeminded people. When we explain personality, we are explaining how people respond to situations with the value systems they inherit and the preferences they develop over their lifespan.

4.5 THINKING

4.5.1 Nature of Thinking

Human beings are thinking beings. But what is involved in thinking? How do we think? What is the importance of thinking in our effective functioning and living?

Thinking is also known as ‘cognition’, i.e., to know. It is a mental activity that involves the processes of perception, memory, planning, problem solving,

decision-making etc. Thus the inputs or information received are processed in the brain through our past memories and emotions leading to certain behaviour. Thinking thus comprises of all mental activities/processes that flow into behaviour.

We see things in our surrounding and perceive meaning out of them because of this higher mental processing which flows into decision making, critical thinking and reasoning. An important part of this process is mental imagery, which refers to the mental representation of objects of thought in the form of visual images. It is as if you are drawing the picture of the object mentally.

Thinking involves an information processing approach. The information is received, processed, organized, stored and planned. It involves the use of our emotions, motivation and memory to analyze the things, engage in critical and creative thinking, and take decisions.

Thus thinking is not an unstructured processing, rather it is a step-by-step block of association which involves:

- **Images** of felt and observed experiences which are recalled as objects and activities.
- **Concepts** or ideas that explain a class of events that are similar (e.g., a car represents four-wheeler, a holiday represents relaxed work-free days, etc).
- **Symbols** are substitutes of actual objects or activities (e.g., school bag, uniform, books, school building, teachers symbolise learning experience).
- **Language** is the strongest medium of thinking in the form of reading, writing, and hearing new information and assimilating it as an experience (e.g., newspapers, news on TV tells us latest news and the world around us).

In the 1950s, Benjamin Bloom developed a classification of thinking skills that is still helpful today; it is known as Bloom's taxonomy. He lists six types of thinking skills, ranked in order of complexity: knowledge, comprehension, application, analysis, synthesis, and evaluation.

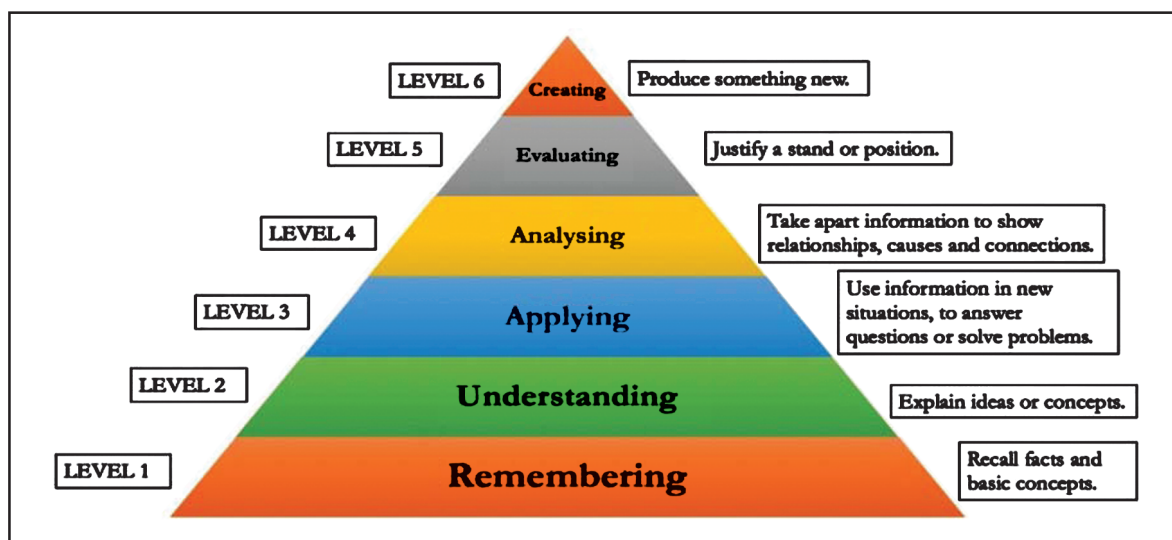


Fig. 4.7: Bloom's Taxonomy

Thus, looking at above, we can say that thinking is a mental process which is active when we are awake and when we are sleeping. Our active as well as passive thoughts convey us how to assimilate information from our environment and store it into meaningful experiences.

4.5.2 Types of Thinking

As discussed in the above section, thinking is a product of a lot of simultaneous association in our environment as well as our mental functioning. Now let us see the various types of thinking as follows:

- **Perceptual or Concrete thinking-** this explains how we perceive from our senses and experiences. It is concrete as it is seen from objects which are permanent and inflexible (e.g., two people attracted to each other).
- **Conceptual or Abstract thinking-** an ability to take concepts and generalize them philosophically (e.g., notion of being in love).
- **Reflective thinking-** works as an insight for problem solving, digging deeper into past experiences to remove obstacles to arrive at a solution (e.g., how to get better marks than last year).
- **Creative thinking-** ability to construct something different or new. Here we use associations to create new links to develop something more than we know (e.g., scientists, artists always creating something better than what they have already done).
- **Critical thinking-** is digging deeper into our own beliefs and discovering truths where facts and emotions are separated to analyse a problem from an unbiased standpoint (e.g., decision related to problem solving behaviour).
- **Associative thinking-** sometimes we engage in free association or mindless thinking when we are over worked to find relief. (e.g., daydreaming, delusions, or fantasies).

Thinking plays an important role in our life, in fact, it can be considered as central to our way of functioning and our well-being. It influences our life in a significant way as we use our thoughts to understand the world around us. Our thoughts based on our past experiences, learnings and situational backgrounds influence our decisions and choices in life.

The nature of our thoughts, positive or negative, impacts our psychological well-being. It can help us to think in divergent and creative ways or create roadblocks to nurturing self care and self actualization. Addressing thoughts or cognitions is one major focus in certain counseling and clinical approaches to therapy. Our thoughts can create faulty patterns or distortions which hamper our healthy functioning and leads to maladjustments, and even mental disorders. As these faulty thinking patterns are not based on reality, they can result in mental health related problems. For instance, beliefs such as, "I am a failure" or "I always have to suffer" leads to associated feelings (sadness, dejectedness, loneliness, frustration etc.), bodily sensations (fatigue, inactivity, laziness, headache etc.), and behaviour (avoidance, staying at home only, excessive eating, using drugs/alcohol too much etc.). Hence it is important to focus on our thoughts, be aware of them and steer them in a right direction to achieve good mental health.

Self Assessment Questions 3

1. What is the ancient Indian model of personality given in the Upanishads called?
2. Name the 'Trigunas'.
3. What are the thinking skills given by Bloom?

4.6 LET US SUM UP

In this Unit we learned about some important correlates of self, that is, attitude, personality and thinking. We are the sum of all our past experiences, mental processes like thinking and our inherent nature which is personality. We can say we are unique, with how we define our lives and make decisions, which enhances our self-esteem; but at the same time, we behave in a typical manner, which can group our thoughts and actions into categories, which is explained under personality traits and thinking behaviour. The unit described the nature of attitude and the components of attitude. Further, personality was explained in terms of the factors affecting and the theories of personality. The Indian views on personality was also described. Finally, the unit elaborated on the nature of thinking and types of thinking.

4.7 KEY WORDS

- Attitudes** : are tendency to respond positively or negatively toward a certain person, object, idea, or situation which develops through one's learnings, experiences and interactions with others.
- Personality** : "is the dynamic organization within the individual of those psychophysical systems that determine his characteristics behavior and thought" (Allport, 1961, p. 28).
- The Id** : is present in all of us from birth and includes all desires which need immediate satisfaction.
- The Ego** : develops from id and controls impulses in a socially acceptable manner.
- The Superego** : works on moral principle and is guided by the values given to us by our parents.
- Self-actualization** : refers to the full realization of one's potential and of one's "true self".
- Traits** : refer to characteristics which can be used as a group to define the way people are similar in their ways of behaviour.
- Thinking** : is a mental activity that involves the processes of perception, memory, planning, problem solving, decision-making etc. which flow into behaviour.

4.8 ANSWERS TO SELF ASSESSMENT QUESTIONS

Answers to Self Assessment Questions 1

1. Emotions/affect, thoughts/cognitions, and behaviour
2. Factors that need to be considered in the process of attitude change include (a) source of the message, (b) content of the message, (c) medium of message delivery, and (d) characteristics of the target audience.
3. Consistency and stability

Answers to Self Assessment Questions 2

1. pleasure principle
2. ego
3. self-actualization
4. 16

Answers to Self Assessment Questions 3

1. pancha kosha model
2. sattva, rejas and tamas
3. knowledge, comprehension, application, analysis, synthesis, and evaluation

4.9 UNIT END QUESTIONS

1. Define personality and explain how do we develop this dynamic concept throughout our lives?
2. Can an attitude be considered right or wrong? Elucidate with examples.
3. Which theory of personality appealed to you and how do you think it can contribute to your personal growth?
4. Describe the nature of thinking and analyze the role of higher mental processes in it.
5. Is situation a strong predictor of personality development? Discuss.

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4.11 FURTHER LEARNING RESOURCES

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UNIT 5 EMOTIONS AND MOTIVATION*

Structure

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5.1 LEARNING OBJECTIVES

After studying this Unit, you would be able to:

- *Explain the concept of motivation;*
- *Describe the types and theories of motivation;*
- *Elaborate on various ways to improve intrinsic and extrinsic motivation;*
- *Define emotion and describe its components;*
- *Explain the types and functions of emotions;*
- *Differentiate between emotions, moods and feelings; and*
- *Point out the importance of emotion regulation.*

5.2 INTRODUCTION

Mahima was taking part in 100 meters marathon in her college sports day. But as she started running there was a slight cramp in her left leg and her stomach

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was not feeling well. But despite of the pain and discomfort, she managed to finish the race and secured the first prize. When she received the medal for it from the chief guest, she was so elated and felt proud about herself.

In the above example, what do you think might have made Mahima continue in the race and perform to her best? What was the driving force behind her behaviour? What emotions she was experiencing during and after the race?

In our day-to-day life, you might have come across such behaviour, where you may have wondered why certain individuals behaved the way they did. From getting something to eat to helping a person injured in an accident, to completing work on time, one of the significant factors that can play a role is motivation. As certain behaviours may be displayed due to the factor of motivation, it is also possible that an individual may not behave in certain ways because of lack of motivation. For example, a student may not do well in his/ her examination because he/ she never felt motivated enough, intrinsically or extrinsically (you will learn about these later in section 5.4) or an individual may not perform to his/ her best at work place due to lack of motivation. In this process of being motivated or not motivated, the individual also experiences different emotions. Moreover, emotions are a part and parcel of whatever we do. For instance, individuals are engaged in different activities in their day-to-day life, and when they are able to achieve certain goals, they experience happiness and in case of failure, sadness is experienced.

In this Unit, you will learn about motivation and emotion, two crucial aspects of 'Self'. Motivation and emotion can be termed as two sides of the same coin (Mishra, 2016) and they both play a role in directing behaviour of individuals. Both motivation and emotions are activated when issues are related to the wellbeing of an individual, survival and appetite (Feist & Rosenberg, 2015).

5.3 CONCEPT OF MOTIVATION

Motivation is a key factor that answers the 'why' of human behavior. Motivation has been mainly termed as a factor that drives or pushes one in a certain direction or to behave in a certain way. Motivation can be termed as a driving force or it can also be stated as a process that starts and drives various activities, whether physical or psychological (Gerrig and Zimbardo, 2006). The term motivation has been derived from a Latin word '*movere*', which means 'to move'. It can thus be described in terms of drive, force, desires, needs and wishes that may lead to individuals behaving in a certain manner. A desire to get praise from the teacher may motivate a student to perform well in a class activity. A wish to gain more knowledge about a certain subject may motivate an individual to take up an educational programme in that subject. A hunger drive may prompt an individual to buy biscuits or snacks. A desire to spend time with his/ her parents, may encourage a person to travel long distance. Thus any human behaviour can be said to be as a result of some kind of motivation.

The term motivation has been defined in various ways as you can see below:

Feldman (2015, p. 287) defined motivation as "*the factors that direct and energize the behaviour of humans and other organisms*".

Feist and Rosenberg (2015, p. 397) define motivation as "*the urge to move towards one's goals, to accomplish tasks*".

Chamorro-Premuzic (2015, p. 272) defined motivation as *“an internal state, dynamic rather than static in nature, that propels action, directs behaviour and is oriented toward satisfying both instincts and cultural needs and goals”*.

Quick, Nelson and Khandelwal (2013, p. 172) defined motivation as *“the process of arousing and sustaining goal directed behaviour”*.

Nolen-Hoeksema et al (2009, p. 419) describe motivation as *“a condition that energizes behaviour and gives it direction”*.

Morgan et al (1993, p. 268) define motivation as *“the driving and pulling forces which result in persistent behaviour directed toward particular goals”*.

Petri (1996) defines motivation as *“the process by which activities are started, directed and continued so that physical or psychological needs or wants are met”*.

Analyzing the above definitions, we can say that motivation is an internal force that drives people into some action or behavior. It is a process having a goal-directed orientation. It is dynamic in nature which energizes the person to pursue a goal.

5.3.1 Components of Motivation

In the context of motivation the three main terms that need to be discussed are needs, drives and incentives that contribute to motivation.

Needs: These are related to the biological states of cellular or bodily deficiencies that lead to drives. For example, individuals need water, food and of course oxygen to survive (Feist & Rosenberg, 2015). These are the biological needs, the needs related to the body. We also have cognitive needs and social needs. Cognitive needs include such needs as need for achievement and curiosity. Social needs arise from social situation/context and include need for affiliation, conformity, cooperation and power or competition.

Drives: Feist and Rosenberg (2015, p. 397) define drives as *“the perceived states of tension that occur when our bodies are deficient in some need, creating an urge to relieve the tension”*. As we discussed under need, a need leads to or compels drive. Thus when an individual is hungry he/ she will seek food. Thus the need leads to drive and makes the individual to behave in such a way that the deficiency created is dealt with. We can see in the example of Mahima that her drive aroused her to engage in the goal-directed behaviour of winning the race.

Incentives: This is external or is from the environment (as opposed to drive that are internal) and plays a role in motivating behaviours. It could be an object or an event. A trophy won in a game can be termed as an incentive to do well in that game.

After knowing the meaning of motivation, now let us see the types of motivation. Human behavior is caused by various motives some of which may be as basic as food, and some may be influenced by social factors. Further, some may arise from within the individual, the internal psychological factors. Let us discuss these various types of motives in the section below.

5.4 TYPES OF MOTIVATION

Motivation can be broadly of two types, which are discussed as follows:

1. Primary and Secondary Motivation:

Primary motivation can also be termed as basic motivation and mainly includes the needs related to hunger, thirst, sleep, sex, avoidance of pain and so on. These mainly influence an individual's behaviour at a basic level. These are also called as biological motives and are related to the basic need for preservation of self.

Secondary motivation can be termed as learned motivation and these may differ from individual to individual. They are related to one's personality characteristics and value system. Three psychological needs related to secondary motivation are the need for achievement, affiliation and power given by David McClelland.

2. Extrinsic and Intrinsic Motivation:

Extrinsic motivation can be defined as "motivation that comes from outside the person and usually involves rewards and praises" (Feist & Rosenberg, 2015, p.415). The examples of extrinsic motivation are reward, praise, money, feedback and so on. Thus it consists of something outside the individual. Such motivators provide satisfaction/ pleasure that the activities/ tasks may not provide. Thus these motivators get the individual to do something that they may not do otherwise.

Extrinsic motivation has a number of advantages as it is not only linked with the increase in behaviour but also with increase in performance. However, it also has limitation in the sense that, if, for instance, the reward is removed, then the behaviour may also decrease. And at the same time if the reward remains the same and is not increased, the motivation will also decrease. Further, extrinsic motivation may be effective with simpler tasks as opposed to tasks that require creative and lateral thinking. Moreover, it may also affect the intrinsic motivation of the person in carrying out the task. For example, if a child enjoys keeping his/ her room organized and tidy, but if parents start providing reward for the same, the child will keep the room tidy not because of the intrinsic motivation, that is the enjoyment, but will do so because of the reward given by the parents. To take yet another example, if an employee adequately uses safety devices because he/ she is intrinsically motivated to do so and if his/ her supervisor provides him/ her with extrinsic motivators for use of the safety devices, the employee will start using the safety devices due to the extrinsic motivation and not due to the intrinsic motivation.

Intrinsic motivation can be defined as "motivation that comes from within a person and includes the elements of challenge, enjoyment, mastery and autonomy" (Feist & Rosenberg, 2015, p.416). For example, there could be an activity that an individual enjoys doing. There are four components of intrinsic motivation as given below (Feist & Rosenberg, 2015):

- **Challenge:** It relates to the extent to which an individual enjoys the excitement that accompanies a new challenge.

- *Enjoyment*: It relates to the pleasure that an individual may obtain from carrying out the task.
- *Mastery*: It relates to the sense of pride and accomplishment that an individual may experience when he/ she carries out a difficult task.
- *Autonomy and self determination*: It relates to the autonomy that an individual enjoys while carrying out the task, that is, the freedom with which the individual can determine what is to be done and how is it to be done.

Intrinsic motivation plays an important role in enhancing the productivity as well as creativity in the individuals.

Self Assessment Questions 1

1. The term motivation has been derived from a Latin word _____, which means 'to move'.
2. Needs can be biological, social, and _____ needs.
3. Motivation is an external force that drives people into some action or behavior. True or False.
4. Drives are internal. True or False.
5. Primary motivation are _____ motivation whereas secondary motivation are _____ motivation.
6. What are the four components of intrinsic motivation?

5.5 THEORIES OF MOTIVATION

Various theories explain motivation. However, here we will discuss mainly Maslow's need hierarchy theory and Optimal arousal theory for a basic understanding.

Maslow's hierarchy of needs explains both primary and secondary motivation. Maslow's hierarchy of needs (Fig. 5.1) presents the needs in a hierarchical order in the form of a pyramid. It proposes basic needs at the lower end moving up to the higher needs. The basic needs are to be fulfilled before the higher order needs are met.

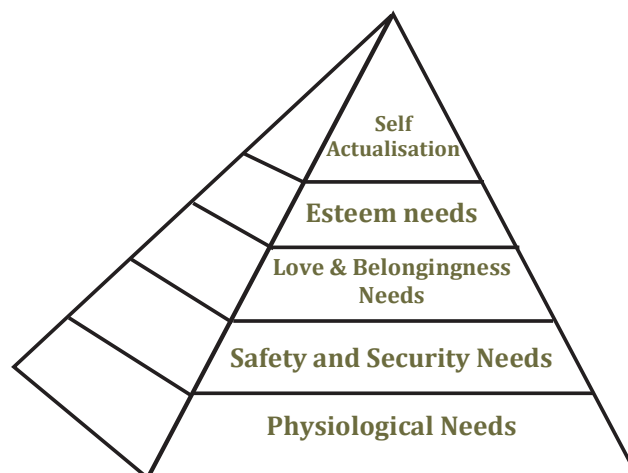


Figure 5.1: Maslow's Hierarchy of Needs (1954)

As we see in Figure 5.1, the basic needs are the physiological needs (related to the primary drive), namely need for food, water, sleep and sex. This is also called the ‘deficiency needs’ or D-needs. Physiological needs are followed by the safety needs that are related to the need for an environment that keeps us safe and secure. These two needs can be termed as lower order needs and once these are fulfilled, then the individual will move on to the other higher order needs, also called the ‘growth needs’.

The physiological and safety needs are followed by the need for love and belongingness, that is related to the give and take of love and affection. Next comes the esteem needs, that are related to the need for development of a sense of self worth. The highest need is that of self actualization, that is related to the need for realization of one’s full potential (Feist & Rosenberg, 2015) or can also be termed as a state of self fulfillment (Feldman, 2015). Maslow, later on, has added a new level of needs higher than self actualization, i.e., transcendence needs, which refers to finding spiritual meaning in life (Maslow, 1996).

Maslow’s theory has been criticized on two grounds: (i) these needs are not universal as suggested by Maslow. Cultural variations in the importance of needs may influence this and; (ii) These needs may not occur in the same hierarchical order. We have many instances where great scientists or reformers or artists have engaged in the higher needs of self actualization even if their lower needs, e.g., of hunger has not been met.

Optimal Arousal Theory helps explain the need for stimulation and behaviours related to curiosity or thrill-seeking behaviours. The theory states that when the arousal level is optimal, people perform better and function well. This theory is based on the work carried out by Yerkes and Dodson in 1908, referred to as the Yerkes- Dodson Law (Feist and Rosenberg, 2015). It explains the relationship between arousal level and task performance (see Fig. 5.2) in the following way: “we function best when we are moderately aroused or energized and both low and high arousal/ energy levels lead to poor performance” (Feist & Rosenberg, 2015, p. 399).

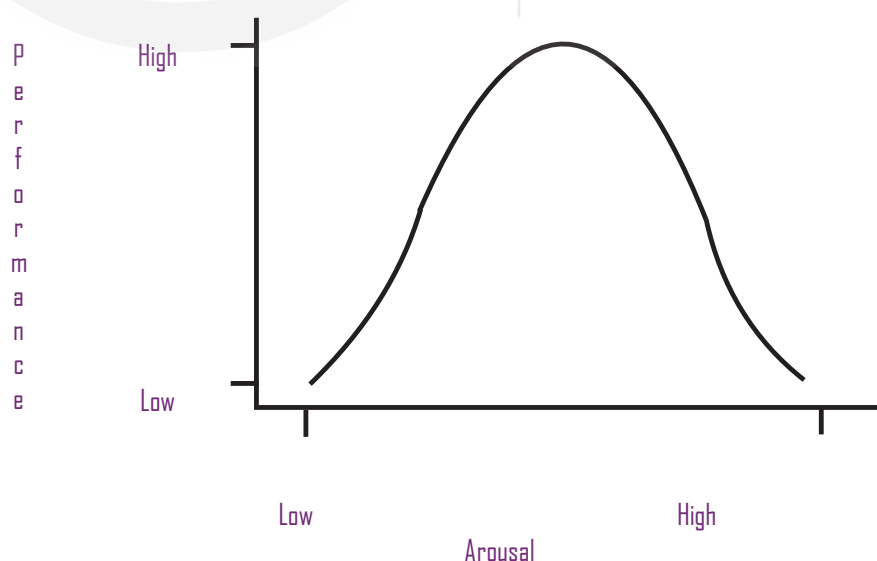


Figure 5.2 : The Yerkes- Dodson Law

As you see in the above Figure 5.2, when the arousal is low or high, the performance is also low; however, performance is high when there is an optimal

level of arousal. Thus it can be said that individuals are motivated when certain situation is not very high or low in stimulation.

There are two things that we need to take note of in the context of the Yerkes-Dodson law.

- (a) individual differences in the arousal level
- (b) difficulty level of the task

First, when we talk of an optimal arousal level leading to better functioning/performance, it needs to be noted that this optimal level may vary from person to person. Thus there is no fixed optimal arousal, but it is individual-specific.

The second thing is that the task difficulty level moderates the relationship between arousal and task performance. As the Yerkes-Dodson law states, in case of simpler tasks, a relatively higher arousal level is required for better performance; and with difficult tasks, a relatively lower arousal is needed for better performance.

5.6 ENHANCING INTRINSIC AND EXTRINSIC MOTIVATION

Under types of motivation we discussed about intrinsic and extrinsic motivation. But it is also important to understand how to enhance an individual's potential or how to motivate the individual to do his/ her best with the help of intrinsic and extrinsic motivation. This has relevance not only in our day-to-day life but also for students in schools and employees at workplace etc. Various techniques can be used to motivate individuals intrinsically and extrinsically.

Let us first focus on intrinsic motivation. In order to intrinsically motivate the individual, we will need to focus on its components that we discussed earlier, that is, challenge, enjoyment, mastery and autonomy and self determination. The techniques employed to intrinsically motivate individuals will necessarily depend on these basic components. Some of the ways in which individuals can be intrinsically motivated are discussed as follows.

Ways to increase the intrinsic motivation:

1. **Creating challenges:** In order to intrinsically motivate individuals, they need to be challenged or need to be involved in challenging activities or are given goals that are challenging. Also while creating these challenges, it can be ensured that the activity or the goal assigned has some personal meaning to the individual. Further, these goals or activities need to be challenging enough to display an uncertainty, where achieving the goal or completing the activity is possible but not absolutely certain. Feedback based on performance may also play an important role here, as feedback will help the individual understand his/ her standing in the face of the challenge. In school set up or at work place, the students and employees can be given challenging tasks in order to elicit their intrinsic motivation.
 - **Providing autonomy:** Autonomy was discussed as one of the components of intrinsic motivation. Individuals need to be provided with autonomy while assigning activities, tasks or goals, so that they are

intrinsically motivated to do their best. We all want to feel in control of our own self and our surrounding. In a work set up, when individuals are provided with certain goals, they also need to be given certain autonomy or control over themselves as well as their surrounding in order to intrinsically motivate them to enhance their potential and motivate them to complete the activity. Such an autonomy can be created when the individuals perceive a relationship (cause and effect) between the efforts put in by them and the desired results. Further, the effect or the result also needs to be worth the effort. Also the individuals are better intrinsically motivated when they feel that the activity that they are carrying out is not because they are forced to do it but because they want to.

- **Eliciting curiosity:** Curiosity occurs when something in one's surrounding catches one's attention and the individual wants to know more about it. Curiosity can be of two types, sensory curiosity and cognitive curiosity. Sensory curiosity is elicited when an individual finds something in his/ her surrounding that catches his/ her attention. It could be a sound, or an object and so on. Cognitive curiosity is elicited when an individual feels a need to learn more or gather more knowledge about the activity, object or event. A colourful model or exhibit in a classroom can elicit such curiosity amongst the students and can motivate them intrinsically to learn more about it.
- **Cooperation:** When an individual is given an opportunity to cooperate with other individual/s there is a possibility that his/ her intrinsic motivation will increase. Cooperation with others leads to feelings of satisfaction in the individual that enhances intrinsic motivation.
- **Competition:** Similar to cooperation, even competition with other individual/s can lead to increase in intrinsic motivation. Competition provides an opportunity to the individual to compare one's own performance with other individuals and that can in turn lead to increase in intrinsic motivation.
- **Working towards a greater good or higher purpose:** When an individual feels that he/ she is working for a greater good or higher purpose, then this will also serve as an intrinsic motivator and will enhance the individuals potential to perform.

With regard to extrinsic motivation, the reinforcements need to be linked to the activity or performance. Extrinsic motivators can help generate interest in an activity and also help individuals who lack basic skills for carrying out certain activity. Some of the ways in which individuals can be extrinsically motivated are discussed as follows:

Ways to increase the extrinsic motivation:

- **Recognition:** Recognition is one of the important factors that can lead to increase in extrinsic motivation in an individual. For example, an employee can be motivated to perform better when he/ she is extrinsically motivated with the help of recognition. Recognition may also lead to increase in satisfaction that the individual will derive by carrying out

his/her work related activities. Though one needs to ensure that the recognition is genuine as well as sincere for it to be effective.

- **Rewards and incentives:** This is another factor that can lead to increase in motivation. Rewards and incentives can be financial reward or non-financial reward. An example of financial rewards would be an amount that is given to the employee for following safety norms in an industry. Whereas, a non-financial reward could be praise or even attention.
- **Punishment:** Similar to rewards, punishment can also lead to an individual being motivated. Fear of being penalized may lead to following of safety behavior by the individual. A student will prepare his/ her homework in time in order to avoid any punishment from his/ her teacher.
- **External pressure:** Pressure from significant others in one's lives like parents, superiors and so on can also serve as an extrinsic motivator.

In this context, over-justification effect can also be discussed, where extrinsic motivation leads to interference with intrinsic motivation, that is, intrinsic motivation may decrease due to excessive extrinsic motivation. This takes place because as individuals analyze what motivates them, they assign more significance to external reinforcements rather than their intrinsic motivation or it can also be because the activity that was otherwise performed by them with interest, now feels like an obligation to achieve external reinforcement.

Self Assessment Questions 2

1. What is the fifth need in Maslow's Hierarchy of needs?
2. What are the basic needs?
3. Explain the Yerkes Dodson Law.
4. Which type of motivation will be increased by providing challenging tasks?
5. How can competition lead to increase in intrinsic motivation?

5.7 CONCEPT OF EMOTION

Emotions can also be termed as motivators of human behaviour (Feist & Rosenberg, 2015) and as such behaviour can be directed and activated by emotions as well (Nolen- Hoeksema et al, 2009). Though, they do differ from the basic needs that we discussed under motivation (like hunger, thirst and so on) and are not as such linked to any specific needs, for example, hunger is as a result of need for food and thirst in similar way as is a need for water. With regard to emotions there are a number of triggers, for example, sadness can be triggered as a result of number of triggers or needs like watching a sad movie, listening to a sad song and so on. Further, biological drives can be derailed by emotions. For example, need for food, which is in a way a powerful drive, but it is possible to override it with emotions. For instance, if an individual experiences the emotion of disgust, his/ her drive for food can get derailed. And this is relevant because the emotion of disgust can be termed as significant for the survival of the individual. When an individual looks at food that is spoiled, he/ she may experience disgust and despite of being hungry, the individual will refrain from eating that food.

Thus, emotions are important as it is involved in everything that we do. It impacts our relationships and helps or hinders in our self growth too. Let us see a few definitions of emotions below.

Emotion has been derived from a Latin term ‘emovere’ that means ‘stirred-up state’. There are various definition of emotion that are discussed as follows:

Feist and Rosenberg (2015, p. 418) defined emotions as “*brief, acute changes in consciousness experience and physiology that occur in response to a personally meaningful situation*”.

As stated by Gerrig and Zimbardo (2006, p. 418) emotions are “*a complex pattern of bodily and mental changes that includes physiological arousal, feelings, cognitive processes, visible expressions (including face and posture) and specific behavioural reactions made in response to a situation perceived as personally significant*”.

Kosslyn and Rosenberg (2013, p. 259) defined emotion as “*a psychological state with four components, a positive or negative subjective experience, bodily arousal, the activation of specific mental processes and stored information and characteristic overt behaviour*”.

Feldman (2015, p. 312) defined emotion as “*feelings that generally have both physiological and cognitive elements and that influence behaviour*”.

Mishra (2016, p. 466) defined emotion as “*a state of being moved, stirred up or behaviourally aroused on experiencing an emotional situation and which involves external and internal physiological changes*”.

One of the key points that can be highlighted in the above definitions is that there is a state of change. This change can be in the consciousness experience or could be in terms of physiological arousal and even in cognitive processes. Changes can also be in the form of visible expression that is displayed on the face or in the posture of an individual. This change is as a result of some situation that is important for the individual. For example, a parent might display emotions happiness as her/his child receives a gold medal. Here receiving of the gold medal by the child is personally significant for the parent and s/he may thus experience certain changes that could be in terms of physiological arousal, cognitive processes and feelings. There could also be changes in the facial expression of the parent.

In the Indian tradition, emotions are portrayed as ‘*rasa*’ which refers to the inherent quality that is cherished and which constitutes the emotive content of a piece of art (Ciccarelli & White, 2018). The theory of *rasa* was described by sage ‘Bharata’ which proposes eight *rasas* and a ninth one was added later on. These Nava (nine) *rasas* are *sringara* (love or delight), *hasa* (amusement, laughter), *karuna* (sorrow), *raudra* (anger), *vira* (perseverance or heroism), *bhayanaka* (fear), *bibhatsa* (disgust), *adbhuta* (wonder, astonishment, *santa* (state of neither happiness nor unhappiness). There is a rich source of literature related to emotional processes in ancient Indian texts.

5.7.1 COMPONENTS OF EMOTIONAL PROCESS

Emotion can be termed as an episode that is complex as well as having multiple components (Nolen- Hoeksema et al, 2009). There are six main components of emotion process discussed as follows:

Cognitive appraisal: The first component is cognitive appraisal. Here the situation is assessed based on the personal meaning. For example, if a cricket team wins, there will be a cognitive appraisal with regard to the personal meaning of the situation, whether this individual supports this team or not. If the person supports this team and s/he is a die hard fan of this team then the situation will be assessed as having personal meaning or is personally significant for the individual. The cognitive appraisal leads to the other components of emotion.

Subjective experience: This is related to the affective state or the feeling tone that is brought by the emotion (Nolen- Hoeksema et al, 2009).

Thought and action tendencies: At this stage the individual will display an urge to think in a particular manner or take certain actions. For example, when an individual is angry, s/he may act in a manner that is aggressive.

Internal bodily changes: There are physiological reactions mainly involving the autonomic nervous system. Thus, there could be changes in heart rate or the individual may start perspiring. For example, when a person is angry, s/he may breath faster.

Facial expressions: In this there is movement in the facial landmarks like cheeks, lips, noses and so on (Nolen- Hoeksema et. al, 2009). For example, when an individual is happy, s/he will smile.

Response to emotion: This is related to how an individual cope and react with one's own emotions.

Any emotion is a result of these six components. Broadly, we can say that any emotion will have the physiological, cognitive and behavioural components. When an individual experiences anger, s/he may experience physiological arousal in terms of sympathetic arousal. This also has a cognitive component as the individual may believe that s/he is in danger, and then the individual may display tendencies of avoidance that are related to the behavioural component. Similarly, when an individual is angry, s/he will experience sympathetic and parasympathetic arousal. The individual will have a belief that s/he is being mistreated and thus s/he will have attack tendencies (Rathus, 2008).

5.8 TYPES OF EMOTIONS

Emotions can mainly be of two types, basic emotions and self conscious emotions. These are discussed as follows:

Basic emotions: Basic emotions are a set of emotions that commonly appear in all the human beings. These are *anger, disgust, happiness, fear, sadness and surprise*. These emotions can be stated to be innate and are shared by all human beings. And though human beings can experience a broad range of emotions, researches on emotions have indicated that all the emotions are an outcome of combinations of certain basic emotions (Kosslyn and Rosenberg, 2013). Further, Charles Darwin also proposed that the actions that arise as a result of emotions or emotional behaviour are innate in nature and similar emotional states are expressed in terms of similar facial expressions across cultures and in fact even persons with visual impairment may display similar facial expressions even if they have never observed emotional expressions in others.

However, this proposition with regard to basic emotions have also been challenged as different researchers have proposed a slightly different list of basic emotions (Kosslyn & Rosenberg, 2013). Moreover, the basic emotions are also not so simple. For instance, Rozin, Lowery and Ebert in 1994 stated three types of disgust based on the facial expression (as cited in Kosslyn and Rosenberg, 2013 p. 260). Further, though certain emotions may be consistent across cultures, there are certain emotions that are influenced by the norms and practices of the cultures. Thus, though basic emotions have been considered as inborn, the influence of learning and social norms and practices cannot be nullified.

Self conscious emotions: Self conscious emotions on the other hand, are emotions that necessarily require a sense of self as well as an ability in order to reflect on one's actions. Further these emotions are as a result of whether the expectation in terms of social norms and the rules are met or not. Examples of self conscious emotions are embarrassment, guilt, pride, shame and humiliation (Feist & Rosenberg, 2015). The self conscious emotions occur as a result of the extent to which an individual is able to meet his/ her own expectations, the expectations of others or social norms.

5.9 EMOTIONS, MOODS AND FEELINGS

Emotions, moods and feelings are usually used interchangeably, but they differ from each other. We have already discussed about what is emotion in the earlier section. Mood can be defined as “affective states that operate in the background of consciousness and tend to last longer than most emotions” (Feist & Rosenberg, 2015, p. 418). Moods can make occurrence of certain emotion more likely than others. For example, a supervisor who is in irritable mood is more likely to get angry at an employee for coming late to work. The distinction between emotions and mood has been given below in Table 5.1.

Table 5.1: Differences between Emotions and Mood

Emotions	Mood
Emotions have a cause that is clear, e.g., a person may be amazed while looking at a beautiful monument.	Moods are free floating and diffuse affective states (Nolen-Hoeksema et.al., 2009, p.465), e.g., an individual may feel cheerful on a day and may feel irritated the next day.
Emotions are brief and may last for a few seconds or minutes.	Moods are comparatively long lasting.
Emotion is a multicomponent episode.	Moods are mainly related to the experience that is subjective.
Emotions can fit in certain categories that are discreet like anger, joy etc.	Moods may vary with regard to pleasantness and arousal.

Further, emotions and feelings can also be differentiated (see Table 5.2), though both can be termed as affective processes.

Table 5.2: Differences between Emotions and Feelings

Emotions	Feelings
Emotions are comparatively more complex.	Feeling is basically an affective process that is simple in nature.
Any emotional experience is preceded and accompanied by feelings, e.g., feeling of pleasure will lead or will be accompanied by the emotion of happiness/joy.	In feeling, emotional experience may or may not occur, e.g., an individual may experience feelings of pleasure or pain without experiencing any emotions.
Emotion is an affective process that is much more active.	Feeling is process that is comparatively less active.
Emotion is both subjective and objective.	Feeling is subjective in nature.
Emotions are of different types, e.g., anger, joy, jealous etc.	Feelings are mainly categorized into pleasure and pain.
Physiological changes are experienced.	Physiological changes may not be noticed.

Self Assessment Questions 3

1. How many *rasas* are described in the Indian tradition?
2. What are the six basic emotions?
3. Provide examples of self conscious emotions.
4. Define mood.

5.10 FUNCTIONS OF EMOTIONS

Now that we are clear about the meaning of emotions, their components and types of emotions, it is also important to understand what functions do emotions serve. These are discussed below.

- **Emotions prepare an individual for action:** Emotions serve as a link between the situation and the individual's reaction. For example, if an individual is crossing a road and suddenly sees a truck coming towards her/him, the emotional reaction that s/he would display, that of fear, would be linked with the physiological arousal.
- **Emotions play a role in shaping of future behaviour of an individual:** Learning takes place as a result of emotions experienced by us and thus for example, the situations that evoke negative emotions are avoided by us.
- **Emotions help in effective interaction with others:** Emotions that are communicated via verbal and non verbal communications may help individuals to interact with each other more efficiently, because emotions act as signals, thus helping individuals understand what the other person

is experiencing. Future behaviour of individuals can also be predicted based on this.

5.11 AWARENESS AND REGULATION OF EMOTIONS

Since emotions are an integral part of our life, being aware of our emotions or recognizing/ identifying these is very important. Further it is also crucial to learn how to express the emotions and regulate these. Hence awareness of emotions, expression of emotions and management of emotions are key aspects in any interaction and relationship, and contributes to an effective life.

“Anybody can become angry-that is easy; but to be angry with the right person, and to the right degree, and at the right time, and for the right purpose, and in the right way-that is not within everybody’s power and is not easy.”

- Aristotle

One needs to be aware of one’s own emotions and express it properly. To express or to control – this is a pertinent question for many of us in various contexts including relationship, and work. Our culture and societal factors play a role here both in expression and identification of emotions. Emotions involve both verbal and non-verbal language including facial expressions and gestures. It is important to learn to pay attention to the body language, identify emotions in oneself and others around, and regulate the emotions adequately.

We can note that there is a difference between expression of emotions and experience of emotions. Experiencing emotions is more a subjective experience. Expression of emotions plays a significant role in a social interaction and there are certain display rules that are specific to one’s culture with regard to expression of emotions. Display rules can be defined as “a culture specific rule that indicates when, to whom and how strongly certain emotions can be shown” (Kosslyn & Rosenberg, 2013, p. 269). Thus, each culture will have its own norms and rules with regard to expression of emotions and these norms and rules are learned by the individuals. Also, it can be stated here that though the basic emotions are same for all individuals, the way these basic emotions are expressed may differ based on the display rules.

This ability to know about emotions in oneself and others, express them, and to manage emotions properly is called the **Emotional Intelligence**, the pioneer of which is Daniel Goleman. In simple terms, emotional intelligence refers to being intelligent about our emotions which enables us to identify our emotions, regulate it and express it properly so that it helps in better communication, adjustment and functioning. Emotions are a reflection of our inner world and our relationship with others. Hence it is important to know the emotions and then regulate them. *Emotional self-regulation* refers to the process by which one inhibits or moderates one’s emotional responses in order to remain engaged in thoughtful interaction (Kirsh, Duffy & Atwater, 2015, p. 143). It indicates the cognitive and behavioural efforts by the individuals to modify their emotions (Feist & Rosenberg, 2015, p. 424).

Daniel Goleman, author of the New York Times bestseller “Emotional Intelligence: Why It can matter More Than IQ?” published in 1995, says,

“By teaching people to tune in to their emotions with intelligence and to expand their circles of caring, we can transform organizations from the inside out and make a positive difference in our world.”

Thus it underlies the importance of cognition in attending to the emotional information. Our emotional expressions and reactions would depend on how we interpret the emotional inputs, what meaning do we give to it. This is reflected in the cognitive emotion theories. The **Cognitive arousal theory by Schachter-Singer**, also called the two-factor theory, highlights two things important for experiencing the emotion: (a) physical arousal in response to a stimulus, e.g., a barking dog coming towards you, and (b) labeling of the arousal or cognitive appraisal based on environmental cues (Schachter & Singer, 1962). Both these occur at the same time and, then the individual experiences the emotion. Another theory by Lazarus (1991) called the **Cognitive-mediational theory of emotion** states that the emotions experienced are an outcome of the appraisals of the information that is received from the environment and from within the body. Thus the stimulus is interpreted or appraised by the individual first which results in an emotional reaction and then associated physical response. For instance, the stimulus of barking dog is appraised as threatening and emotion of fear is experienced which results in associated bodily responses. The appraisal process also considers past experiences and possible consequences of an emotional action. Thus the cognitive theories of emotions highlight the important role of appraisal or interpretation in the process of emotion experience and expression. It puts the choice and responsibility of emotions on the individual. This has great implications for our self growth.

Self Assessment Questions 4

1. Describe the functions of emotions.
2. What are display rules?
3. What is emotional self-regulation?
4. Who is the pioneer of emotional intelligence?

5.12 LET US SUM UP

In the present unit, you learned about two key correlates of the ‘Self’, that is, motivation and emotion. These play an important role in the growth, adjustment and effective functioning of the individual. The concept of motivation and the types of motivation were described. Various ways to enhance the intrinsic and extrinsic motivation were also explained. The meaning of emotions and its components were described. Emotion was differentiated from mood and feelings which are often used interchangeably. Emotions serve various functions and hence it is important to learn to be aware of our emotions, identify and manage them. Emotional self-regulation has implications for various aspects of our life.

5.13 KEY WORDS

Motivation	: can be defined as the factors that direct and energize the behaviour of humans and other organisms (Feldman, 2015, p. 287).
Drives	: is defined as the perceived states of tension that occur when our bodies are deficient in some need, creating an urge to relieve the tension (Feist and Rosenberg, 2015, p. 397).
Intrinsic motivation	: can be defined as motivation that comes from within a person and includes the elements of challenge, enjoyment, mastery and autonomy (Feist & Rosenberg, 2015, p.416).
Extrinsic motivation	: can be defined as motivation that comes from outside the person and usually involves rewards and praises (Feist & Rosenberg, 2015, p.415).
Maslow's hierarchy of needs	: presents the needs in a hierarchical order in the form of a pyramid where basic needs are at the lower end moving up to the higher needs.
Emotion	: can be defined as a state of being moved, stirred up or behaviourally aroused on experiencing an emotional situation and which involves external and internal physiological changes (Mishra, 2016, p. 466).
Mood	: can be defined as affective states that operate in the background of consciousness and tend to last longer than most emotions.
Self conscious emotions	: are emotions that necessarily require a sense of self, an ability to reflect on one's actions, and are a result of whether the expectation in terms of social norms and the rules are met or not.
Emotional intelligence	: refers to being intelligent about our emotions which enables us to identify our emotions, regulate it and express it properly so that it helps in better communication, adjustment and functioning.
Cognitive-mediational theory of emotion	: states that the emotions experienced are an outcome of the appraisals of the information that is received from the environment and from within the body.

5.14 ANSWERS TO SELF ASSESSMENT QUESTIONS

Answers to Self Assessment Questions 1

1. '*movere*'
2. Cognitive

3. False
4. True
5. Basic, learned
6. Challenge, enjoyment, mastery, and autonomy/self determination

Answers to Self Assessment Questions 2

1. Self actualization
2. Basic needs are the physiological needs, also called the 'deficiency needs' or D-needs.
3. The Yerkes Dodson Law explains the relationship between arousal level and task performance in the following way: "we function best when we are moderately aroused or energized and both low and high arousal/ energy levels lead to poor performance."
4. Intrinsic motivation
5. Competition provides an opportunity to the individual to compare one's own performance with other individuals and that can in turn lead to increase in intrinsic motivation

Answers to Self Assessment Questions 3

1. Nine
2. anger, disgust, happiness, fear, sadness and surprise.
3. Examples of self conscious emotions are embarrassment, guilt, pride, shame and humiliation.
4. Mood can be defined as affective states that operate in the background of consciousness and tend to last longer than most emotions.

Answers to Self Assessment Questions 4

1. Functions of emotions are: (i) emotions prepare an individual for action, (ii) emotions play a role in shaping of future behaviour of an individual, and (iii) emotions help in effective interaction with others.
2. Display rules can be defined as a culture specific rule that indicates when, to whom and how strongly certain emotions can be shown.
3. Emotional self-regulation refers to the process by which one inhibits or moderates one's emotional responses in order to remain engaged in thoughtful interaction.
4. Daniel Goleman

5.15 UNIT END QUESTIONS

1. Define the concept of emotion and describe the components of emotional process.
2. Describe the ways to increase intrinsic motivation in individuals.

3. Differentiate between primary and secondary motivation.
4. Discuss the theories of motivation.
5. Discuss the implications of emotional self-regulation for interpersonal interaction in human beings.

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UNIT 6 PROBLEM SOLVING, DECISION MAKING AND CREATIVITY*

Structure

- 6.1 Learning Objectives
- 6.2 Introduction
- 6.3 Problem Solving
 - 6.3.1 Nature and Stages of Problem Solving
 - 6.3.2 Ways of Problem Solving
 - 6.3.3 Barriers to Effective Problem Solving
- 6.4 Decision Making
 - 6.4.1 Nature and Stages of Decision Making
 - 6.4.2 Strategies for Effective Decision Making
- 6.5 Creativity
 - 6.5.1 Nature and Aspects of Creativity
 - 6.5.2 Stages of Creativity
 - 6.5.3 Ways to Enhance Creativity
- 6.6 Let Us Sum Up
- 6.7 Key Words
- 6.8 Answers to Self Assessment Questions
- 6.9 Unit End Questions
- 6.10 References
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6.1 LEARNING OBJECTIVES

After studying this Unit, you would be able to:

- *Explain the nature of problem solving;*
- *Describe the barriers to problem solving and discuss ways to improve it;*
- *Explain the nature and stages of decision making;*
- *Delineates the strategies for effective decision making;*
- *Explain the meaning of creativity; and*
- *Discuss the stages of creativity and ways to enhance creativity.*

6.2 INTRODUCTION

In the previous two Units, you have learned about several correlates of the self, namely attitude, personality, thinking, emotions and motivation. In the present

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Unit, you will learn about further correlates of self such as problem solving, decision making, and creativity. All these aspects of our self play an important role in influencing our way of functioning and interaction with others in our surrounding. They reflect our ways of thinking. When we encounter any type of problem, how do we think about it, analyze the problem, consider various alternatives to solve the problem, choose among the alternatives, take a decision, and also use creativity to gain new perspective and ways to solve problems.

6.3 PROBLEM SOLVING

6.3.1 Nature and Stages of Problem Solving

Human beings are always engaged in problem solving, be it in day-to-day life or at school, workplace or interpersonal relationships. Problems can range from simple to complex. Problem solving means there is a problem which needs to be solved. It involves reaching a goal, and thus includes goal-directed thinking. Various alternative ways are explored to achieve goals. We solve problems based on our existing knowledge, earlier experience and thinking in terms of future.

There are three *components in problem solving* – (a) an original state, refers to the present situation of problem/difficulty; (b) a goal state, which is the desired state which we want to achieve; and (c) the rules that are applied to reach to the goal state to achieve the desired outcome. Here the person (the operator) uses various skills and techniques to arrive at the goal state.

The internal or mental representation of all the three is called the *problem space*, i.e., the space in which we visualize the original and end state/goal state, and where alternative solutions are found and employed.

Usually problems can be described as of two types such as

- *Well defined problems*: These are the problems that are easy to define and describe. Nature of the problem is clear and correct solutions are available, e.g., puzzles. The initial state and goal states are clearly definable, and there are available rules and strategies to reach the goal.
- *Ill defined problems*: Here the nature of the problem is not clear and cannot be described in specific ways, e.g., defining justice or peace, or creating an abstract painting. All the aspects of problem space such as the initial state, goal state, the operator and the rules used are not clear and defined.

The stages in problem solving usually begins with defining and understanding the problem. Then it involves thinking about the alternative ways to solve the problem, implementing the best alternative, and finally evaluating it in terms of the desired outcome.

Problem solving stages generally follows the stages in creativity which is described in detail in the section on creativity.

6.3.2 Ways of Problem Solving

Trial and Error: As the name indicates, it involves solving a problem by trying different methods in a random way. We keep on trying one solution after another

on a trial and error basis until we get a correct solution. It works in a mechanical way and is not very effective.

Algorithms: This is another way of solving problems which follows a step-by-step procedure to reach the solution. It will always result in a correct solution. However, it takes a long time to reach the solution as it keeps exploring the options one by one in a systematic way.

Heuristics: This is comparatively the fastest and most effective way of problem solving. We cannot possibly use trial and error always or have long enough time to go through the tedious process of using the algorithm way of problem solving. Though we can make use of algorithms in the computers to generate solutions, we, as human beings need something else to solve problems in our day-to-day life. A heuristic is a better approach here which refers to a “rule of thumb”. That is, heuristic is a simple rule based on prior experiences which is used to solve problem. Thus, there is no trying out of each possible solution in a step-by-step way, but this method reduces it by taking intelligent guesses at solution on the basis of previous learning and experiences. However, heuristics does not always lead to correct solutions as it is in the case of algorithm, but it increases the chances of getting the correct solution by narrowing down the possible solutions unlike the trial and error method.

Various types of heuristic methods are used such as *backward search*, *means end analysis* etc. Backward search as the name implies starts at the goal state or the desired outcome and moves backward towards the original state, e.g., in solving a maze problem, if you start tracing from the end state, it becomes easier for you to reach the initial state in short time. In means end analysis, the end is identified and various means are used to reduce the difference between the current state and goal state. It tries to identify sub goals between the two and minimize the gap in the process.

Insight: Insight is also another strategy of solving problem. Here the solution comes suddenly to the person, hence called insight. It is like an “Aha” experience or the “Eureka” moment. Insight involves reorganization of experiences in the mind when one is engaged in other things, and then suddenly the solution appears to the person.

6.3.3 Barriers to Effective Problem Solving

Various factors can affect problem solving, for example, lack of appropriate information and facts about the problem, lack of understanding about the problem, lack of knowledge about problem solving techniques and process, being unsystematic, lack of patience and commitment in solving the problem etc.

There are certain barriers which may impact individual’s problem solving capability.

Perceptual barriers

Sometimes we fail to see the problem from alternative perspective because of our fixed and set beliefs. Mental Set refers to a fixed pattern of thinking based on one’s earlier experiences. Thus we are not able to go beyond the tried and tested paths/solutions which poses a barrier in problem solving. We see only what we want to see. You will learn more on it in the section on creativity.

Emotional barriers: Our emotions of fear, anxiety about making mistakes leads to stress and may prevent us from seeing things in perspective. This in turn poses a barrier to effective problem solving. We avoid taking risks for fear of failure in solving the problem.

Environmental barriers: Refers to factors in one's physical and social environment that become barriers to problem solving. For instance, there may be lack of support, lack of proper communication, lack of infrastructure, stress etc.

Cultural barriers: It refers to one's beliefs, set notions, attitudes, prejudices, values and practices influenced by one's culture which may impact problem solving.

Self Assessment Questions 1

1. What are the three components in problem solving?
2. Define well-defined problems.
3. What is algorithm?
4. Explain cultural blocks to problem solving.

6.4 DECISION MAKING

6.4.1 Nature and Stages of Decision Making

What time to get up or go to sleep? What movie to see on the weekend? Or which story book to read? With whom to make friends? Which courses to join? What careers do I go for? Whether to marry or not? Which city I want to live and settle in? etc.

We are required to make so many decisions in our life. These can be daily life decisions and/or major life decisions. The day-to-day decisions are somewhat easier to make because of our routines and habits. But it is in the case of major decisions like pursuing a course of study, career, marriage, buying a house, investment in finance or business, changing a job/city etc. are major decisions which involves more thinking. It requires us to be decisive and take the step. Since these are important life decisions which will affect our life in major ways, we face anxiety in making a decision. Sometimes we may fear the consequences of our choices and hence avoid taking a decision (Anderson, 2003).

There may also be *post-decision regret* after having taken a decision, particularly in case of a difficult decision. One experiences regret and feels that one might have taken a wrong decision and blames oneself and feels bad about it.

Decision making involves considering several alternatives and then arriving at one particular option to implement it. The pros and cons of each option are weighed, the outcomes in each case are deliberated, and then one zeroes in on one particular option.

There are various steps involved in making a decision (Kirsh, Duffy & Atwater, 2015).

- Rise to the challenge: You are first required to identify the problem you are faced with. What exactly are the issues, and why it will require you to take a decision?

- Search for alternatives: Here you look for all the possible alternatives to address the problem and collect information on each of these.
- Evaluate the alternatives: The strengths and limitations of each alternative are considered to find the best possible alternative.
- Make a commitment: It involves implementing or acting on the best possible alternative you have selected.
- Assess your decision: After you have taken the decision, you need to evaluate it in terms of the desired outcome and consequences. This will provide you the necessary feedback to reflect on your decision-making process. This will help you further improve your decision making skill.
- Accept and let go: Once you have made a decision, it is wiser to accept whatever the consequences instead of repenting it. Whatever decision one takes in a given situation, it is usually the best possible decision one takes according to herself/himself in that particular situation. Later on things may change, situations may change, perspectives and priorities may change. Hence instead of keeping on regretting about the past, it is best to gain perspective and move ahead and think about making the present and future better.

6.4.2 Strategies for Effective Decision Making

A decision is considered effective in the context of the person and the context. Whatever choice or decision is good for you may not be so for another person. Hence one needs to base the decision keeping in mind the person characteristics and her/his sociocultural context.

However, a few points can be noted that can help in effective decision making.

Developing self-awareness: Knowing about yourself is important because it is you only who have to live with the consequences of the decision. Hence one needs to be aware of one's attitudes, values, approach to life and life goals etc. so that there is alignment with the decision one takes.

Collection of appropriate information: Relevant information or data related to the problem is important to facilitate making of better decisions. One needs to focus on the facts, analyze the alternatives and draw inferences. This will help in making better judgement regarding decisions.

Preparing a balance sheet: It involves listing out the alternatives, and then writing down the pros and cons for each of the alternative. This will help in comparing and analyzing the advantages and drawbacks of each alternative or choice. It is also easier to visualize the things when it is written down on the paper. The objective here is to weigh both and aim at maximum advantage with minimum cost or disadvantage.

Self Assessment Questions 2

1. What is post-decision regret?
2. What do you mean by preparing a balance sheet?
3. Define decision making.

6.5 CREATIVITY

6.5.1 Nature and Aspects of Creativity

Do you see the two dots below?



Now, you take a pencil/pen and connect these two dots. How did you join it? Most probably, you would have drawn a straight line between the dots to join it. But, can you think of alternative ways to join the two dots? Try and see.

What is creativity? We all are creative to various extents. We have exhibited creative thinking at some point or other when faced with life's varied situations and challenges. It can be called as a special kind of problem solving. But creativity goes beyond the conventional ways of thinking and addresses the problem in a novel way. It reflects uniqueness in the person and in the approaches used by him/her. In the above task of joining the two dots, you can do so by drawing zigzag lines, wavy lines, or even extended lines also.

Creativity can be described in reference to people, the inventive acts or products, a new creation like a composition or an art/sculpture, or a scientific theory. In other words, we mainly refer creativity to the person or to some tangible product or new creation of that individual. We also describe the creative persons in terms of various specific characteristics.

Creativity has been described and defined in various ways. It is the ability to come up with or generate creative ideas and possibilities. It involves thinking in new and original ways to reach a solution. Creativity thus entails originality, but originality is not always creativity because having unusual and new thoughts does not always make sense or are appropriate and relevant to the society. Hence, novelty/originality must go along with relevance or usefulness and practicality.

Other researchers (Runco & Jaeger, 2012) have also supported this when they point out that originality is vital for creativity, but not sufficient. Creativity requires both originality and effectiveness (in the form of usefulness, fit or appropriateness).

Newell, Shaw and Simon (1963) have suggested four criteria for creativity. One or more of these criteria must be satisfied for an answer to be considered creative:

- It has novelty and usefulness, either for the individual or the society
- It demands that we reject ideas we had previously accepted
- It results from intense motivation and persistence.
- It comes from clarifying a problem that was originally vague.

Aspects of Creativity

What does creativity involve? Knowing the aspects of creativity can help to design tests for measuring or assessing creativity in people. According to Guilford (1950),

creativity involves *divergent thinking* in contrast to convergent thinking. The latter refers to thinking in conventional set pattern whereas divergent thinking refers to thinking out of the box. Divergent thinking is having divergent ideas and possibilities, e.g., think of how many ways you can use a brick. Our education system usually encourages convergent thinking more than divergent thinking, requiring students to provide “correct” rather than “unique” answers (Chamorro-Premuzic, 2015).

The importance of divergent thinking can be exemplified by the ‘Nine-dots’ problem shown in Figure 6.1 below. It requires one to join all the nine dots with the help of ‘four’ straight lines, the lines going through all the dots, without lifting the pencil from the paper and without retracing?

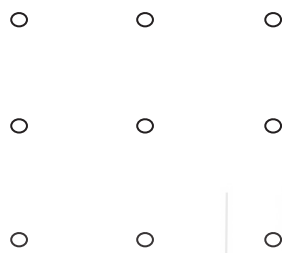


Figure 6.1: The Nine Dots Problem

As you would see, it requires divergent thinking to reach the solution for it. Usually, we do not think beyond the instructions. The instructions have not mentioned that one cannot extend beyond the dots. If one thinks in this line, it can be solved. You can see the solution at the end of the Unit.

Thus, one of the key aspects of creativity is divergent thinking. It consists of four processes/aspects such as,

- *Fluency*: refers to how rapidly the person comes up with ideas. It can be in respect of words, ideas, expression or associations. For example, write words containing a specified letter like p, ‘pot’, ‘hop’, ‘option’ etc. (word fluency); tell the fluids that will burn (ideational fluency); and write words similar in meaning (associational fluency).
- *Flexibility*: refers to the ability to produce a large variety of ideas such as thinking of varied uses of a particular object, e.g., list the different ways of using a rope or a newspaper. It also includes activities to make objects, e.g., drawing specified objects using a set of given figures.
- *Originality*: refers to the uniqueness or novelty of ideas. It is the ability to produce ideas that are unusual, statistically infrequent and not obvious.
- *Elaboration*: involves the ability to develop and describe an idea, such as, consequences of a hypothetical event, e.g., what would happen if no sleep is required?

6.5.2 Stages of Creativity

Creativity is a complex process. It does not come all of a sudden. It takes time but creative ideas appear all of a sudden, like a flash of lightning. According to Graham Walls (1926), there are four major stages in creativity:

Preparation. The person in this stage tries to understand the problem. As Einstein had said, “the formulation of a problem is often more essential than its solution”. Thus, focus needs to be more on knowing about the problem in detail. Mackworth (1965) views that problem finding is more important than problem solving. It is crucial to discover the right problem that needs to be solved. For this, one needs to collect all the information about the problem that will help identify the problem, analyze it and understand it. Further, it involves setting the goal and generating ideas towards the solution of the problem.

Incubation. This is the time out phase where the individual does not engage in any activity. At least there is no overt activity, but the processing of all the information gathered during the preparation stage goes on in this stage. The person does not consciously or actively think about the problem, but the creative processes carry on within the individual at an unconscious level.

Inspiration. After the incubation stage, the person suddenly gets an insight about the solution of the problem. In other words, it results in an ‘Aha’ experience. A new idea or new possibilities emerge and the individual is more active and conscious in this stage. S/he may also reformulate the problem based on the illumination or inspiration obtained in this stage. It may be noted that this ‘eureka’ moment involves a lot of thinking and effort in the preparation stage.

Verification. The person then tries to evaluate and verify the ideas and solutions in this stage. It may result in some modifications of the solution. In some cases, the person may also need to go back to the first stage to gather or generate more information about the problem, thus more ‘preparation’ is required.

The process is cyclical. However, sometimes, if the person has good knowledge of the problem area, the stages may appear in a different order, directly proceeding to the stage of incubation or inspiration or even to the verification stage.

6.5.3 Ways to Enhance Creativity

Children are generally observed to be more creative than adults. Creativity in children can be observed in the form of symbolic play or imaginative possibilities they engage in. However, as children grow, our process of education and socialization focusing more on conformity, tend to suppress the creativity in them and even discourage them for their expression of creativity. This poses a serious challenge for the development of creative abilities in school children. Torrance (1965), based on his studies on third to sixth grade children, has identified five principles that teachers should implement in order to reward the creative behavior of students.

- *Be respectful to unusual questions.*
- *Be respectful of imaginative, creative ideas.*
- *Show your students that their ideas have value.*
- *Occasionally have students do something ‘for practice’ without the threat of evaluation.*
- *Tie in evaluation with causes and consequences.*
- *Encourage the self-initiated learning and evaluate it.*

The expression of creativity can be fostered by activities as simple as child's play, which stimulates the imagination. Arieti (1976), a psychoanalyst, has proposed that a society can promote or inhibit the creativity of its citizens by its values and resources. He talked about a '**creativogenic society**', a type of society that promotes creativity. He specifies various socio-cultural factors for a creativogenic society such as the availability of cultural (and certain physical) means to all citizens without discrimination; openness to cultural stimuli (in different aspects of human life); tolerance for diverging views etc.

Thus, the **factors related to the socio-cultural environment** are important – they may facilitate expressions of creativity or also act as barriers to creativity in individuals. Further, **personal psychological factors** also may affect creativity. A most common factor is the fear of failure or committing mistakes. People usually want to follow the beaten path because of their desire for security and the fear of unknown. There is also rigidity of thinking, lack of drive, difficulty in isolating the problem, failure to use multi sensory approach in learning, and inability to see remote associations etc. This limits the creative ideas and exploring new ways of doing things.

Two of the important factors that have a negative impact on creativity are mental set and functional fixedness.

Mental set refers to perceiving things and responding to them in a set pattern, routine approach or stereotypical way. For instance, if we have solved a problem in a particular way, we tend to use the same method for solution when we face similar problem later on. Though it is obvious and practical to use the solution that has worked well in the past, sometimes it poses a problem as we may miss out on simpler and effective solutions. Mental set can be helpful as well as a barrier. It is helpful in the sense that it reduces the cognitive load as some aspects can be addressed/responded in a routine manner, thus saving our resources for tasks that require it. On the other hand, it poses as a barrier for creative thinking because of a set pattern of thinking.

Functional fixedness refers to the tendency to perceive things only in terms of their typical use or function, e.g., a spoon is for eating purpose only, or a pencil is for writing and drawing only. But can we think of using the spoon in a very different way, may be as a paper weight; or the pencil as a scale/ruler to draw straight lines in the notebook? Functional fixedness can be described as a type of mental set. Here, since the function of a particular object is fixed in our mind, we usually do not think outside of it, which hinders creative ideas.

Enhancing Creativity

Creative potential of an individual can be increased through various ways and methods. But there needs to be a general attitude and atmosphere of supporting or favouring creativity.

Principles for fostering creativity:

1. Introduce a variety of instructional materials need to be used to facilitate different forms of student expression.
2. Develop a favourable attitude towards creative achievement.
3. Provide encouragement for creative ideas and creative expression.

4. Foster the creative abilities of children through feedback and support.
5. Provide reinforcement for engaging in creative work.
6. Provide a supportive environment at school and home to foster a creative personality – being self confident, sensitive, independent, unconventional etc.

We can discuss a few techniques below which can be helpful for enhancing creativity.

- **Divergent thinking:** It includes thinking and behaving in divergent ways. It helps come up with multiple ideas that aid creativity. Further, the child can be given opportunities for original expression in many ideas, such as through written language, rhythms, music, art etc. Thus, fluency, originality and flexibility in producing ideas need to be encouraged in the children.
- **Brainstorming:** Osborn's (1957) brainstorming is a group approach to encourage creativity. It is a technique where people in a group setting are required to come up with as many ideas as possible without any self-censor or inhibition. Thus they speak out whatever comes to their mind on a particular topic/issue without much thinking about it or postponing it or judging it. There are four basic guidelines for the group: (i) evaluation of ideas withheld until later, thus ruling out criticism; (ii) the wilder the idea, the better; (iii) the greater the number of ideas, the better; and (iv) people can combine two or more ideas proposed by others

Osborn emphasizes that the spirit of the brainstorming session needs to be maintained by encouragement of each other, complete friendliness and relaxed mind.

- De Bono's (1985) '**Six Hats**' method helps to view an issue or a problem from a number of different perspectives. The method involves wearing each hat mentally and thinking according to the characteristic features of each hat. The idea is that when wearing any of the six possible fictional coloured hats imbued with certain qualities, the thinker emphasizes certain approaches to thinking. Thus, it encourages thinking from different perspectives, thereby leading to creative ideas and solutions.

Self Assessment Questions 3

1. Differentiate between convergent thinking and divergent thinking.
2. What are the aspects of creativity?
3. What is incubation stage in creativity?
4. In which stage of creative thinking does the 'Aha' experience occur?
5. What is mental set?

6.6 LET US SUM UP

In this Unit you learned about three important correlates of self, that is, problem solving, decision making, and creativity. These three aspects related to the process

of thinking influence the growth and functioning of the self. They help in making life smooth by solving problems effectively, taking good decisions and using creativity to enrich one's life. The nature and stages of problem solving were explained. Various ways to solve problems were described and the barriers in problem solving were also explained. Further, the nature and stages of decision making were discussed. The strategies which can help us in making effective decisions were highlighted. Finally, you developed an understanding of the concept of creativity and the stages involved in it. Various ways to enhance creativity were also described.

6.7 KEY WORDS

- Well-defined problems** : are those where the initial state and goal states are clearly definable, and there are available rules and strategies to reach the goal.
- Ill-defined problems** : are those where all the aspects of problem space such as the initial state, goal state, the operator and the rules used are not clear and defined.
- Heuristic** : is a “rule of thumb” or a simple rule based on prior experiences which is used to solve problem.
- Decision making** : involves considering several alternatives and then arriving at one particular option to implement it.
- Mental set** : refers to perceiving things and responding to them in a set pattern, routine approach or stereotypical way
- Functional fixedness** : refers to the tendency to perceive things only in terms of their typical use or function.
- Brainstorming** : is a technique where people in a group setting are required to come up with as many ideas as possible without any self-censor or inhibition.
- Creativogenic society** : refers to a type of society that promotes creativity by highlighting the role of sociocultural factors in it.

6.8 ANSWERS TO SELF ASSESSMENT QUESTIONS

Answers to Self Assessment Questions 1

1. The three components in problem solving are, (a) an original state, refers to the present situation of problem/difficulty; (b) a goal state, which is the desired state which we want to achieve; and (c) the rules that are applied to reach to the goal state to achieve the desired outcome. Here the person (the operator) uses various skills and techniques to arrive at the goal state.
2. In well-defined problems, the initial state and goal states are clearly definable, and there are available rules and strategies to reach the goal.

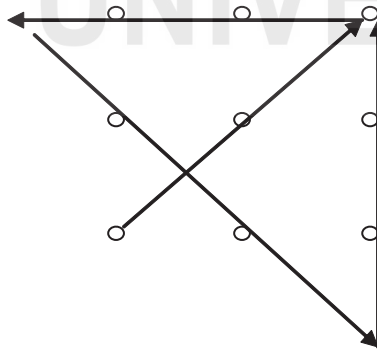
3. Algorithm refers to the way of problem solving which follows a step-by-step procedure to reach the solution, and always results in a correct solution.
4. Cultural blocks refer to one's beliefs, set notions, attitudes, prejudices, values and practices influenced by one's culture which may impact problem solving.

Answers to Self Assessment Questions 2

1. Post-decision regret occurs when after having taken a decision, particularly in case of a difficult decision, one experiences regret and feels that one might have taken a wrong decision and blames oneself and feels bad about it.
2. Preparing a balance sheet refers to listing out the alternatives, and then writing down the pros and cons for each of the alternative. This helps in comparing and analyzing the advantages and drawbacks of each alternative or choice.
3. Decision making involves considering several alternatives and then arriving at one particular option to implement it.

Answers to Self Assessment Questions 3

1. Convergent thinking refers to thinking in conventional set pattern whereas divergent thinking refers to thinking out of the box. Divergent thinking is having divergent ideas and possibilities.
2. Aspects of creativity include fluency, flexibility, originality and elaboration.
3. In the incubation stage of creativity, the person does not consciously or actively think about the problem, but the creative processes carry on within the individual at an unconscious level.
4. Inspiration stage
5. Mental set refers to perceiving things and responding to them in a set pattern, routine approach or stereotypical way.



Answer to the Nine dots problem (Fig 6.1)

6.9 UNIT END QUESTIONS

1. Explain decision making process.
2. Discuss different ways to solve problems.
3. Define creativity. Describe the stages of creativity.
4. Explain the ways of enhancing creativity.

5. What are the barriers to problem solving ? How can one overcome these barriers ?

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6.11 FURTHER LEARNING RESOURCES

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