LESSON 1 :

BEHAVIOURAL PSYCHOLOGY AND CLASSIFICATION OF PERSONALITY : DEVELOPMENT, DEFINITIONS AND AREAS

Using theories of psychology to find solutions to various problems of human beings is considered under applied psychology. That is, psychology is practically used to solve different types of problems of human beings for their welfare. As it is evident from the name itself applied psychology is one aspect of psychology. According to Hapner, "The objectives of behavioural psychology are to describe, predict and control human actions so that we could comprehend and guide our lives wisely as well as influence others' lives too."

Applied psychology is an essential aspect of psychology. Science has its theoretical and applied aspects, similarly, psychology has its applied aspect along with its theoretical aspect. Here too the psychologist or scientist discovers general principles on the basis of experiments conducted in his laboratory and disseminates their benefits to common people.

Historical Background and Development of Applied Psychology

Patterson (1940) has thrown some light on the development and history of applied psychology in his article " Applied Psychology Comes of Age." According to him there have been four stages in the development of applied psychology. These are-pregnancy, birth, infancy and young stages.

1. First stage - Pregnancy: According to Patterson the development of psychology from 1882 to 1917 was the pregnancy period for applied psychology. The contributions from Galton, Ketel and Bine were very important in this period. Many Countries like America were engaged in world war during this period.

2. Second Stage:Birth: Patterson considers the period from 1917 to 1918 as the origin period of applied psychology, and several psychological tests were framed during this period. At this time, countries like America used psychological tests for entry in the army. During this period Army-Alpha and Army-Beta tests came into existence for the selection of soldiers. Alpha test was used for officers and Beta test for soldiers and illiterate people.

3. Third Stage :Infancy: Patterson opines that the period from 1918 to 1937 must be considered the infant stage of applied psychology in the development of psychology. During the same period was established a national institution in America the objective of which was to enhance the application of psychology   for   national improvement.

4. Fourth Stage:Youth : Applied psychology has entered into youth after 1937. Its scope has been ever increasing since then. At present it is being applied to various fields of human life.

Definitions of Behavioural Psychology

Many psychologists have defined behavioural psychology in various ways, some of the principal definitions are given in the following pages.

According to H.W. Hapner, "The objectives of behavioural psychology are the description, prediction and control of human actions so that we could comprehend our lives more wisely and influence others' lives too."

R.W. Husband says, " Behavioural psychology is the study of behavioural aspects of normal adult people."

Poffen Berger says that,"The objectives of behavioural psychology are to train people with various capabilities and expertise, and selecting as well as controlling their environment adjust them properly to their work in such a way that they get the maximum personal and social happiness and satisfaction."

According to other psychologists the psychology that studies the behaviour or character and practical problems of self or others and brings required, desired changes is called behavioural psychology.

The Scope of Behavioural Psychology: In the present era the scope of behavioural psychology has been ever increasing. Every field where principles of psychology may be used in human life are the fields of behavioural psychology too. Therefore, the field of behavioural psychology is very wide, but it can be divided into the following main parts-

1. Mental Hygiene and Cure	2. Social Problems	3. Education
4. Counselling and Guidance	5. Industry and Trade	6. Selection in Services or Jobs
7. Prevention of Crime	8. Army Field	9. Political Field
10. World Peace	11. Sex-Education	12. Sport Field

1. Mental Hygiene and Cure: This is an important field of applied psychology. In this field clinical psychology helps understand the problems related to abnormal behaviour of people, diagnose their causes and making the immediate environment of people favourable through solving those problems. Various methods and techniques are devised to maintain mental health and people are apprised of those methods. Witch doctors and occultists used to inflict inhuman cruelties upon mentally disturbed people before the intervention of psychologists. Insane people were chained and put into closed cells. Psychologists got the insane unchained and analysing the causes of mental disorders started their treatment. Today every mental hospital that is well-organised and developed employs at least one psychologist. There were a lot of misconceptions among people regarding mental disorders like hysteria, insanity, obsessive compulsions etc. Patients were thought to be under the influence of evil spirits. Many hysterical women were thought to be witches and they were subjected to untold cruelties. Psychologists analysed the causes of mental illnesses and successfully treated mental diseases. Freud, Yung, Adler and many more psychoanalysts made significant discoveries in this field. Psychologists found that human mind and body are closely interrelated. Therefore, patients suffering from physical illness invariably suffer from mental diseases too. Today doctors take help from psychotherapists to treat many physical ailments. Many scholars believe that if we have a better understanding of human tendencies and mental processes 95% of the patients can be treated just through suggestions.one of the technique popularly used today in 'Yoga'.

Meditation in the Present Age: Yoga (special ways of meditation-yoga, like, objective meditation, preksha meditation and Yogasana) is helpful in keeping mental and physical health intact. Mental diseases may also be treated through yoga and meditation. Psychologists have done much research in this field and the work is in regular progress. In the field of Mental Hygiene and Cure of applied psychology, Yoga Psychology has contributed in its special way. As it is noted above mental and physical health can be maintained through yogasanas and special ways of meditation.

2. Social Problems: Applied psychology contributes significantly in solving social problems and making a good and healthy society. Applied psychology has proved to be useful in making a prosperous and progressive society. It is used in proper accommodation of people to social issues. Applied psychology is used to solve burning social problems like social seggregation, orthodox mentality, dowry, malnutrition and child marriage. It is used in social services, social education and social welfare. Through psychological surveys public inclination is ascertained and properly understood and accordingly, required suggestions are given and improvements are brought in. In western countries the root cause of racial discrimination and racism as well as casteism are psychological problems. These are all solved through applied psychology.

Society is a system of social relations and society remains in good health if these relations are good. Social problems arise because of problems in relations. Social relations depend on mutual adjustment of human tendencies, feelings and emotions, etc. In fact, social problems are problems of this adjustment. To solve them too psychological methods are put to use.

3. Education: In the present age application of psychology is ever increasing in the field of education. Psychology

has brought in a revolution in the field of education. Education has become an independent field of psychology. Research is being carried out on various mental processes involved in the field of education, for instance, perception, memory, thinking and reasoning, etc.; and psychological principles are being discovered. Syllabi are attempted to be designed according to the interests of learners. Various research activities have been taken up for the development of interests, ability and personality of children. The best ways of imparting education are being discovered through education psychology. Education psychology plays an important role in teacher training and to train them in proper conduct. Education psychology also takes into consideration how to inculcate discipline among children, what should be their healthy habits, how to dissuade them from bad habits and how to get optimum development in their numerous abilities. In this area psychologists help students in selection of their study subjects through test of their inclination and mental ability. How to develop the all-round personality of children; what, when and how to teach them, etc., all these possibilities are also explored. Following the suggestions made by psychologists various improvements in curricula are made, and management of various programmes by students, teacher-students relationships and education system, etc., are also studied and desired improvements are made in them.

Psychologists offer counselling and guidance to students in higher education, in the selection of subjects for study and in the selection of profession after studies so that there are less chances of students going astray. Students are given counselling on appropriate employment taking into consideration their abilities, interests, intellect and efficiency. Since today's student is tomorrow's mature citizen, he is educated and inspired to keep away from misconduct and social evils. Students are awakened to the harms of drug addiction too so that they grow up to be ideal persons free from evil habits. These days students of our country are prone to the evil influence of western culture through media because of which our students are developing abnormal tendencies like, bunking classes, drug addiction, stealing, etc. Such deviancies are treated and rectified by psychologists under applied psychology.

4. Counselling and Guidance: Human life is full of struggle these days. People have to face stiff competition everywhere. Educated people too suffer from unemployment. Everywhere there is the problem of choosing wrong profession. Service chances are lesser than the unemployed which leads to struggle and stress among the unemployed. Educated people too run after services instead of looking for self-employment. Most of such people do not know their potentials and so cannot decide what they can do better. Such persons opt for professions unsuitable to their liking and fail badly in the long run. Therefore, counsellors and psychologists in the developing countries offer guidance to people in choosing suitable profession through psychological tests. Such Counselling is offered by psychologists in schools, colleges, universities and even in employment exchanges.

Right profession for right people (profession selection) and right people for right work (personnel selection) are also decided with the help of psychology. Interruptions and problems coming up in professions are also resolved through psychological ways. Apart from professional guidance, a psychologist helps solve personal and household problems too. People need this kind of guidance quite often and through good suggestions their problems are resolved. Psychological help is sought to tackle one's own bad habits and maladjustment problem of one's son or daughter or any other member of the family. Through psychological guidance one can, bringing described improvements in one's own or family member's behaviour, make progress in life.

5. Industry and Trade: Psychology has played an important role in bringing trade and industry upto scientific level and modernising them too. Psychology has helped much in establishing industries in industrial areas properly, in modernising them, in personnel selection, selection of machinery and bringing reforms in the management. To study this, branches of psychology like Industrial Psychology and Organisational Psychology have been established.

Industrial psychology is the study of the problems related to production in industries, problems of machines, of workers, etc. whereas, organisational psychology specifically studies the management of industries. In the present age, if trade and economic liberalisation are given the first priority throughout the world, there have come great many changes in the field of trade too. In such a condition the importance of industrial psychology and organisational psychology becomes manifold.

Industrial psychology studies ways and means to obtain maximum productivity with minimum capital investment. In addition to this, it also studies the personal problems of the workers/employees, industrial problems of the employees, problems related to personnel selection, working conditions of the employees, their morale, their training, the condition of machinery in factories, etc. After studying all these problems the psychologist gives suggestions for the welfare of employees as well as the concerned industry. Apart from this, psychologists prove to be of much help in solving problems related to factories and industries, for instance, ways and means to improve machines, working hours and recess time distribution, ways to fight fatigue and boredom, settlement of salaries and wages and creating healthy working environment, etc. Psychological suggestions are given to prevent accidents/mishaps in factories. Psychology has proved to be very helpful in resulting differences between workers or employees and employers, solving the problems of lock outs. Alertness, interests, tendencies, intellect and special abilities of employees etc. are tested through various examinations and tests.

Psychology is used in all the fields related to industrial production, distribution and exchange, etc. Consumers, sale and advertisement, etc., of the product are studied from psychological point of view. Which type of products are liked by consumers and how are they sold; how can we improve the product quality; which methods of advertisement may be successful, etc., are the questions the answers of which are suggested through psychological ways. Psychological effects are found to be working in the field of trade and share market too.

6. Selection in services or jobs-These days psychological tests are used and help is sought from psychologists in almost every country in selection of employees for public as well as private services. Provincial Services Commission, Public Service Commission and other recruitment agencies, public or private, select employees on the basis of tests/ psychological exams framed by psychologists. Army, Air Force and Navy too select competent personnel through aptitude tests. These aptitude tests are in fact psychological tests. During second world war Army Alpha and Army Beta psychological tests were developed for recruitment in the army. Army Alpha test was meant for the selection of officers while Army Beta was for soldiers' selection. Psychological tests are used to select right people to operate machines in factories too. Non-governmental organisations too select their employees through psychological ways. In the present age as new technologies are coming into use increasingly, qualified people have to be recruited to operate them These people are selected through psychological methods. Thus, we see that applied psychology plays an important role in selection of people for services.

7. Prevention of Crime: Psychology has helped much in the prevention of crimes as well as criminals. Population explosion and ever increasing unemployment have accelerated the rate of crime in society. Following psychology, instead of punishing a criminal his weaknesses are understood better and tried to be rectified. The mentality of the criminal is tried to be changed so that he does not commit crimes altogether. Ever new experiments are conducted oriented towards reformation of criminals. As a result, we have open prisons, reformation centers, probation (child reformation houses) and juvenile reform houses, etc. Thus, because of intervention of psychology ill-treatment of criminals has stopped and they are getting reformed.

Many psychological methods are followed to reform juvenile delinquents. The living-environment and living conditions of juvenile delinquents are tried to be changed psychologically. Psychological research works have proved that a criminal alone is not responsible for crimes but his living conditions, environment and the society too are equally responsible for crimes. Therefore, psychology tries to find a remedy to all these. Drugs smuggling by young boys and their addiction to them is not their crime but their society, their environment and their situational factors force them to do so. In such conditions, psychologists try to bring a change into the living conditions and mental conditions of young children. The environment situational factors and routine of young children is also put to reform.

Apart from prevention of crimes, psychology helps much in giving judgements too. The psychological insight of the judge is capable enough to arrive at the right judgement. The inner reality of the criminal can be known through various instruments too and one can give the right judgement.

8. Army Field : Help is taken from psychology for selection of right personnel for recruitment in the army. Under-trainees for army, airforce and navy are selected for recruitment through psychological tests. During war to frighten the enemy and to boost the morale of soldiers much help is sought from psychology. Cold wars between countries are based on psychological propaganda. Psychological suggestions are given to soldiers for their mental stability and firmness. As mentioned above, Alpha and Beta tests are used for selection of soldiers for recruitment in the army. These tests are framed at psychological level. Many soldiers fall mentally ill during war. War like situations may change the morale and mental conditions, and as a result the soldier may desert the army. Therefore, to boost up the morale of soldiers and to treat their mental dilemmas immediately psychologists and psychiatrists prove to be very helpful.

9. Political Field: Psychology is used widely in political fields, whether the country concerned is ruled by a dictator, a feudal lord or follows democracy. To succeed, a ruler needs to know the psychology of rulers very well. A Good ruler takes steps following the psychology of his citizens. Administrative responsibilities do not end in making only the rules because public shows both the tendencies-obeying as well as breaking the rules. The ruler has to tackle the public psychologically to make them follow the rules. Similarly, while making rules one has to make psychological study of the effects of those rules on the affected party and what would be their reactions to them. One of the important aspects of politics is election and propaganda plays an important role in elections. A psychologically manoeuvered election campaign may help get success for the person. Clever people turn the tables in their favour in the nick of the moment brainwashing the voters psychologically. Some people, knowing the feelings of people, cash them psychologically and win elections. What the voters of a particular area want during elections and what is their mental state-election compaigns are mostly based on this knowledge.

Psychology is very important for political administration too. It plays quite an important role in upsetting or boosting the morale of political parties. Not all officers are successful in pacifying rioting public or people on rampage.This is possible only by that who knows the crowd psychology well. A politician can only be successful if he knows the psychology of his party workers as well as of other parties too.

10. World Peace: Psychology plays very important role in maintaining world peace. Most of the differences of opinions among people of different nations may be put aside once they comprehend the reasons behind individual diversities. Violence and struggle may be abated in the world by enhancing the governable qualities of human personality and letting out the violent and aggressive tendencies very wisely through harmless methods like games and sports competitions. Unrest and strike can be put to an end before they come into existence keeping an eye on their psychological causes. The manner of expression of the tendencies of various races and castes as well as sects may be put under watch and a struggle between them may be prevented. The problems of world peace are connected to human relations. Therefore, we can bring peace in the world through knowledge of psychology.

11. Sex Education: Sexual activity is an essential physical or biological impulse in all the creatures. All the creatures increase their stock through reproduction. But, if the sexual act starts in man prior to maturity and shows as a symptom of immoral conduct, it grows not only as an individual problem but also becomes a social problem. If a person behaves sexually abnormal and satisfies his desire through abnormal methods, it is known as immoral conduct or deformity in character.

These days western sexual liberty has been leaving its evil influence on the people of the whole world. Adolescent youth too fall prey to this and grow into adults before time. T.V. and some other media are propagating this problem. Because of sexual liberty deformities of character have been increasing among people. Rape and other abnormal behaviours take place because of this. Secondly, rise in such abnormalities leads to criminal tendencies among people and they fall victim to psycho-sexual problems. Applied psychology plays significant role solving many of the sexual problems like psycho-impotency phobia and being unaware of the right meaning of sexual enjoyment.

The branch of Applied Psychology, Sex-education, suggests ways and means to put the above mentioned deformities straight. Psycho-sexual deformities are also treated through psychoanalysis and other psychotherapies.

Providing sex-education to adolescents they are taught the right meaning of sex and their sexual problems are solved. They are taught the right time and behaviour for sexual activity.

12. Sports Field: Psychology finds much use in sport field too. Psychological tests are used for the selection of players. It is used much in morale building and encouragement of players in sports competitions. If any player feels depressed due to some reasons psychology is always there to help him out in such situations. Psychology is put to use quite a lot to maintain the right morale of players. Players may fall prey to worries, frustration and depression during games and competitions and they are mostly under pressure. In such situations psychologists analyse their problems and suggest proper ways through counselling so that their morale is boosted up and their worries, depression and frustration kept under check. Psychologists try even to make their external environment too favourable to them during competitions to get better results from the players. In the visitors' gallery some such spectators are seated who encourage the players through their positive comments throughout. Similarly, to discourage the opponent team some spectators are seated. All this happens at psychological level. Psychology is helpful thoroughly to maintain mental health of players.

Questions

I. Essay-type questions:

1. Explain the development of applied psychology giving its various definitions.

2. What are the main areas of applied psychology? Describe any two.

II. Short answer questions:

1. How many fields are there of applied psychology?

2. Explain Mental Health and Cure field of applied psychology.

3. Explain the role of applied psychology in the selection of services or jobs.

III. Objective Type Questions:

1. Development of applied psychology...............stages.

2. ....highlighted the history of applied psychology.

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PERSONALITY : MEANING, DEFINITIONS AND FACTORS

Personality is very important and the main subject of modern psychology. Behaviour of a person can be predicted on the basis of a study of his personality. In this chapter we shall take up the study of what personality is, its definitions and the factors influencing personality.

Meaning - Every person possesses some distinctive qualities or specialities that others do not possess. People are different from each other because of these qualities or specialities. The aggregate of all these qualities is called personality of a man.

The English word 'Personality' is derived from the Latin 'persona'. The literal meaning of persona is 'outer covering' or 'mask' that is worn by actors in dramas, to act in changed looks. During Roman age the actor bearing special qualities came to be known as persona. This second meaning of persona is implied in the word personality used in modern psychology.

Commonly people take personality only as the outer appearance or looks of a person, but in psychology the meaning of personality is the aggregate of a person's appearance and his qualities, that is, the qualities of his physical appearance and the qualities of inner being both taken together. In philosophy personality is the inner essence called 'spirit'. Personality is not a fixed entity but a changing aggregate that is affected by its surroundings and because of that it may change. Personality is not the total sum of special qualities of a person but the total quality of his behaviour. We get a glimpse of the personality of a person in his thinking, conduct, behaviour, activities and affairs. The entire behaviour of a person is an attempt to adjust himself into his environment or surroundings.

Definitions- Keeping in view various aspects of persons psychologists, philosophers and sociologists have defined personality diversely. Thus, personality has been defined in hundreds of ways. For convenience, Guilford (1959) has classified these definitions in the following four groups-

1. Omnibus definitions   2. Integrative definitions
3. Hierarchical definitions   4. Adjustment based definitions

Following these groups personality may be defined as follows-

1. Omnibus- This group includes those definitions that take into consideration all the actions, reactions and biological characteristics of a person collectively. The definitions given by Kempf and Morton Prince are important in this group.

According to Kempf (1919), "Personality is the adjustment of those institutional practices or forms of such practices that present the charecteristic balance of man in his environment."

According to Morton Prince (1924), "Personality is the sum total of all the biological activities, inherent endowments, anxieties, tendencies, hungers, basic instincts and earned endowments as well as bearings of man."

2. Integrative Definitions- In the definitions of this group the main emphasis is on the integration of various forms, characteristics and elements of personality. The integration of these characteristics bring a peculiarity in a person. The definitions of Warren and Carmichael and Mac Curdy are significant in this group of definitions.

Warren and Carmichael (1930) say that, "Personality is the entire organisation of human being at any stage of his development."

In the word of J.T. Mac Curdy, "Personality is an integration of patterns (interests) which give a peculiar individual trend to the behaviour of the organism."

3. Hierarchical Definitions- Psychologists like William James and Maslow opine that personality consists of several hierarchies. They gave mainly the four hierarchies of personality. 1. Material self, 2. Social Self, 3. Spiritual Self, 4. Pure ego.

The first hierarchy consists of the specific qualities inherited by the person in his physical make up while the second hierarchy mentions social relations and social development. The third hierarchy of personality is accepted as the spiritual self by James. According to him the leanings of the individual of this hierarchy is towards spiritual matters and he gives more importance to them than to social relations. Now his spiritual development takes place. At the fourth hierarchy the individual attains absolute knowledge of his pure self and to him every object mirrors his self-this is the last stage of his personality. Shree Arwind has also expressed almost the same opinion regarding the development of personality. He has mentioned physical, emotional/vital, mental, psychic, spiritual and supramental stages.

4. Adjustment- In the definitions of this group psychologists give more importance to adjustment for the study and analysis of personality. Such qualities in the individual that help him in adjustment, whether physical or mental, are structured in such a way that they are in a regular motion. Because of the momentum of these qualities there arises a special uniqueness in the individual. According to Boring, "Personality is an individual's consistent adjustment to his environment." All the above mentioned definitions define personality only partially. A person may have a good combination of physical attributes and mental faculties in his personality, he may be a serious thinker or knowledgeable person, but if his behaviour lacks flexibility his behaviour and adjustment remain incomplete. Keeping this into consideration Allport tried his best, and successfully too, to define personality in a universally acceptable manner. His definitions have been accepted by most psychologists as complete/perfect definitions. Therefore, Allport's definition is an important one in this group of definitions.

According to Allport (1939), "Personality is the dynamic organisation within the individual of those psychological systems that determine his unique adjustment to his environment."

Determinants of Personality- Personalty is affected by some specific elements and they are called determinants of personality. All these determinants combine to give completeness to personality. Under the influence of these determinants personality develops according to the same determinants. In the determination of personality some scholars give main importance to biological base, whereas some others give move importance to environmental determinants but both the determinants play equally significant role in the development of personality. So, both these determinants-i. biological and, ii. environmental need to be studied.

1. Biological Determinants- Biological determinants are the given four- A. Heredity, B. Physique and Health, C. Endocrine Glands, D. Body Chemistry.

A. Heredity - Some characteristics in personality are hereditary or inherited. Body colour, facial features and physical structure may be hereditary. They are passed on to the child through his parents' chromosomes. But not only parents contribute to the inherited characters of the child. The heredity of the child is constituted fifty percent by his parents, one fourth by his grandparents, both from his paternal as well as maternal side, and one eighth of his heredity is constituted by his great grand parents and other ancestors. Thus, hereditary characters influence the personality of a child. His complexion, features or physical structure may go on his parents or his grand parents. Similarly, his mental faculties and intellect may be according to his ancestors. Many studies have revealed that mental illness of ancestors may show up in any one of their progeny. Thus, we see that hereditary characters influence the constitution of individual's personality, more or less.

B. Physique and Health- Physique includes person's height, structure, colour, hair, eyes, and facial features. These physical features are so distinct that many people know the individual only through them. Although this viewpoint is not correct yet these characteristics too represent personality. People are generally influenced by a healthy and good looking person. They appreciate his physique. This leaves such an impact on the mentality of this person that he starts thinking himself to be superior to others and in him grows the feelings of self-confidence and self-reliance.

Physique being weak and there being physical handicap a person develops feeling of inferiority in him. He thinks himself to be good for nothing and he may have lack of confidence. He remains always in doubt about the success in his enterprise and he may adopt anti-social behaviour to make up for the deficiency.

Health also affects personality development. A healthy person leads a good social life and he develops sociability. A healthy person achieves his objectives finishing his work successfully on time. On the contrary, the personality of an unhealthy person remains imperfect. Because of ill-health he cannot finish his work on time and he cannot achieve his objectives timely. He lacks interest too in his work. Unhealthy person cannot also influence others. Thus, physique and health have great effect on personality.

C. Personality and Endocrine Glands- Endocrine glands greatly affect the development of personality. They are found in every human body. They are also called ductless glands. They secrete in the body without ducts. Their secretions are called hormones. Different glands secrete one or more hormones. Mainly there are 8 endocrime glands, as follows- 1. Pituitary gland, 2. Pineal gland, 3. Thyroid gland, 4. Parathyroid gland, 5. Thymus gland, 6. Adrenal gland, 7. Pancreas gland, 8. Gonad gland.

How the secretions of these glands affect the growth of personality is described briefly in the following pages-

1. Pituitary Gland- This gland is called master gland too. This produces pituitarine hormones. These hormones control the hormones produced by other glands. The main hormone among the hormones is somatotropic. This hormone affects body development very much. If this gland is very active during physical growth the bones, muscles and height of the person grow very fast. If the secretion of this hormone is abnormally more, the height of the person grows abnormally and he may grow upto be 7 to 9 feet tall. If the secretion is less during growth period, the person remains dwarf. Although his mind remains to be normal but his physique is unattractive.

Pituitary gland comprises of two parts-forepart and rear part. The rear part controls the function of kidneys, blood pressure and fat metabolism. Whereas the forepart controls the physical growth as described above.

2. Pineal Gland- This gland is named pineal gland because of its conical shape. This is situated in the brain. This is a mysterious gland. Earlier this was supposed to be the bridge between soul and body. Its functions and secretions are still unknown but it is guessed that it helps maintain physical growth and youth.

3. Thyroid Gland- This gland secrets the hormone called "thyroxine" that controls the quality of iodine in body. If there is a deficiency of iodine in body during childhood, there is no proper physical and mental growth resulting in mental retardation and short height. That person develops feeble psysique. If this gland is hyperactive the person feels abnormal hunger and his heart beats faster. Thyroxine affects even emotions and feelings. Deficiency of iodine secreted by this gland causes goitre.

4. Parathyroid Gland- These glands are situated close to thyroid gland. Secretions of these glands keep physical vitality and vigour. If parathyroid glands are removed or they do not function properly, due to deficiency in their secretions the whole proportion of body is lost and there are convolutions and spasms in the body which may even cause death of the person.

5. Thymus Gland- This gland is situated in the frontal cavity of the chest. There is no definite knowledge about secretions and functions of this gland but it is considered that it controls sexual glands during youth. Thereafter it shrinks to a small size and stops working.

6. Adrenal Gland- This gland secrets adrenaline hormone. This hormone greatly influences personality. In its normal quantity it maintains the normal characteristics of men and women. But if its secretion is more in a woman she develops manly characters; she looses her feminine roundness in bodyparts and she develops baritone in her voice. This hormone gathers all the strength of the individual in distress. Its excess increases heart beats, blood pressure, sweating and eye balls expand. Due to deficiency of adrenaline a person develops the disease called 'adison' which causes weakness and fatigue, slower metabolism and inability to tolerate heat or cold and in him irritation develops more and more.

7. Pancreas Gland- This gland secrets pancreatic juice which contains insulin hormone. This hormone digests sugar which gives energy to body. Due to insulin deficiency sugar is not digested and the person suffers from diabetes. The sufferer feels giddy and his efficiency decreases, he feels irritable all the time and remains finicky.

8. Gonad Gland- The secretions of gonad glands too have specific effects on human body. This gland helps develops sexual interest. This gland is specially active during adolescence, therefore, sexual characteristics in men and women show up at this age. In men male features like moustache, beard and breaking of voice appear. These features appear due to the secretion of a hormone called Testosterone. Similarly, females develop characteristics like development of mammary glands etc., because of secretion of Estrogen hormone.

(D) Body Chemistry- In addition to endocrine glands and physique body chemistry also needs mention among the biological factors of personality. From ancient time human nature is considered to be affected by chemical elements of body too. The renowned physician and thinker of Greece, Hippocrates, has determined the human nature on the basis of chemicals found in body, about 400 years B.C. Ayurveda too describes almost the same thing. Those body chemicals are of four types-1. Blood 2. Bile 3. Phlegm, and 4. Spleen secretion. The excess of blood makes a person habitually optimistic and sanguine. The excess of bile results in irritable and choleric nature of the person. Those who have excess of phlegm are found to be sober and lazy. They are called phlegmatic in nature. Those who have spleen secretion in excess are generally melancholic. Hippocrates has categorised personalities on the same bases.

Apart from the above-mentioned biological factors there are some other biological factors too that influence personality. These factors are-intelligence, colour and sex.

2. Environmental Determinants-These are the following three- 1. Natural Determinants, 2. Social Determinants, 3. Cultural Determinants

1. Natural Determinants- Man lives in natural environment and his life and personality are affected by geographical conditions and climate. Geographical conditions and climate affect his health, physique and mental conditions. For instance, people living in cold climate are fair while those living in hot climate are of dark complexion. Geographical features affect physique, like the mountain dwellers are stout and sturdy. Where people are generally troubled by natural disasters like earthquake, there people lack the feeling of security. If the geographical conditions and climate of a person are changed, his personality is also changed. For example, people habituated to hot climate may lose their efficiency and health if shifted to cold climate. Similar are the effects on the people of cold climate shifted to hot climatic conditions.

2. Social Determinants- Man is a social animal and a unit of society as well. From his birth till death he lives in a society. Therefore, he is very much affected by society, its organisational structure and its people. The impact of his own family members as well as other people of society on his personality is explained as follows-

(A) Effect of Family or Home

1. Effect of Parents- All the psychologists believe that the environment at home leaves a deep impact on the development of personality. Family members too affect the development of the child's personality. Personality starts developing from the very birth of the child. At that time his family is limited only to his mother. He is totally dependent on his mother. He is totally dependent on his mother for all his needs. Therefore, mother being prudent, gumptious and caring the personality of the child develops very well. The credit of developing great personalities like that of Shivaji and Maharana Pratap goes to their mothers. If the needs of the child are fulfilled properly he grows up to be optimistic, industrious and benevolent. But if his needs are not cared for by his parents and he is not loved properly he grows up into an inactive and pessimistic person. Being scoffed in childhood he develops inferiority and insecurity and he lacks self-confidence. He grows up to be of parasitic nature. He looks up to others even to fulfil his every small needs. As a result his personality does not get a proper direction.

The effect of lack of parents' love is similar on all children because the inherent tendencies and instincts of the children play an important role in this matter. Lack of parents' love and regular admonition may turn a child into a submissive person while another child may grow up to be overbearing and violent. As Allport says, "the same fire that melts butter hardens an egg." Constant snubbing by parents and not embraced by them ever also leaves an impact on the personality of a child.

2. Effect of Other Family Members : Other members of family too affect the personality of the child greatly. In a combined family, members like grandparents, maternal grandparents, great uncle and great aunt, uncles and aunts, maternal uncles and aunts, elder brothers and sisters or any other relatives living with them influence the development of personality of the child. The child observes their behaviour and learns. Over a period of time this behaviour becomes a part of his personality. Elders in the family act as ideals for the child, he/she wants to become like them and adopts identification action. If the child is the only child in the family he gets spoiled due to excesss love and affection and becomes obstinate and naughty. Naughtiness is an essential quality in a child as he grows up to be fearless and courageous but if he is extremely naughty he goes out of control and develops interest in antisocial activities. As a result, his personality does not develop properly. If the family is big, combined family and its members lack coordination among the selves leading to stife at home, it would affet the developmehnt of the child's personality and his own coordination in future life may suffer badly. If family members have criminal tendencies the child too develops criminal bent of mind and engages himself in social crimes in future. Similarly, broken families are responsible for juvenile crimes to a great extent.

3. Effect of Sequence of Birth on Personality : This is a common fact that elder, younger, eldest, youngest and children in various orders in birth are not treated equally in the family. In the opinion of renowned psychologist Adler the order of birth of the child in the family affects the development of his personality very much, affecting even his physique and style of working. The youngest child gets everyone's love and affection, therefore, he depends on others too much. The eldest child becomes self-dependent but cruel since being alone for some time he doesn't have to share his things, nor does he have anyone to snatch his right. But the birth of second child affects the mentality of the first child because this takes away his monopoly and sometimes he is neglected too. Therefore, he feels jealous of the younger child and tries to maintain his monopoly. Researchers have found the same kind and number of problems in children at every order of birth. This statement of Adler is true to a greater extent that the individual's life style is fixed to a larger extent in his early childhood in the family, but there are no evidences to support the assumption that this early childhood style remains unchanged through life.

(B) Effect of School-

The development of personality of a child is much affected by his school, studies at the school, it's location and his classmates as well. These factors are given in brief in the following pages-

1. Effect of Education: The kind of education imparted influences the personality of a child. Many schools give orthodox religious education which develops narrow-mindedness among children and their orientation leans towards one particular religion only. Because of this the child starts hating other religions. Many English medium schools prohobit children to use mother tongue and vernacular languages and force them to use only English. This creates mental pressure on the child and he grows frustration and angst that lead to adjustment problems and an ill-developed personality of the child.

Many schools do not give balanced education. This is a major drawback of modern education system. No proper attention is paid towards physical and mental development of the child, whereas their only concern is how to add more and more books to their syllabus. The weight of the school bag and of the homework are hinderances in the all-round development of the child. For the all round, balanced development of his personality and to inculcate values in him he must be given moral education as well as balanced education at school. Practice based education, value oriented education, polysemantic religious education and physical education too help develop the personality of a child very much.

2. Influence of Teachers : As the child indentifies itself with its father or mother in the family, it identifies with its teachers too at school the same way. If the personality of the teacher is influential, it affects the personality development of the child positively. And often the child learns the negative traits of his teachers. To fetch bidi, cigarettes, etc. through children and to use them in their presence is harmful because through identifiction children learn smoking. If teachers possess good qualities, the child too identifies himself with those qualities, as a result those

qualities become part of his developing personality. In brief, all the good or bad qualities of the teacher manifested through his behaviour towards the child generally affect the personality development of the child in good or bad way.

3. Effect of Classmates : The personality development of a child is affected greatly by his classmates or school friends. He has to live with all kinds of friends at school. Some of his classmates are different in age from him, some are of loving nature while some others are cruel students with him. The child spends his whole day with these friends. A student younger in age or class is often found to be submissive to his seniors. This submission may be because of idealization or fear. Therefore, these factors affect child's personality. The child often learns bad manners from rough boys like, using abusive language, bunking school and behaving roughly with teachers and parents, that affect his personality development. The most pronounced effect of classmates on a child's personality is in the form of games-sports team effects. Students playing together or competing with each other form their own groups and to lead the group they elect a leader too. Thus, to carry out various activities these student groups work in independent manners which help to develop their personalities. To compete with his friends the child works hard which helps develop his personality.

4. Geographical Location of the School : Geographical location of the school also plays an important role in the personality development of the child. Where the school is located and what is the condition of the school building this too is important. If the school is located in a polluted area where air pollution and sound pollution are found, the students of such a school may face health hazzards. If the school is located in an area frequented or inhabited by antisocial elements like, drunkards, gamblers, brothel goers and thieves, etc., the personality of its students will be affecteed negatively and there are much chances that the children learn anti-social behaviour from there.

If the college building is not clean, is decrepit and dilapidated, the students studying there have a negative influence on their personality development. They live always in the fear of collapse of that building and they may develop some other phobias and mental troubles hindering their personality development.

(C) Effect of Society-

As mentioned in the foregoing pages man is part and a unit of society. Therefore, the effect of society on personality development is but natural. Social customs, traditions and rules leave a far reaching impact on personality development. The individual adopts traits and standards of individuals in society. Every person has a different status in society based on his caste, colour and profession. This social status of the family has its effect on the personality development of children too. Caste distincions like, Brahmin, Kshatriya, Vaishya and Shudra and social distinctions, that is, social status of a particular caste, are different. Some people favour caste system, purdah system and child marriage, etc., while some others are staunchly opposed to them. Some people are always eager to defy social norms while others follow them strictly. High caste children are found to show feeling of superiority and low caste children show inferiority complex. Elite class children are generally of balanced personality but there are no solid psychological evidences to support this fact.

Social reformers, social activists and anti social elements also leave their impact on personality development of a child. Social reformers, social workers and socal activists work for the progress and welfare of society and they influence personality development of children. Similarly, people working against society and anti-social elements too influence personality development. Anti-social elements like, pick-pockets, thieves, drunkards and brothel goers are indulged in antisocial activities and their effect is felt on personality development of children. Social workers serve helpless people like, the aged, the poor and the destitute and they try to build a good society. This benevelence of theirs leaves its impact on others' personality development and they too can develop their personality positively.

(3) Cultural Determinants-

Culture plays an important role in personality development of the individual. Personality of the individual is according to the culture of that society. The upbringing and socialization of the child is done following the cultural tradition of his society since birth. Every culture has its own unique manner of socialization of the child as every

culture keeps itself alive through this traditional manner. Culture and personality are complementary to each other. Today most of the psychologists believe that culture and personality are not two deistinct things but are the two aspects of the same thing. The individual acquires the characteristics of the culture in which he is brought up.

In the words of Mac Iver and Page, "Culture is the expression of our nature in our living and thinking patterns, daily activities, arts, literature, religion, entertainment and enjoyment." Thus, culture is the area of working styles, values, emotional attachments and intellectual enterprise. One culture is different from other on the basis of these characteristics. Different cultures have different values. For instance, in olden times Indians were religious and spiritual. Modern Indians are not so religious and spiritual, yet still their religious and spiritual values are of high order. The reason for this lies in our culture. For westerners materialistic and mental values are of high order. Similarly, in societies of differing cultures life styles, customs/traditions, religion, arts, values and norms are different. In the castes of some cultures homicide is considered a sin, while on the other hand, Naga culture highly respects those who chop a man's head. The more a man chops heads of men the more he gains respect in society and the more he gets proposals of marriage from ladies. Whereas, in other cultures people don't want to marry their daughters to a head chopper. In Indian culture some families don't consider divorce to be good while in some tribes the more a woman gets divorces the more increases her respect in the society. Divorce is not considered bad in western countries. In some societies if an unmarried girl becomes pregnant no one marries her, but among some tribes producing a child before marriage helps a girl get married. Such cultural differences affect personality development of a child. The life style, eating habits, customs, religions, traditions, marriage, social ceremonies and social institutions, etc., of the cultural environment where the child grows up leave their impact on the child. Tribal cultures too are greatly different. For example, Nagas are head choppers, Bheels are fighters while Santhals are simple people. Thus, social structure, social conditions, social work and social norms in a cultural environment influence a man's personality.

Questions

I. Essay type questions:-

1. Explain the biological factors that have their effect on personality.

2. Explain the environmental factors that affect personality.

3. Discuss determinants of personality.

II. Short answer questions:-

1. Explain Various definitions of personality.

2. Explain the hereditary determinants of personality.

3. Explain the functions of thyroid gland.

4. How does school affect the development of a person?

III. Objective type questions:-

1. The name of the hormone digesting blood sugar is...........

2. Testosterone is secreted by..........glands.

3. Definitions of personality are divided into...........parts.

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KRETSCHMER'S AND SHELDON'S CLASSIFICATION

Personality Classification:

Psychologists have been trying to study man's personality for centuries. Ever new theories came into being and there were attempts to study personality classifying man into different groups. Four hundred years before Christ the renowned philosopher and doctor Hippocrates divided the personality of man into four groups on the basis of body fluids. In his studies he concluded the presence of four kinds of fluids in human body. These are-1. blood, 2. black bile, 3. Yellow bile and, 4. Cough. According to Hippocrates one of these body fluids are found to be in excess in particular individuals and accordingly is determined his mental attitude. Similarly, Ayurveda too describes the nature of attitude of individuals on the basis of cough and bile. Sri Mad Bhagwad Gita too classifies the personality of individuals based on three qualities-Sat. raj and tam. Psychologists of this century also have tried to study personality through various principles.

German psychologist Krets-chmer (1925) classified personality on the basis of types of physical stucture. He classified the individuals into four parts that we shall take up for study shortly. Similarly, American doctor Sheldon (1942) has divided human beings into three groups- endomorphic or obese, mesomorphic or medium and actomorphic or tall. Yung and other prominent psychologists divided the personality of man into two parts- extrovert and introvert. Similarly, many other psychologists divided personalty into three groups-introvert, extrovert and ambivert. Isanac (1970, 1975) divided personality into four groups-introvert, extrovert, stable and unstable. Allport (1966) classified personality on the basis of traits. Many theories have been propounded to facilitate the thorough study of personality. These theories may be put into five groups-

1. Type and Trait Theory	2. Psychodynamic Theory	3. Humanistic Theory
4. Learning Theory	5. Cognitive Theory	

The five theories mentined above facilitate classification and study of personality but, in the present study we shall study basically the classfication of personality given by Krets-chmer and Sheldon.

Kretschmer's Classification of Personality

Krets-chmer, who was a German psychotherapist, classified personality on studying many mental patients in Germany. He gave classification of personality in his research book <u>Physique and Character</u> on the basis of physical structure and nature of individuals. He gives four major types of personality.

1. Athletic Type	2. Asthenic Type
3. Pyknic Type	4. Dysplastic Type

1. Athletic Type- Persons possessing this type of personality have a good physique. They have broad shoulders, straight back and well developed muscles of hands and legs. This type of person is courageous, brave/ fearless and dominating in nature. He is interested in getting success. They are more active and prefer work to rest. These people are more successful in society. People belonging to this group are prone to attack of schizophrenia.

2. Asthenic Type- Persons with this type of personality have a thin and long body, means, they are lean. Their facial structure, neck, spine, etc., all clearly show the effect of leanness and thinness. This type of person criticizes others but cannot tolerate his own criticism, that is, he considers it extremely bad that others criticize him. These people are sentimental, peace loving and reclusive. These people are prone to the attack of schizophrenia.

3. Pyknic Type- According to Krets-chmer belly is the most prominent body part of the people belonging to this personality type and these people are short, stout and rotund. Their trunk portion and body cavities are large, chest and shoulders are quite round shaped. Their neck and limbs as well as legs are small and they are of short

height. Their protruding belly, round smooth face, small limbs and legs indicate their pyknic type personality. These people are sociable, cheerful and friendly. They are very talkative people as they love talking much. They are very ease-loving people too. People with this type of personality are fickle minded as they change their mind quite often. Therefore, Krets-chmer calls the mentality of such people as 'cyclothymic'. Such persons are affected by joys and woes very much. These people are prone to the attack of 'manic depression' very much.

4. Dysplastic Type - According to Krets-chmer the physique of people belonging to this personality type is inelastic and abnormal. Their personality is a mixture of all the three types described above. According to Kretschmer most of the mentally ill people have dysplastic kind of physique. Their physical developmet is marred by many abnormaltities and the secretions of their endocrine glands too is not found to be normal. Thus studying the physical traits of mentally ill people Krets-chmer found which type of physical structure of which mentally ill person may be put in which particular group. In his study he also found that 66% of the lean and thin type people are found to be suffering from schizophrenia. The 'Type' classification of Krets-chmer is presented in brief in the following table-

Kretschmer's Classification
(Based on Physical Structure)

Type	Physical Structure	Mental attitude	Prone to
Athletic	Broad shoulders, developed muscles, good physique	Courageous, fearless, active, dominating, prudential	Schizophrenia
Asthenic	lean and thin, flat chest, small shoulders, tender physique	sentimental, critical, peace loving, reclusive	Schizophrenia
Phyknic	protruding belly, small stature, round smooth face, small fat limbs	cheerful, sociable, friendly cyclothymic, unstable	manic depression
Dysplastic	Inelastic body, abnormal body structure, disproportionate parts	unstable mental condition	Abnormal secretion of glands

Sheldon's Classification of Personality

Krets-chmer's classification of personality could not satisfy psychologists. They found his classification only partly correct. His classification could not prove correct in many research studies and all the people do not fit into the types of personalities he classified.

American doctor Sheldon (1942) also studied types of body structure and mental attitude of people. He considered three factors important in body structures. Personality of the individual is determined according to the prominence of one of these factors. The first of these components is corpulence or endomorphic. The second component is medium body or mesomorphic and the third component is tall body or ectomorphic. The person having prevalence of endomorphy in his body is obese/corpulent and if mesomorphy is found in prominence in his body he is of medium size. The people having ectomorphy more in quantity are tall. Thus sheldon has mentioned three types of people on the basis of body structure. Sheldon and his associates published a study *The Varieties of Temperament* in 1942 giving various natures of temperament of people. Later on Bisfac described the characteristics of people with three components or elements on the basis of types given by Sheldon. Sheldon described the following three categories of people on the basis of components or elements-1. Endomorphic or Viscerotonic 2. Mesomorphic or Somatotonic 3. Ectomorphic or Cerebrotonic Following is the detailed description of the characteristics of three types of people classified/categorized by Sheldon above.

1. Endomorphic or Viscerotonic : The personality of this types of person is dominating. They have special characteristics in their daily routine, life style and manner of working. Their chief characteristics are given in detail below-

1. **Ease loving-** These people love taking rest. They avoid physical labour and wish to take maximum rest. They wear lose clothes; wherever they sit they lean their backs against the chair or wall.

2. **Slow reaction-** Person with this type of personality are slow workers. They always finish each of their work late and lag behind everywhere. Many times they evade their work and many times depend on their friends to get their work done. As a routine they don't leave bed unless someone wakes them up. There fore, even to get up in the morning they depend on others. So, people of this type of personality are called slow reaction people.

3. **Relaxed in walk-** People with universal dominated personality do everything carelessly and in a relaxed manner. They never show eagerness in their work nor do they do anything in a planned manner. Such people are always relaxed whether in walking or sitting posture. Mostly they prefer to sit down. They don't even arrange the things scattered around them.

4. **Gastrophile-** People belonging to this group love food. Always eating this or that is the speciality of these people. They are very fond of cooking and eating newer delicacies. They enjoy eating various eatables. Endomorphic people not only are fond of various delicacies but also are fond of inviting people to feast and enjoy serving them good delicacies. Thus, eating and serving others become part of their social activities. Sometimes this type of person cannot even take food if alone, and he does not feel satisfied unless there is someone to eat with him.

5. **Pleasure in Digestion-** People of this group eat to their fill and having eaten to their fill they caress their bellies. Caressing their bellies they say they have eaten to their fill and they enjoyed feasting and they are satisfied. Their digestion is specially active during special functions, festivals and feasts and they eat more than required at such occasions.

6. **Lover of People-** Endomorphic person is a lover of people. He likes to be always surrounded by people and friends. He likes people coming to him and meeting him. He wishes to know and get well introduced to everyone at his parties, functions and Clubs. Making friends with everyone is his special quality.

7. **Lover of etiquettes-** Endomorphic person is a lover of people as well as of etiquettes. Polite and civilized behaviour with people is his speciality. He always comes forward to spend his time and energy at social functions and marriages, etc..He is always eager to follow customs and traditions at special functions and festivals.

8. **Imprudent Sociability-** In spite of being a lover of people and of etiquettes this type of person is always eager to meet every individual and to make friends with one and all. He enjoys life through excessive sociability. Often he doesn't even ponder over whom to meet, how, when and who to talk to, etc. Just meeting people, talking to them and making friends with them is his hobby. He rarely uses his prudence in his sociability therefore, he is called imprudent sociable person too.

9. **Longing for love and encouragement-** Endomorphic people have a strong desire to be loved. They also desire that people approve their work, their talks and behaviour. If they find that people don't like them they get worried. They try to overcome their worries and to get loved by people and friends. And, the moment they get love, they get free from worry.

10. **Public-oriented-** The special quality of an endomorphic person is that he gets oriented to the person connected to anything. For instance, if anything is well made, he would try to make the same thing, to get friendly with the maker of that thing. He necessarily tries to know about the maker of that thing. This quality of his is the basis of his popularity.

11. **Sentimental-** Persons of this type of personality show sentimentality with everyone regularly and continuously. He is always happy in every condition and it appears that he never worries.

12. **Tolerant-**Endomorphic people are specially tolerant. They easily forgive people's follies, mistakes and sins and do not hesitate to apologises for their own mistakes. They are very active in ironing out the mutual differences. Their tolerance keeps people at peace.

13. **Self-satisfied-** Such people have much self-satisfaction. They are not frustrated even in adversities. They are always hopeful of good days and that the situation could change. They get satisfied with whatever they get.

14. Sound sleep- Being free from worries endomorphic people have sound sleep. They are never aware of the sound and noise around while they are asleep. Even if a radio or TV is put on near them, they sleep fast. In one sense, they have an uninterrupted sleep.

15. Great coordinators- These people are great coordinators. They pay attention to both the aspects of every problem and find a peaceful solution. They find this or that solution of such difficult problems too that seem unresolvable; they don't accept defeat easily.

16. Calm and simple natured- Endomorphic people are calm and simple natured. They don't hide their feelings. They are transparent. Instead of getting involved in legalities they try to solve any problem or dispute sitting across the table and find an amicable solution. They are straightforward and simple in saying what they feel.

17. Looking for companions at the time of sufferings- If these people fall into adversities they desire they have their companions with them. Thus, they look for companions. If they fall ill, they wish maximum people visit them and they are surrounded by people. They wish to talk to people about their problems. If they meet a friend they tell their mind to him and get disburdened.

18. Family lover- The life of endomorphic person is like childhood. He wants to enjoy life like a child. He wants to be happy in his family and wishes others too live a happy life. His simple nature, honest love, straight forwardness and good wishes for all get him respect from all in the family.

19. Effect of intoxicants- The effect of intoxicants on these people is releasing. They feel relaxed under the influence of liquor and wish to talk much with people. Inebriated they start singing. They enjoy expressing their pleasure due to intoxication at a party or function.

The characteristics and nature of endomorphic personality described above present the picture of such a personality to us that is significant from many angles. The personality of such a person possesses social goodwill, honesty, simplicity, calmness and tolerance, etc., the tendencies that are good for society. But no one can be cent per cent endomorphic. Everyone of us has a mixture of all the three qualities mentioned by sheldon, only the differences in their proportion make the personalities different.

2. Mesomorphic or Somatotonic

Persons with this type of personality have well formed, proportionate and well developed body. Their physical strength is well developed. Their muscles and bones too are well developed and strong. They are interested in sports and participate in them. Injuries etc. have less effects on their bodies. They pay much attention to body care. They take regular exercises to keep fit and vigorous.

According to Sheldon following are the characteristics of the people having this type of personality-

1. Lover of physical labour and work- Mesomorphy dominant people are always eager to work hard. They don't take rest after meals, rather they get busy working instead of taking rest.

2. Brilliance and leadership- As mentioned above the chief quality of mesomorphic personality people is vigour as well as brilliance. Because of this they have the tendency to show leadership in every situation. Whatever they do the signs of their vigour and brilliance are clearly visible in that.

3. Zealous behaviour- Such people have a special zeal in their behaviour and their styles show a special movement and quickness, that is to attract other's attention. In every work and situation their physical activities are full of zeal and they act so that people notice them. For instance, if such a person smoked a cigarette he would inhale the puff forcefully and exhale the smoke forcefully out again so that people look at him. Thus, he attracts others' attention through his activities.

4. Lover of exercise and entertainment- Mesomorphic personality person entertains himself through exercise. Being physically strong he remains active and entertains himself through games and sports. They play such games that involve physical labour, like, football, tennis, wrestling, hockey, etc.. These games provide him exercise as well as entertainment.

5. Miles away from studies- People with this type of personalities are miles away from studies. They can take up hard labour as much as possible but avoid studies. If they are given something to read, they read it only in a cursory glance, not with special care and attention. Thus, this type of people are weak rather in studies than physically.

6. Courageous and Risk loving- Mesomorphic personality people generally show risk taking behaviour. He always looks for such work that involves adventure and risk, doing which he could show his strength. At every occasion he steps forward to work. That shows his leadership quality too. He likes doing risky jobs. This type of person is successful in defense services.

7. Fearless in Speech- A person with this type of personality is fearless in his speech and behaviour and does not hesitate calling a spade a spade. Because of this his friends and acquaintances fear to talk to him.

8. Dominating- A person with type of personality seeks donination over others. He keeps himself at the top in all situations and proves himself to be superior.

9. Strong-hearted- His heart is quite strong. He does not express feelings like compassion and sympathy, therefore, sometimes he is also called a hard-hearted person. Person with this type of personality keeps his selfish interest above in all situations. He considers the expression of feelings of pain and sympathy as weakness of character therefore, he is not sad even on anyone's death.

10. Lack of fear of religion- People belonging to this personality group do not give much importance to religion, that is, they don't care for religion in their work. Their chief goal remains to get the work done.

11. Aggressive in competition- Mesomorphic person is an aggressive competitor. Whenever he takes part in a competition he becomes aggressive and exhibits his strength and dominating nature there. Such a person is aggressive in sports competition too.

12. Claustrophobic- A person of this persnality group does not like to be in a small or closed place. He fears such places. Therefore, he likes to be in a big or open space.

13. Voceferous- Mesomorphic people have a special tendency to create a tumult. Wherever such person goes, he shows his presence through creating noise. He attracts people's attention wearing weird or gaudy clothes, talking loudly or knocking things down. He would open the door with a sudden jerk when entering the house and closes it with a slam. Each of his actions are like that.

14. High and clear voice- Mesomorphic person never likes talking in a low tone and his voice in conversation is high and clear. Whenever he talks he puts clarity and force in his voice.

15. Highly matured body- A person with this type of personality looks more mature than his age. Physical work and labour make his physique quite strong, therefore, his body parts mature before time. For example, a seventeen year old mesomorphic boy would look a person/man of twenty four!

16. Indifferent to pain and suffering- A mesomorphic person is indifferent to pain and suffering as he does not give much importance to these things. In his opinion weak people suffer in life.

17. Active even in adversities- Person with this type of personality get more active falling in adversities. He overcomes his difficulties through hard labour. He never hesitates asking for help or meeting anyone to get over his problems.

18. Orthodox in thought- Mesomorphic people are generally orthodox in their thinking and they don't have anything new in their thinking. It is their tendency not go to deep into a problem. Their chief concern in a thought is merely right or wrong. A middle path is almost non-existent in their thoughts. They adhere to their firm beliefs very strongly. They would never accept any opinion contrary to their belief inspite of many evidences against them.

19. Effect of intoxicants- This type of persons become more aggressive and obstinate under the influence of liquor. He acquires an aggressive posture and starts a quarrel.

3. Ectomorphic or Cerebrotonic

Ectomorphy dominated person is also called elongated cerebrum dominated person or just cerebrotonic person. Such a person has a long, thin body structure. He takes care to wear suitable dress. He is a thinking being but physically weak. He rarely takes up hard and laborious jobs. If anytime he is forced to do laborious work he gets worried and feels almost nervous. The main characteristics of an ectomorphic person described by Sheldon and his associates are as follow in brief-

1. Physical acts- The physical activities of an ectomorphic person are mechanical. He is quick and active in his work. He uses technical things and objects as his body parts. Whenever he takes up any physical work he works like a machine and he tries to finish the job in time.

2. Quick Reaction- Ectomorphy dominated personality individual reacts to any stimulus quickly and immediately. His nervous system is such constructed that there is instant reaction. His sinews are found to be always tense and this results in an instant reaction. The work this person does at an instant shows a kind of perfectness in it. He completes his work on time and perfectly. He does not have to spend any extra energy on this as it becomes his natural speed of work.

3. Restrained Conduct- The conduct of an ectomorphic person is quite restrained. He puts on clothes in a good manner and does everything in an organised manner. He takes great care in opening and closing the door of his house. He is very careful about the gait of his postures. To keep away from physical lethargy is his special quality.

4. Reclusive- A person with this type of personality loves seclusion. He keeps himself away from the hoot and din around. He likes to do his private work, studies and even entertainment in seclusion. It is difficult for him to live with someone. If he is forced by circumstances to stay with someone in one room he feels discomforted and sad. He always tries to be alone. He likes to be alone even on a walk or stroll too.

5. Limited Social Connections- Social circle of an ectomorphic person is very limited. He wishes to keep away from public. He keeps away from people at a fuction or party and likes to talk only to a few known people and mingle with only to his acquaintances. He flinches from crowd and feels very hesitant in a gathering. He keeps his social connections too very very limited. If he happens to come across any acquaintances on his away he tries to get away without greetings or hi/hello. Being shy he avoids contact with people.

6. Mental Activeness- Ectomorphic person is mentally very active. He attends to all of his mental work very carefully. It is his special feature to exactly guess the correct time to be taken for a particular work. The reason behind this is his right thinking. If such a person is a teacher he exactly guesses the number of students present in his class. If such a person is an architect he easily guesses the number of stairs to be constructed in a building or how many strips to be constructed in a ceiling. The meaning is that because of more mental activeness his guesses are correct and to the point.

7. Emotional Secrecy- Such people are expert in keeping their thoughts, emotions and feelings secret and they never express them openly. He takes great restraint in expressing his feelings and emotions. Even if he makes friends with someone, he never lets it know him. If he loves someone, he keeps it a great secret.

8. Shy Nature- Person belonging to this group are shy by nature. Feelings of shyness and hesitation are always reflected from his face and eyes. He avoids eye contact with people. He hides his laughter if he happens to laugh.

9. Agoraphobic- Such a person not only fears public but also is afraid of open spaces. He feels uncomfortable in a big and open place. He likes closed and small places so that his secrecy remains intact and he lives alone.

10. Uncertainty tendency- The attitude of this type of person is difficult to predict. People never get to know his viewpoint because of his secretive and mysterious nature. Therefore, it is difficult to say what would be his opinion on a certain issue. If there is any occasion to seek his opinion or voting, his opinion/vote is always uncertain as he keeps it a secret which side he favours.

11. Avoids habit formation- Ectomorphic personality individual does not have similarity in his routine. To avoid habit formation he does his routine work with a change everyday. He avoids habit formation.

12. Sensitive- A person with this type of personality is extremely sensitive. If he is hurt physically or mentally he feels extreme pain and becomes very sensitive. He does not forget this painful experience for a long time.

13. Lack of Sound Sleep- A person belonging to this group cannot have a sound sleep. Because of non-stop mental activity he is restless even in sleep. He cannot have a timely and good sleep as his mind is disturbed by thoughts and worries in sleep too.

14. Constant fatigue- Because the person belonging to this group is always drowned in thoughts and he doesn't get enough sleep, he does't get proper rest. As a result he feels constant fatigue.

15. Restrained Speech- Ectomorphic person is of peaceful nature. Although he indulges more in mental activity yet he is restrained in his speech. In conversation he speaks softly and with restraint. This restraint is visible not only in his speech but in other actions too. For example, closing the door softly, playing radio or TV slowly, etc., indicate his restrained personality.

16. Introvert- Ectomorphic person is generally introvert in nature. To solve any problem he studies it very deeply. He tries to go deep into any problem to understand and analyse it. Because of this tendency such person becomes a good researcher or philosopher.

17. Need Seclusion in adversity- Whenever an ectomorphy dominated person faces any adversity he looks for seclusion so that he could brood over the problem and find out a solution to it. Usually he solves his problems alone.

18. Ever young- Like mesomorphic person, an ectomorphic person does not look overmature, rather he looks younger than his age. Because of this it is difficult to guess his actual age.

19. Refined manners- Ectomorphic person follows etiquettes properly. Even an adolescent belonging to this group shows refined manners like an adult from other groups. He puts on refined dress and follows manners in speech too.

20. Effect of intoxicants- Ectomorphic person does not use drugs and liquor. If he had to use intoxicants as medicines he takes care to take them in very less quantity.

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Question

I. Essay-type questions:-

1. Classify the personality type given by Krets-chmer.

2. Classify the personality type given by Sheldon.

II. Short Answer Questions:-

1. Explain pyknic type personality.

2. Write down the characteristic features of asthenic type personality.

3. Write down the characteristic features of ectomorphic personality.

III. Objective type questions:-

1. Hippocrates has divided personality into.....................parts.

2. Personality theories may be divided into ....parts.

3. Krets-chmer has classified personality into ....categories.

4. Sheldon has classified personality into ....categories.

CLASSIFICATION OF PERSONALITY AND ACHARYA MAHAPRAJNA (BASED ON LESYA)

In the foregone chapters we studied personality, its determinant factors and the classifications of Krets-chmer and Sheldon. As mentioned in the foregone chapters, psychologists have understood human personality differently and have classified it time to time. Where Srimadbhagvad Gita classifies personality on the basis of Satva, raj and tam qualities, there Shree Arvind gave a classification of personality on the basis of five shells and gave it fine existential states. The renowned philosopher Acharya Shree Mahaprajna proposed a revolutionary theory and idea for the classification of personality. On the basis of his meditation and experiences and studying the Lesyas of thousands of people coming in contact with him he has attempted classification of personality of individuals on the basis of Lesyas. He has classified human personality into six categories on the basis of Lesyas.

In the whole world sunrays have been accumulated for centuries and the utility of seven colours present in sunlight has also been studied. Many therapeutic traditions use sunlight and its colours to treat diseases. Sunlight therapy involves sunbath, that is, applying a particular colour of sunrays to the diseased body part to treat it and preparing special coloured water through sunrays as well as preparing medicines. Therefore, it is clear that colours are inseparably associated with man from time immemorial. Modern science also treats human health as well as his personality. Psychologists too have studied the effects of coloured rays on human behaviour, mental and physical health. According to Dr. Richards J. Burtman, apart from food if anything else affects human activities very much that is light. Similarly, Faber Bien also proved through various experiments of colours on people that colours and human activities are closely connected.

In Vedas too it is mentioned at several places that sunrays affect human behaviour, mental and physical health. In Jain Agamas too calling light colours as Lesya their close connection with human personality is described. Lord Mahavira propounded the theory of Lesya around two thousand five hundred year back. According to his theory Lesya flows in stream of two kinds-the stream of consciousness and the stream of colours. The combination of these two is the theory of Lesya. According to this theory Lesya is a kind of atomic environment. Every object in the world, living or non-living, has a ring of rays around it. This ring is formed by accumulation of rays emitted by the object. These rays are in the form of electromagnetic energy or waves. The ring formed by the emerging or growing rays around the object is called 'Aura'. Living creatures also have a ring of rays around them.[1] As we have described in the foregone pages, in the present era Acharyashree Mahaprajna has given revolutionary idea and theory to the world presenting classification of personality on the basis of Lesya. He has categorised Lesya into two on the basis of his rigorous study and deep thinking. They are-1. Halo, and 2. Aura.

HALO

Gods, goddesses, incarnations, saints and seers possess a ring of light formed by the rays emitted by their bodies, resplendent around them, that is called halo. This halo is depicted as a brilliant yellow ring in the pictures of gods, goddessses, seers, yogis, and great saints.

AURA

As mentioned earlier, every object, living or non-living, possesses a ring of light rays around it which is called aura. This ring is like a netting of fine filaments or like a covering made of strands of cotton. In living beings it is spread around the whole body. Actually this is a mass of rays emitted by the object that condense into the form of a ring or cover. These rays are in the form of electromagnetic energy or waves.

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1. The outline of Science of Living, Muni Dharmesh p.370

"There is no mention of 'aura' in Jain Agamas but the meaning for which the word Lesya is used shows this fact quite scientific that body is a powerhouse of electric current and it emits electricity every moment. The emitted atoms form their own structure which we call 'aura'."[1] The concept of aura exists from ancient time. Many scriptures mention it. Modern scientists and psychologists agree on the point that objects have a ring of light around them. Scientists have even photographed them.

Can we see halo and aura?

This is a little tricky question because every common man cannot see halo and aura through his common eyes. But we cannot negate the halo and auro of Lesyas on this premise. We can not see x-rays and laser rays but we do experience their effects very obviously. Similarly, halo and aura affect human beings irrespective of their invisibility. For instance, we feel attraction for a saint, yogi or an innocent person if we sit by him for some time and we wish to sit by him for hours together. On the other hand, sometimes we come in contact with such people that we don't wish to be with them for long. In the first example above, the halo of the saint affects the aura of the person and creates a special attraction in it, whereas, in the second example the aura of the first person gets repelled by the aura of the second person creating negative induction in it. Different people have different Lesya-based auras.

For centuries the established opinion has been that only insightful great saints can see auras and this is true too that aural rays can be seen only either by one whose consciousness reaches a higher level or who possesses supernatural vision. But modern scientists have seen halo and aura with the help of sophisticated tools and they have photographed them.

What is Lesya?

According to Acharyashree Mahaprajna Lesya is the ray of our consciousness. He opines that Lesya is used to mean 'light rays'. As sun has rays, similarly our consciousness also possesses rays. Consciousness is within us still its rays burst forth out and their colour changes with the change of feelings. A lot of emphasis is given on the word 'Lesya' in Jain Agam Nandi Sutra. The word used in the Sutra is Rassi, that is, rashmi (ray). Later on 'rassi' changed into 'lassi' which metamorphosed into 'lessa' and then came its present form 'Lesya.[2]

Lesya theory has been in circulation in philosophy field for a long time while today's scientists have named it as aura. Lesya theory dates back to Bhagwan Mahavira's time and Jain agam Acharang Sutra gives an evidence to it.

In his Lesya theory Acharyashree Mahaprajna has mentioned six kinds of Lesyas present in man. These Lesyas are of six different colours and on the predominance of these colours is determined the personality of man. The aura constructed by these Lesyas may be serene like the still waters of a lake or inflamed like fire. The Lesyas mentioned by Acharyashree are-1. black, 2. blue, 3. grey, 4. pink, 5. red and 6. white. We shall take up Acharyashree's view for detailed description from psychological viewpoint on lesyas with regard to human personality. The facts above clearly show that (1) Rays and their colours widely affect human life, and (2) The aura emitted by man and other objects affect man and environment both. Psychologists also have studied the effect of colours and light rays on human life very thoroughly. According to psychologists colours of light affect human emotions. According to Acharyashree aura or lesya affects emotions and the flow of emotions affect aura.

The Psychology of Colours

The renowned light colour scientist Faber Biren has analysed the personality of man based on the effects of colours. In his book *Character Analysis Through Colour* he has given the analysis of human personality on the basis of colours, as follows-

1. People who like red colour are extrovert in nature They are vigorous, impulsive and daring. They are full of sympathy and always ready to serve humanity. They take life seriously.

1. Lesya and Psychology. Mum. Dr. Shanta Jain, p. 113

2. The Outline of Science of Living. Muni Dharmesh, p. 370

2. People who like orange colour or good friends and true companions. Others envy their style of work. They are fond of cooking and eating tasty food. They overlook their spiritual values to make themselves happy and to attract others to them. These people are attractive and eloquent in speech.

3. People who like yellow colour are scholarly and idealistic. They are of pure nature, high intellect and dreamy tendency. Their thoughts are clear and deep. Like philosophers these people are of loving nature.

4. People who like green colour are naturalists and they have materialistic tendencies. They are tolerant, generous and free from prejudices.

5. People liking blue colour are introvert and shy. In spite of being sensitive towards others they have control over their feelings and zeal. They love justice too.

6. Those who like purple/violet colour are of abnormal and mysterious nature. They are mysterious to not only others but to themselves as well. Generally they are happy with and enjoy the least they get. Humility is their chief trait. Their scholarship is of stable nature but they never impose their abilities on others.

7. People liking brown colour are wealthy, reliable and determined. They are of orthodox nature and dislike anger and show off. They accomplish their responsibilities fully. They take simple but good food. They value quality in choosing a thing than its quantity. Their principles are very fast.

The above mentioned personality analysis in the psychology world need sufficient research to study the behaviour and other values of life of a perfect man. Acharyashree Mahaprajna has classified personality into six categories on the basis of Lesyas. Whichever Lesya is found to be predominant in the person his personality and characters are found accordingly. As is mentioned earlier Lesyas are the rays of aura. Therefore, whatever colour rays are predominant in a person's aura the same is his personality as well as his qualities. Following is the detailed description of personality with reference to aura and lesyas as given by Acharyashree-

1. Black Lesya

If the person's aura is dominated by black colour his personality is chiefly ruled by passions. Such people are unrestrained, base natured, cruel, violent and shameless. They indulge in sex, anger, pride and greed and they have very strong desires. They are usually physically and mentally tense. Psychologically speaking person with black lesya personality have a dominant Id because of which they try to fulfil their unrestrained desires by hook or by crook. Such people have Ego and Super-ego in the least measure because of which they have no sense of good or bad and have least care for morality and social bonds. They least care for social rules. They flout family and society rules to fulfil their desires. Thus, their personality is imbalanced.

2. Blue Lesya

If the person's aura is dominated by blue lesyas the personality of the individual is found to have a low intellectual level. He is of unstable mentality, that is, he changes his mind quite often, he is jealous and full of passions. A person with such an aura has a strong desire for pleasure and sex and he is of low nature. He has a tendency to indulge in violence and to inflict pain to others. People with such a lesya are fame greedy, lazy, shameless and unjust. They are unrestrained and full of sexual desire and anger. They put forward a good face in society and behaving well hide their ill feelings. To avoid social criticism they show a good behaviour superficially. The personality of blue lesya individual is slightly better than that of the black lesya personality. Psychologically speaking in such a person Id is predominant but Ego also takes some shape, still Super ego is found to be the least and thus their personality is imbalanced.

3. Grey Lesya

A person whose aura is dominated by grey lesya has predominance of grey colour in his personality. Such people's personality is a little better than that of the black and blue lesya personality people. Still their speech and character are not very balanced. A personality dominated by grey lesya feels happy by inflicting pain to others, speaking harshly and making fun of others. It is their tendency to hide their demerits and stealing. Their nature is to

interfere in other's matter, to make a show of their ego and to exaggerate their achievements. They are ruled by misconceptions (negativilitic thoughts) and jealousy. They have sexual desires, anger, pride , greed etc., passions in excess. They are of unstable nature, have least religious leanings and the self at the last level. Their mind is ever-changing. They are of unbelieving nature and take wrong impulsive steps without properly knowing the facts. From psychological point of view the personalty of these people has a predominant Id but Ego also reaches a certain higher level. Such people have the use of Super-ego in initial stages, because of that they sometimes behave well too.

4. Red Lesya

In the aura of the person with red lesya personality there is a predominance of red colour. Their personality is quite developed. Their behaviour is quite humble and balanced. They are of stable nature and don't change their mind quite often. Such type of people don't interfere in others' matters and they contribute greatly in social construction. They have firm faith in religion and try to comprehend deliverance. They are the people who attain self realization. They keep away from sins, violence, laziness, greed for fame and seeking pleasure. They have sexual desires, anger, pride, greed and jealousy under their full control.They are capable of controlling their emotions and passions. They work in public welfare too and greatly contribute to the upliftment of society. Public service is their chief goal. They make and carry out many plans in public welfare. From psychological point of view persons with this type of personality possess Ego and Super-Ego predominantly and have full control over Id. They observe farmilial and social rules and morality fully while fulfilling their needs and desires.

5. Pink Lesya

People with predominance of yellow colour in their aura fall in the category of pink lesya. Such people are peaceful, sober and taciturn. They keep away from anger, social prestige, wealth and greed. They purify their self and seek self realisation. They, being ascetic in nature, have full control over their desires. Their character is pure, perfect and they realise god. They are generally virtuous and seek deliverance.

They fulfill their physical and social needs very normally as required and needed.They never inflict pain to others to fulfill their desires. They have a balanced personality and their mental faculties are of high order.

From psychological point of view people with this lesya have a fully developed Ego and Super-Ego too is quite developed. Id is weakened in such people because of which unnecessary desires and wishes remain under control.

6. White Lesya

People with white lesya have the predominance of white colour in their aura. Such people have a peaceful disposition. They are enlightened and know the 'self'. They win over their desires completely. They have full restraint over their mind and speech too. These people possess an exalted character and they are of meditative nature. Their mind is stable and determined. They have extraordinary physical and mental powers and possess supernatural powers too. They use this supernatural power for self-realization and in public welfare. From psychological point of view their Ego and Super ego are fully developed and Id is completely annihilated.

Agam literature too gives a detailed description of lesyas mentioned above. Regarding their colours it is said in Agam literature that black lesya is black in colour like collyrium, cuckoobid, coal, black asoka or black oleander, etc.. The colour of blue lesya is blue like that of sparrow hawk, parrot's feathers, pegion's or peacock's neck, etc. The colour of grey lesya is pegion grey and reddish as that of copper or copperware. Red lesya is red like that of the colour of human blood, coral, etc. Pink lesya is yellow in colour like turmeric, yellow oleander, golden oyster or pure gold. Whereas, white lesya is white in colour like full winter moon, milk, curd, or even whiter than white oleander.

Personality Development

Today everyone is living a life full of struggle. Man is crushed in the rate race and competition. There is a talk of personality development in many areas, especially in the field of education, but how to develop personality has been

a problem ever since. Many programmes of personality development are organised in educational institutes and management institutes, but how much of personalty is developed there is no secret to us. Do they have those qualities developed in their personalities that may help develop the self or take care of the welfare of society? Present day personality development processes have reduced man to materialism and money mindedness. Due to lack of balanced personality development the imbalance between man and society has every been increasing. Many psychologists gave theories of personality development but most of these theories remained at the level of physical side of personality development only.

Acharyashree Mahapragya gave the concept of Lesya meditation for personality development. Following this concept if the individual meditates upon some specific colurs for 10-15 minutes everyday the colour of his aura starts changing which is very significant for his personalty development. As mentioned earlier, the first three lesyas represent imbalance in the personality of the individual. The first three lesyas possess lower qualities or animalistic tendencies in predominance because of which the individual indulges in petty or animalistic behaviour. Theft, murder, terrorism, deliberate injury to others, snatching others' money, etc., are the acts resulting from the prevalance of these lesyas. Meditation upon specific colours changes the personalty of man and he attains the higher lesyas and balance in his personality increases improving his personality. The method of meditating upon colours has been named as 'Lesya meditation' by Acharyashree.

According to Acharyashree there are thirteen (13) centres of consciousness in the body of man. These are-

1. Centre of power   4. Centre of bliss   7. Centre of Vitality   10. Centre of Intellect
2. Centre of health   5. Centre of purity   8. Centre of vision   11. Centre of enlightenment
3. Centre of luminosity   6. Centre of Brahma   9. Centre of wisdom   12. Centre of peace
13. Centre of knowledge

On the different centres mentioned above we have to meditate upon different colours. For instance, meditating upon green colour on the centre of bliss improves the purity of thinkng process. Meditation upon blue colour on the centre of purity enhances our control on sexual desires. Meditation upon dark-red colour on the centre of intellect improves our insight and gives us bliss.

Meditation of white colour upon the centre of enlightenment brings us supreme peace and quells our impulses, anger, violence and excitement. Meditating upon yellow colour on the centre of knowledge develops the activity of nerves of knowledge and man attains knowledge.

Under development of personality and transformation of person an imbalanced personality is transformed into healthy one, that is, the personality of the man is purified and his stream of thought is moulded to purity. Both these functions are easily done through lesya meditation. As mentioned earlier, aura or lesya affects the stream of thought and vice-versa. Stream of thought and lesya are complementary to each other. Therefore, as required, meditating upon specific centres and specific colours the stream of thought may be changed and aura or lesya automatically changes with the changes in the stream of thought.

| Deliverance |
| 6. White Lesya |
| 5. Pink Lesya |
| 4. Luminous red Lesya |
| 3. Grey Lesya |
| 2. Blue Lesya |
| 1. Black Lesya |

← bright lesyas →   ← base lesyas →

Fig. 1: The order of Lesyas in personality development

Here the meaning of personality development is to get rid of base lesyas to attain the higher and highest (Luminous red Lesya, pink lesya and white lesya) lesya. That would balance both the intellectual and mental personalities of the individual. Everyone looks for peace and desires to live peacefully. Everyone desires for never ending pleasure and bliss but he looks for them in this material world and in place of peace he gets mental trouble in place of bliss gets woes and in place of getting pleasure he has to struggle a lot. Thus, his personality gets shattered. The harmony between the actions of his personality and his qualities is disturbed. In this situation, the baser lesyas (black, blue and grey lesyas) take precedence in man. For the development of personality, that is, to achieve peace, joy and bliss one has to move above these baser lesyas. And for this lesya meditation is a powerful technique. Through Constant lesya meditation, developing his personality by superpassing his baser lesyas man can achieve the higher and the highest degree lesyas or auras as shown in figure 1.

Different levels of lesyas and streams of thought in people may be comprehended through the following anecdote-

Six friends were passing through a forest. On the way they saw a tree laden with fruit and all of them desired to eat the fruit. They reached close to the tree and began thinking the way to get the fruit. The first friend expressed his opinion that they should cut down the tree; the second one said they should cut down all the boughs. The third friend said they should cut down only the branches while the fourth one said they should cut down only the twigs laden with fruit. The fifth friend opined that they must climb up the tree and should pluck only the ripe fruit. The sixth friend said why should they harm the tree at all? There are enough fruits fallen on the ground and they can satisfy themselves eating those fruits.

The anecdote above shows the mental states of the friends from first to the sixth one. The first friend possesses, along with selfishness, the feelings of violence, cruelty and destruction. But the second one has those feelings lesser than the first one and the third one even lesser than him. Similarly, the sixth person is totally devoid of the feelings of cruelty, violence and destruction.

In the anecdote above the first person has the predominance of black lesya, the second one of the predominace of blue lesya, in the third one there is the predominance of grey lesya, in the fourth one of luminous red lesya, in the fifth one the pink lesya is predominant while the sixth one is dominated by white lesya.

The Lesya Theory of personality development or personalioty transformation of Acharyashree Mahapragya is confirmed by the Humanistic theory of the renowned psychologist Maslow. In his 'Heirarchy of Necessities' theory Maslow talks about the need to rise above the baser necessities to reach superior heirarchies, which are the conditions of self-realization, beyond thoughts and trance. According to him the goal of the individual must be self-realization. The individual makes progress in his personality in the real sense only when he progresses towards self-realization.

Following Acharyashree's theory too the real development or transformation of personality takes place only when the individual rises above his baser lesyas progressing towards superior lesyas. Psychologists today talk of tractable psychology and to bring a change in the personality of masses at large they look towards techniques like preksha meditation and lesya meditation.

Exercise

1. What do you understand by Lesya?

2. What do you understand by halo and aura?

3. Write a note on the 'psychology of colours'.

4. What do you understand by baser lesyas?

5. How is personality development possible through lesya meditation?

6. Classify personality following the theory of personality given by Acharya Shree Mahapragya.

LESSON 5 :
THEORY OF G.W. ALLPORT

In the field of personality theory Garden W. Allport's contribution is quite special and significant. To understand personality Allport propounded the "theory of cardinal traits."

Allport was born on 11 November 1897 at Montezna, Indiana, USA. He obtained his graduate degree in 1919 from the reputed Harvard University of America studying philosophy and Economics. Prof. Allport published many articles, research work and books on 'personality.' Like Yung he was also much impressed by Indian Philosophy and thought. He deeply studied the major scriptures of Indian philosophy, like, Vedas, Upanishads and Puranas. He died in 1967 at the age of seventy. Allport published many books on personality. The major ones are-

1. Personality : Psychological Interpretation (1936)
2. The Psychology of Rumour (1947)
3. The Individual and his Religion (1950)
4. The Nature of Personality : Selected Papers (1950)
5. The Nature of Prejudice (1954)
6. Becoming Basic Consideration for a Psychology of Personality (1954)
7. Personality and Social Encounter (1960)

Allport's theory of personality is an admixture of humanistic and personalistic principles to explain human behaviour. He has included in his theory growth, capability and religious philosophy giving explanations of these things.

Allport finds personality to be dynamic. Allport defined personality first of all in his book Personality (1957) which is still accepted and is in use. According to him, "Personality is the dynamic organisation within the individual of those psychophysical systems that determine his unique adjustment to his environment."

Allport has presented two important things in this definition-1. dynamic organisation, and 2. psychophysical system. According to him, in the personality of man is found a kind of organisation which establishes an integrity in his actions and behaviours and keeps him constantly making efforts for the development and change in his self. By psychophysical systems he means that body and mind are mutually related. They are complementary to each other and affect each other. By 'unique adjustment' Allport means that every time and place has something new to them and individual differences bring out uniqueness at the time of adjustment. Since the individual adjusts himself to the environment, all the conditions are not the same in the environment. Sometimes the conditions are favourable, sometimes they are not. In such a situation too the individual tries to bring a balance in himself. According to Allport the personality of that individual shall be considered good who maintains a good balance in all the situations. That is, he who possesses the capacity for unique adjustment has a well organised and mature personality.

Allport revised this definition of personality a little in 1960. Giving a new definition in his book Pattern and Growth in Personality he wrote, "Personality is the dynamic organisation within individual of those psychophysical systems that determine his character, behaviour and thought."

To understand this definition given by Allport we have to understand the notions used by him. Only then we can follow his theory. He has presented five notions in his definition. He gave the following clarification of the notions used-

1. Dynamic Organisation- Under this he mentions a mental activity in man such that organises various elements of his being but still a man is not a constant/stable unit. Because of this special feature man constantly takes efforts for the development and growth-oriented changes in his 'self'.

2. Psychophysical Systems- Under this he gives primary status to the relation between body and mind. According to him personality is neither a resultant of mental health completely, nor completely a sum total of physical

traits. Therefore, only the fusion of mind and body build emotions, habits, tendencies and thoughts, etc., activities in the individual.

3. Determination- According to Allport personality is made up of some determining tendencies. That is, there are found some determining tendencies in man that, in the presence of relevant stimulus, bring out the real nature of man.

4. Character- In his definition Allport depicts/determines the highest importance for humanistic specialities in character. That is, the way a person behaves is the result of his significant specialities.

5. Behaviour and Thought- According to Allport behaviour and thought is that veil that reveals human deeds. The personality of man can only be comprehended through his deeds, actions, etc.

The facts above show that Allport considers personality as the sum total of traits, character and nature and we take them into consideration while explaining personality. He has used notions like, traits, character, nature, values, habits, etc., of the person in personality. According to Allport personality is measured/evaluated through character and vice-versa, therefore, they are complementary to each other. A person of high character possesses moral traits of a very high order and he is a respectable person is society.

Following Allport, there are found some special characteristics in every individual which are called traits. He considers traits as mental structures. According to him traits are made up of psycho-ligamental activities and their activity depends upon the capacity of various stimuli and working systems. In his personality theory Allport has highlighted, apart from traits, development of personality, working autonomy, characteristics of a healthy person and values.

Personality Structure- According to Allport traits play a very significant role in the structure of personality. We shall explain these traits in detail as follows-

Traits- As we have made it a little clear in the foregone pages that traits are some specific mental structures in human beings. Allport says that "A trait is......A generalised and focalised neuro-physic system (peculiar to the individual with the capacity to render many stimuli functionally equivalent to initiate and guide consistent forms of adaptive and expressive behaviour.

Allport gave some special features of traits-

1. Traits are essential to every individual's life.
2. Traits are not visible but they are neuro physical structures.
3. They are not cognizable by sight but they are to be inferred by consistency of behaviour.
4. The consistency in behaviours of human beings is based on traits.
5. Traits are not completely independent. Whatever traits are found in the personality of man, are found to be inter-related.
6. Different people have different degrees of traits.

Types of Traits-Allport gives three types of traits-

1. Cardinal Traits- These are the traits generally found in everyone. They may be known through historical characters too. These are the fundamental traits of human personality. Man organises his life through these traits. Examples of such traits are-strength, achievements and sacrifice for others, etc.

2. Central Traits- Central traits are those tendencies of a person that can be recognised just by looking at the person. For example, extrovert nature of a person, extrovert mentality, sociability, enthusiasm for life, honesty and dutifulness, etc.

3. Secondary Traits- Secondary traits include specific habits, life-style, eating habits, tendencies and preferences, etc. According to Allport people are different generally on the basis of the different traits of this category.

The three types of traits discussed above constitute personality which determines the behaviour of persons.

Allport finds the constitution of personality mainly responsible fort the behaviour of a person rather than environmental conditions. He exemplifies this point saying that the same fire melts butter but hardens an egg. Here fire is the same stimulus but its effects are different. Similarly, people living in the same environmental conditions behave differently which is owing to their personality structures.

Apart from above mentioned traits Allport discusses two more traits- individual traits and general trits. For the peole of one society or culture these traits are common. For example, to some people of one society we may call humble and to some others as aggressive. The thinking behind the existence of such traits is that societies have specific cultures and specific effects. To adjust to them people adopt common techniques.

The examples of such traits are social tendencies, worries, social customs and traditions, values, etc.

Development of Personality- Following Allport, to study various conditions of personality development it is essential that we pay attention, first of all, to the birth and infancy of the person. According to him a person's life is influenced by heredity and from the very childhood. Apart from this, his life is much influenced by primitive conflicts.

From the very beginning the child possesses the possibilities of his physical nature which get fulfilled in a desirable environment. As he grows up, his activities and behaviour develop and changes take place too. In the childhood man performs various activities very vaguely/ in an unclear manner which he does not even know at that time but with the experience of joys and woes derived from doing those things he learns to do things better and clearly. To adjust his physical troubles and pleasures and stresses he learns to bring about desired changes in his behaviour. When the child grows up a little more his parents by to bring socialization in him. They use carrot and stick method too in this process. Mostly through punishment or pleasing rewards the personality of the child is tried to be moulded in the desired pattern. If the desired changes are not seen in the child's personality he is punished.

Allport thinks that from infancy to childhood in the process of personality development starts the development of notions like, differentiation, unification, maturity, following, learning, and growth of 'selfhood', etc. All these activities go on till adult life. Allport gives a very important place to learning in personality development. According to him learning is an important factor of personality development with the help of which, developing his inducements, a person gives a definite shape to his motivations. Man continues to learn through life and continues to develop his personality through experiences. Allport gives an important place to the process of sensory and direct knowledge in the development of personality. For this he presented an altogether new concept called 'precept.' Precept indicates to sensory processes which are connected to other psychological processes too being related to present, past and future. For instance, imagination, thinking, rememberance, etc. fall under the concept of 'precept.' According to Allport it is the aggregate form of sensory and emotional processes which gives a specific uniqueness to the personality of man.

Personality and Motivation- Motivation plays an important role in the growth of personality, says Allport. According to him personality and motivation are, in one sense, determinants of a person's personality too. Motivation is very important in maintaining the dynamism or activism in personality. Without motivation there is no dynamism in personality. According to Allport there are some factors related to motivation that motivate a person to do special jobs. According to him, to have a clear knowledge of motivation it is essential to understand the current inducements of the person. There may be differences in these inducements and because of these inducements are found individual differences in personalities. Regarding motivation Allport said one important thing that all the elements of motivation are the elements of personality too but the elements of personality are not equally the elements of motivation also. Therefore, through this Allport wants to prove that personality is a wider concept than motivation and both do not have equal importance. He said that motivation is an integral part of personality but it is not synonymous to it.

According to Allport the form of inducements keeps changing. The form of inducements keeps changing from childhood till adulthood. Inducements for children are different from that of the adults. For instances, a toy is a very important inducement for children, whereas this inducement is insignificant for adults. Wealth is important inducement for adults, while it is not so for children. Allport considers some inducements as normal and some as abnormal. Inducements for emotionally imbalanced people are abnormal.

As a person attains adulthood and maturity his inducements undergo changes. The fundamental desire of the person behind these changes is to bring enough reformation in his present condition so that he could make his condition excellent. This strong desire of the person is that of becoming too. The person wants to become someone. He wishes to improve his condition as well as himself from better to the best. But abnormal people do not have this kind of inducement and they indulge in such activities which prove to be impediments in their adjustment.

Functional Autonomy- Allport considers personality as a dynamic and induced system and he determines an important role of inducement in it. In this context he has given the theory of functional autonomy with reference to personality and inducement based on the same principle. This theory lays emphasis on the autonomy found in the function of inducements. Uniqueness in a person's personality is because of functional autonomy which determines his behaviour and adjustment. Allport's opinion was that a person's personality is inspired by inducements. The conflicts of the drive of inducements arts like a medium or machine in the beginning that develops over a period of time and achieves perfection. When they are fully developed they start functioning independently. But when they change form, the drive is formed, there is found a change in the nervous system at their root too. According to Allport, at the root of hunger, thirst and sexual act are found biological drives.

Regarding his theory of functional autonomy Allport emphasised the following points specifically-

1. Inducements are contemporaneous. The active power implied in inducements is not necessarily connected to past experiences and goals. Present goals are also very important. Although the past life of a person is essential to understand his present.

2. To comprehend a person's motivation a multi-dimensional study of his motivation is a must.

3. The maturity in a person's personality depends on to what extent his inducements have attained functional autonomy.

4. Instead of indulging in deeds related to basic interests a mature personality takes up actions arising out of suitable inducements and behaves accordingly and, because of this a uniqueness is found in everyone's personality.

Arrording to Allport there are some processes too in human beings that do not achieve the form of functional autonomy. For instance, the actions induced by biological drives - sleep, hunger, thirst, respiration and excretion, etc.. Similarly, other processes like, twinkling of eyelashes (kind of reflex action), physical growth, means of intelligence and nature, etc.

Characteristics of a Matured or Healthy Personality : Allport determines chiefly six characteristics of a matured or healthy person. According to him the definition of a healthy personality changes according to the culture of the person. As the person realises his responsibilities, his personality grows gradually. Following are the six characteristics of a healthy personality given by Allport-

1. Extension of self	2. Self objectification	3. Better social adjustment
4. Emotional maturity	5. Realistic perception	6. Philosophy of life.

1. Extension of Self- According to Allport alongwith the development of personality the self in the individual also grows. A mature person is not confined only to himself/herself. His deeds or goals are not restricted only to the fulfillment of his/her needs, rather, he works for everyone. They work for their family members, members of the society and for their country. They have self-love for all.

2. Self-Objectification- In Allport's opinion a mature personality tries to know himself possessing an inner vision. He muses on what he is and what he should become.

3. Better Social Adjustment- A mature person is full of such love for the members of society as well as his family members that is free from the feelings of dominance and jealousy. He is full of compassion and he respects human values and loves humanity.

4. Emotionally Matured- In the opinion of Allport a healthy or mature personality is not disturbed by his own or others' emotional tensions. He performs his duty easily without being aggressive in various conditions.

5. Realistic Perception- A mature person perceives events and things realistically. Such people do not live in an imaginary world, but think realistically. They make use of suitable means to solve problems. Their goals in life too are realistic not imaginary.

6. Philosophy of Life- According to Allport the philosophy of life of a mature personality is of special significance. His philosophy of life possesses integrity. His philosophy of life is full of clear thinking and is organised because the values of his life are based on righteousness, truth and social welfare.

Values- Allport studied six types of values in people. These six types of values fall under ideal values. They are found in each individual, only their degrees differ from person to person.

In the opinion of Allport these values are- 1. Theoretical , 2. Economic, 3. Aesthetic, 4. Social, 5. Political, 6. Religions

1. Theoretical- A person possessing a dominant theoretical value mind is found to be intellectual, philosopher or scientist. He is objective and logical and his tendencies are knowledge-oriented. He presents knowledge in a systematic and orderly manner.

2. Economic- Such type of person is fully practical minded and his thinking revolves round productivity. The chief goal of his life is to earn money and hoard wealth. People with this value give importance to only primary education. Their relationships with others are not based on political or social principles but on money. They take very less interest in luxury and beauty.

3. Aesthetic- People with such a value are nature lovers and give much importance to beauty and proportion. They take more interest in the artistic side of life. This type of people believe in individualism. They have special affinities towards luxury and beauty.

4. Social- People with this type of values in predominance are extremely social. They carry out their duties towards society selflessly. These people are selfless, generous and benevolent. They are found at the fore front in serving the society. People with social value are found to have much religious value too.

5. Political- People with this kind of value use the influence of their individual powers . The chief goal of their life is struggle and competition and they wish to impose their inducements on others. They try to use the influence of their personal power on their community and society.

6. Religious- In the opinion of Allport, people with religious value are mystics and they give importance to unity. They try to work for the welfare of the human race, bring unity among people and even bring unity in the world. Their chief goal is to present benevolent tendencies to the world.

To measure the values of people Allport prepared a value test battery comprising of 45 questions. This test battery measures the levels of values among individuals.

Exercise

I. Essay type questions-

1. Explain in detail the definition of personality given by Allport.

2. What are traits? Explain in detail

3. Clearly explain the relationship between 'personality and motivation' given by Allport.

4. What is functional autonomy? Explain.

5. Write down the characteristics of a healthy and mature person.

6. Describe the values found in man presented by Allport.

Reference: 1. Personality Psychology- Dr. Seetaram Jaiswal.
2. Applied Psychology - Dr. Rajkumar Ojha.

LESSON 6 :
MURRAY'S THEORY

Henry A. Murray was born on 13th May 1893 in New York city. He obtained his graduate degree from Harvard College in 1915. Initially he was interested in history, so he deeply studied history. Afterwards he studied medicine too. He spent twelve years on the rigorous study of medicine and subjects related to life science. At this moment he got interested in psychology. He was inspired by Yung to study this field. Inspired by Yung, Murray deeply studied 'Depth Psychology' in the field of psychology. He conceptualised the personality of man in the name of "Personology." Later on 'Personalogy' was accepted as a branch of psychology and the psychological facts related to personality development came to be studied under this branch of psychology.

Structure of Personality:

The basic concept of Murray's personality theory is that man is a motivated animal. Murray emphasised on the biological determinants in the concept of personality. The Neo-Freudians had somewhat neglected the biological aspects but, according to Murray without mind it is impossible to imagine personality.

Definition of Personality by Murray

According to Murray- "Personality is the continuity of those functional forms and forces that keep expressing itself through organised, powerful processes and busy behaviours throughout life and till death."

This definition presupposes personality to be continually dynamic. Apart from this some functions of man are also included/mentioned in this definition.

Murray considers the following functions of personality-

1. Timely renewation of energy through sleep.
2. Conducting various processes.
3. Revelation of various feelings and evaluations.
4. To mitigate the continuation of tensions related to needs.
5. To make necessary programmes to obtain the goal.
6. To make programmes to mitigate clashes between various needs for attaining an equanimous life style.
7. To mitigate the continuity of tensions or to bring down the level of goals.
8. To minimise the clashes between personal interests and socially accepted acts.
9. To minimise the clashes between anti-social impulses and super-ego.

Henry Murray used some special concepts for these functions of personality and gave their explanation too. They are as follows-

1. To minimise the need related tension	2. Origin of tensions
3. Determination of the order of goals	4. Self-expression
5. Ordering of goals.	6. Adjustment of the level of expectation
7. Social requirements	

1. Reduction in need-related tensions: Murray thinks that the personality of individual is affected by the tension arising from needs. These needs are biological, psychological and social. Therefore, the individual makes efforts that the tension created by needs is reduced. The individual fulfills these needs and desires at individual, social and cultural levels. Because these desires involve complexes and frustrations. Since man is a social animal, therefore, it is not possible for him to fulfil his needs out of society.

2. Generation of tension : Henry Murray's opinion in this regard is that lack of tension is not so gratifying as is achieved through the process of reducing tension. He did not agree with Freud that lack of tension satisfies the

individual, rather, according to him, satisfaction achieved through relieving tension is more than that is from lack of tension. Therefore, in the opinion of Murray, generation of tension when required and afterwards reduction in it are implied in the functions of personality.

3. Scheduling of goals : In the opinion of Murray in the structure of personality those tactics are very important which put various needs and goals into a schedule. Through these methods the individual schedules his goals. That is, the more important is the need, the more important order it is put into this process of scheduling goals. It has an important place in the structure of personality. Murray thinks that through scheduling his goals the individual does more work in minimum available time. The individual fulfils his those needs which are urgent, similarly, he attends to those goals first that are more important in view of time and place. Murray says the more a person has the capacity to schedule his goals the more free he is from clashes and tensions.

4. Self-expression : According to Murray, apart from reduction in need-related tensions self-expression is also much necessary for personality development. For example, if someone wishes is to express himself through music he has to keep in mind that he selects such a time, place and song that do not create problems for others. Murray used the expression 'process-activity' in this regard. Making the meaning of 'process-activity' clear Murray says that sometimes mind indulges in such activities that are short-lived but exhilarating. In this regard Murray opines that all those activities related to body and mind get connected to such imaginations that please mind and become a medium of self-expression. Over a period of time some activities acquire a definite form. For example, drama, dance, music, etc., activities are helpful in the self-expression of the individual.

5. Ordination of goals : In the opinion of Murray in ordination of goals the individual makes some plans using his mental faculties and makes designs how these plans may be put to effect and what would be their resultant effects. The individual makes plans and then to put them into effect ordinates them. The goal he would like to achieve first is preferably ordered first. Thus the individual ordinates his goals according to preferences and urgentness.

6. Adjustment of Aspiration Levels : Murray thinks that people generally don't have abilities, capacities, educational achievements and aspirations in similar degree. For instance, the aspiration level may be very high but he may lack ability. Sometimes the aspiration level is low and somewhere character is found low. Therefore, aspirations are fulfilled only when they are determined according to one's abilities, capacities and mental levels, etc. One must determine the level of one's aspirations keeping in mind one's mental, emotional , social, moral and physical capabilities.

7. Social Expectations : Under this hypothesis society, heredity and environment are considered very important in the development of personality. According to this thought both, the past and the history of the individual as well as what the individual expects from the society, the knowledge of this and then working accordingly is not an easy task.

The social side of individual's personalty is strong. Those who work true to social expectations get social appreciation. But sometimes situations take such a turn that the individual finds it impossible to work according to socially accepted norms. There may be many reasons for that and one of the reasons may be orthodoxy in society. Generally, the social and cultural determinants visible in the personality of man indicate to how he should behave and what behaviour he must avoid, what acts fall under moral category and what are taken to be immoral in society. The individual, following social expectations, has to behave according to cultural and social values and he feels satisfied thus.

Murray's Need Theory : Henry Murray put needs in a significant position in his personality development theory. According to him there are many biological and psychological needs of the individual. In his book *Exploration in Personality* he has given a list of the biological and psychological needs. This list is quite comprehensive, still a brief description of the list is given hereunder-

1. Achievement- Such needs include doing high quality work, overcoming obstructions, gains achievements, accomplishing difficult tasks and enhancing self-respect using one's abilities and qualities judiciously.

2. Aggression- Protesting, facing the opponent firmly, winning over the opponent, avenging oneself and punishing, etc., are aggressive actions that are needed.

3. Autonomy- In such a need the individual possesses the capacity to break away all his shackles. He wishes to live freely and work at his will. He wishes to break free social bonds too. He wishes not to follow social customs and not to take any responsibilities at all.

4. Abasement- In this the individual considers himself inferior. He is cowed down by external pressures and silently accepts his criticism and punishment. Sitting inactive, in any circumstances finding fault only with oneself, inviting pain, woes, disease and ill-luck and enjoying them, etc. are the features of the need of abasement.

5. Affiliation- In this need condition the individual wishes to live with the people of his liking. Being close to his near, and dear one, getting her/his affection, loving her/him, cooperating with her/him, etc. are included.

6. Dominance- According to Murray these needs include influencing others and dominating others through orders, not allowing others to work and controlling the human aspect of the environment, etc..

7. Succourance- Under this need the individual wishes to fulfil his needs through/with the help of his companions. The individual depends on others to look after him, protecting him and such other needs.

8. Sex- Under this the individual wishes to make sexual relations and to intensify them. He/She wishes to increase sexual appetite and to take part in the sexual act.

9. Play- In the opinion of Murray such needs include taking part in entertaining activities-cutting/sharing jokes, sports and games activities, dance, music and drama, etc.

10. Exhibition- under this need the individual wishes that people look at him and listen to him. Self-exhibition, exerting dominance, amazing others and sometimes giving them a shock, etc. fall under this need.

11. Deference- This need is related to praising the person higher in status to oneself, supporting him; following social traditions and customs and happily accepting suggestions from colleagues, etc.

12. Order- This includes putting things in order, maintaining cleanliness, organising things and doing things in a balanced and correct way, etc.

13. Counteraction- In case of failure trying again, overcoming one's weaknesses and fighting fright away, getting over imminent difficulties and obstacles, in case of insult winning respect again doing better work, etc. fall under this.

14. Diffidance- In this defending his ego the individual works accordingly. Proving oneself right, hiding failures and insults, defending against criticism, slander and attack, etc., come under this need.

15. Nurturance- This type of needs show individual taking interest in serving and protecting others. He sympathises with the weak and the meek and cares weak animals. If they fall in danger he tries to save them to get out of it.

16. Harm-avoidance- This includes preventing oneself from fatal diseases, dangerous situations, physical blows, pains, etc. and taking care to avoid them.

17. Infamy avoidance- Protecting oneself from infamy and defamation, avoiding such situation and conditions that are afflictive; avoiding such situations that create inferiority feeling; not going to places where there is a fear of beings lighted or not listened to; avoiding doing things for the fear of failure, etc., fall under these needs.

Apart from the list of needs Henry Murray has explained the types of needs too. These are as follows-

1. (a) Viscerogenic needs   (b) Psychogenic needs
2. (a) Overt needs   (b) Covert needs
3. (a) Focal needs   (b) Deferred needs
4. (a) Proactive needs   (b) Deactive needs
5. (a) Process needs   (b) Model needs

  1. **(a) Viscerogenic needs-** These are basically physical needs. Hunger, thirst, respiration, excretion, etc., are viscerogenic needs. These are primary needs according to Murray.

(b) **Psychogenic needs-** These are secondary needs. These needs take birth from viscerogenic needs and convert into psychogenic needs. For instance, the desire for hoarding, desire for recognition and dominance in society, etc.

2. (a) **Overt needs-** In the opinion of Murray there are some needs that are expressed by physical actions or movements, etc. These are overt needs.

    (b) **Covert needs-** Daydreams and imagination, etc., mental acts fall in this category. According to Henry Murray these needs are related to the super ego of the individual. When the individual accepts ideals, values, etc., as part of life, covert needs are active, since in these notions the individual cannot express all his needs fully.

3. (a) **Focal needs-** Some needs are limited- these are focal needs. Some needs are connected to all the things. When these needs are more related to individuals or things they later acquire the form of psycho-development.

    (b) **Deferred needs-** If needs are deferred or not related to things or individuals they create psychological disorders.

4. (a) **Proactive needs-** In the opinion of Henry Murray those needs of the individual which originate from his viscerogenic tendencies or which are spontaneous without any stimulus that are called proactive needs. They are considered important in social context. When the individual steps forward to talk to his companion or induces him/her to react, that is a proactive need.

    (b) **Deactive needs-** According to Henry Murray the reaction of the companion in response to the individual's inducement to react is called deactive need.

5. (a) **Process needs-** Some actions are carried out indetermined, without any specific aim. For example, the individual gets engrossed in aimless mental activity and wanders in an imaginary world. In the opinion of Murray these are process needs.

    (b) **Model needs-** When the individual gets busy in creative work he fulfills the model needs. In this the action is just the opposite of wandering in an imaginary world. The individual takes up such tasks that establish his supremacy in any field.

Henry Murray categorised needs into various types but still he feels these needs are interrelated. Some needs are very strong and it is essential to satisfy them. Depending upon the intensity and urgency of needs the individual gives them an order and tries to find a solution to that. Some needs are fulfilling only after sustained efforts. Some needs are related to the environment. Some needs are motivated by internal and external aspects of life. To influence the need fulfillment there is a relationship between the individual and his environment. To this Henry Murray presented the hypothesis of 'press'. As needs are affected by behaviour, similarly behaviour is affected by the effects of environment. To work according to his needs and behave similarly the individual has to keep in mind social norms and rules. In one sense these social norms and rules are the pressures that choke the freedom of the individual to behave freely. The individual has to care for others too in society. Thus, his needs and desires are to be fulfilled only in social context.

Like the list of needs, Henry Murray constructed a list of pressures too. These pressures are divided into two groups-

1. **Alfa pressure-** According to Murray the pressures found in the form and nature of man or things are alfa pressures.

2. **Beta pressure-** In the opinion of Murray the concept of social pressures and pressures from environmental things around the individual are beta pressures.

In the list presented by Henry Murray family and health are based on social relations. The pressures are described as follows-

1. Lack of family support- Because of this pressure the individual suffers from cultural and familial abnormalities. This pressure arises if the parents are divorced, discipline is slackened, one of the parents is ill or dead, there are poverty and mismanagement at home.

2. Danger or misfortune- There is found a lack of physical or bodily security, or the individual is afraid of falling from height; fear of getting drowned, fear of loneliness, darkness, bad weather, electric current, fire, and fears like that create pressure on the individual.

3. Lack or loss- This pressure is created because of malnutrition, lack of things, companions and lack of variety, etc.

4. Rejection, Unconcern and Scorn- When the individual is rejected somewhere or the other, there is unconcern for him, he is scorned and insulted, a pressure condition is formed.

5. Rival, Competing, Contemporary- Individual feels pressure because of rivals, competitive colleagues and contemporaries too.

6. Birth of sibling- The birth of sibling in the family creates the feeling in the child that he is neglected, not loved. Such and the reasons likewise affect his/her mentality and create pressure.

7. Aggression- If the individual has to bear with the aggressiveness of an elderly lady or gentleman, or his companions are quarrelsome and behave badly, the individual feels pressure conditions.

8. Dominance nourishment- If one of the parents of the child is more egoistic and the child is dominated by him/her, or he is brought up in such an environment where there is dominance of either caste, intellect or profession, the child lives under pressure. One of the parents being more generous than necessary or the bearing of the child is dominated by either fear, illness or accident, the child feels pressure conditions.

According to Henry Murray there is a mutual reaction between various pressures and needs and on the basis of this depends the behaviour of the individual. Murray calls it 'context' or 'limit' when behviour acquires a wider form. This limit is the result of the mutual reaction of needs and pressures. When the individual feels natural and social environmental pressures during the fulfilment of his needs, the context/ limits take shape. These contexts play a very significant role in the study of personality. On the basis of an analysis of these contexts Murray prepared a test called T.A.T., which is well- known projective test for the study of personality.

In the opinion of Murray context or limit is a unit of analysis which is helpful in understanding the mutual relationships of the individual. Along with this, analysing behaviour in mutual relations, Murray mentioned a second unit too. This means that analysing the behaviour of the individual we have to pay our full attention to the person whose behaviour is under study and, at the same time, we have to take into consideration the nature of that person too who exchanges his views and behaviour with the first person. That is, in this type of study the subject and the subject under study both are paid equal attention.

Values- Henry Murray has highlighted the values of the individual also. He has determined seven types of values- 1. Body value 2. Property value 3. Authority value 4. Affiliation value 5. Knowledge value 6. Aesthetic value 7. Ideology value.

1. Body Value- In the opinion of Henry Murray body values are biological values and these are concerned with physical health, body care and protection.

2. Property value- Property, wealth, house, etc. are property values taken by Murray. The individual gives/ assigns a typical value to available things.

3. Authority Value- Authority and rights are given importance in this value. Using his authority and rights what decision the individual takes or what is the power of his decision, fall under this value.

4. Affiliation value- Values based on familial relations and mutual social and cultural relations are called affiliation values by Henry Murray.

5. Knowledge Value- Values concerned with facts and hypotheses related to intellect and science are knowledge values.

6. Aesthetic Values- Under this are taken the values concerned with music, drama and fine arts.

7. Ideology Value- Under this are the values concerned with religion, philosophy, and philosophy of life of the individual.

Development of Personality

Regarding the development of personality Henry Murray thinks that the history of personality of the individual from birth till death is indeed his personality. On the development of personality he has mainly mentioned the following three points- 1. Impact of Psycho-complexes 2. Impact of culture 3. Socialization

1. Impact of Psycho-Complexes

Henry Murray gives much significance to impact of psycho-complexes on personality development. Psycho-complexes are infantile tendencies. They are of five types-

1. Clausteraltom   2. Oral Complexes   3. Anal Complexes
4. Urethral Complexes   5. Castration Complexes

1. Clausteraltom :

About this complex Murray opines that the child feels more safe in the womb of his mother. After birth coming into the ourter world he feels afraid and the feeling of insecurity grows into him suddenly. As a result the infant once again desires to go back into the womb. Here develops the clausteraltom complex. According to Henry Murray at the root of clausteraltom complex is the desire to go back into the womb, in the earlier condition. Secondly, he develops the fear of insecurity and helplessness. Thirdly, through clausteraltom complex the infant desires to get free from suffocation.

Return to the pre-birth condition is taken to be the simple clausteraltom complex by Henry Murray. Explaining this Murray says that the new born infant wishes to feel safe by returning to a womb-like place. Since in the womb all his needs are fulfilled automatically and he doesn't have to depend on anything at all.

In the opinion of Murray the other form of clausteraltom complex is based on fear. When the infant has taken birth he wants to be in an open space or he is always afraid of falling off and this complex grows into clausteraltom complex.

The third form of clausteraltom complex is taken to be freedom by Murray. The infant wishes to be free, wants to get out and live in an open space. Murray named this complex as exit complex.

2. Oral Complexes

Like Freud, Murray also put the joys derived from eating, drinking and sucking activities by the child under oral complexes, though Murray did not emphasize on the sexual aspect of these acts as much as Freud did. Murray divides oral complexes into three types.

1. Oral succourance complex   2. Oral aggression complex   3. Oral rejection Complex

As a result of oral succourance complex the child is always found engaged in oral actions like, eating, drinking and sucking. When he/she feeds on the mother's breast or sucks his/her thumb he/she finds solace from oral succourance complex.

In oral aggression complex the child feels pleasure through cutting by mouth. Cutting/Chewing mother's breast or cutting something else gives satisfaction to oral aggression complex. Later on this habit gives birth to aggression.

Even after growing up the habit of cutting something through both or stammering indicates that oral aggression complex has been strong. In oral rejection complex to express his/her displeasure or disagreement the child spits and shows oral activities and expresses his displeasure or ill-feelings towards his/her friends thus. For example, refusing to take milk or refusing some specific food.

3. Anal Complexes- According to Henry Murray when the child goes to stool again and again it feels a kind of pleasure. To this Murray calls 'anal rejection complex.' When the child tries to stop going to stool and doesn't excrete soon, this tendency is termed as 'anal blockage complex.'

4. Urethral complexes- In this complex the child feels special pleasure in urinating. Some children pass water in bed. They derive a kind of joy from this. This too, is a form of urethral complex.

5. Castration complexes- Unlike Freudians Murray did not give much importance to castration complex. According to him the explanation of castration complexes must be restricted only to its literal meanings. What he means is that if the child imagines that his penis may be cut off, this may result in a kind of anxiety. But this anxiety may not be taken to be the cause of all kinds of psycho-neuro-pathetic symptoms.

2. Impact of Culture

On the development of personality Henry Murray opined that it is affected by cultural determinants as much as it is affected by biological determinants. According to Dr. Jaiswal Henry Murray made it clear that every person-

1. is like every one else, 2. is like some people, 3. is like only some people, 4. is not like anyone.

When there are found in a person similarities in various biological and cultural determinants, he is similar to everyone else. There are essentially some elements that are common in various societies and cultures. Similarly, from the point of view of Science of Living there are many similar elements in the pscho-physical structure of man. In his second hypothesis Murray considered that every individual is similar to some people. Here he has mentioned those qualities of man that are concerned with culture, a particular way of living. People growing up in a particular culture possess some similar qualities. For example, in the personality of an Indian are found some common qualities of Indianness that are imparted to him by Indian culture. Similarly, citizens of other countries, for example, Germany, possess such qualities that are given to them by German culture. In his third hypothesis Murray says that one individual is not similar to any one else. This means the uniqueness of personality. Uniqueness of personality is due to both biological and cultural reasons; gender and age, physique, complexion, etc. Apart from this, physical prowess, capacity to learn, capacity to bear frustration and complexes, etc., too differ in individuals. These reasons also help determine the uniqueness of persons.

3. Socialization

In the opinion of Henry Murray the process of socialization of man begins in his childhood in the family. The infant is taught by family members. Therefore, family and its members play a very significant role in socialization. At this stage the individual learns to put control on himself, bring reformation in his behaviour, control over the expression of wanted and unwanted needs, keeping contact/or no contact with wanted/unwanted things and people, doing things on time, etc., Apart from this he learns to follow the prevalent rules, traditions and customs of the society.

When the child grows up he starts leaving the family and going to the neighbourhood, and then to school. There too his socialization continues. As the individual grows up physically and chronologically, he goes on learning socialization from his biological and cultural determinants.

Exercise

1. Defining personality as given by Henry Murray explain the concepts of personality structure presented by him.

2. Explain the need theory given by Henry Murray.

3. Highlight the values of people given by Henry Murray.

4. Highlight the 'Development of personality' presented by Henry Murray.

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2. Applied Psychology. Dr. R.K. Ojha.

HUMANISTIC THEORY OF MASLOW

Psychologists have propounded many theories to study personality. In twentieth century views concerned with personality came forward in the form of three important theories. The first is the psychoanalytic theory of Freud. This theory explains human nature with the help of basic tendencies and conflicts. The second is the behaviouristic theory which explains human behaviour with reference to external stimulii. The third one is the humanistic theory. This theory is called 'the third power of personality theories' too in the psychology world. This theory is explained in a totally different way from other theories. The basic principle accepted in this theory is that man is basically good and respectable and if his surrounding conditions are favourable he develops his traits positively. This theory explains personal development, reformation of the self, growth, values of the individual and his meanings, etc. The propounder of this theory was Abraham Maslow. Maslow was born in an orthodox Jewish family in New York. He obtained his Ph.D. degree in Psychology from Columbia University in 1934.

In the development of this theory called 'Humanistic theory' existentialistic psychology has contributed to a great extent. Existentialism and humanism both explain human consciousness, self experiences and enthusiasm and try to connect him with the world. In this theory propounded by Maslow the main concept is that motivations affect man in totality. On the basis of this concept Maslow propounded the theory of the order of motivations.

The psychologists concerned with humanistic theory accept only a relative difference between human behaviour and animal behaviour. They denounce behaviourism only because behaviourism begins with animal behaviour itself. Maslow and his companions consider human behaviour totally different from all types of animals. Therefore, they rejected any likeness of human behaviour with animal behaviour. They denounced research work being conducted on animals to understand human behaviour because animals do not possess human qualities like, idealism, values, love, modesty, arts, enthusiasm, crying, laughing, jealousy, respect and equality, etc. These qualities do not develop in animals and they cannot perform some mental work like, poetry, song, arts and calculations, etc.

The humanists specially emphasised the inner form of human beings in the explanation of human behaviour. According to them man possesses an inner form which, to some extent, is natural, stable and unchangeable for him. Apart from that they accept the creative activities of human beings as special activities.

Maslow and other humanists opine that in other theories psychologists studying human behaviour do not take into consideration that aspect which can describe the activities, life-style and objectives of a fully healthy man. Maslow believed that without studying mental health it is useless to study mental weaknesses of man. Maslow (1970) said that to study only abnormal, under-developed, handicapped and ill people is to generate a 'handicapped' psychology. He emphasised on the study of psychologically healthy and self-actualised people. Thus, humanistic psychology considers self-fulfillment as the value of human life.

Maslow's Hierarchical Theory of Motivation

According to the heirarchical theory of motivation by Maslow to understand human behaviour it is essential to understand his tendencies. In his book Motivation and Personality (1954) explaining motivation Maslow has analysed his basic needs. According to him motivation has some or the other value which directs human behaviour towards a particular goal. To fulfil the objectives of his life and adjust his personality man has to fulfil his needs.

Following Jimbardo (1989) Maslow put the basic biological, psychological and objective fulfillment needs into 8 heirarchies (fig.1). If man cannot fulfil his biological and psychological needs properly he develops greater possibilities of suffering from mental tension, stress, anxiety, complexes, etc. which create hinderances in his personalty development. The heirarchies given by Maslow are described in brief in the following pages:

Transcendence
Spiritual needs for 8 cosmic identification
Self-Actualization
Needs to fulfill potential have meaningful goal
Aesthetic Needs
Needs for order, beauty
Cognitive Needs
Needs for Knowledge, understanding, novelty
Esteem Needs
Needs for confidence, sense of worth and competence, self-esteem and respect
Attachment Needs
Needs to belong, to affiliate, to love and be loved
Safety Needs
Needs for security, comfort, tranquility, freedom from fear
Biological Needs
Needs for food, water, oxygen, rest, sexual expression, release from tension

Fig. 1 : The Heirarchies of Needs Presented by Maslow

1. Biological or physiological needs.
2. Safety needs
3. Belongingness and love needs or attachment
4. Esteem needs
5. Cognitive needs
6. Aesthetic needs
7. Self-actualization
8. Transcendence

    1. Biological or physiological needs- The major needs among human needs are of biological or physiological level. The chief among them are hunger, thirst, sleep, respiration, sex, rest, freedom from tension and the need to protect from high temperature. Man is motivated to fulfil these physical needs. These needs are essential for physical continuity too. For the fulfillment of high level needs first we have to fulfil these needs and block their fulfillment too. Physiological needs are essential to understand human behaviour and undoubtedly they take over human desires. To fulfil these needs man behaves according to his needs. According to Maslow these needs are there by birth; they are not acquired. After fulfilling these needs man enters into the heirarchy of next ascending order needs.

    2. Safety needs- After the biological needs of man are fulfilled he starts thinking of his safety needs. He puts in efforts for his physical and mental safety. This primary need determines the order of certainty in the environment, its structure and the feeling of prediction. This kind of need is mostly seen among children because they are helpless

and depend on adults. If they are not fully secure they develop feelings of fear and insecurity. The need for security continues even after childhood but its direction takes a different turn. The need for safety is indicated by children through various behaviours of theirs in their surroundings. If they feel unsafe where they live they seek another habitat or surrounding where they can feel safe. The families where children are met with severe treatment or they feel too much bounded can never give satisfactory fulfillment to the safety needs of children. Parents always at loggerheads in the family, physical torture, divorce or death of one of the parents also affect the safety needs of children.

The above mentioned factors make the surroundings of the child insecure and unstable. The safety a man needs after childhood are- economic safety, saving, proper housing, safety from theft and robbery and freedom from fear, etc. Man clearly feels the need for safety during war, crimes, flood, earthquake and riots, etc. For the fulfilment of these needs man requires clothes, house and companions. Maslow found these needs among neurotics and psychologically impaired patients too.

3. Needs for Love and Belongingness or Attachment- At heirarchy No.3 Maslow has put the need for love and belongingness. After the physical needs of man are fulfilled he starts feeling the need for love and affection and belongingness. He wishes to be loved by others and impart his love to others as well. His goal becomes to get the membership of the group. He wishes to get and share love attaching himself with members of the society. In the event of non-fulfillment of this need man feels loneliness pangs, social expulsion and insult, especially if the person does not have friends, relatives and issues. Maslow correlated the effect of lack of this need on human behaviour and found that as a result of social mobility and industrialisation there is a decrease in the feeling of this need. Familial disintegration is also one of the reasons. Maslow did not agree with Freud that love and affection originate from sexual basic instincts. According to him love and affection imply the feelings of mutual respect, praise and faith.

4. Self-Esteem Needs- After fulfilment of biological, safety and love needs of man originate the needs of self-esteem. At this stage the individual feels the need of self-esteem and respect. Maslow expressed this need in the form of two forces- 1. Self-respect, 2. Respect from others

The first force of will includes the will for competition, reliance, propriety of individual strength, subsistence and freedom, etc.values. In this the person wishes to feel how good is his capability, what type of tasks he can undertake; and how he can face the challenges in life so that his self-respect increases.

In the second form of this need things included are respect from others, approval, attention, position and name and fame, etc. Doing good work the man wishes to be appreciated; he wishes that whatever work he has done must be appreciated. According to Maslow the need for respect comes after the need for love and affection. That is, after fulfilment of third step needs come the fourth step needs, but if the satisfaction limit of the third step need (love and affection) gets in danger, the individual quits the fourth step and satisfies the third step needs, i.e., love and affection needs. Self-respect or self-satisfaction gives the individual self-capabilities, self-confidence, the feeling of one's worth and the same attitude in power, capacity and appreciation that help develop his personality. To the contrary, if these needs are not fulfilled the individual develops inferiority, weakness, helplessness and abnormality, etc., attitude in him. As a result, in his personality, tendencies like, negative self-realization, cowardice, helplessness, and the feeling of inferiority for oneself and the society as well are developed.

5. Cognitive Needs- According to Jimbardo (1985) Maslow put this need at the heirarchical order number five. After all the above four step needs of the individual are fulfilled he moves towards cognitive needs. In this the need to have knowledge, to understand others, and to achieve something new is increased. He tries to understand others; he tries to analyse himself and other events at a higher level of knowledge.

6. Aesthetic Needs- In the need of this heirarchy the individual expresses the feeling of dedication to natural and human beauty. He dedicates himself for the good and development of society. Instead of economic safety, praise, respect and virility they aspire for justice, truth, goodness and beauty. These needs fall under meta-motivated or meta needs or "B" needs.

7. Self-actualization Needs- When all the above six needs of the individual are fulfilled there arises in him the need for self-actualization. Defining such needs Maslow says that the need for self-actualization or self-realization expresses the highest desire of man. This need arises from the special qualities earned by him. This desire makes man what he wants to become. Beacuase of this the individual wishes to reform himself. In this need the individual sets a meaningful goal for himself, evaluates his abilities and tries to achieve that goal.

8. Transcendence Needs- According to Maslow after the need of self-actualization is fulfilled in the individual there arises the need for spirituality. He tries to come close to nature, to unravel the mystry of nature. He wants to realize God. He wishes to attain transcendence and tries to achieve absolute peace. All the above mentioned needs become secondary against this need. At this stage the individual wants to expand his consciousness level, wishes to understand the mysteries of this world and the universe.

Thus, to understand the behaviour and personality of man Maslow has given these eight heirarchies of needs. Fulfilling the needs of one heirarchy the individual gradually achieves the needs of the next herirarchy. This is the order of his personality development too. According to Maslow the needs of each herirarchy are inborn, not learnt. They appear following the individual's family environment and cultural values. Repression, non-fulfilment or suppression of these needs creates abnormality in the behaviour of the individual. For example, suppression of the need for love and affection brings aggression and sexual perversion in the individual's behaviour.

Deficient Motivation and Growth Motivation

Apart from presenting the heirarchical order of motivation Maslow has divided them into two groups. These are-deficient motives or D' motives and Growth motives. Maslow defined Growth motives as super-needs/meta needs or Being or B needs.

In deficient motivation Maslow describes the lowest level of heirarchy, like, the biological or physiological needs which include hunger, thirst and sex needs. Similarly, he has described safety needs and the needs for love and affection. Maslow has mentioned five bases for deficient motivation, these are-

1. In the absence of these needs the individual is sick. If someone feels lack of hunger or thirst he falls ill.
2. Their presence protects the individual from illness. If the individual feels proper appetite and thirst there are less chances of his falling ill.
3. The need that creates the illness is in itself its cure. For instance, the best cure for hunger is to take food.
4. In a healthy individual these needs are present in an inactive or functional form. (for example, a healthy individual does not feel hungry always.)

The individual may alter the sequential preference for the primary needs in some alternative conditions. For example, if someone is thirsty he would give first preference to water than to food. Similarly, if someone is hungry he would prefer food to sex and he would move towards sex only after fulfilling his appetite.

The objective of Growth motives, which Maslow defined as Meta needs or Being or 'B' needs, is to enhance the experiences of man so that he feels happy in life. Although these motives do not reform the deficient motives yet they introduce real pleasure in life. Maslow found growth motives in human beings similar to deficient motives. Ultra-motivated people dedicate themselves to truth, aesthetic beauty, completeness, closeness to nature and goodness. They give preference to justice, truth, goodness, etc., over praise, respect, economic safety, dominance and virility. They are free from selfishness, they are truth lovers and seekers of qualities.

Maslow's basic assumptions of human nature

Maslow has biven nine hypothets related to the study of human nature. These are-

1. Freedom- Determinism	2. Rationality-Irrationality
3. Holism- Elementalism	4. Constitutionalism- Environmentalism
5. Changeability-Unchangeability	6. Subjectivity-Objectivity
7. Proactivity-Reactivity	8. Homeostasis-Heterostasis

9. Knowability-Unknowability

1. Freedom-Determinism- Following this hypothesis of Maslow every individual is free and responsible fully for what he does. He himself decides what his qualities are and how he should use them. Thus he remains free for his work and determined about his qualities. According to Maslow with ageing/increase in age the level of need also gets higher. With increase in age man learns to suppress deficient motives and make his fate. This quality is required for self-actualization and self-realization too.

2. Rationality- Irrationality- As mentioned earlier Maslow considered it inappropriate to relate the experiments conducted on animals with human behaviour. The main reason for that is that animals can neither brood over the contemporary conditions nor can recall things. Animals cannot make a programme consciously, whereas programming for the day is part of human routine. The objective of Maslow is to study a reasoning human being who takes his decisions himself and makes use of his quality in an original way.

3. Holism-Elementalism- Through this hypothesis Maslow explains such a human being who develops the qualities related to physical safety and self-respect, and rising above all this develops the qualities of self-actualization. Following this opinion of Maslow the study of human being can be there only in his perfect form, not as an element form.

4. Constitutionalism-Environmentalism- In this hypothesis Maslow, considering physical needs as the basic part of constitutionalism, gives it much importance since it is the primary part in the heirarchy of all the needs. He explained self-actualization also as an inner force and accepted it as an innate desire.

5. Changeability-Unchangeability- The central point of Maslow in this hypothesis is that individual is constantly at effort for his personal growth. In the heirarchy of needs he put self-actualization or self-realization and the need for transcendence at the topmost position. According to him there is an interaction between freedom and growth in human life and with the coming time there is change and reformation in human life. For instance, as the individual makes progress in the heirarchy of needs, he goes on achieving freedom in determining the direction of his specialities. With the fixation and following of the directions man gets changed. Maslow thinks man is free to mould himself the way he likes. He decides the direction of his work according to his expectations. The change in his personality would also be on the basis of the decided direction. These changes take place only after specialities and self actualization which can be there since birth too. Oscillating between his deficient motivations and growth motivations (B-motives) man constantly keeps changing his alternatives and processes. Even after achieving growth motives he can fulfil the needs of deficient motives.

6. Subjectivity-objectivity- following this hypothesis to understand the personality of an individual it is essential to understand his personal subjects. In this he gave more importance to internalised behaviour than to observed behaviour. Through 'Self-actualization' Maslow has depicted the internalised aspect of the self. According to humanistic psychology every individual works towards actualization of a special self which only he realizes and evaluates.

7. Proactivity-Reactivity- In this hypothesis Maslow (1970) has accepted the proactive views of the individual. In his opinion man does not react to an external stimulus but works for the satisfaction of the conditions of his needs. This need originates his behaviour. In his hypothesis he has accepted proactivity as an agency of self-actualization because self-actualization, in actuality, is a proactive agency. It does not require an external stimulus. For future-orientedness man is constantly face to face with his qualities and struggles to implement them. Through his proactive and internalized qualities man can actualize himself.

8. Homeostasis-Heterostasis- Maslow has schematised homeostasis and heterostasis in this hypothesis. The basic assumption of Maslow's theory is to motivate for inspiration. As mentioned earlier Maslow has propounded two types of motives-deficient or D motives and growth or B motives. According to Maslow D motives are based on homeostasis while B motives are completely based on heterostasis. According to him a larger part of human life is spent dealing with stress. Therefore, for personality development it is essential to rise above D motives. In his entire theory Maslow proposes man to rise above his primary motivations and try for personal growth and development. Such personality is possible only through the functions of heterostasis.

9. Knowability- Unknowability- In this hypothesis humanistic psychology explains human being on the basis of two facts. The first one is objective which involves alertness and limitations and the second one is sensory, transitory and imaginative. Maslow has presented a scientific explanation of personality maintaining faith in self.

Self-actualization-When Maslow presented humanistic theory there was much commotion in the field of psychology, since the theory propounded by Maslow presumed self-respect, self-actualization and self-realization, etc., needs essential for the development of personality. There was many a research conducted to test whether self-actualization or self-realization is a truth or not.

What is Self-actualization? Is it real?

Maslow and many other humanistic psychologists presented positive views on human nature and development. On the one hand if they mention the creativity and personal growth speciality of the individual, on the other hand they are optimistic on the qualities of man put to action under favourable conditions. Man is generally entailed in such circumstances that create obstacles in his development. Under such conditions if the individual wishes to develop his self actualization, he has to break many bonds and himself take the responsibility of his development. Maslow (1950) conducted some experiments through which he wanted to know whether subjects experienced self-actualization or self-realization or not. Maslow got good results, but he was criticised much for his experimental selection. Smith (1973) said that the subjects used by Maslow were like images of personal values of Maslow or actually self-actualizing type because the subjects Maslow used in these experiments were engaged in nice works and were known to Maslow. Therefore, other psychologists considered such experiments as one-sided. But Maslow, based on his experiences, considered the subjects as psychologically healthy. Later on many experiments were conducted to measure self-actualization or self-realization.

Measurement of Self-actualization

To measure self-actualization or self-realization Isestrom (1950, 1966) constructed a personal orientation inventory. This inventory is taken to be valid and reliable to measure self-actualization. Through this inventory successful tests to measure self-actualization were conducted. (Fox, Knap and Michel,1968; Shorstruck, 1966, Rennun, 1973 also measured self-actualization in their experiments.) Thus, it is clear that personal orientation inventory proved to be thoroughly useful for the measurement of self-actualization and through this the theory and views of Maslow also got a fillip. In Cattel's 16 personality factor inventory too a group of some factors measure self-actualization. Gaud (1994) also measured self-actualization through 10 personality factors of Cattel.

Characteristics of Self-actualizing Persons:

Maslow has given 14 specialities/characteristics of self-actualizing persons. They are-

1. Perception of reality	2. Acceptance of self, others and nature
3. Spontaneity	4. Problem Centering
5. Unbias and privacy	6. Autonomy
7. Continued freshness	8. Mystic experience
9. Social interest	10. Interpersonal relation
11. Democratic Character structure	12. Similarity in enables and means
13. Sense of philosophical humour	14. Creativity.

1. Perception of Reality- The chief characteristic of a self-actualizing individual is that he visualizes reality correctly and understands it. He perceives events not according to his will and wish but as they really are. Because of this capacity a self-actualized individual performs his duties faster than others. When he acquires the knowledge of the real form of his life he gets free from all indecisions, incapabilities and uncertainties. As mentioned earlier, Maslow calls the realization of self-actualization or self-realization as B-cognition.

2. Acceptance of Self, Others and Nature- A self-actualized man, in the opinion of Maslow, fully accepts himself, others and nature and does not maintain any distance from anyone. By nature he is friendly and keeping

good relations. He knows the goodness and evils of his surroundings and he is free from downtrodden crimes, failures and weak anxieties. These people have self-acceptance and its expression at body level too. They feel unobstructed pleasure in sexual acts, have good appetite and take sound sleep.

3. Spontaneity-In the behaviour of a self-actualised individual is found a naturalness, spontaneity and simplicity. He keeps away from useless show; his behaviour does not have any show off.

4. Problem Centring-A self-actualized person is not self or ego-centred, he is, rather, problem-centred. He is found totally absorbed in his duty and profession. Keeping his self aloof he pays attention to the problem. As a result he finds a solution to the problem without any favouratism. The purpose of his work is not individual but universal. His problems are not personal but social because he dissolves his self into the society.

5. Unbias and Privacy- In the opinion of Maslow self-actualised people are unbiased and reclusive. Although they possess the feeling of public welfare yet they like to be in seclusion. They are looked to be reclusive and grave in society. Generally they don't meet everybody but only rely on their inner form and their inner source. Being self-centred they like to be away from society. They keep calm in their personal problems and sufferings and to analyse the situation they try to be original, not taking support from anyone.

6. Autonomy-Self-actualised people are found to be autonomous. They have cultural and environmental autonomy too. On the strength of their inner form they remain free from the effects of culture and environment, and enjoy the pleasure of their self. Such a person considers himself self-controlled, active, self-disciplined and maker of his own fate. He is least interested in respect, popularity and reverence, etc, needs.

7. Continued Freshness- The life of a self-actualized individual is full of newness, pleasure and romance. He is not attacked by boredom. He does not feel tired and keeps active. Because of the tendency of enjoying experiences he feels pleasure of a new experience every day. Though his age grows up still he is fit physically and mentally.

8. Mystic Experiences- The experiences of self-actualized individuals are mystical. Their experiences are usually of philosophical nature. Their feelings are like ocean. On the one hand they express stress and excitement, on the other hand they experience deep peace and stability. Like the tumult of sea waves is found only at surface level, in the deep the sea is always quiet and calm; the same is the nature of such people. They enjoy the most pleasurable experiences in their lives. Usually, there is found the zenith of love and sexual pleasure as well as a high level creative inner vision in such people. Their experiences are found to be generally related to music, arts, intellectual pursuits, books, creative pursuits and human welfare.

9. Social interest- Although self-actualised individuals are reclusive and detached yet they worry for social welfare. They care for the welfare of their colleagues and near and dear friends too. They are worried for the entire humanity too. They love entire humanity and are kind-hearted. They are eager to contribute towards social upliftment also.

10. Inter-personal relations- The inter-personal relations of such people are deeper and stronger compared to common people. Though they establish relations with people only with qualities of their standard. They are very tender and kind-hearted towards children and have full faith in their friends. They have sympathy for all and because of that their relations with people are generally sweet.

11. Democratic Character Structure- Self-actualised individuals are free from prejudices, generally. They are of excellent qualities. They make friends on the basis of their excellent qualities and character. They give special importance to character and qualities in their friendship, not to age, sex, caste, society and power. Even if the person with good character and excellent qualities belongs to a lower caste or is poor, they have a steady friendship with such people.

12. Discrimination between means and ends- Self-actualised people are free from dilemmas and doubts in their daily routine work. Their life follows a certainty, morality and justice. They weigh means and ends equally. They want the success of their work on the basis of principles, not through unprincipled means.

13. Sense of Philosophical humour- Self-actualised individuals are generally philosophical and cheerful in nature. Their humour is philosophical. Their humour indicates human weaknesses. A common man may hurt anyone by his derisive humour but their humour is of philosophical nature pointing at the errors of people. Kabirdas, who was a self-actualised man, has expressed philosophical humour in one of his lines- "Fish is thirsty living in a pond. Seeing that I laugh."

14. Creativity- In the opinion of Maslow creativity in self-actualised individuals is found as a special quality. Their creativity and originality is their special quality. According to Maslow noone can be self-actualised unless he has the capacity to create, originate and discover new thoughts and techniques, etc.

Thus, the characteristics of a self-actualised individual enumerated by Maslow are not just general rules, but rather exceptions. These qualities may be found only in mature people. In the opinion of psychologists their number is very few, still these characteristics play an important role in personality development.

When Maslow propounded the theory and hypotheses mentioned above there was commotion in the field of psychology. Many psychologists criticized Maslow's theory. Many other viewed it as an unsuccessful attempt of Maslow to bring in spirituality into the field of psychology. Many psychologists criticised Maslow's theory regarding many points, for example,

1.   There are not enough experiments to support his theory.

2.   Maslow's hypotheses are unclear.

3.   When violence, evils and destructive tendencies are predominantly found in people's behaviour across countries, to imagine the existence of a virtuous and ideal self-actualised individual is justified to what extent?

4.   Environmental factors affect the individual's behaviour; how can a person attain self-realization through motivation?

Maslow's theory and hypotheses cannot be criticized on the basis of above mentioned points. These points may be valid in western countries but not everywhere. Self-actualization has been in vogue in India for thousands of years. Maslow'personality theory is very much optimistic and comprehensive. For the proper form of personality and completeness he finds self-actualization as an essential requirement. Not only that, moving a step further, for the completeness of personality Maslow considers even transcendence also very important. The theory and hypotheses of Maslow are to a greater extent closer to upanishadic psychology. Last year in a psychology conference in America much emphasis was laid on the need of prescriptive psychology, which is much closer to Maslow's principles and theories propounded by him long back.

Exercise

1. What are needs? Explain the role of needs in personality development.

2. Explain the heirarchy of needs presented by Abraham Maslow.

3. Explain the hypotheses of Maslow regarding human nature.

4. Explain the characteristics of self-actualised individuals presented by Maslow.

Reference Books

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3. Applied Psychology. Dr. R.K. Ojha

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PSYCHO-DYNAMIC THEORIES: FREUD, ADLER, YUNG PSYCHO-ANALYSIS THEORY

Sigmund Freud is the father of psycho-analysis theory. This theory developed with the treatment of neurotic diseases and later on in this were developed the various causes of many mental abnormalities and effective techniques of treating those abnormalities. There were three main psychologists of the theory of psycho-analysis-Sigmund Freud, Alfred Adler and Carl Gustav Yung. Psycho-analysis denotes three main meanings-

1.   Through this theory the conscious, sub-conscious and unconscious mind of the person and his life is analysed and in view of treating him his behavioural movements are studied closely.
2.   The theory of psycho-analysis is used as a psycho-therapy.
3.   In the field of psychology this is a theory of study of personality.

In this theory there are supposed to be two basic tendencies in human life which are responsible for his behaviour. These are-1. Eros instinct, 2. Thanatos instinct. Apart from that this theory lays special emphasis on unconscious, sub-conscious and unconscious mind of the individual for the study of personality as well as the theory emphasises ego, Id and super ego.

Psycho-analysis theory of Freud

The father of the theory of psycho-analysis Sigmund Freud was born in Fryberg city of Moravia province in a simple Jew home on 6th May 1856. In 1860 his father migrated to Veina. Freud's entire education was from here. He obtained his degree in medicine in 1881, but later he became a psychotherapist. He had a rigorous study of hysteria disease and with Prof. Sharco studied nervous system too. In 1883 Freud worked on hysteria patients with Prof. Boor and published an article titled 'Psychic Mechanism of Hysterical Phenomena'. From 1895 Freud treated hysteria patients. After this Freud studied the theory of psycho analysis with reference to dreams and in 1900 he published his book The Interpretation of Dreams. In 1904 he published Psychopathology of Everyday Life. And in 1905 he published another book The Contributions to the Theory of Sex. In 1915 The Unconscious, in 1918 Introduction to Psycho Analysis, in 1920 Beyond the Pleasure Principle and in 1923 The Ego and the Id was published. Thus, he compiled many books on physiotherapy and psychoanalysis.

In 1938 some soldiers of Hitler's Gestapo came to Freud's house and took away with them his passport and other essential documents as well as his property too was confiscated. One of the followers of Freud Dr. Earnest Jones when found him in trouble, requested him to move to London from Viena. Therefore, Freud went to London on June 4, 1939, settled there with his family. On 26 September 1939 he died of cancer. He lived to be 83. The pioneering work he has done on psychoanalysis in his life has given him a prominent place in the history of psychology.

In his psychoanalysis theory Freud has laid special emphasis on two aspects of the personality of man. These are- 1. Structure of personalty 2. Development of personality

1. Structure of Personality- In the structure of personality Freud gives importance to the four concepts given below-

1. Concept of Conscious levels   2. Concept of ID, Ego and Super-ego
3. Concept of Instincts   4. Concept of Libido   5. Concept of Dreams

In Freud's opinion these concepts play a very important role in the personality structure of man. In the next pages we shall discuss this.

1. Levels of Consciousness- Developing the theory of psychoanalysis Freud divided mind or consciousness into three levels and he compared it to a floating iceberg. Of a floating iceberg 1/10 part is visible out of water, while 9/10 part remains submerged in water. The part (1/10) out of water is the level of consciousness and the part (9/10)

submerged in water is the unconscious level of mind. The part which is submerged but partly visible is called subconscious level of mind by Freud.

Conscious Level- The conscious level of mind remains in contact with the outer world; this implies all those experiences (joys and woes) and conscious activities which man can know/recall any moment. Under this Freud has described the ideas of mental life, realizations, experiences and memories of man. Conscious level is only 1/10th of the whole consciousness, that is, it is only a small and limited aspect of consciousness.

Sub- Conscious Level- This is that part of consciousness which functions as a bridge between the conscious and unconscious levels of consciousness.This lightly glowing part is generally called 'available memory.' This is found close to the centre of consciousness. But the experiences of sub-conscious are beyond the centre of consciousness.The experience of sub-conscious may be easily brought back to the level of consciousness. Actually, these experiences always try to come to the conscious level.

Unconscious Level- In the opinion of Freud the deepest and main part of human mind is unconscious level.This is the deepest part of mind and this is below sub-conscious level. All of our deeds are performed not only through conscious and sub-conscious levels but many deeds are performed through unconscious level too. The unconscious part of mind performs those acts too that conscious mind fails to perform.

Unconscious is the greatest, i.e., 9/10 part of mind. Unconscious, in other words, is that storehouse of our mind where our feelings, ideas, desires and wishes that remain unfulfilled through conscious mind, are repressed and stored. They go on affecting the behaviour of the individual from sub-conscious level itself. These repressed emotions, ideas, desires and wishes are compressed in other form in person's behaviour. Mind tries to fulfil these repressed desires through abnormal behaviour of the person or in sleeping state through dreams.

Some Characteristics of Unconscious mind

1. It possesses a changeable and dynamic nature.
2. This controls human behaviour.
3. Unconscious mind expresses itself not through words but through bodily and facial gestures.
4. It's actions may take place anytime.
5. Generally the actions of unconscious mind are expressed specially through abnormal behaviour or through dreams.
6. The form of unconscious is child like.

Freud gave many evidence to prove the existence of unconscious mind. For example, solution of complicated problems, getting up at a fixed time and solving many problems in sleeping state itself. All this is done by unconscious mind. In his book Psycho Pathology of Everyday Life Freud explains some common mistakes of our life, for instance, a person wishes to say something but utters something else. Similarly, he wants to write something but happens to write something else. This kind of behaviour is called 'slip of tongue' and 'slip of pen' respectively. The main reason of that is the suppressed feelings, emotions and desires in the unconscious mind. Similarly, symbolic actions and gestures that are not done consciously by man like, shaking legs, biting nails, tearing a paper into bits just sitting at a place, swaying neck, to balk, making a particular form of body, using some unnecessary words in speech, etc. All these acts are done from unconscious level of mind. To fulfil the repressed unfulfilled lusts and desires these acts are performed by unconscious mind through body.

Similarly, the unfulfilled desires, emotions and wishes of the unconscious mind are fulfilled through dreams.
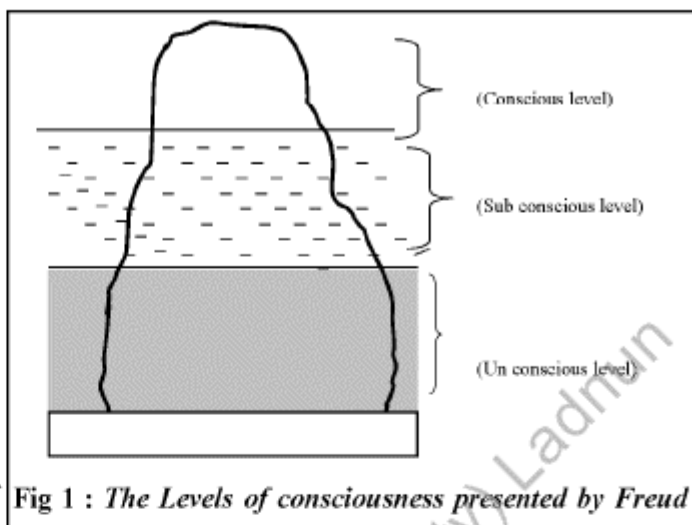

Fig 1 : *The Levels of consciousness presented by Freud*

During sleep, after the conscious mind goes to deep slumber, the repressed desires of the unconscious mind become active and through dreams they weave a new would and satisfy themselves.

2. Id, Ego and Super-ego-Freud has considered three elements the main constituents in personality structure-Id, Ego and Super-ego. These three elements are deeply connected to the levels of consciousness. Id, Ego and Super-ego are inter-related and they cannot be looked and understood in isolation. They are different in names but in actuality the whole of man is affected by their work.

Id- Id denotes the biological and genetic aspect of man. Freud considers Id as the unconscious part of human mind. In his opinion whatever characteristics there are by birth and physiological in man they originate from Id. All the tendencies of human personality which are related to physique are motivated by Id. Freud had the opinion that all the experiences that take place generation after generation in man get accumulated in Id. That is, Id is that tendency which remains with man from birth till death. Freud accepts it as a bridge between physical and mental activities of man. He thinks it is related to sexual process of man too. Id works on pleasure principle. Somehow or other it moves towards seeking pleasure. Whichever direction it gets pleasure Id moves towards that direction or work. To get pleasure Id makes use of two process. These are-1. Reflex action, and 2. Primary action. The purpose of these two is to mitigate psycho-physical tensions so that Id gets satisfaction. Reflex actions are there to protect body. For example, winking of eye lashes, or sudden backing up of body parts in case of emergency, etc. In primary actions man fulfills his physical and psychological needs with the help of his imagination. To fulfill that need he gets into daydreams or imagines things so that he enjoys it. In there primary acts Id remains active and fulfills his desires through imaginary things or day dreams. Although this is not the actual fulfillment of the desire yet the individual gets free from the tension of the need for the time being. As mentioned above Id is related to sexual power too and Freud calls this power 'libido.' Id works on the pleasure principal.

Ego- Ego develops from Id. The part of Id that gathers some experiences through coming in contact with the external world. These experiences give a shape to Ego. Dr. Jaiswal has presented the statement of Freud with regard to Id as follows: "Under the influence of the external world we are surrounded by, a part of Id develops specifically. Initially it was the upper layer and which had such organs made in it that received sensations and there was such an arrangement that protected us from excessive stimulation. Later on the same thing developed in a special manner and because a medium between Id and the external world. The name of this part of our mental life is Ego." [1] Actually, Ego is that part of psychological personality structure which controls the undesirable ways of Id and follows the principles of reality. It also reforms the hard moral concepts and discipline of Super-ego.

Freud has enumerated some characteristics of Ego. The first characteristic feature of Ego is that it tries to keep control over the natural movements of body. The second one is that Ego protects us from the harmful excitements of the events in the external world. Therefore, using its previous experiences it tries to protect life from the harmful effects through its memory. The third feature of Ego is that it satisfies the inner motivations arisen out of Id, but only those motivations that are justified. If excessive pressure is built up because of inner needs then Ego tries to mitigate this tension since it relieves the pain of the individual. With regard to individual the development of Ego has the main role of experience, training and education.

Super-Ego- The third main part of personality is super-ego. Man wishes to lead an ideal life because of super-ego. Super-ego makes man moral and idealistic. Super-ego is inspired by ideals. Super-ego starts developing since childhood and through socialization, acquiring familial values, moral values and ideals of the society the child imbibes them into his personality and later he behaves accordingly following these ideals. In the opinion of Freud super-ego possesses the same position in man's life what is possessed by parents and teachers in the society. In the early childhood when the child does not have requisite knowledge to do right things his parents and teachers guide him time to time. As he grows up his experience and education also develop and he attains maturity and then his super-ego develops properly. Now the person starts thinking about his good or bad acts and related matters. Super ego is said to be ethical arm.

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1. Dr. Sitaram Jaiswal, Psychology of Personality. P.56

According to Freud for good mental health it is essential that super ego develops properly and normally. When super-ego develops properly it gets to know/recognise its own limits and adjusts with ego. That is, super-ego does not do anything that hurts ego. When super-ego grows very much the individuals' leaning goes towards morality and idealism. Because of this the individual faces problems in life due to the actual face of society. On the one hand if ego controls the anti-social and basic instinct inspired needs of Id, on the other hand it also reforms the excessive idealism of super-ego keeping in view the factual aspects of life.

Concept of Instincts- In the opinion of Freud as body is active due to physical energy, the same way personality is active due to mental energy. Id and basic instincts maintain relationship between mental energy and physical energy. Freud considers the source of mental energy is basic instincts. Explaining basic instincts Freud makes it clear that basic instincts are the forces found at the root of tensions and stresses created as a result of the needs of Id. The chief aim of basic instincts is to derive pleasure in every condition. They have a single aim and under the experience of pressure of needs their actions have a certain rapidity too. A person conserves his body with the help of basic instincts. At mental level basic instincts can be divided into two categories- 1. Life instinct or Eros, 2. Death instinct or Thanatos.

1. Life Instinct or Eros- Freud calls this instinct as the basic instinct of love too. Eros is a Greek word that means love. In his early works Freud laid more emphasis on sex. To every activity he finds sex instinct as the source and finds its root source implied in the basic life instinct or Eros. In the opinion of Freud so long as man is full of the desire and power to love he is oriented to life and he remains optimistic. To satisfy sexual desire when man establishes sexual relationship, that situation too is motivated by a kind of sexual force which is called libido by Freud. The meaning of sex for Freud is not confined to only sexual pleasure or sexual relations but it implies all that behaviours of the individual where the individual comes in physical or original contact with others. In the view of Freud life instinct or Eros is that physical instinct in man which keeps a balance in the physical materials in man and inspires him to indulge in creative activities. From phychological point of view life instinct gives rise to sexual force, as a result of which man makes efforts together things necessary for life, like, food, house and clothing. This basic instinct is responsible for his intellectual development.

2. Death Instinct or Thanatos- This basic instinct motivates man to do harmful things for himself or for society. In his famous statement Freud says. "The aim of everyone's life is death." In the opinion of Freud when man desires for death at the unconscious level he gradually moves towards death.

The destructive acts done by man like, rampage, breaking one's head in anger, arson, trying to commit suicide, etc., are the results of this basic instinct. The feeling of hatred is also due to this instinct in man.

3. Concept of Libido- The sexual power inherent in man is called libido by Freud. According to him this is fundamentally related to sexuality of man. In the opinion of Freud libido is the dynamic instinct of man's sexual interest. This is very deeply connected to sex-related basic instincts.

In the opinion of Freud whenever basic instincts become active libido is essentially found with them. But all the basic instincts are not the expression of libido. In the search of joy and love libido is essentially present. The basic instincts connected to libido lead to such acts that move the life forward. In the opinion of English & English libido is a psychic energy at the root of which is found sexual interest, that is, man's sexuality is related to libido. Freud thinks that all the acts and behaviour which people express through affection, love and joy, etc. are related to sex instinct or libido. The dynamism of libido affects the personality of the individual and plays an important role in his personality development.

The dynamism of libido is found working in two directions. When it flows towards the individual himself the individual starts loving himself. Freud calls this Narcissism. In this condition the individual gets charmed by his/her own beauty. But when man comes in contact with other people or things in his surroundings libido flows towards others instead of oneself. In this condition the individual shows his/her love towards other people/things. Freud calls this act love objects. In some people the effect of libido turns towards some imaginary things and the persons become introvert.

Concept of Dreams- All the people have dreams in sleep. Many people think dreams disturb sleep and they lack sound sleep due to them. But Freud thinks dreams do not disturb sleep, rather they are healthy for sleep. Man fulfills his repressed emotions through dreams. Dreams are mental processes and they are connected to unconscious mind. In the opinion of Freud all the dreams are related to desire fulfillment. He explained dreams in detail in his book <u>The Interpretation of Dreams</u>. He has given some special features of dreams; some of them are as follows. Dreams are royal road to reach unconscious.

(i) Dreams are the means to fulfil repressed desires- If the individual cannot fulfil his/her desires in awaking stage in this world then these desires and needs are fulfilled through dreams. Desires, needs and expectations of various levels of people are different and because of that they have different dreams. When the individual fails to fulfil his/her desires in the conscious state or represses them for various reasons, these desires do not die but instead go to the unconscious mind and from there they try to express themselves variously getting suitable occasions. Dream is one of the ways to express these desires.

(ii) Dreams have meanings- Dreams are not meaningless, they have some or other meaning. For example, if someone dreams the other person as dead it means that person was not liked by the dreamer.

(iii) Dreams are connected to the unconscious part of mind- According to Freud the fountain head of dreams is our unconscious mind and the excess and repressed desires are dumped in the unconscious mind and changing their forms they express themselves in the form of dreams.

(iv) Importance of sex-instinct in dreams- According to Freud repressed sex urge is also fulfilled through dreams. On the one hand man wants to satisfy his lust but on the other hand he wishes to preserve his social and moral rules too. This creates in him two tendencies. The first instinct is of Id the principle of which is to get pleasure somehow, whereas, the other instinct is of super-ego which represents social morality and wishes to control sexual urge. As a result, sexual urges express themselves in changed forms through dreams. In the opinion of Freud the structure of dreams is of two types-

In the structure of first order the impulses of basic instinct which are generally repressed by man put pressure with all their might on Ego and they produce dreams. In the structure of the second order if any strong desires are not fulfilled in wakeful state they collect strength from the unconscious mind during sleep and put pressure on Ego to come out, exactly like a prisoner struggles to get out of the prison cell. Dreams are very short and there is no place for logic and reason there. Neither they are clear nor is there any room for prudence there.

The Development of Personality

In his theory of psycho analysis Freud has described various conditions of personality development. According to him the development of personality depends on four chief tensions, these are-

    i. Tensions related to physical development processes.
    ii. Tensions arising out of complexes
    iii. Tensions arising because of inner conflicts
    iv. Tensions arising because of emergency situations for the person.

The individual tries to get free from all the aforementioned tensions and makes use of some tactics. Using these tacts the individual tries to get free from tensions maintaining his personal safety too. Freud calls these tacts as defence mechanism. The individual makes use of these defence mechanisms to get rid of anxiety and sorrows.

In the opinion of Freud the failures and inner conflicts of the individual produce anxiety in him which is harmful for the suitability of his ego. If the individual fails to solve this tense situation directly he makes use of indirect defence methods for the safety of his ego. The individual adopts these defence mechanisms to maintain his normal adjustment. These defence mechanisms are called psycho structures too, that are mainly of ten kinds- i. Repression, ii. Regression, iii. Sublimation, iv. Rationalization, v. Conversion, vi. Reaction formation, vii. Displacement, viii. Identification, ix. Projection and, x. Introjection.

Adopting these psycho-structures the individual tries to get rid of his anxiety and makes efforts to maintain his adjustment too, which is very essential for the development of his personality. Freud presupposes four stages of

personality development. The first stage is the infantile stage, the second one is the latent stage, the third is adolescent stage and the fourth one is the adult stage.

i. Infant Stage- Freud puts much importance on the infantile stage in the development of personality. This stage ranges from birth to the age of 5 or 6 years. According to Freud the experiences the individual collects at this stage influence even the mature personality of him in future. Along with personality development Freud gives special emphasis on the flow of libido too. In the personality of this stage libido exists in the mouth of the child. He satisfies his basic instincts mainly through month. Through sucking the mother's breast he satisfies his physical needs like hunger, thirst and sex instinct. At this stage the child sucks its thumb and tries to put everything into his mouth whatever comes to his reach. Sucking the thumb or putting things into mouth actually is an effort of the child to satisfy its sex instinct. In the opinion of Freud the sex related consciousness of the child originates in the childhood stage itself.

ii. Childhood or latent stage- This is the second stage of personality development of a person. This ranges from 6 to 12 years of age. At this stage sexual instinct gets enhanced in the mind of the child and that is why Freud calls this imperceptible stage too. The child's attention goes to such acts at this stage that help his social development. The child goes to school and his socialization begins at this stage.

iii. Adolescent Stage- This third stage of personality development is called adolescent stage by Freud which ranges from 12 to 18 or 20 years of age. At this stage sex instinct appears again. Adolescent boys and girls take interest in sexual ideas and actions. At this stage comes to the fore one more characteristic of personality development which is called as self-centeredness by Freud. As a result of this the adolescent boy or girl places 'self' as the most important thing in every condition. That is, he or she puts 'self' over and above everything else. At this stage homosexual relations too develop among boys and girls.

iv. Adult Stage- This stage is also very important in the development of personality. At this stage heterosexual relations start developing. Adolscent boys and girls lean towards love more and more. At this stage the person starts selecting his marriage relations, profession, etc.

Psycho-sexual development

Along with presenting the concept of personality development stages as given above Freud has given the concept of psycho-sexual development in the development of personality. According to Freud there are five stages of psycho-sexual development; these are-

i. Oral stage ii. Anal stage iii. Phallic stage iv. Latency stage v. Genital stage

i. Oral Stage- In the opinion of Freud this stage exists from the birth of the child to 2 years of age. Freud considers two sides of this stage. The first side exists up to the age of one year when the child puts breast into his/her mouth and enjoys the pleasure of sucking it. After the age of one and upto two years is the period called autoerotic period of the child. At this time the libido of the child is self-centered. At this stage he/she wishes to derive pleasure through oral activities like, cutting, sucking and swallowing. This stage is pleasure principle dominant stage.

ii. Anal Stage- Anal stage appears after oral stage. This begins at the age of 2 and goes up to the age of 4. At this stage the interest of the child is found more in anal actions and in the anus. This gives him/her joy and pleasure. The self consciousness of the child starts developing at this stage. His/her libido is centered towards him/her self-more. As a result the child turns into a narcissist. Freud calls this Narcissism. When the child grows up and there develops some realism in him/her then, at the end of this stage there lessens the tendency of working on pleasure principle in him.

iii. Phallic Stage- According to Freud this is the third stage of personality development. This ranges from 4 to 6 years of age. The libido of the child is centered towards sex organs at this stage. Which is why there is found the tendency of masturbation among the children of this age group. In the opinion of Freud at this stage the libido shifts from self to the parents. Daughter's libido is centered towards father while son's libido gets centered at mother. When daughter's libido is centered at father there arises the Electra complex as a result. And when son's libido centeres at mother Oedipus complex is the result. Freud puts more emphasis on the action of libido at this stage. He thinks that the attraction of son for mother and the attraction of daughter for father are because of libido.

iv. Latency Stage- This stage exists from 6 to 12 years of age. At this time the sex instinct of the child goes dormant. Boys and girls enter school at this age.The same period is there for their gradual social, mental and moral development. Here develops the Super-ego too which is related to social and moral values. At this stage the child is influenced more by his friends and peers than his parents. At this stage the children wish to be free and they do not want any interference of their parents in their freedom.

v. Genital Stage- This stage is from 12 years to maturity age. At this stage sexual interest starts developing in the person. Among the adolescent boys and girls of 13-14 years the consciousness of youth awakens and in place of dormant sexuality here develops sexual consciousness. Among the adolescents of this age the tendency of homosexuality is also noticed. After the age of 15 homosexuality is replaced by heterosexuality tendency.

This is very obvious from Freud's concept of various stages of personality development that he gives much importance to these stages in personality development.

Exercise

1. Explain the concept of stages of consciousness in personality structure propounded by Freud.
2. Explain the concepts of Id, Ego and Super-ego.
3. Explain the role of basic instincts in personality structure.
4. What are dreams? Explain their special features.
5. Explain various stages of personality development.
6. Explain the stages of psycho-sexual development given by Freud.

Alfred Adler and Individual Psychology

Individual Psychology: The name of Alfred Adler is taken with much respect in the community of psychoanalysis Theory. Adler was the pupil as well as colleague of Freud. Adler was born in Viena city in Austria in 1870. Adler was a doctor, an eye specialist. Treating his patients he used to pay attention to their mental aspect and thus he started taking interest in mental aspects of his patients more. Because of this he came in contact with Freud and he became his assistant. Freud and Adler together established 'Psychoanalytic Society' in Viena. Psychotherapists used to gather at this institution and used to hold conferences on the problems of psychoanalysis. Later on Adler had differences with Freud. The basic reason of the differences was Freud's theory of libido related to sexuality. Because of differences of opinion Adler separated from Freud in 1911 and he developed a new branch of psychoanalysis. This branch of psychoanalysis of his became well known as Individual Psychology. Adler died at the age of 67 in 1937.

To understand and explain human behaviour Adler propounded seven hypotheses, that are as follows-

i. Striving for superiority	ii. Inferiority and Compensation	iii. Style of life
iv. Creative self	v. Conscious self	vi. Fictional goal
vii. Social interest		

These hypotheses are explained in the following pages.

i. Striving for Superiority- In the opinion of Adler every individual strives for superiority. The superiority complex arises in the person who has suffered inferiority.Therefore, to get rid of inferiority the individual moves towards completeness and superiority. According to Adler, man is a kind of aggressive animal; he fights for his survival and he possesses the will to power so that he can maintain his existance and adjustment. Freud emphasised sex at the root of human behaviour, whereas, opposing this, Adler said that the feelings of aggression, power and superiority are inborn in man and these are the sources of his development. According to Adler, superiority in man grows after getting rid of inferiority feeling. In his opinion the feeling of inferiority and superiority are related to each other. When the individual grows superiority the feelings of inferiority automatically deteriorates in him.This process plays an important role in personality development.

ii. Inferiority and Compensation- In his individual psychology Adler assigns an important place to the 'theory of inferiority'. In his opinion, there are some defects in the human individual that are by birth, and due to that develop the feeling of inferiority in him/her. The individual feels himself weak and inferior compared to others from the early childhood. In the first four years of life there develops the consciousness in the child that he/she is very weak, others are bigger and stronger than him; they are more capable and strong. The individual strives to get rid of this feeling. This striving to get rid of inferiority plays a very important role in the development of personality. As the individual grows up, gradually he gets dissatisfied with his/her present condition and tries hard to better his condition. In this context Adler gave the concept of 'Organ inferiority.' Explaining this concept Adler emphasised that the individual makes efforts to get rid of his inferiority (weakness) then he makes extreme efforts. In one sense, this effort of the individual is a kind of compensation. Based on the acts of compensation develops the life style of the individual.

Adler also considers that the feeling of inferiority develops in the individual at the time when he/she feels some kind of incompleteness or lack in any field of his life. As a result of which the individual strives to be better and works harder. The inferiority feeling inspires the individual to move forward. Sometime, the inferiority feeling grows due to faulty upbringing too. Therefore, for the proper development of the personality of the individual the primary stage of life is very significant. This is the time when proper attention must be paid to the upbringing of the child.

iii. Style of Life- In the opinion of Adler the life of every person is unique because of which there are found differences in life styles. Living in society a person is similar to other people from societal point of view, still, based on the goal of life his life style is different from others. Different people have different life styles because all the people possess individual characteristics and goal, which is why there are individual differences.

According to Adler life style starts developing from the childhood of man. When the child attains 5 years of age there grows the feeling of moving towards superiority in him and life style starts taking shape. In the opinion of Adler life style controls the whole of the child's behaviour. The renowned psychologist Wolman, speaking about this hypothesis in the individualistic theory of Adler, expresed his opinion that, " The style of life is the expression of one's individuality. Each individual sees the goal of superiority in a unique way."

When the individual enters into youth the same life style gives him/her a direction. The individual is bound by his society, culture, their values and traditions and he has to face difficult situations. In such circumstances he develops his life style so that he can face these difficulties courageously and with patience and attain superiority as far as possible. According to Adler the life style of the individual develops in the context of his environmental, psychological, social and cultural conditions.

iv. Creative Self- In the theory of Adler the concept of creative self is quite important. According to him every individual possesses a kind of creative energy and using the same creative energy he develops his life style. The individual determines the struggle for the goal of life through his creative energy. From biological point of view the physical structure of all human beings in similar but all the people are not same due to mental activities. Individual differences are there because of the same reason. Individual differences may be there due to hereditary and environmental factors too but along with that individual creative energy is also an important factor. In the opinion of Adler the theory of 'Creative self' makes it clear. What does the individual wish to make of himself? What is his objective? What is the direction of his progress? In the opinion of Adler the individual is not merely a product of his environment, rather he possesses such creative abilities too that controlling his natural, psychological and social environment he can move forward towards his goal. The individual possesses such capabilities too, getting benefits from his past and present experiences he can make his life style superior. In the opinion of Adler 'creative self' is an active principle of human life and it is very important in his personality building.

v. Conscious Self-Adler thinks that consciousness is the seed of personality. Consciousness is the 'self-consciousness' of the individual and due to it the individual is aware of what he does. Unlike Freud Adler does not accept that many acts of the individual are motivated by sub-conscious or unconscious. Prof. Jaiswal presents Adler's note on Conscious self like this, "Conscious life becomes unconscious the time we don't understand it and

the moment we begin to understand it the unconscious turns into conscious tendency." [1] Through this conscious self the individual has the knowledge to understand himself, to determine his goal and to make his life style superior.

vi. Fictional Goal- About fictional goal Adler makes clear that whatever the individual thinks about his future is his fictional or imaginary goal. Based on this goal develop the life style of the individual and his creative self..

Its objective is related to the future of the person. The individual decides his objective through imagination and tries to achieve such ideals that are far away from his real life. But he tries hard to attain this objective with the help of his creative self, though he does not get success so easily. According to Adler, creative self, life style and fictional goal are closely related.

vii. Social Interest- Regarding social interest the opinion of Adler is that man is a social creature and every individual tries to establish relations with others. Taking interest in others is man's born instinct. In the opinion of Adler if we need to establish relations with other in the social and cultural contexts we need to understand others. Because of social interest develops the personality of the individual and along with that develops his social consciousness. When the individual gets adjusted to his environment very well and starts taking interest in it the development of his personality becomes easier. The process of socialisation also becomes easier through social interest. The socialisation of the child in the family begins with his parents and other family members. When the child goes to school at the age of 5 or 6 he comes in contact with his friends and he adopts their social traits too. Later on, alongwith his own development the individual starts taking interest in social development too. In the family, the mutual relationships of the family members also may be taken as the basis of social interest development in the children. Due to want of or lack of social interest the individual becomes maladjusted which leaves its impact on his personalty development. Social interest has an important place in adjustment and development of the individual. When the individual bears his social responsibilities properly and he is honest to the realities of his social life his social interests develop very well. This creates in him social feelings and he develops sympathy for his friends, colleagues and other people coming in his contact. In the opinion of Adler social interest is inherent. Whatever are the characteristics related to social aspects, the seeds of all remain inherent in the personality of the individual and they can be developed in favourable social environment.

Development of Personality : To study the development of personality and life stages and conditions coming in the development process, Adler has paid attention to some specific stages. These stage are- 1. First six years from birth, 2. Birth Order , 3. Uniqueness, 4. Individual and Environment.

1. First Six Years from Birth- In the opinion of Adler in the development of personality the determination of the form of life style has a very significant place. His presupposition was that the form of life style of the child gets determined by the time he/she attains the age of 5 or 6 years. The life style of the child in his beginning years is very helpful to know his behaviour and actions in his later life. At this time the determination of his life style becomes an integral part of his development. The life style of the individuals is affected by natural, psychological and social conditions too. The same is true for personality. The natural and bodily effects of the individual are connected to his heredity too. He gets some biological, physical and mental traits through heredity and much of his mental abilities and capacities are hereditary. With regard to personality development Adler opines that the child's family members and other people living with him also affect his personality development.

2. Birth Order- In the opinion of Adler birth order is also very important for the development of the child's personality. What the order of the child's birth is and how does the child try to realise that situation are very important factors. The first child is paid much attention to by his parents and other family members and they give him more than necessary love and affection. More than necessary love and affection mostly spoil the child. When the second child comes in the family the first child gets a shock and starts feeling that his parents do not pay him the attention they used to pay. Because of this feeling his personality may get maladjusted. Because of the same feeling he may try to harm his younger brother or sister. In many families mostly there are people who are the first child of their parents and their personality also is maladjusted but, on the other hand, there are some people who, being the first issue of their parents are well-adjusted and ready to help others. The season behind this is that in the family they

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1. Dr. Sitaram Jaiswal, The Psychology of Personality, p 73

are taught from the very beginning that they should take care of their younger siblings, they should protect them. If the family members teach their duties to the elder and younger children properly and they socialise them well there does not arise the problem of adjustment.

3. Uniqueness- In the opinion of Adler there are found some special traits in the individual which make him different from others. He makes his goal of life different from others. All these characteristics in his personality that make him different from others are called the uniqueness of his personality. This uniqueness is found in everyone and which is why different people do different work in the society and their interests too are different. There are differences in their abilities to work too. In Adler's opinion based on this uniqueness the individual makes his life style and progress towards superiority.

4. Individual and Environment- According to Adler, the place where the individual lives at and his opinion about this place and about himself also leave their influence on his personality development. As it is mentioned earlier, the beginning five to six years in the life of the individual are very important in the development of his personality. He thinks about his family, his social environment and begins to form ideas about his body and health. In Adler's opinion the individual himself is the creator of his world. He thinks that the child whose experiences are good, joyful and happy in his childhood grows up to be a person who gives joy and happiness to his family, society and to the world. Therefore, for a healthy development of personality the child must be given such conditions of life that he does not face physical and mental pain and his family members too are affectionate and loving to him. This helps his personality development positively.

Apart from this the school, the teachers and his environment also affect the personality of the child. The society, culture and colleagues of the person also leave their influence on the development of personality.

Exercise

1. Describe various stages in the development of personality given by Adler.
2. Describe the hypotheses given by Adler to study human behaviour.
3. Write short notes on:
   i. Striving for superiority
   ii. Inferiority and Compensation
   iii. Life style
   iv. Social Interest

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Jung and Analytic Psychology

The founder members of the school of Psychoanalysis theory are three-Freud, Adler and Jung. Jung was Freud's companion and pupil as well. After freud it was Jung who carried forward the work of psychoanalysis school. Carl Gustav Jung was born at Caswil city in Switzerland on 26th July 1875. His father was a priest. Because of that the early life of Jung was influenced much by philosophy and religion. He obtained a degree in medicine. In 1907 he came in contact with Freud. Freud, Yung and Adler together founded the school of psychoanalysis and three of them started working towards its development. But, later on Jung left Freud in 1912. The reason behind this was that Freud used to put emphasis on sex and libido in every field. Jung accepted that sex and libido are important in the life of man but they must not be emphasised so much as was done by Freud. In 1913 he founded a new school which came to be known as 'Analytic Psychology.' He toured many countries including India and he was much influenced by Indian culture and philosophy.

In his concept of personality structure Jung gave Ego and self, Personal unconscious, Collective unconscious, Persona, Anima, Animus, Shadow, etc. hypotheses. He presented his views on libido or sex instinct too. The structure of personality perceived by Jung may be understood through these components.

1. Ego-Jung gave an important place to Ego in the structure of personality. He considers ego to be the centre of consciousness level. In his opinion ego possesses the continuity and similarity of a very high order.   According to Jung ego is in the centre of consciousness but even then it is not equal to the whole psyche. Regarding 'self' he opined that 'self' represents completeness and this completeness includes psyche, therefore, there is a difference between 'ego' and 'self'. In his opinion 'ego' is a part of 'self'. He thinks that 'self' appears as an ideal person.

2. Personal and Collective Unconscious-In Jung's opinion the difference that is between ego and self is the same between personal and collective unconscious. Regarding personal unconscious his view is that it is related to ego. This is related to a particular person. The various deposited experiences of ego, especially those which it wants to forget or the person finds undesired, get collected in the person's unconscious. Jung also thinks that the experiences deposited in the personal unconscious may be brought back to conscious level. Treating a patient through psychoanalytic method it is tried that the undesired ideas or feelings gathered in the personal unconscious are brought back to the conscious level. Through this reaction the mental complexes may be opened out. Ego complexes are the accumulated emotions, ideas, memories and realizations of the individual.

Under collective unconscious Jung Considers those mental deliberations, notions, and emotions, etc., collectively that are not related to a particular person but are connected to a particular caste or society at a collective level. Collective unconscious is received by the individual inherently and there is found in it the collection of the culture, nation, society, ideas, rituals, desires and lusts of his ancestors. Collective unconscious is found in the entire human race and chiefly the mystical collective deliberations are predominant in it. According to Jung the notions of Justice, religion, state, country-caste, knowledge-science, etc. found in a civilized society are related to collective unconscious. The collective unconscious in man is an unknown treasure of all the rituals, ideas and emotions of the human race.

3. Persona-In Jung's opinion every person appears in two forms-one personal and the other social. Persona means a mask. Now this word is in circulation in the field of individual psychology too. When the person behaves in society he deviates from his personal form, that is, he changes his form. According to Jung the social behaviour of a person is never factual, there is some show off in it. In his opinion, the individual tries to show more than what he/she actually is because presenting (through) enhancing his social prestige and importance he wishes to prove himself to be superior. Through 'persona' the individual even succeeds in hiding his inner faults and problems. There is a close relation between 'persona' and 'ego' of the individual. When he integrates his personal expectations, desires and interests with the social expectations, desires and interests his ego gets dissolved in his social personality or persona and he devotes himself to social service. Due to this sometimes the individual even ignores his desires and needs. In the opinion of Jung this kind of behaviour of the individual is the primitive form of his basic instincts.

According to Jung when we analyse persona we come to know of the real feelings of the person because persona is a mask that hides the real feelings. The individual succeeds in getting a place in the society putting on a social persona but his real intentions and feelings can be known only through the analysis of his persona.

4. Anima or Animus-In Jung's opinion there are independent and mental structures like 'Anima' or 'Animus' in the constitution of personality. This means that in the consciousness of everyone's personality there is one female aspect and one male aspect. The man whose personality is dominated by the female aspect may be called 'anima dominated' personality and the personality of such a man is more of a feminine type. His gait and behaviour show more of lady-like characteristics.

Similarly, every woman has a male aspect in her consciousness which Jung calls 'animus'. If a woman is dominated by 'animus' traits she starts behaving like a man. Thus, Jung thinks that every individual has the traits of male and female mixed up in his/her personality. We find the similar hypothesis in Indian Sanatan Dharma in the form of Ardha Narishwar. Ardha-Narishwar is the form of God Shiva where half of his body is that of a man and the other half of a woman.

5. Shadow- According to Jung shadow is just the opposite of persona condition. To present his personality in society the individual puts on a mask whose traits are-beauty in nature and form, courage and love, whereas, the

traits of its shadow are-ugliness in nature and form, hatred and cowardice. In other words, in shadow the humiliated, neglected and harmful tendencies in man are tried to be put under control or subdued. Even then these wild tendencies are still present in human nature and these tendencies are called shadow. When the individual acts motivated by these tendencies Jung considers it related to shadow primitive form. According to Jung a person indulges in anti-social activities motivated by the same shadow from and all his improper feelings, ideas and actions are because of the same. The individual tries to hide these anti-social and improper acts of his through 'persona' or willfully suppresses them and pushes them into his personal unconscious. When the individual accuses others for his faults here too shadow is found to be active basically in the tendency.

Jung's Ideas on Libido or Sexuality

Jung did not accept the ideas on sexuality like Freud's views on libido related to sexuality. Jung has thrown some light on the concept of sexuality in his book The Psychology of Unconscious published in 1912. According to him sexuality is a general energy of life which is responsible to keep life activities going on and to control them. He did not restrict libido only to sexuality but he took it as a psychic energy. The concept of Freud that human behaviour is directed solely through libido is thoroughly rejected by Jung. In his opinion, human behaviour is directed by an impenetrable life force. According to him there is a continuity of mental (psychic) energy and physical energy and one kind of energy may convert into the other kind and only through this is possible the expression of the behaviour of the individual.

Stages of Person's Development- Like Freud and Adler Jung also did not give a detailed description of the various stages of personality development. In his book 'Modern Man in Search of Soul' he has given four stages of the life of man. He has given an analogy of these stages with four parts in a day- morning, noon, afternoon and evening. In his opinion man has to pass through four stages of life-1. Childhood, 2. Youth, 3. Adulthood, and 4. Old age. At every stage man has to face different conditions and various problems. The four stages given by Jung have childhood as the most important stage since this period is the foundation time for personality development. The future personality depends upon the weakness or strength of this period.

1. **Childhood-** The socialisation of the individual begins in his childhood and he learns the art of life/ living from his parents and other members of society. He learns science, religion and spirituality, etc., at school. The foundation of his future personality is laid at this time. According to Indian thought childhood is the age of Brahmacharya (celibacy and learning of the supreme being). Jung agrees to this fact. Indian thinking speaks of this age as the time for attaining knowledge and following celibacy. Jung agrees that childhood is the best time to gain knowledge and one has to be very careful to avoid unnecessary sexual excitements during this age. Thus, Jung's thoughts are akin to Indian thought and culture.

2. **Adolescence-** According to Jung childhood enters into adolescence smoothly. The knowledge, experience and arts gained in childhood are smoothly put to use in adolescence. Generally, the tendencies at this stage are extrovert and man indulges in using his external powers. His responsibilities heap up at this time and he struggles to organise himself. He makes progressive plans for himself at this time. Later, this is the age to settle in life and youth is to enjoy sexual pleasures and hoard wealth.

3. **Adult Age-** In adult age the individual maintains his status in society, he maintains his ideas as well. The tendency of the individual gradually shifts towards introvertism. The individual wishes to spend his time with his sons/daughters, free from unnecessary tangles of the outer world. Jung considers this tendency of man in the latter part of his life to do away with his extroversion and shift towards introversion as desirable and good. According to him man must understand his inner being properly at this waning age and must try to awaken towards his inner nature.

4. **Old age-** At this age there are so many adjustment problems with man. In the opinion of Jung man must try to dissolve all his problems into his unconscious in this last phase of his life. Indian thought tradition calls this age as of hermitage. At this stage man must leave all his ties with all that he has earned throughout the long span of his life. This may solve his adjustment problems to a larger extent. Jung considers childhood and old age similar to each other. At both the stages man depends upon others to solve his problems. Like the child is looked after by his parents, similarly the aged people are looked after by their progeny.

Dynamics of Personality- Jung considers personality to be dynamic. The resource for this dynamism, according to Jung, is the conscious energy in man. According to Jung the physique of man is such that on the one hand energy enters into his body and on the other hand energy gets consumed regularly. Physical energy performs physical work. This energy is gained through food and environment which includes air, sunlight and climatic elements, etc. For dynamism in personality Jung refers to psychic energy or consciousness energy which keeps personality dynamic. In the opinion of Jung the biological energy in human body is connected to psychic energy. Jung also used the term 'libido' for life energy and psychic energy. Freud uses the term 'libido' for sexual energy, whereas Jung uses the same 'libido' generally for that energy which keeps man dynamic physically and psychologically. This psychic energy keeps personality dynamic and this is expressed through man's behaviour too.

Concept of Personality- In his classification of personality Jung describes two types of personality 1. Introvert personality. 2. Extrovert personality.

1. Introvert Personality- Those people whose interests are directed to themselves and who live the world of their feelings and emotions- whose world is limited to only themselves- they are called introverts. The flow of libido of such people is towards their inner world and they are totally cut off from social activities.

2. Extrovert personality- These are the people whose interests lie in their social and physical environment more. The libido of such people flows towards the outer world. They enjoy mixing up with people and take pleasure in the world outside.

Jung has classified personality into eight types in detail. His classification is based on the following four psychological activities of the individual- 1. Sensation, 2. Thinking, 3. Intuition, and 4. Feeling.

1. Introverted Sensation Type- The psychological condition of such a personality is like that of an artist who lives in the society but is indifferent to it. They do pay attention to the work of their social environment but do not take interest in them.

2. Introverted thinking type- People with this type of personality have predominantly subjective thinking. They have their own thoughts and because of this thinking power they maintain their social adjustment.

3. Introverted intuition Type- Such people are always lost in the world of their imagination. They are religious and mystical by nature.

4. Introverted Feeling Type- Persons of this type of personality have a predominance of feelings and impulses. They live in daydreams and generally keep quiet and silent. Their behaviour towards the world is that of good natured feelings and peaceful.

5. Extroverted Sensation Type- Such people are fully matter- of- fact personalities. They are materialists and their viewpoint too is materialistic. They are influenced from the sensory aspects of the conditions, activities and things in their environment. Sensitivity is their major trait.

6. Extroverted Thinking Type- This type of people are generally careful about their external existence. They realize the world from the factual and sensation point of view. They try to know the facts properly.

7. Extroverted Intuition Type- People with this type of personality do not only depend on the experiences gained through direct knowledge but they use their intuition too according to situations.

8. Extroverted Feeling Type- Persons with this type of personality get very easily charged with emotions towards things and conditions of their external existence. Emotions and sensitivity dominate their behaviour. They establish friendship with others very soon, that is , they have special capacities to establish friendship.

Exercise

1. Explain the concepts of personalty given by Jung.
2. Explain Jung's ideas on libido or sexuality.
3. Describe the stages of personality development.
4. Write a note on dynamism in personality.
5. How did Jung classify personality? Explain.

LESSON 9 :
NATURE AND DEFINITIONS

Routinely we hear that so and so person is skilled in that particular art; that particular boy is extremely good at science or arts; that particular mason is so skilled in his special art, etc. Thus, people have different skills and arts to their credit. One boy is good at maths, the other one at English language, someone is skilled in drawing and painting while the other is good at singing. One is a good artist while the other one is very good at operating machines. One girl is very good at dance whereas the other is found good at sewing. Generally, common jobs can be performed by everyone but some people have special talents for doing things in an excellent manner. Simply speaking, we may consider them as gifts of God, but psychologically speaking this is a special art or talent of the person. Talent is a specific potential or specific ability or skill of the individual to work in a particular field or in a group.

Talent can be inherent or it may be acquired too. If the talent of a child is recognised by his parents or teachers in early stages and accordingly is prepared the ground to develop the talent the personality of the child will develop very well.

Psychologists have differences of opinion reagarding the definition of talent. Many psychologists consider talent to be inherent, whereas many of them consider talent to be the resultant of a specific quality or the cumulative effect of many qualities of the individual.

In the opinion of renowned psychologist Bingham talent is a cumulative effect of many qualities and for various potentials a mixture of various qualities is required. According to him talent is a potential ability. Bingham counts many special features of talent, like, 1. Talent is that set of individual's present qualities which indicates to his future capabilities. 2. Talent is an abstract noun. 3. Talent is closely related to interest, eligibility and satisfaction. 4. Talent is not only an inherent aptitude of the individual but also expresses the timely doing of any work by that individual.

Psychologist Super gives importance to unitary structure, specificity, facility to learn and stability in the specific features of talent.

Different people have different specific abilities. The specific abilities described by psychologists   include mental faculties, intellectual capabilities, sensitivity, direct knowledge, imaginative creativity and aesthetic sense. According to Prof. Phillip E. Vernon muscular and physical abilities, performance, mechanical skills and professional skills in man too are talent features. In this chapter we shall study creativity and some other human skills or capabilities in detail.

Creativity

On creativity Dr. Mahesh Bhargava has presented the definitions given by some psychologists in his book. According to Iraili N., "Creativity is the capacity of constructing and manipulating any new object." In the opinion of J.E. Dravel,"Creativity is that human ability by which he presents any novel work or ideas." Gillford says, "Under creativity five mental faculties/processes work together; these are 1. cognition,2. convergent thinking, 3. Divergent thinking, 4. Memory, and 5. Evaluation.

Creativity is found in almost every individual, only its quantity differs. People working in different areas/fields may be creative in their specific field. It is very difficult to measure creativity because this skill is scattered in people in a very unique, vague, wide and complex manner. This comprises of many qualities or abilities.

Creativity Measurement Test : As mentioned earler, creativity is comprised of many qualities and abilities, therefore, it is very difficult to measure the creative skill of the individual through one test. Many psychologists have made serveral tests to measure creativity, among them the test of Gillford and Maryfield, Holland and Kent, Vallenya and Tollence are very significant. In Indian contexts too creativity measurement tests were made, the chief among them are the tests made by Roy Choudhary, Prof. C.R. Pramesh, V.V. Chatterjee, Usha Khare, K.N. Sharma, B.K. Pashwa, Baqar Mehdi, Dilawar Singh, M V. Kundle, et al.

Apart from creativity there are several other human skills, like-mechanical skills, drawing skills, musical abilities, therapeutical skills and science and technology skills, etc. All these skills are talents. To select people for specific requirements these skills are kept into consideration. These skills may be classified into two types-1. General or differential abilities, and 2. Talent for specific fields.

1. General or differential talent- The following skills are found in the person under this category-

(i)   Hearing and Sight ability-How far a person can see clearly and how clearly can he hear sounds, are the abilities that are measured here. These abilities are very significant for bus and train drives.

(ii)   Muscular and physical ability- These skills are about the muscular power and physical prowess of the individual.

(iii)   Mechanical ability- This is connected to machines.

(iv)   Clerical efficiency/talent-This is related to clerical work ability.

We can measure all these talents or skills through tests. There are some specific test to measure sight and sound capacities of the individual. The same way, muscular and physical capacity can be measured through some specific tests like, motor co-ordination, finger dexterity and manual dexterity. Similarly, mechanical tests may be used to measure mechanical skills of the person.

To measure clerical ability primary mental skills are measured which include spatial ability test, perceptual ability, numerical ability, verbal ability, word fluency ability, memory ability and reasoning ability.

2. Talent in specific fields- Some people are talented in specific fields like, education-teaching and professional fields of special requirements. Apart from these areas, thre are other area where specific talents are required, i.e., music, fine arts, engineering and medical field, etc. Legal area also needs special talent. In addition to this, people possess special muscular and physical abilities. To measure these talents in people specific tests are applied to them. We can divide these talents into five classes and according to the talent, can apply the test-

1. Teaching aptitude or talent	2. Arts aptitude or talent
3. Music aptitude or talent	4. Science and technology aptitude or talent
5. Medical aptitude or talent	6. Legal aptitude or talent
7. Physical aptitude or talent	8. Other intellectual aptitudes

1. Teaching Aptitude or Talent- Aptitude or talent for teaching is very significant in a person. To test teaching aptitude special tests are applied. After the test results people having aptitude for teaching are selected for teaching posts. These tests are held at state and national level. These are called state teaching aptitude tests and national teaching aptitude tests.

2. Arts Aptitude Test-Art is that quality which is possessed almost by everyone. Through art the individual can achieve the optimum growth of his self. Art can earn him livelihood as well as make his life pleasurable. Art includes various kinds of art like, handicraft, designing, the art of making things, magic, etc.These special abilities are a must for stage artists, painters, musicians, lyricists, sculptors, architects and composers. Through these special talents the individual not only develops his potentials but also develops the society and the whole nation. To measure the skill or special ability or aptitude for these arts there are used some specific tests. The common tests are-

1. Mayer's Art aptitude test	2. Grave's Designing aptitude test
3. Horne's Art aptitude test	4. Nover's Art aptitude test

Through these tests is measured the special ability for art in a particular person, and suggestions are given to improve upon them.

3. Music Aptitude/Talent-Everyone sings but not all possess the talent for singing. The voice quality, tuning with musical instruments or tuning the instument with voice are skilful activities. Singing rhythm, sweetness of voice and tuning with the music are important skills. To use musical instruments with particular form of singing, like, which instrument will go with which particular musical raga, is also an art. The following tests are used to measure this skill-
1. Alfier musical ability test   2. Drake's musical aptitude test   3. Seashore musical ability test

4. Science and technology aptitude- Aptitude for science and technology is very important in a person. Based on this ability only one can become an engineer, machine operator, pilot or driver, etc. Today it is machine era and all the jobs are based on machines. The main reason for this is the growth of science and technology. Only those people who have an aptitude for science and technology succeed in developing science and technology further. Flying in the sky, going into space, diving into deep sea, all are scientific jobs. At present every moment of life is pervaded by science. Electricity projects, rail traffic and other transport means, all are connected to science and technology. In such fields of science and technology only those who have special abilities or talents can work. To measure such talents in science and technology some tests are applied. These tests measure the depth of scientific and technical ability of a person. Following are the tests to measure science and technology aptitude- 1. Standard Science Aptitude Test, 2. Minnesota Engineering aptitude test, 3. Engineering aptitude test.

5. Therapeutic abilities or aptitude- There are people possessing expertise in treating various ailments. Pshysiotherapy, surgery, psychotherapy, neurotherapy and gynotherapy, etc., are the fields where only specially talented physicians work. Diseases are identified and treated in this manner correctly and easily. Different diseases are treated by different doctors. To measure such an aptitude various medical related tests are used. Medical Entrance Tests are chief among them. Apart from that, to measure the skill in a specific area of medical field there are some other tests too. For instance, surgery tests, physiotherapy test, test for special diseases treatment, osteology test and tests for veterinary doctors, etc.

6. Specific aptitude for the legal field- This is a very important ability because public gets justice through this ability of a person. To deliver impartial justice is a great challenge and many sides of the case have to be taken into consideration. The same justice can save someone's life, whereas, the same can punish a wrong person. Therefore, it is essential that the person delivers impartial justice using his talent fearlessly and patiently. These qualifications are a must in lawyers and judges. Various tests are applied to measure these abilities. The person aspiring to join legal professon has to undergo judicial examinations.

7. Special physical aptitude- These capabilities play an important part in physical work, sports and hard laborious tasks. Physical education, sports competitions, physical endurance tests, race, wrestling, shot put, weightlifting and carrying and hard laborious tasks need special physical abilities. For different physical jobs the related body part's abilities are put to use. These abilities can be measured through specific physical tests. For example, the leg muscles for race, physique for wrestling, and breathing capacity for physical endurance, etc., are measured. We use our physical abilities in our routine work. Physical flexibility is also a trait. The more flexible the body is the more capable it is to bear stress and tension. The capacities of body parts depend on the kind of work done physically.

8. Other Intellectual aptitudes- In the foregoing pages we have written about creative, mechanical, spatial, perceptual, numerical, verbal, memory, reasoning and word fluency abilities. All these abilities are connected to intellect powers, but, in addition to them there are some special intellectual abilities too, like, intellectual power, will power, imagintion power, thinking power, emotions and feelings, insight or intuition power and memory power. Some of them are inherent but some of them may be acquired and developed too. These talents are intertwined mutually in a complex manner. These abilities are also measured through various tests. Intellectual capacities are very much useful in personality development. Through them the individual can develop his all-round personality which is very significant for his life. Man expresses his behavioural side through intellectual powers and he behaves with his family and in society using the same. Therefore, the higher are the intellectual faculties, the finer is the personality. We have discussed briefly some special capabilities of man in this chapter. How these capabilities can be developed further progressively we shall study in lesson 15 in brief.

Exercise

1. Define human capabilitities.
2. What are human capabilities? Explain in detail.
3. Explain teaching aptitude or talent.
4. Explain medical field aptitude.
5. Write short notes: (i) Intellectual powers (ii) Hearing and Sight abilities (iii) Arts talent.

INTELLIGENCE AND IT'S THEORIES

Intelligence has been the topic of discussion in knowledge-related activities from ancient times. 'Buddhiryasya Balam Tasya' means, 'the one who is intelligent is powerful'. Man is superior to other animals/creatures because of intellect. Intellect has been the topic of discussion in the area of psychology too. People have been classified in various types based on intllect from ancient times. Some people are called intelligent, some less intelligent, some are called witless while some others are called stupid. But it is very difficult to understand the form of intellect. There have been differences of opinion on the form of intellect since ages and at present too intellect is a matter of controversy among educationists and psychologists. In the later helf of 19th century psychologists made efforts to comprehend the form of intellect but they failed and couldn't give a universally acceptable definition of intellect. Presently too, there are disagreements among psychologists upon the form of intelligence. Different psychologists have given differing definitions of intellect. The definitions of intelligence are classified into three categories by psychologists-

(i) Intelligence is a general ability

(ii) Intelligence is the sum of all special abilities

(iii) Intelligence is the sum of two or three abilities.

The definitions of intellect given in three categories are as follows-

(i) Intelligence a general ability- The followers of this current of thought are psychologist Termn, Ebbinghous, Stout, Burt, Galton, Stern, et at. In their opinion intelligence is a general ability of a person which is visible in every act of his. They have defined intelligence as follows-

Termn says, "Intelligence is the ability to carry out abstract thinking." In the opinion of Termn intelligence is the ability to solve problems.

Ebbinghous says that "Intelligence is the power of combining parts."

Stout opines that "Intelligence is regarded as the power of attention."

Burt says, "Intelligence is an innate all round pervading mental efficiency."

Galton considers that "Intelligence is the power of discrimination and selection." Stern thinks that "Intelligence is the ability to adjust oneself to a new situation."

(ii) Intelligence is a sum total of two or three abilities-Stenford Binet occupies the most important place among the ones who follow this current of thought. In the opinion of Binet. "Intelligence is the ability and capacity to reason well to Judge well and to be self-critical."

(iii) Intelligence is the sum total of all the special abilities- In this categoryof definitions of intelligence psychologists consider intelligence to be a sum total of different special abilities. The followers of this thought are Thorndike, Thursten, Thomson, Weschler and Stoddard, et al.

Thorndike says, "Intelligence is the ability to make good responses and is demostrated by the capacity to deal effectively with new situations. In the opinion of Thomson, "Intelligence is the essence of inherited abilities."

In Weschler's opinion " Inteligence is the aggregate capacity of the individual to act purposefully to think rationally and to deal effectively with his environment."

Stoddard says, "Intelligence is the ability to understand problems that are characterised by (a) difficulty (b) complexity (c) abstractness (d) economy (e) adaptations to a goal (f) social value and (g) convergence of originals under such conditions that demand a concentration of energy and resitance to emotional forces."

The definitions above make it clear that different psychologists have comprehended intelligence differently. Yet,

taking them as the base points Dr. Bhargava defines intelligencve as, "Intelligence is that aggregate of general, mental and innate abilities with the help of which the individual achieves success in his jobs. This is specially active in adjusting the person into new situations. It is related to the analysis of experiences and planning as well as reorganising the needs. Therefore, abilities play a very crucial role in our daily life too."[1]

Theories of Intelligence

We gave above some definitions and thoughts that try to understand the nature of intelligence. To undrstand the nature of intelligence more clearly we shall give next its theories. There may arise a question, 'what is the basic diffirence between the nature and theory of intelligence?' Although both of them express opinions regardeing intelligence, still there seems to be some difference between the two. The thories of intelligence clarify its structure whereas its form highlight its functions. From the beginning of the first decade of the last century psychologists from different countries showed renewed interest in the structure of intelligence and various factors included in it. As a result of these questons the structure of intelligence was defined on the basis of various factors. American psychologists Thurston, Thorndike, Thomson, etc., expressed their views on the nature of intelligence on the basis of factors. Similarly, Alfred Binet in France, Spearman in Britain also expressed their opinions on the nature of intelligence. Various theories of intelligence are explained in the next pages-

1. Alfred Binet's Uni-factor Theory- This theory was propounded by the French psycholoigst Alfred Binet in 1905 and American psychologists Termn and German psycholoigst Ebbingheus supported this. According to this theory "Intelligence is that power that influences all the psycho-mental activities." The followers of this theory consider intelligence as the power which effects all the mental functions/activities. They also think that intelligene is of aggregate nature and forwards the individual to a particular activity. This is a unified part that cannot be divided. According to this principle if one person is skilled in one specific field he must be equally skilled in other fields as well. Keeping in mind this uni-factor theory Binet considers intelligence as the ability of exponential decision. Termn considers it as the thinking ability and Stern considers it to be the ability to adjust to new situations.

2. Bi-factor Theory- The propounder of this theory is the British psychologist Spearman. He propounded this theory based on his experimental studies and experiences. According to him, intelligence is in the form of two powers or there are two constituent factors involved in the structure of intelligence, the one he calls General or G factor and the other one Specific or S factor. By G factor he means that every individual possesses a general ability to perform tasks, therefore, everyone can do everything to a certain extent. This is because of his general intelligence. General factor is found in all the mental and intellectual activities of the individual but it differs in quantity. This factor of intelligence is innate and pushes the individual towards success.

The specific activities of the individual are performed through a special factor of intelligence. This is called 'specific factor' of intelligence. In one specific activity works one specific factor of intelligence and in the other specific activity works the other specific factor. Therefore, for different specific activities different factors are required. These specific factors are of different types among different people. That is why there are individual differences in people. The general factors of intelligence are innate while the specific factors are mostly acquired.

According to this bi-factor theory of intelligence in all the activities of intellect the G-factors of intelligence play a part. Whereas, in specific mental tasks specific factors are put to use independently. In one activity of the individual one or more specific factors are required. But in every mental activity along with the specific factor concerned with that activity general factors are also required. For example, to understand general science, social studies and philosophy, etc. subjects general factors are important, whereas to comprehend specialised subjects like, engineering, handicrafts, art, music, etc., specific factors are specially required. Therefore, it is clear that to comprehend and learn a specific subject or art both the factors are essential. Person's expertise in one specific subject depends, along with his specific abilities, on general abilities. In Spearman's opinion the transfer of subjects is possible only through general factors. This theory is made clear through figure No.1.

1. Dr. Mahesh Bhargava. Adhunik Manovigyan Pareekshan evam Maapan, p. 291

3. Three factors theory of Intelligence- In 1911 Spearman brought some amendments in his bi-factor theory of intelligence adding one more factor in his earlier theory and presented three factors theory of intelligence. The third factor whcih he added to his two factors is callled Group factor. Thus, in the three factors theory of intelligence there are three factors-1. G-factor, 2. S-factor and, 3. Group factor. In Spearman's view, alongwith general factor and specific factor, group factor is also present in all the mental activities. Some

Fig. No. 1. Two factors Theory

specific abilities, like, engineering skill, numerical ability, verbal ability, musical ability, memory, reasoning ability and intellectual ability, etc. are operated with the help of group factor. Group factor does not have any independent existance but it forms a group with the help of various specific and general factors which is why it is called as group factor. According to psychologists there is nothing new in this theory. Psychologists like Thorndike criticised this theory saying group factor is not any new factor, rather, it is a mixture of specific and general factors, merely.

4. Thorndike's Multi-factors Theory of Intelligence- In his theory of intelligence Thorndike considers intellect as a mixture of various factors which includes many abilities. According to him for any mental activity various factors work together. Thorndike criticised G-factors in his predecessors' theories and in place of them he mentioned primary factors and common factors in his theory. In primary factors he has included primary mental abilities. These abilities are verbal ability, numerical ability, mechanical skill, memory power, reasoning power and oratory, etc. In his opinion these abilities affect all the mental activities of the person.

Thorndike also considers the fact that individual necessarily possesses some or the other special skill. But, at the same time he feels that from one specific ability of the individual it is difficult to arrive at a judgement about his ability in other field. For instance, if one person is skilled in engineering it does not mean that he would be equally skilled in music too. According to him, if there is found a positive correlation between the performance of two mental activities, that means there are common factors too in the individual. What is the quantity of the common factors that may be known from the degree of correlation. For example, two students in a school were given two tests A and B and their correlation was found out. Then they were given tests A and C and their correlation was found out. In the first two tets correlation between A and B was found more which proves that compared to tests A and C, common factors are implied more in A and B tests of mental ability. According to him these common factors are found in all the mental activities to some extent. See figure No.2

5. Thurston's Group factors Intelligence Theory- According to Thurston's group factors theory intelligence is neither a demonstration of general factors nor of various specific factors, rather it includes some such definite mental activities which are generally included in primary factors. These mental acts form a group which provide a psychological and functional unity. Thurston presented his theory on the basis of factor analysis. In his opinion intelligence is constituted by a group of some primary factors. Two or more primary factors together form a group which demonstrate the intelligence of the person in a particular field. Among these primary factors he gave chief importance to numerical ability, perceptual ability, verbal ability, spatial ability, word fluency, reasoning power and memory power. Thurston made it clear that inteligence is an admixture of many types of abilities which are found in different groups. According to him mental activities are functionally independent, still when they work in a group
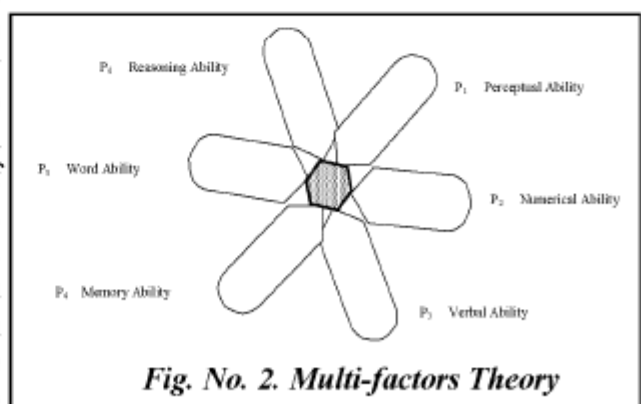

Fig. No. 2. Multi-factors Theory

they have a mutual correlation or similarity. Some abilities are from the same group and they are correlated. For example, in the group of science subjects physics, chemistry, mathematics and biology, etc. Similarly, to demonstrate musical art there is a correlation in playing drums, harmonium, sitar, etc.
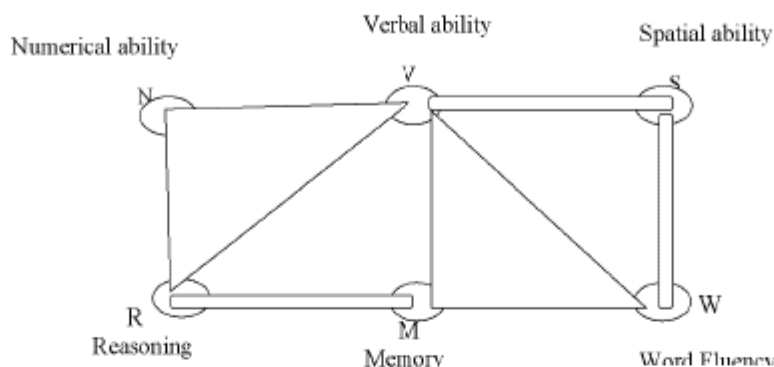

Fig. No. 3. Group-factors Theory

Fig. 3 represents intelligene as an admixture of many types of abilities. These abilities are indicated as follows-

1. Numerical ability	= N-factor	5. Word fluency	= W-factor
2. Verbal ability	= V-factor	6. Reasoning ability	= R-factor
3. Spatial ability	= S-factor		

6. G. S. Thomson's Sampling Theory of Intelligence- Thomson presented the Sampling theory of intelligence. In his opinion every activity of man is a sample of a certain ability. To do a particular work the individual selects some of his abilities as samples from the intire gamut of his mental abilities. In this theory he has emphasised on the practicability of G-factors. In Thomson's opinion the intellectual behaviour of a person depends upon many independent abilities but at the time of trial only their samples are visible.

7. Burt and Vernon's Hierarchical Theory of Intelligence- Burt and Vernon propounded this theory in 1965. This is taken as a new theory among the theories of intelligence. In this theory Burt and Vernon have given a gradual importance to mental abilities. They categorised mental abilities at two levels-1. General mental ability, 2. Special mental ability. Under general mental ability category too they sub-divided abilities into two classes based on level. In the first groups they included practical, mechanical, spatial and physical abilities. They called this main group as K.M. In the second group of abilities they included verbal, numerical and educational abilities. They called this group as V.ed. At the last level they put special mental abilities which are related to various learning activities. Many psychologists are attracted to this theory because of its novelty and specific features. Fig. 4 makes these groups and levels more clear-
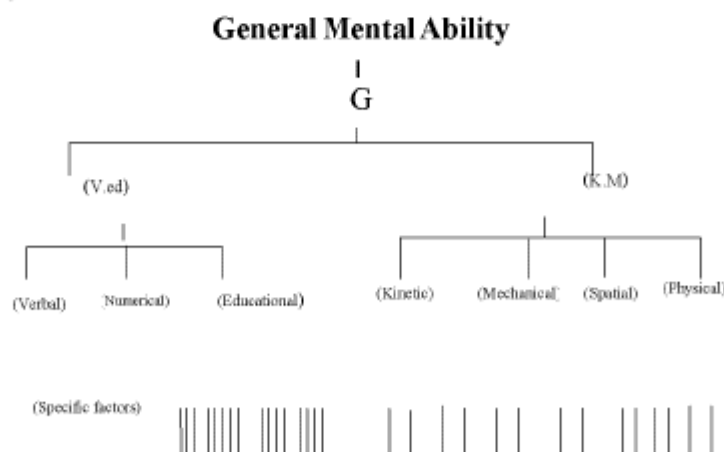

Fig. No. 4. Hierarchical Theory

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8. Guilford's Three Dimensional Theory of Intelligence-Guilford (1959, 1961, 1967) and his associates presented the explanation of the structure of intelligence on the basis of three mental abilities. This intelligence theory of Guilford is called three dimensional intelligence model. He has divided the intelligence factors into three categories, that is, mental abilities are divided into three dimensions. These are operations, contents and products. All the three dimensions of intelligence are quite different by factor analysis. The factors of mental abilities that fall into these dimensions are-

(i) Contents-In this dimension the specific factors of intelligence are of contents. For example-figural, symbolic, semantic and behavioural. Figural contents can be seen only through sight and they are constituted by shape, size and colours.

Symbolic contents include signs, numbers and words whch are arranged in a particular pattern.

Semantic contents include the meanings of words and ideas.

Behavioural contents have the subjects related to behaviour.

(ii) Products- These are of six types-Units, classes, relations, systems, transformations and implications.

(iii) Operation- under this dimension there are five groups of mental abilities- cognition, evaluation, convergent thinking, divergent thinking and memory. Within these three dimensions there are 120 possible interactions. Fig.5 represents Guilford's three dimensional model:

Fig. No. 5. The Structure of Intelligence
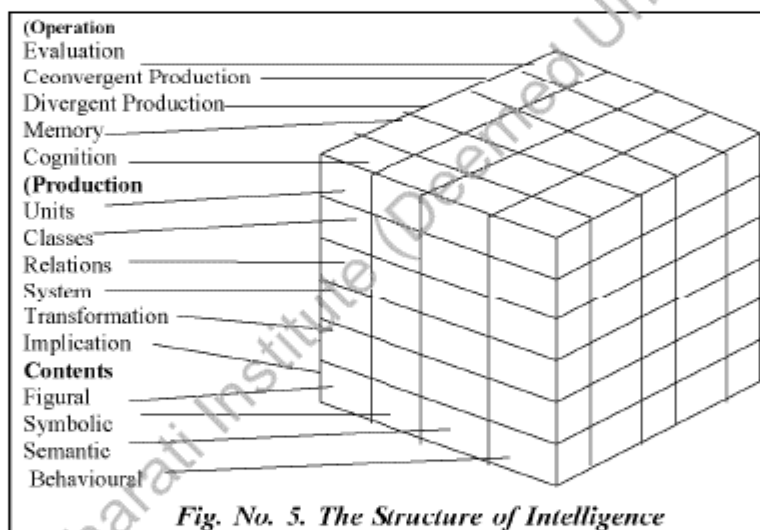
9. Cattel's Theory of Intelligence- Raymond V. Cattel (1971) has described two types of general intelligence-fluid and crystalized. According to him the fluid general ability of intelligence depends on hereditary factors while crystalized ability is in the form of acquired factors. Fluid general ability is chiefly found in cultured dynamic conditions and adjustment to new conditions/ trials. Crystalized general ability is measured as a factor in acquired cultural achievements, expertise and trials related to new conditoins. Fluid general ability may be taken (gf) as a hereditary divider which is operated by bio-chemical reactions. Whereas, crystalized general ability (gc) is operated through social learning and environmental effects. In the opinion of Cattel Fluid general intelligence is related to heredity and thus, innate, whereas, crystalized general intelligence is acquired.

Exercise

1. What is intelligence? Explain giving its various definitions.
2. Explain uni-factor and bi-factor theories of intelligence.
3. Explain Thorndike's multi-factor theory.
4. Explain Thurston's group factor theory.

LESSON 11:
METHODS AND TECHNIQUES OF MEASUREMENT OF INTELLIGENCE

History of Measurement of Intelligence:

People are different from each other not only physically but also from mental and intellectual qualities. These differences are innate too. Some people are sharp minded since birth and some are dullwitted. In the 19th century dullwitted children and people were treated very badly. They were chained and beaten up. People believed that evil spirits have entered into their heads. To drive the spirits out the dullards were caned. The problem, therefore, for the dullwitted was that nobody knew about their possible intelligence at that time. When the problem of dull witted boys acquired a serious proportion in France, it caught the attention of the government and psychologists there. To find a solution to the problem the renowned French psychologist Itord and after him Seguin developed various methods to measure and study the abilities of dull boys. Under this study they framed some intelligence tests. Many schools were set up to treat dull children where they were tested and trained to develop their intelligence. The same kind of efforts were made in Germany, England and America too. But the credit to develop the accurate tests for measurement of intelligence goes to only France. To train dull children properly and to make proper arrangements for their education a committee was constituted in France and the renowned psychologist Alfred Binet was appointed its president. Binet was the first psychologist who made efforts to comprehend intelligence in a scientific and organised manner. He is considered as the father of the field of intelligence measurement. Binet made it clear that intelligence is not only a factor that we can measure through specific test but is a complex process of different abilities which is functional in its aggregate form.

In 1905 Binet, with the help of Simon, made an intelligence measurement test which was named Binet-Simon intelligence test. This test measures the intelligence of children aged 3 to 16 years. This test uses 30 steps in the order of simplicity to difficulty. This test can measure the levels of intelligence. With the help of this test dull children were classified into three categories-1. Idiots, 2. Imbeciles, 3. Morons.

In 1908 Binet made some corrections in his test and published the revised version of the test. This test contained 59 steps. These steps are organised into separate groups that are concerned with children of different age groups. In this test the factor 'mental age' was understood for the first time.

In 1911 Binet once again revised his 1908 test. When Binet-Simon Intelligence Test 1908 reached various countries like Belgium, England, America, Italy and Germany it caught the interest of psychologists. Later on, this test attracted some criticism too as the test suited well for the children of lower age group but not to the upper age group children. Therefore, to rectify this lacuna Binet made enough revisions in his 1908 test. He revised the evaluation pattern of his test and in 1911 published the revised form of Binet-Simon intelligence test. In this test he established the relationship between the mental age and the actual age of the child and on the basis of that he grouped them into three classes-Regular intelligent, Advanced intelligent and Retarded intelligent groups. According to Binet those children who solved questions meant for higher than their age are advanced intelligent, whereas, if the child can solve questions meant for lower than his age is retarded intelligent child.

Apart from France Binet-Simon intelligence measurement test came in use in other countries too. In America Goddard published in 1910 the Binet 1908 revised test with some revisions. In addition to this in 1916 the American psychologist Termn published Binet's test adapting it to the conditions of his country. This test is called Stanford-Binet Intelligence Test since it was revised by Stanford University professor Termn. In 1937 with the help of Prof. M. M. Merryl the 1916 Stanford-Binet Test was revised and a few questions from mathematics were added to that. In 1960 Stanford University published the revised (present) version of this test.

Bobber Taga published its German revised version in 1913. Burt (1922) published its London Revision. Apart from this, Sefiot in Italy and U. P. Psychological Beareau in India published this test adapting it to the conditions of their countries respectively.

In addition to the revised versions of Binet-Simon intelligence tests many other intelligence measurement tests also came into being, among them are Individual intelligence test, Group intelligence test, Verbal intelligence test and non-verbal intelligence tests.

Some Important Individual Intelligence Tests- Merril-Palmer Scale is an intelligence test which contains 38 sub-tests. This is used on children aged one and half years to six years. Minnesota Pre-School Scale is also an important intelligence measurement test. This test is also used on children aged one and half years to six years. Psychologist Good Enough made 'Drawing a Man' test and Raven (1938) made 'Progressive Matrics.' Weschwar (1949) developed an intelligence measurement scale for children as well as adults. All these are individual or personal tests which can be applied to only one subject at a time.

Some Important Group Intelligence Tests-Intelligence tests have been developing according to time and place requirements. In 1914 during first world war in America intelligence tests were created to select right kind of people for army. Since individual intelligence tests were impossible to administer upon thousands of people at a time, group intelligence measurement tests were created. To select well educated and officer rank persons for the army Army Alfa group Intelligence Test was developed. Whereas, for semi-literate and lacking knowledge of English people Army Beta Test was developed. Soldiers were recruited in the army selected through these tests. Similarly, during second world war too soldiers were recruited selected through these tests. At the same time was developed the Army General Classification Test. Thus, intelligence tests came into being according to the need of time.

Development of Intelligence Tests in India-In India the first intelligence test was created by the Principal of F. G. College, Lahore, Dr. C. H. Rice in 1922. He adapted Binet's scale to Indian situations. It was named 'Hindustani Binet Performance Point Scale.' After this in 1927 J. Manory Constructed Verbal Group Intelligence Test in Hindi, Urdu and English. Dr. Lajja Shankar Jha (1933) constructed Group Intelligence Test that is useful for children aged 10 to 18 years of age. In 1943 Sohan Lal constructed a test to be administered to children aged 11 years and above. Punjab University Professor Dr. Jalota (1951) constructed a group intelligence test. This test was in Hindi, Urdu and English languages and applicable to college students. In 1959 Prof. C. M. Bhatia constructed a Performance Intelligence Test. This contains five major intelligence sub-tests and it is called Bhatia Battery of Performance Test of Intelligence. Thus, the tests mentioned above are Indian adaptations of intelligence tests and they developed as and when required. Apart from these tests many Indian psychologists constructed verbal, non-verbal, individual and group intelligence measurement tests.

Apart from the psychologists who contributed to the creation of intelligence tests mentioned above, there are many other psychologists who have made similar kind of contributions, the chief among them are- in verbal intelligence tests Prof. Dr. B. L. Shah of Baroda, Dr. Sethna of Bombay, N. N. Shukla, A. J. Joshi and Dave, Booch and Bhatt of Ahmedabad. In addition to them many other psychologists of our country like, Dr. Shah, Jha, Mahsin, Manory, Sohan Lal, Jalota, Prof. M. C. Joshi, Prayag Mehta, Tandon, Kapoor, Sherry, Raichoudhary, Malhotra, Ojha and Labh Singh, et al. have made great contributions in the construction of intelligence tests.

The psychologists who contributed in the construction of non-verbal intelligence tests are-

Prof. Patel, Prof. Shah of Ahmedabad, Promila Pathak of Baroda, Vickery and Draper of Bengal, Ramnath Kundu of Calcutta University, A. N. Mishra of Balia and S. Chatterji and Manjula Mukerji of Calcutta. In the construction of performance intelligence tests Dr. Patel of Ahmedabad, M. K. Panwal of Baroda, P. N. Shrimali of Udaipur, Mazumdar of Calcutta, Chandra Mohan Bhatia of Nagpur are important for their contributions. In addition to them Prabhasomalingaswamy (1975), Tandon from Moradabad, Chakravarty from Imphal, Bharatrat from Mysore, Verma from Chandigarh and Dwarika Prasad from Chandigarh have made their invaluable contributions in the construction of these tests.

The Meaning of Intelligence Test-

In the foregoing pages we have discussed the development of intelligence tests. What is the meaning of intelligence tests? It is also essential to know. According to Dr. Mahesh Bhargava by intelligence tests are meant those tests which show a relationship between the general intellectual abilities and the specific intellectual abilities of a person through a single score in the form of I.Q. The person is given various tasks to perform and it is hoped that his

intelligence can be known through them. His definition may be put in following words- "Intelligence test is designed for use in a wide variety of situations and are validated against relatively broad criteria. It characteristically provides a single score such as I.Q. indicating individual's general intellectual level and presence of various specific abilities. In such a test a wide variety of tasks are presented to the subject in the expectation that an adequate sampling of all important intellectual functions will be covered."[1]

How intelligent one particular person is, to know this psychologists made much efforts. In the opinion of Binet intelligence keeps growing from childhood till adolescence but there comes a stage when it gets fixed. To measure intelligence psychologists gave 'Mental Age' and 'Chronological Age' factors and on the basis of them is known the actual I.Q. of the individual.

Mental Age, Chronological Age and Intelligence Quotient:

The idea of mental age was given by Binet first of all in the process of measuring intelligence. Mental age is the expression of the growth of an individual which can be known through his performance of tasks expected at a particular age. Thus, by mental age of person we mean the age the questions meant for that he/she solves. For example, if a child aged eight years can solve questions meant for ten years old children, his mental age is ten years. If an eight year old child fails to solve the questions meant for his age, but can solve questions and problems meant for six year old children only his mental age would be considered six years. Intelligence tests are meant to judge the mental age of the person. Chronological age is the real age of the individual, that is, the age from his date of birth till date. On the basis of mental age Termn and Stern gave the concept of Intelligence Quotient. I.Q. is calculated through the proportion of mental age and chronological age. I.Q. may be defined as ratio of mental age to chronological age. As we have mentioned earlier intelligence grows from childhood till adolescence period, therefore, intelligence is not stable till this age, but there comes a stage when intelligence gets stable. I.Q. is calculated by the given formula:

$$\text{Intelligence Quotient} = \frac{\text{Mental Age} \times 100}{\text{Chronological Age}}$$

That is, to know the I.Q. first the mental age of the person is measured through intelligence measurement tests. Then it is divided by his chronological age, and to get a round figure this proportion is multiplied by 100. For example, the mental age a of child is 14 and his chronological age is 10 years, his I.Q. is-

$$\text{I.Q.} = \frac{14}{10} \times 100 = 140$$

When the mental age is higher than the chronological age the child is regarded as sharp minded. If mental age is equal to chronological age, the child is of average intelligence and if mental age is less than the chronological age the child is regarded as dull-witted. People may be classified in different categories on the basis of I.Q. The following table makes this clear:

Table 1: Classification of people on the basis of I.Q.

Sl. No.	I.Q.	Category
1.	140 and above	Genius
2.	120-140	Superior
3.	110-120	Above average
4.	90-110	Average
5.	80-90	Feeble-minded
6.	70-80	Dull
7.	50-70	Morone
8.	25-50	Imbecile
9.	0-25	Idiot

Types of Intelligence Tests- In the foregoing pages we read about the development of intelligence tests in India and the world over. Apart from that we discussed the meaning of intelligence tests, mental age, chronological age, I.Q. and classification of people based on I.Q. Now we shall discuss the types of intelligence. Intelligence tests are made keeping in mind various conditions, subject matter, etc.. For instance, whether the test is to be used individually or on the group; on educated people or on illiterate subjects. In such cases different types of tests are used. Based on this we can classify intelligence tests into four groups, as is shown in fig. 1
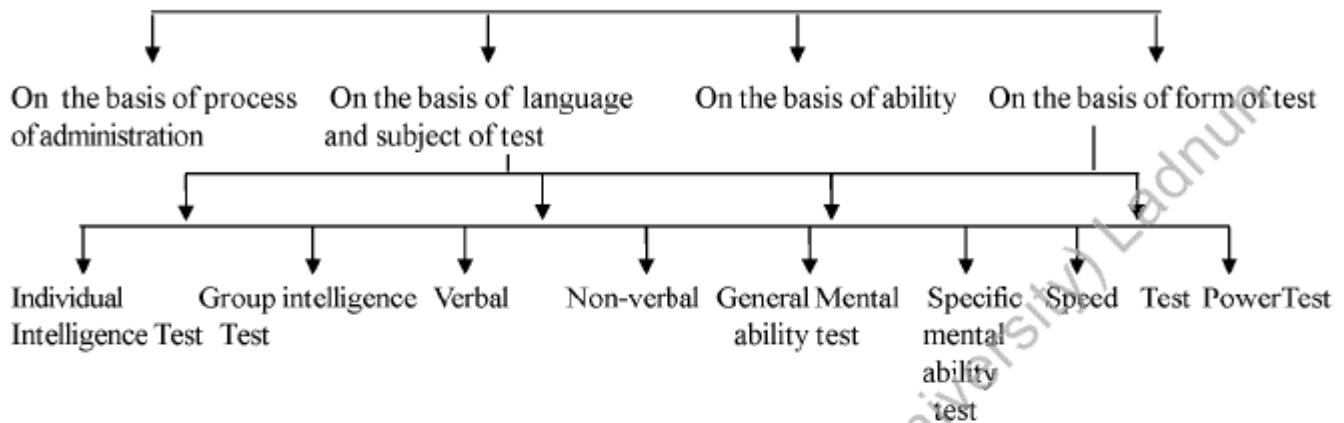
Fig. 1 : Types of Intelligence Tests

On the basis of administration, subject matter and their form intelligence tests are classified into four groups.

1. On the basis of administration: Such tests are divided into two types on the basis of their administration process. Those tests which can be used only on one person at a time, that is, which are used individually, are called individual or personal tests. The tests which can be applied to many people at a time are called group intelligence tests.

2. On the basis of language and contents-These tests may also be subdivided into two groups: (i) Verbal intelligence tests and (ii) Non-verbal intelligence tests.

For verbal intelligence tests words or language is used. Therefore, it is good for educated people. Whereas, in non-verbal tests in place of language signs, figures, shapes and symbols are used. This type of tests are suitable for illiterate people and those who do not know a particular language.

3. On the basis of ability measurement: These tests are also of two types- (i) general ability test (ii) special mental ability test. The first kind of test measures the general mental abilities whereas the second type of test measures the special mental ability of the person.

4. On the basis of the form of the test: Intelligence tests may be divided into two on the basis of the form of the test too- (i) speed intelligence test (ii) power intelligence test. The tests in which a certain number of questions are to be solved in a limited time period are called speed intelligence tests. The test in which questions are arranged in an ascending order of difficulty, that is, from simple to difficult, are called power intelligence tests. Many psychologists have divided measurement tests into two main parts-1. Verbal, and 2. Non-verbal intelligence tests.They have included individual and group tests in these two only. That is, verbal intelligence tests are of two types-individual tests and group intelligence tests. Similarly, non-verbal intelligence tests too are of two types-individual non-verbal test and group non-verbal intelligence test. Next, we shall discuss the main tests falling in these classes.

1. Verbal intelligence test-As mentioned above verbal intelligence tests are classified into two groups-1. Individual and 2. Group intelligence test. The main tests in these classes are as follows-

(a) Individual Verbal Intelligence Test- Individual verbal intelligence test is constituted linguistically or verbally. These tests contain several groups of questions and the testee has to answer verbally or in writing. Since such tests can be administered at one time to only one person they are called individual intelligence tests. These tests can be administered only to literate people. Binet-Simon intelligence tests and their revised versions fall into this

category. Apart from them Termn-Stanford Test, Weschler's intelligence scale are also in the same category.

(b) Group verbal intelligence Test- Individual verbal intelligences test can be given only to one person at one time. It takes too much time to test a lot of people and the results are also affected negatively. To rectify this problem group intelligence tests were constructed. These tests can be given to a number of people in one go. This kind of test was first constructed in America during first world war. To recruit officer rank people in the army verbal group intelligence tests were created. These tests were called Army Alpha Tests. After America such tests were constructed in many countries. In India too such tests were constructed, among them the group tests of Jalota and Joshi are well-known.

2. Non-Verbal Intelligence Tests- Like verbal intelligence tests, non-verbal intelligence test are also grouped into two classes-(a) individual non-verbal intelligence tests and (b) group non-verbal intelligence tests.

(a) Individual non-verbal intelligene tests- Such tests do not use words or language. In place of that signs, figures and symbols are used. That is, language or bookish knowledge is made use of least here. Such tests are also called performance intelligence tests. This kind of test can be given to only one person at a time. The main tests in this category of tests are-

1. Alexander's pass-along Test
2. Kho's Block Design Test
3. Pinter Patterson Intelligence Test
4. Form Board Test
5. Raven's Progressive Matrics Test
6. Picture Completion Test
7. Bhatia's Battery of Intelligence Performance Test.

(b)Group non-verbal intelligence tests- Such tests do not use words or language or use it the least possible and these tests can be administered on a group of people in one go. These tests were created first of all in America during first world war when semiliterate or illiterate people or foreigners were to be recruited in the army. These tests were given the name Army Beta Tests. During second world war a similar kind of test was created which was named Army General Classification Test. Similarly, one more test was created for the army which was named Armed Forces Qualification Test-AFQT. Such tests save a lot of time as they are administered on a group of people in one go. Such tests are generally put to use for army recruiting.

Utility of Intelligence tests: Intelligence tests are useful in various fields in life. Wherever human beings are working intelligence tests are essential there. We shall describe only some specific fields in brief where intelligence tests are made use of.

1. To know mental ability: Using intelligence tests we can know anyone's mental ability and on the basis of his mental ability he can be given the appropriate work/task/job. People may be classified based on mental ability and I.Q.

2. For admission in Schools- At the time of admission in schools children are given intelligence tests and they are admitted into appropriate classes according to their I.Q. so that they can study the relevant course according to their mental level.

3. Education field: Intelligence tests are wisely used in the field of education. Intelligence tests are much useful in identifying genius as well as stupid students, criminal minded students, for admission, for selection of subjects and course of study, etc.

4. To know individual differences: The true knowledge of individual differences is possible only through the knowledge of their mental abilities and I.Q. Mental abilities and I.Q. may be known only through intelligence tests.

5. Professional Use: Intelligence tests are mostly used in the education field but they are no less used in professional fields too. To identify people's abilities and skills suited to a particular profession, in the selection of officers and workers these tests are very useful. Apart from that, to classify employees according to their abilities and to maintain good mutual relationships among employees these tests are much useful.

6. Useful in diagnosis and treatment: Intelligence tests are used in medical field too. These tests are much helpful in knowing the I.Q. of dull students and to diagnose their abnormal behaviour. These tests are very useful in

the diagnosis of problems in learning and problems of forgetting too.

7. Useful in the Army: For the selection of army personnel officers and other employees, these tests are much useful. Promotion and classification of service personnel is possible only through these tests. During the first and second world wars these tests were widely used. At present too these tests are used for the selection of defence personnel in various departments.

8. Useful in the selection of employees: These days almost all the departments of service recruit their employees through psychological testing where intelligence measurement tests play a major role. Employees are selected for various posts through intelligence tests.

9. Research Use: Intelligence tests are of great use in research work. To collect data for education, psychological and social research these tests are made use of at a large scale.

10. Practical Use: Intelligence tests are used to diagnose the daily routine problems of people and to study their mental abilities, etc.

Measurement of Intelligence- Psychologists made many tests to measure intelligence. As mentioned in the foregoing pages the objective of intelligence tests is to measure intelligence in different conditions at different levels. Verbal and non-verbal tests are used for literate and illiterate or people unaware of a particular language respectively. Similarly, the tests are selected according to their application on individual or group.

For any kind of test administration there are some factors to be kept in mind. For example, selection of the proper place that is, only a laboratory be selected for the test or any place where the test can be conducted without any problem. Before administering the test the tester must ascertain that she/he possesses all the materials required for the test. The tester must be a skilled person.The tester must establish a good rapport with the subjects and ask them to solve the problems given in the test quite at ease.

The tester must determine in advance the types of test she/he wishes to conduct-verbal or non-verbal, individual or group test. She/he must make certain which psychologist's test she/he is going to use. Afterwards, she/he must give the test to the subjects and after evaluating them must calculate their I.Q. To get the I.Q. generally all the tests first get the mental age and by dividing mental age by chronological age I.Q. is obtained, as shown in the formula below. Only standard intelligence tests must be used to test intelligence because the validity and reliability of standard tests are of a very high level. Only the latest tests made according to time, place and situations must be used. In the next pages we shall describe some selected intelligence tests which are specifically used to test intelligence in India.

$$\text{I.Q.} = \frac{\text{Mental Age (M.A.)}}{\text{Chronological Age (C.A.)}} \times 100$$

Some Important Intelligence Tests: To test intelligence various tests are used in the world but here we shall discuss those intelligence tests which are framed according to Indian adaptations. These are of both types-verbal and non-verbal.

1. Verbal Intelligence tests:

(i) Weschler's Adult intelligence test: This test by Weschler was published in 1955, by Psychological Corporation, 304 East, 45 Street New York. This is an individual verbal test the medium of instruction of which is English. This test is used to measure the intelligence of adolescents and adults. That is, the objective of the test is to measure the intelligence of people in 16-64 years age group.

In the verbal scale of this test of Weschler six tests are conducted. These are- information, general comprehension, arthmatical reasoning, similarities, vocabulary, and digit span. Whereas, the performance scale of the same test conducts six sub-tests-picture arrangement, picture completion, block design, object assembly and digit symbol.

(ii) Joshi's Mental ability test: 'The mental ability test' constructed by Prof. Mohan Chandra Joshi was published in 1960. This was published by Rupa Psychological Corporation, Varanasi.The medium of the test is Hindi and the test is administered on children in class 8th to 12th standard or aged from 12 to 19 years. This is a group test. Although the time limit for the test is 20 minutes but time does not affect the test results.

This test is comprised of 7 types of questions- synonyms, antonyms, number series, classification, best answer, reasoning and analogies. The test contains 100 questions, out of which synonyms, antonyms, best answer and, reasoning questions are 10 each and number series, classification and analogies questions are 20 each.

(iii) Prayag Mehta's Group Intelligence Test: Prayag Mehta's group intelligence test was published by Manasayan, Netaji Subhash Marg, Delhi-6, in 1962. This is a verbal intelligence test in Hindi medium. This test is administered on a group of students in classes 7th and above, aged 12 to 14 years and the time limit of the test is 18 minutes. This test is comprised of 6 steps of ten types, i.e., 60 steps in total. These steps are related to reasoning, number series, classification, analogy, best answer, information, jumbled up sentences, guess, mathematical logic and nullity.

(iv) Jalota's General Mental Ability Test: General mental ability test was constructed by S.S. Jalota in 1960 and it was published by Psycha Center, Green Park, New Delhi. This is a group verbal test in Hindi medium. This is administered on children in 8th to 11th standard or aged 11 to 16 years.

The test is comprised of 100 steps to be answered in 20 minutes. This test is divided into seven parts- vocabulary similars, vocabulary opposites, number series, classification, best answer, inference and analogies. Out of the total, vocabulary similars, vocabulary opposites, best answer and inference are comprised of 10 steps each and number series, classification and analogies comprise of 20 steps each.

2. Non-verbal Tests

(i) Bhatia's Performance Intelligence Test: Bhatia's Performance Intelligence Test series was constructed by Dr. Chandra Mohan Bhatia in 1955. This is an individual non-verbal intelligence test. This test was published by Purohit & Purohit Poona. This test is used to measure intelligence of Indian children aged 11 to 16 years, illiterate and semi-literate people.

Dr. Bhatia included in this test battery 5 foreign tests adopted to Indian situations and some self-composed tests. These are-Kho Block Design test, Alexander Pass Along Test, figure drawing test, Instant memory number Test and figure construction Test. The time allotted is one hour. This test measures the mental age of the testee and I.Q. is calculated accordingly.

(ii) Alexander's Pass Along Test: This test is constructed by Alexander (1932). This test is comprised of four boxes opened at the top. These are of different sizes. One end of the boxes is coloured red and the other end blue. In addition, there are 13 rectangular blocks of various types, red and blue, wooden or plastic. These contain 8 cards which have figures of various shapes of blocks. The figures are constructed 1 to 9 in the ascending order of difficulty. The blocks are placed in the boxes and the testee is asked to draw figures 1 to 9 as is there on the cards. The time taken to draw each figure is noticed. Thus, the testee is marked according to the time he takes to draw each figure. These marks are used to calculate his mental age, and using the formula the I.Q. is calculated.

This test is used for children aged 7 to 18 years and even on deaf and dumb people successfully.

Exercise

1. What do you understand by intelligence test?
2. Throw some light on the development of intelligence tests.
3. What do you understand by I.Q.? How do we obtain I.Q.?
4. What are the types of intelligence tests? Explain in detail.

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LESSON 12 :
DEVELOPMENT OF HUMAN CAPABILITIES THROUGH TRAINING IN SCIENCE OF LIVING

In the foregoing lesson No. 9 of this unit we studied human aptitudes. Aptitude is a potentiality or specific ability or skill of an individual in a particular field. A Person forms his individual identity different from others because of these potentialities. Many skills in the individual are found innate while there are others which may be developed. These potentialities are his psychological tools that refine his actions and development. Most of the potentialities are internal functions of psycho-soma and generally they are intertwined with each other in a complex manner.

Among human potentialities some are common that are generally possessed by all. Some of them are special, found only in some people and make them different from other common masses. Specific potentialities may be developed to perform in specific fields, and to this people are trained specially to develop in them specific abilities. To that many centres of specific training are established and special training programmes are organised there to develop special potentialities of people. To develop the potentialities of sense organs usually external or internal Tratak is practised and some other yoga exercises are also used to enhance their power. Similarly, mental and intellectual capabilities may also be developed through meditation and yoga. Physical potential is also developed through special yogasanas and pranayam practices. In the last few years Science of Living and Training in Preksha Meditation has come into existence. Human potentialities may be enhanced through training in them and specific potentials may be developed in a person. A few researches in this field (Gaur 1997) have also established that Science of Living and Preksha Meditation positively contribute to the enhancement of intelligence growth, creativity and emotional stability of the person. He also found that training in Science of living and preksha meditation is helpful in reducing physical and mental tensions as well as fears and phobias of the individual to a greater extent which is helpful in the development of other skills of the individual. Through other research studies too (Gaur 1997, Gaur and Betal 1998), apart from the results mentioned above, enhancement in adjustment ability has been established through training in the science of living and preksha meditation. In addition to this in one more research study (Gaur 2000) the levels of anxiety and complexes have been found to come down significantly through training in science of living and preksha meditation.

In this chapter we shall discuss what human potentialities and skills may be developed through training in the science of living and preksha meditation.

1. Hearing and Sight Abilities : Hearing and sight abilities can be enhanced through some yoga practices under training in science of living and preksha meditation. In the yoga practice related to hearing the index finger is rotated clockwise in the external ear. This wakens up the Apramaad centre of human consciousness that removes laziness and improves hearing power. Meditation upon Apramaad centre brings unexpectedly good results for hearing power. Similarly, meditation upon the optical centre corrects optical defects and improves the power of sight. The activities mentioned above may be used to correct the defects of hearing and sight as well as to improve their powers. People are checked for such defects before selection for jobs. For example, a train engine driver must have good hearing and sight potentialities and he must not suffer from optical illusion/defects of vision. Similarly, such checks are conducted before recruitment in the army too and only people possessing good hearing and vision power are successful in every field.

2. Muscular and Manual dexterity related ability: This is the ability concerned with muscular and manual dexterity of the person. Training in science of living and preksha meditation can be imparted to enhance this type of ability. Through Kayotsarga process body muscles are trained in relaxation practice and training in yogasanas create flexibility and strength in muscles. The more the muscles are trained in relaxation, flexibility and control the more increases the power of muscles and manual dexterity of the person. This kind of specific ability is needed working with minute tools and machines. Wrist watch industry. T.V., Tape-recorder and manufacture and assembling of minute tools require such skills.

Similarly, motor co-ordination, manual dexterity, finger dexterity and related abilities may be developed through Kayotsarga, Yoga exercises, perception of breathing, pranayam, yogasana and perception of body, etc. exercises.

3. Development of Aptitude for Specific Fields:

(i) Teaching Aptitude:-To develop teaching aptitude or skill, related training is imparted. If this training is supplemented with training in the science of living and preksha meditation the teaching aptitude of the person may get a fillip. Many aspects of science of living and preksha meditation can be used as supplements with usual training in teaching, like, Kayotsarga, perception of breathing, perception of centre of enlightenment, the journey within, perception of body, Lesya meditation, Anupreksha, etc. Under this the individual regularly practices preksha meditation and its constituent parts in the morning and evening. If the practice is continued for long or for life it opens many hidden dimensions of human mind and develops extraordinary capabilities. This enhances the teaching aptitude of the individual more and more.

(ii) Fine Arts Aptitude:-To enhance such capabilities special consciousness centres are meditated upon, for example, centre of energy, centre of vision, centre of enlightenment, centre of peace and centre of knowledge. This enhances the fine arts ability of the person. This type of aptitude is made use of by artists, painters, muscians, lyricists, sculptors, architects and composers, etc. Enhancement in this special ability leads to enhancement of the power of imagination of the person as well as his thinking power.

(iii) Music Aptitude: These abilities include the abilities to sing and play musical instruments. For the enhancement in these abilities Mahaprana dhvani, Kayotsarga and meditation upon blue colour on the centre of purification several times a day regularly are helpful. In this, colour or lesya is meditated upon which leads to the development of the art and ability to sing. Through a regular practice of Kayotsarga and some other yoga exercises the ability to play musical instruments may be developed. The enhanced ability helps the singer have a control over musical notes. Meditation upon the centre of purity and a regular practice of Mahaprana dhvani rectifies all the problems of throat and makes laryrx flexible. This refines the sound production and produces lyrical and rythmic sounds.

(iv) Science and Technology Aptitude:- To enhance science and technology aptitude development of inner sense and insight is essential. A person can get knowledge of connection of external objects only through inner sense and insight. This type of capabilities are much useful in the fields of engineering, mechanical and industrial fields. One can operate machines, carry out research in science and technology, etc., properly because of this ability. For that emotional stability and reduction in mental and physical tension in the individual is also essential. To this Kayotsarga, meditation upon yellow colour on the centre of knowledge, meditation upon red colour on the centre of vision and perception of breathing are very useful practices. Through a regular practice of these things the individual can enhance his science and technology skill. To enhance such skills a long term training in science of living and preksha meditation is essential.

(v) Medical Aptitude:-Trainers in the Science of Living and Preksha Meditation can treat many diseases but, at the same time, to enhance the capabilities of medical practitioners training in the science of living and preksha meditation may be very useful too. In their work medical practitioners also get tired, mentally exhausted and stressed and this may affect their efficiency. To fight mental tension and fatigue Kayotsarga may prove to be a boon for doctors. Similarly, to achieve more dexterity and skill in their profession doctors also require inner sense and insight. They can achieve that through perception of the centre of consciousness practice. Perception of the centre of enlightenment and meditation upon the centre of Knowledge can help doctors diagnose their patients insightfully and treat them in the best manner possible. Yoga practices and Kayotsarga are very helpful to surgeons too.

(vi) Special Aptitude for Legal Field:-The special ability in legal professionals is that they understand any dispute properly and take impartial decision accordingly. For enhancement in this skill the person should observe some anuprekshas and wishes that fall under the training in Science of living and preksha meditation. If the individual practices authenticity, self-discipline, truth, greedlessness, fearlessness, sincerity towards duty, detachment and secularism in his anupreksha and wishes his power to deliver justice will increase. To deliver justice with complete impartiality is a challenge to the individual and everyone cannot achieve this dexterity. But, along with legal training if training in the science of living and preksha meditation is also imparted the person will develop a justice-loving personality with legal dexterity. A judge is a special person in society and she/he must possess the capability to deliver impartial judgement fearlessly and patiently. These potentialities must be there in a lawyer and judge as well as.

7. **Physical Aptitude:-**As mentioned in the foregoing pages physical abilities are concerned with physical work, games and sports and hard laborious tasks. Physique, flexibility of body parts, energetic personality, etc., abilities are essential for this. These abilities become more significant in games and sports and physical education. Various trainings are imparted to improve these individual abilities, but still some people use intoxicants and steroids to enhanace their abilities which shows their inability instead of their ability. To enhance physical abilities and for their demonstration are required patience, fearlessness and freedom from stress very prominently. In addition to this, individual will power also plays very important role in it to increase will power and patience the individual is trained in anuprekshas under training in the science of living. Through anuprekshas in fearlessness, patience and will power the individual can enhance his physical prowess. Apart from this control over breathing (Kumbhak) and physique are also important. Through perception of breathing and pranayam making the lungs strong the power to control breath (kumbhak) my be increased. To increase body flexibility and energy regular asana exercises are compulsory. Through some yoga exercises and some specific asanas body physique may be improved upon and flexibility may be maintained. Body muscles are made flexible and strong through yoga exercises and asanas. Thus, physical abilities may be increased through training in the science of living.

8. Other Intellectual Specific Abilities:-Will power, imagination power, thinking power, emotions and feeling power, intuition or insight, intellectual power and memory power are important among intellectual abilities. We perform many activities of life through these powers, take various decisions, fulfil various purposes and learn the art of living. These abilities are very important in the life of the individual and development of his integrated personality depends upon them. Through these abilities the individual performs high level tasks, keeps good self-management and achieves a good practical viewpoint.

Through will power the individual can make his life meaningful and can perform all his tasks properly; he can even attain God. Through the development of the power of imagination he can make progress in various fields of life. Imagination power increases our creativity, memory and thinking power. This is helpful in the development of our inner world. Thinking power, emotions and feeling power are useful in knowing and comprehending the world and we can comprehend the individual, objective and emotional world tasks through this. Intuition and insight are helpful in collecting information in the world and in their actualization in life. Intellectual power and memory power make man wise and widely knowledgeable. For an all-round development of personality the powers mentioned above are to be essentially developed. Now-a-days only a handful of people are able to live a wholesome life. Due to lack of these abilities people fail to comprehend situations and conditions properly and as a result their practical aspect of life remains weak. Because of a weak practical aspect people face adjustment problems with family members as well as with society.

All these potentialities may be enhanced through training in the science of living and preksha meditation. To enhance such capabilities all the constituent parts of preksha meditation are put to use. Using Kayotsarga, perception for breathing, journey within, perception of the centre of enlightenment, perception of body, perception of the centre of consciousness and lesya meditation all these potentialities can be enhanced. Meditation upon various lesyas and perception of various consciousness centres contribute greatly to improve these potentialities. In addition to this, training in some anuprekshas is also helpful in enhancing these potentialities from high to higher levels. For a detailed study of preksha meditation and its constituent parts and anuprekshas kindly see Preksha Meditation Prayog Paddhati and Amurta Chintan respectively. Thus, we see that science of living and preksha meditation are extremely significant for the development of our potentialities. People desiring to develop their potentialities must regularly get training in the science of living and preksha meditation for continuous improvement in their potentialities.

Exercise

1. How do we develop human potentialities through training in the science of living and preksha meditation? Explain.
2. How can hearing and sight skills be enhanced through training in the science of living and preksha meditation?
3. How are the potentialities of muscular and manual labour developed through science of living and preksha meditation?
4. What must be done to improve medical special aptitude?
5. Write short notes-
    1. Special abilities in the legal field and the science of living.
    2. Special physical abilities and the science of living.
    3. Special intellectual abilities and the science of living.

LESSON 13 :
INTRODUCTION TO INDUSTRIAL PSYCHOLOGY

For the progress of any nation its economic condition must be essentially strong. For a strong economy there must be healthy and developed industries in a country. In a developing country like India establishing modern industries, their proper functioning and management is the need of the time. Because of industries not being properly run and managed the industrialists and their employees have to suffer. At many places industrialists exploit their employees. They harm their welfare not paying them well and not giving them necessary facilities. Being greedy to earn huge capital and resources industrialists commonly resort to these methods.

Because of this tendency industrialists often face problems and have to bear losses too. When the industrialist does not pay his employees well, does not heed to their welfare and facilities, dissatisfaction grows among employees and they start neglecting their work. As a result of this dissatisfaction there start activities like strikes, lock-outs, gherao and criminal activities. Due to these activities there develops tension between industrialists, management board and employees and production in the unit slows down, which results in a loss to all the industrialists, industry and the employees. Industrial units get sick and all these situations give rise to many problems further.

In the beginning of 20th Century industrialists considered themselves to be the dictators of the economic system. They believed that power could set anything right. The then industrialists were not only exploiters but were killers of the welfare of the labour class. Their viewpoint was that business is business. Economic struggle went on rising . The labour class was miserable due to economic pressure and fatigue. They lived a life of slavery. To get out of this slavery the labourers organised themselves and this brought a whiff of fresh air and enthusiasm for them. They now understood the importance of the demands of their rights. As a result, the values and beliefs of the labour class also changed. Industrialists started trying to secure their places following a humanitarian approach, still there arose a big gap between industrialists and labourers.

The condition after half a century is that the industrialist expects more production and the labourer more wages. The attitude of the industrialist towards production is that of material objects and at the time of strike inhuman. This creates an imbalance between the employers and the employees. This affects production.

Therefore, it is required that there is maintained such an arrangement which solves all these problems and we see its practical aspect. Industrial psychology is that branch of psychology which seeks solutions to all these problems. This branch presents both the materialistic and humanistic viewpoints.

Nature of Industrial Psychology : Industrial psychology studies the behaviour of people engaged in industries. But only this much does not classify its nature. The analysis of its nature needs to be done from the following two viewpoints-1.   Meaning, 2. Definitions.

1. Meaning: Industrial psychology came into being in the beginning of 20th century. The revolutionary progress of the machine era compelled industrialists, scientists and administrators to find out a way to increase production, reduce working hours of workers and increase their wages.

To solve industrial problems scientists thought of giving industrial conditions a psychological form. Slowly psychological norms started to be adopted in industries. This led to the development of this branch of psychology named 'industrial psychology'. If we give a thought to its origin we find that economic pressure, social imbalance and psychological conditions gave rise to industrial psychology. In addition to this, the other reason is that industrial psychology came into being because of machine era and the problems of the workers. Because of this all the aspects of all kinds of industries-small or big- are studied.

2. Definitions : Industrial psychology is that branch of applied psychology in which problems related to industries, economic, social and psychological problems of workers and various rules and theories are studied and proved. In industrial psychology people engaged in industries and surrounded by industrial environment are studied.

Through this we study the behaviour of workers affected by materialism and other behavioural aspects. Thus, we can say that in industrial psychology behaviour of people engaged in industries is studied.

Blum says, "Through industrial psychology the relationships of people engaged in industry and commerce, facts related to various problems and theories are studied."

According to Harrel, "Industrial psychology is the study of various aspects of people engaged in industry and commerce."

Harrel has presented one more definition, "Industrial psychology, although, is a complex study of various things, yet primarily it studies people engaged in work-conditions."

Subject Matter of Industrial Psychology

The subject matter of industrial psychology has two major bases that make the nature of its study pretty clear. The first base is the analytical study of the objective of industrial psychology while the second base determines the limits of study.

1. Objective : The main objective of industrial psychology is to study all the problems related to employees and production. How to increase production, how can employees prosper, how they can be satisfied, etc., are the concerns for which industrial psychology seeks psychological systems. Industrial balance can be maintained through this. The same balance is helpful in increasing production and keeping employees satisfied. The aforementioned balance is based on the following objectives:

1. Selection of worker according to work and assigning his task fit for his ability.
2. In implementation of industrial development schemes workers' health must also be kept in mind.
3. Keeping the economic condition of the worker in mind and paying him well befitting his labour.
4. Using proper methods to minimise fatigue, disinterest and accidents at the work place.
5. Giving appropriate incentives to workers to increase production and keeping their mental health good.
6. Removing the causes of dissatisfaction of a maladjusted worker so that he works with proper adjustment.
7. Making working conditions and industrial environment pleasant.
8. Bringing improvement in machines and tools and enhancing the humanitarian aspect.
9. Treating a human being as a human being and a machine as a machine. If the worker is also treated like a machine production suffers badly.
10. Along with material aspects humanitarian aspect be assigned the highest value.
11. Bridging the gap between industry and the worker and treating the worker as an important unit in the industry.
12. Encouraging the view that a worker is a property of national welfare .

Delimiting the area of industrial psychology Harrel propounded the following objectives-

1. Industrial psychology is concerned with the physical aspect (light, temperature) of the work and at the same time it is concerned with knowing the effect of this physical aspect on production and safety.
2. To know the theories of human relations and efforts.
3. To study the mental attitudes and inspirations of the workers and through that to know the morale, disinterest, indifference, etc., of the workers.
4. To study the mental health of workers to know why workers get maladjusted.
5. To study the relationships between work and the worker, worker and the supervisor, supervisor and the manager and manager and the workers.

Based on the five objectives of Harrel we can say that these views are quite appropriate and on the basis of these the aspect of industrial psychology can be analysed. The idea of industrial psychology is being described on the basis of these objectives.

2. Scope of Industrial Psychology

Industrial psychology is a branch of psychology. As psychology is concerned with human life, the same way industrial psychology is concerned with industries and its area has been expanding everyday.

Vitals says, "The application of psychology in industry is associated with an increasing of individual make-up."

Today the scope of industrial psychology includes the study and solution of various problems. Keeping the individual differences of workers in mind and on the basis of this making decisions regarding the methods of selection of appropriate professions for them falls under industrial psychology. Making arrangements for training of the employees, doing research to bring reforms in working conditions, finding out the reasons of fatigue, disinterest, accidents, etc., at work place and implementing the ways to avoid them, etc. too fall under the study of industrial psychology. Thus, studies related to giving more importance to humanitarian aspect than to material aspect in the field of industry, teaching related to giving importance to administrative system, administrative arrangements, improving the relations between employer and employee and studies related to guiding both of them also come under the field of study of industrial psychology.

Foundation of Industrial Psychology

Industrial psychology has originated and developed because of machine era. No doubt prior to that the condition of workers was miserable. Because of economic pressure and social rejection and humiliation they were outside the human fold. Though this situation did not last long yet, as long as this prevailed the worker remained neglected. Keeping in mind these conditions the thinkers presented such foundation that bridged the gap between the employer and the employee and industrial balance is maintained. For that psychology was added to industrialisation and for the first time the field of study of industrial psychology was based on economic, social and psychological elements.

1. Study of physical conditions.   2. Study of principles   3. Study of attitude and motivations
4. Study of mental health   5. Study of human relationships 6. Other fields

1. Study of physical aspects : Under this are studied the work conditions and industrial environment. For example, how is the building of the factory constructed, whether proper temperature is maintained or not, proper lights are arranged or not, etc., are the aspects that affect the worker and his work. Industrial psychology delimits these elements so that production increases and the worker feels secure. If these physical aspects are strong problems like disinterest and accidents, etc., do not crop up.

2. Study of principles : In this field fall the theories and methods that activate the human relations, sympathy, behaviour and treating human being as human being. To increase production or to keep the production system balanced the employer and employees follow the principles and guidelines set for them. Apart from that, selection of profession, guidance, training methods, work analysis and interview, etc., issues fall under this study.

3. Study of Attitude and motivations : Attitudes and motivations and employers and employees are studied in this area. Analysis of various incentives and their effects in the form of inspirational/ motivational feelings studied. The moral standard of employers and employees is specially given importance. For this motivational cooperation is extremely necessary.

4. Study of mental health : The objective of the industry system as well as of the industrialist should not only be earning profits but also caring for the mental health of the workers. The mental health aspect of the employee must be strong. The employer must observe the viewpoint that the worker is a national asset. If the employer works with this feeling and treats the workers accordingly there will remain balance in production. Industrial psychology studies this type of facts too.

5. Study of human relationships- Industrial progress is not possible only though progress in the material side. Human relations being good are also equally important for that. This area covers those problems that arise with workers and supervisor, workers and management and workers vis-a-vis workers. Social psychological and humanistic problems in the industry are also studied in this field.

6. Other fields : In addition to aforementioned areas, inspection of the factory, maladjustment of workers,

strikes, gherao, lock-outs, problems arising out of retrenchment and problems of morale are also studied in the field of industrial psychology.

7. Advertising and Selling : Production and consumption is the last area of study in industrial psychology. In the present era of industrial competition making the consumer aware of one's product and its usefulness and understanding one's need for life is the special feature of today's selling. Thus, advertising and consumption of the products are important areas of industrial psychology.

Problems of Industrial Psychology

There is no doubt that relationships between the owner and workers are not good generally. There may be many reasons for this imbalance. But the main reasons are economic. The owner is the controller of the largest share of the capital for benefits and workers are not paid properly for their hard labour. Which is why there develops a gap between the owner and the workers. This blocks national progress. This is the biggest problem of the field of industry. The study of the subject matter related to production and workers is based on four pillars- production, owner, workers and the full system (industrial environment). Therefore, the problems of industrial psychology are also based on these four pillars.

1. Worker and Work : Work is concerned with production and machines. For good production it is essential that machines are properly maintained and suitable workers are recruited. For the selection of a suitable worker it is required that his special abilities are scrutinised so that he feels comfortable at work. Keeping this in mind various aspects of the work must be analysed. Apart from this, worker analysis and work analysis, study of other activities affecting work and production, like, motivation, incentive, monotony, fatigue and individual differences, etc. are analysed under worker analysis.

2. Worker and supervisor : If the supervisor's behaviour is satisfactory towards the worker, the worker will complete his work in time. It is essential for the supervisor that he fulfills the material and humanistic needs of the workers. He should not think only of the profit for the owner and be only loyal to the owner. Because of post and rights he should not neglect workers' demands. If he neglects workers' demands it affects production. Therefore, for good production and national progress it is essential that there are good relations between workers and supervisor. This will avoid strike conditions.

3. Worker and management : Mill owner and employees appointed by him who owe the responsibility to run the factory constitute the management group. If there is no satisfactory management workers lose interest in their work. For example, if the management does not make proper arrangements for worker's health and treatment the workers develop dissatisfaction and they become aggressive. If the work hours, condition of machines, the physical environment of the factory and other related needs are not managed appropriately the workers are not honest to their work. Therefore, it is required that the worker is not treated with partiality. He should neither be treated as a machine nor as an inferior being. Workers too are human beings and they too have the right to live, so their basic needs too must be fulfilled. The management should pay proper attention to such things to keep the production level up, otherwise, production is hindered.

4. Worker and Worker : In this era of progress industrialization has reached its zenith but the owner does not want to see workers united. The owner knows very well that workers' unity is instrumental in uprooting their exploitation and in destroying the capitalist system. Therefore, owners wish to see in-fighting among workers, the farmers remain under debt and the middle class lives comfortably but not fully comfortably. Which is shy workers' unity is not achieved, although the organisers and workers use their full strength to maintain unity. They become powerless even before facing the policy of exploitation and repression. At that point the owner makes a deal with union leaders. Then labour unions fight among themselves and ultimately fall victim to the owner's exploitation once again.

This makes clear that if relationship among workers is not good, there is no unity among themselves, industries in the country can never make progress. It is possible that mill owners and marketeers get richer, individual gains get multifold but national asset will get destroyed.

Objectives of Industrial Psychology

To make the problems of owner and workers more clear special objectives may be expressed-

1. To study the need to various professions.
2. To use various psychological tests and other well-developed methods for scientific selection of employees.
3. To discover the best ways to use human energy.
4. To organise and put in order training programmes for proper use and full development of human potentials.
5. To determine the essential conditions of work.
6. To analyse the specific features of organisations to fulfill the economic, social and humanistic objectives of industrial organisations.
7. To test motivational forces to establish good relationship between workers and management.

Fields of Industrial Psychology

In the fields of industrial psychology we study the development related to workers. That is, the full knowledge of the working class department and in the classification description related to industrial importance are the fields of study of industrial psychology. According to work the following departments are determined.

Employees section

1. Recruitment section
2. Training section
3. Employees security section
4. Employees welfare section
5. Research section
6. Other sections

Advisory Council

1. Management of sections
2. Production manager
3. Representative of foremen or supervisors
4. Representative of employees

Section

1. Recruitment section- The following are its functions-

1. Analysis of work and wages
2. Transfer and promotion of employees
3. To analyse the reasons of the problems of employees leaving the work.
4. Supervision of the work of employees.

2. Training section- The following are its functions-

1. Training of officers, foremen, supervisors and employees
2. Training of the transferred and promoted staff members
3. Arranging newspapers and magazines for knowledge gaining and mental development of the staff members.
4. Arranging for educational facilities
5. Arranging for newspapers and information material.

3. Employees Security Division- The following are the functions related to multifaceted problems of the employees-

1. Arranging for the workers' health check ups and treatment.
2. Arranging for free medical aid for workers.
3. Granting leave to workers on the advice of doctor.
4. Paying compensation to workers who meet with accidents.
5. Granting weekly holidays to workers.
6. Analysing the reasons of absence of workers.
7. Settling the aggressions and feuds of workers.

4. Employees Welfare Division- The following are the functions related to the welfare of employees-

1. Arranging for entertainment means for the workers.
2. Making appropriate arrangements for workers' accommodation.
3. Making arrangements for retiring rooms at the factory for rest.
4. Making arrangements for refreshments for the workers during recess.
5. Giving insurance facilities to workers.
6. Making instruments available to workers in need.
7. Making arrangements for all kinds of legal advice.

5. Employees Health Division- This section covers those functions that are concerned with workers' health so that their health is taken care of properly. All types of medical facilities be available free of charge and good hospital as well as good equipment made available, etc. If the worker is mentally frustrated and maladjusted he can not work with full concentration and he may even meet with an accident, machines may get damaged and production may slide down. Therefore, if proper medical care arrangements are made the workers will be satisfied and production will increase.

6. Research Division- Following are the functions under this section-

1. To study the fatigue and monotony at work place during work.
2. To study the habitats of the workers and other things at different levels.
3. To study the work analysis of the workers.
4. To study work specialization.
5. To study time and speed.

7. Other Divisions- Attending to complaints of workers, solving their problems, studying the issues related to their dismissal, etc., fall under this section.

Human View-point in Industrial Psychology : The objective of the government, mill-owners and managers is to increase production and enhance individual capital all the time. They treat workers as machines, not as human beings. Workers too have their needs, their individual personalities and they also wish to lead a good life. But industrialists do not honour their ambitions, they look down upon them and their livelihood and rights are neglected. This is inhuman viewpoint. The industrialist behaving with workers like this is considered the greatest criminal of the country. Workers get dissatisfied with this kind of treatment with them at the hands of the industrialist and production suffers due to this. Therefore, it is essential that human viewpoint is given special importance in industries.

Utility of Industrial Psychology : In the beginning of 20th century the relationships of industrialists and the workers were not good. Apart from that too there were many reasons that were hinderances in the industrial system. But with the use of psychology the situation changed and the results proved to be good. Many reforms were carried out in industries. Earlier industrialists would not consider the needs and wishes of workers but presently it is not so. Many facilities and amenities have been provided to workers to make their lives worth living. May be these are still less but better than before.

There was a time when employees were assigned any jobs, whether it suited his abilities or not. Presently, employees are assigned work through professional selection. Employees are selected through personnel guidance methods. Similarly, through work analysis the employee is assigned the work suited to his abilities. Initially, no attention was paid towards fatigue and monotony conditions of the worker. But today efforts are made to bring a change in this condition through various experiments. Previously, accidents were considered to be divine rage, but now they are considered to occur because of faults in the system. Everyday efforts are being made to solve all the problems in the industrial field. New methods are discovered and tried upon. Unlike in the past employees are not selected today without proper qualifications and experience. For every job experience and training for a certain period are essential. Various trainings have become essential to know the qualifications, abilities and traits of the employee. That is, what is the standard of these qualities in the employee, is known.

Finally, it may be stated that industrial psychology solves problems concerned with trade, industry, worker and

industrialist. Today human relations are given special attention in the industrial world. Civilized and progressive countries have accepted the view that in the welfare of the worker lies the welfare of the owner. Wherever there is socialist system, there such problems have been overcome through nationalization. The credit and importance of such results go to industrial psychology. From industrial point of view the changes that took place in the 20th century are mechanical changes, biological changes and psychological changes. Today there are efforts being made to uplift the economic condition of the worker. Job security, pension, good salary, dividend and insurance, etc., are various facilities being arranged. Industrialists are compelled to treat workers in humane manner through legal ways and from humanistic viewpoint. All this has become possible through industrial psychology. This has changed the social status of the worker positively. He is credited to be an important unit of the nation, which has increased production manifold.

The need to study industrial psychology : Whatever subjects the student may pursue for study, whatever specialization he may achieve in a particular field, he seeks employment in a branch of any industry after all. The time he enters in the field of his work, he enters an environment full of human problems. In this new job, both the company and the individual, arrival and training together prepare a related human problem. Before entering into the field of industry it is essential to know which field the student is making entry into. Here comes the need to study industrial psychology. To know the psychological environment of the work system it is essential to study the scientific and diagnostic methods of the people working in that environment. The second reason to study human behaviour in industry is that most of the leaders in today's industry come from college graduates order. There is a demand for leadership in trade but without good knowledge in trade organisation the person cannot get a high position. The human aspect of management and supervision is a subject of psychology. This functions as part of study of man. For the students of technology and engineering too it is essential to study psychology. Studies show that many of these students do not get full training and therefore they change their fields of work too. Still they like to remain connected to the humanistic aspect in the industry.

Finally, it may be stated that is immaterial whether anyone works in an industry directly or not, as a consumer and a citizen every aspect of his life is affected by industrial changes. The effect of struggles between workers and the owner too is felt by a particular person. Technical progress and production of goods also affect the individual since the physical aspect of the individual is connected to them. All the aspects of industrial life affect human behaviour. Therefore, the individual must be aware of the importance of industrial psychology.

Exercise

1. Giving an introduction of industrial psychology highlight its subject matter.

2. What are the problems of industrial psychology?

3. Discuss the fields of industrial psychology.

4. What is the need to study industrial psychology?

Reference: Industrial Psychology- Dr. R.K. Ojha.

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LESSON 14 :
PERSONNEL COUNSELLING AND GUIDANCE

In the field of industries the behaviour of employees play an important role in industrial progress. The behaviour of employees may differ in different situtions. The environment in the industry, working conditions and employees's personal problem also affect the employee. In such circumstances the behaviour of the worker may undergo a change and that may affect industrial production and many other areas of industry. Therefore, to maintain adjustment between the worker and various factors related to industrial production the employees are provided counselling time to time. In employees' counselling information related to persons and industry are used in an appropriate manner.

Definitions of Counselling

In the opinion of Carl Rogers, " Counselling is a series of making direct relations with the person the purpose of which is to help the person bring a change in his attitudes and behaviour."

According to Wrenn, "counselling process is a strong relationship between two persons where one of them is an experienced and tactful person who offers counsel and the other one who seeks counsel is less experienced and less intelligent comparatively."

In the opinion of Willey and Andrew, "Counselling is a process of mutual learning. This involves two people-seeker of counselling and the counsellor. The counsellor is a trained individual and he helps the counsel seeker achieve his objective."

The definitions above bring forth the following facts-

1.   Counselling is a process between two persons.
2.   The objective of counselling process is to help the other person so that the counsel seeker could solve the problem himself.
3.   Counselling can be performed only by a trained person.

Therefore, it may be stated that in the personnel counselling process the people engaged in trade and industry are offered advice through which they get correct knowledge about their work. Through this they get to know what is wrong what is right. How to make progress, how to lead a happy life, how to find solutions to problems, etc., foresight to them is given through counselling.

Problems and counselling- Workers engaged in industries have their own problems. Whether big or small, if these problems are solved the worker too achieves success in his field. Counselling is such a process that solves this kind of problems. The problems of employees also depend on their colleagues, their relations with them and other conditions. For example,

1. Mutual relations between employees   2. Relations of workers with their officers
3. Relation with their work   4. Relation with the union
5. Working conditions   6. Salary, promotion, etc.

Problems arise there where relations are sour. If the employee's problems arise due to sour relations he loses his mental balance which directly affects production. So, the worker's problems can be tackled through counselling too. The mutual exchange of ideas between the worker and the counsellor help reduce problems.

Process of Counselling- Cottle has described five elements for counselling. In his opinion counselling services cannot be carried out without these elements.

Those five elements are-

1. Behavioural Adjustment- Counselling process is impossible without behavioural adjustment. There must

be behavioural adjustment between the counsel seeker and the counsellor. Both should have mutual feeling of respect, regard and sympathy. This will enable the seeker put forward his problems properly. And, at the same time, the counsellor too will solve the problems in a proper way.

2. Communication- Communication is essential to carry out counselling successfully. Communication occurs between two persons. In the first step communication is established through conversation. The suitable method of conversation is interview. But communication is not limited to only interview. It is required that the counsel seeker and the counsellor understand each other's viewpoint clearly. If mutual conversation is proper the solution will also be proper. Unclear communication is a hinderance in counselling process. So, clear and correct words must be used.

3. Counsellor must be trained- Counselling is successful only if the counsellor is trained and experienced. So, he must be tactful. He must have a nice personality that impresses other people. Looking at his qualities the counsel seeker worker puts his mind forward unhesitatingly and gets a right solution.

4. The worker should not hide facts- At the time of counselling whatever ideas come to the mind of the worker he must not hide them. He should convey them to the counsellor. This helps the seeker get right solution to his doubts. The counsellor also gets to know all the problems and he guides the worker properly.

5. Interview must be structured- Before the interview the employee must decide what is he going to say and ask. This will ascertain that nothing is left out and this saves time too.

Thus, there lie important processes in counselling process. On the basis of them only one can fulfill the objectives of counselling service. If these processes are not there the results of counselling service may prove to be meaningless. Counselling process yields the following results-

1. Counselling process involves two persons- counsellor and the counsel seeker
2. The nature of counselling depends on the need of the worker
3. The main objective of counselling is offering right counsel to the worker, solving problem and enabling him to solve his problems himself.

Steps of Counselling- Counselling process involves exchange of ideas between the counsel seeker and the counsellor- it is an exchange of action-reaction. The objective of counselling is to properly solve the problems of the worker so that he feels satisfied and happy. The worker must get full opportunity to describe his problem independently. Exchange of ideas develops insight in the worker. He becomes alert towards his future under the influence of counselling. He starts having faith in labour to make plans and implement them. In brief, following are the steps in counselling process-

1. There are actions-reactions between the counsellor and counsel seeker in the counselling process. The counsellor helps the seeker.
2. The worker puts forward his ideas and feelings to the counsellor independently in counselling process.
3. After the counselling process the worker becomes alert to his future. He starts making plans for his success.
4. Counselling process helps the worker develop insight.
5. After the counselling process is complete the counsel seeker and the counsellor break the ties.

Role of the Counsellor- Counsellor has a big responsibility to handle in the counselling process. Offering right counsel of work to the right employee is considered necessary for the success of the industry. Therefore, the working style of the counsellor must be well planned and effective. This makes counselling process easy and the worker also gets benefitted. Following are the functions of a counsellor-

1. Compiling information- The counsellor must collect and compile information gathered from the employee. This will avoid difficulties in counselling process and the employee may be given right counselling.

2. Gathering information regarding employee's personality- On the basis of information gathered the counsellor deduces results regarding employee's level of intelligence and adjustment, etc. The information received

help the counsellors know the correct personality of his client as he gets to know the interests, likes and dislikes, etc. of the employee.

3. To know the reasons behind the problem and diagnose it- The counsellor finds out the reasons behind employee's problems and tries to sort them out.

4. Making future plans for the employee- The counsellor helps the employee make future plans for himself. He can inform him of his possible success and failures in advance. He can guide the employee through inference to give him right direction.

5. Telling the client of Adjustment- The counsellor tells the employee of possible adjustment so that he adjusts himself appropriately in the industry. Adjustment helps the employee remove hurdles at work.

6. Telling him the sources of income- The counsellor tells the client of possible sources of economic assistance so that the employee takes advantage of them to give a new direction to his life. He may even start a new industry.

7. Telling him of health- If the counsellor informs his client of health and related issues he becomes alert to his health and he gets to know how he can keep himself mentally and physically fit. At the same time he is informed from where he can avail the health services so that the employee can get right treatment in need.

8. Telling him of the particular field- The counsellor must know properly his field at the time of counselling. If he crosses the limits of his field he cannot find right solution for the problem.

9. Not imposing his ideas- The counsellor should not unnecessarily impose his own views on any of the employees. This may confuse the employee. He must have a thorough knowledge whether he is rightly solving the employee's problem or not.

10. Telling of new ways to the employee- The counsellor must be aware that the employee is given information on ever new ways. The employee should not feel that he is denied full information on professions, otherwise he will get frustrated with his future. If the counsellor guides him appropriately he will get out of frustration.

11. Leaving the final decision in the hands of the employee- When the counsellor puts forward all the solutions and suggestions in front of the employee he must make it clear that the final decision rests with him. This will avoid an extra burden condition on the employees and he can take the decision he wishes to.

12. Working towards counselling- The counsellor must conduct interviews for counselling, should establish social relations and gather infirmation related to professions so that counselling process is effectively conducted.

Thus, if the counsellor keeps all these things in mind in counselling process his clients are benefitted and it will help industries too. So, a counsellor has a very important role in counselling process.

Qualities of a Counsellor- A counsellor has to work according to counselling process. The counsellor guides the counsel seeker according to his profession, need, industrial conditions, social environment, etc. Therefore, the qualities of a counsellor may be categorised as follows- 1. Personal abilities of the counsellor, 2. Experience of the counsellor, 3. Training .

1. Personal abilities of the counsellor- Scholars present differing views on the qualities of a counsellor. Andrew and Willey describe the following traits-

(i) Gumptious- A counsellor should be tactful in his conduct. He should have interest in counselling services and he must be alert towards employee's problems. He must give topmost priority to their needs and he must possess the ability to suggest ways through common sense.

(ii) Self-dependent- A counsellor must possess the trait of self-dependence and his decision making power must be more than what common people have. He must possess leadership qualities, to lead any situation further.

(iii) Impressive personality- The personality of the counsellor leaves its impact on his clients. The traits in his personality compel the employees to accept his suggestions. Personality imparts knowledge of other qualities too. His personality tells about his integrated character. Therefore, a counsellor must strive for making his personality influential.

(iv) Friendly behaviour- A counsellor must be friendly. Treating every one equally is his moral duty. He should

not compromise with any weak point. He must believe only in facts and should not indulge in unnecessary talks.

(v) Self-Confidence- Success in life lies in self-confidence. At the time of counselling the objective of the counsellor should be to awaken self-confidence in the employee. To that it is essential that the counsellor himself is full of self-confidence, only then he can awaken confidence in others.

2. Experience- Suggestions, counsel, guidance, advice, service, etc., all require experience. If the counsellor is enough experienced he can easily solve important problems. What must be done in every situation to face and what must be avoided to do, etc., cannot be decided without experience. Therefore, the counsellor must be experienced in detailed knowledge of the fundamental basis and elements of counselling services.

3. Training-Modern principles of industrialization have proved that a novice is not fit for any work anywhere. Before assigning any task to him he must be told about the nature of work and then he must gain experience. Only then he must be appointed. The full knowledge of work is called training. More than employee the counsellor needs training. A trained counsellor can achieve good success in counselling process. Only through training a counsellor understands human behaviour. Training develops knowledge related to learning, adjustment and solution to problems in odd situations. Training imparts knowledge of direction methods. A counsellor possesses knowledge of various psychological tests and the use of various instruments on the testee correctly. He possesses the knowledge of compiling the results obtained through tests.

Techniques of Counselling- Counselling may follow various techniques. Which technique, when and whom should it be used upon depends on the employee and the work. Sometimes a particular technique is used and sometimes many techniques are followed. This depends on the type of work of the employee. Rarely are all the techniques used. Even if it is done it proves to be meaningless. A few important counselling techniques are as follows-

1. Listen to the worker silently- The counsellor in this technique listens to the worker silently. He remains silent and serious while the employee talks. This generates the feeling in the worker that the counsellor is listening to his problems attentively, is taking interest and wishes to solve his problems. Listening to the worker silently and seriously satisfies the worker.

2. Acceptance- When the worker relates his problems to the counsellor, the counsellor puts forward some expressions or ideas now and then that assure the worker that his problems are attended to properly. If listening to the worker the counsellor puts in 'yes', 'o.k.' etc. expressions the worker feels the counsellor gives importance to his problems. Counsellor's facial expressions or his appearance must also be assuring to the worker.

3. Restatement- In restatement the counsellor repeats what the worker has said. For this the worker feels his discussion to be knowledgeable and worth solution. The counsellor must make sure that he does not amend the statement and no clarification is done.

4. Approval- It is not necessary for the counsellor that he approves all the ideas of the worker. It is also not required that the worker is told his particular idea is useless. The ideas that are approved must be told to the worker. This impresses the worker, and he takes interest in discussion. The counsellor should take care that there is no approval while exchange of idea is on. There is a danger of approval turning ineffectual due to this.

5. Clarification- The duty of the counsellor is to tell the worker he is paying proper attention to his problems and comprehending them; that he feels the problems of the worker are worth giving a thought. At the same time the counsellor should also go on clarifying his stand, but the worker should feel nothing is being imposed upon him. The counsellor may describe his clarification in brief.

6. General lead- Through this technique the counsellor encourages the worker for discussion. The counsellor, after the worker has expressed his views, may ask about his plans. This will encourage the worker to put forth more ideas and this may open a detailed field of the problems of the worker.

7. Analysis and interpretation- In this technique the counsellor analyses and interprets all the ideas and statements of the worker. This interpretation is done on the basis of results. The worker finds himself unable to do this. The counsellor interprets the results through psychological testing and informs the worker.

8. Assurance- In this technique the worker is assured that the results of the problems put forth by the worker have been understood by the counsellor. So, he is assured that the solutions of his problems and important plans shall be put before him which shall be helpful to him. The counsellor also assures him that he will help solve his problems the soonest possible.

Types of counselling- counselling process is of three types, which may be called viewpoints of counselling too. They are-

1. Directive Counselling- This viewpoint is given by Willey and Andrew. In this category the counsellor is considered more important than the counsel seeker. This is the duty of the counsellor that he solves all the problems of the employee. Finding out the problems, know the reasons behind problems and offering solutions to the problems is the duty of the counsellor. Finally, he offers the worker practical directions. This theory is based on the fact that the counsellor is an expert and able individual having knowledge of all the important aspects of professional and educational fields. He can prove to be a good guide and he can solve all the complicated problems easily. Contrary to this, the worker is unable to solve his problems as he lacks expertise and skill. The main characteristics of directive counselling are-

1. In the counselling process the full attention of the counsellor is to be concentrated on the solution of the problem.
2. In this process the counsellor is fully active while the worker remains inactive.
3. The counsellor describes the information related to work, analyses the results while the worker has to take only decision.

2. Non-directive Counselling- This viewpoint is propounded by Carl Rogers. In this method the counsel seeker remains active. The counsellor talks the least possible. He honours the talk and feelings of the worker. The worker himself makes most of the plans. He himself takes the decision and guides the counsellor. Although he accepts counsellor's suggestions. The counsellor neither takes any decisions nor makes any plans. His duty is to develop insight in the worker. Some special features of this method are-

1. The individual himself comes to the counsellor for problem solution.
2. Through free association method the counsellor honours the feelings of the worker and tries to under stand them.
3. The counsellor tells the worker he can guide him.
4. In this method the worker does not feel the need of much help.

Different aspects of problems- Because problems of people are innumerable it is not an easy task to find solutions to them. Because life is multifaceted, problems too are many. Some of the prevalent problems of workers are-

1. Maintaining good relations with colleagues.
2. To maintain friendly relations with family, society, colleagues and the likes, following others.
3. Always be ready to get out of inferiority complex.
4. Not being disturbed by conjugal life problems.
5. Thoughtful musing over problems related to offsprings and finding right solution to them.
6. Selection of right profession
7. Keeping distance from anti-social elements
8. Musing over philosophy of life
9. Belief in carrying out responsibility
10. Developing the tendency to be self-satisfied.
11. Making proper use of time
12. Belief in qualities like honour, respect, politeness, sympathy, etc.

Thus, counselling process has its special place in the industrial world through which all the problems, confusions and complications of the worker are known by the counsellor. What are the reasons behind those problems; how to find solution to them-telling the ways to the worker and guiding him is the important method of counselling process.

Guidance- Along with scientific development industrial development is also going on fast in the present era. Where, on the one hand problems in the industry are being solved, the problems of man are increasing rapidly on the other hand. Because of this man cannot know his goal. He fails to see the path of his life to lead a happy life. Facing difficulties and problems in the rat race he even loses his decision making power, while all the joys and woes of his future life depend on his decisions. Therefore, to solve the problems, overcoming difficult situations and making the future life happy people often feel the need to take help from others. This kind of help which guides the person to the right path of life and provides him direction is called guidance. Through this technique the condition of maladjustment can also be controlled.

Necessity of Guidance- Because of population explosion, social system and utter economic imbalance even the smallest problems of people have become so complicated that they find themselves unable to solve them. With progress in science man's ambitions also have touched high. Due to that his social, familial, and economic life has gone astray; only complexity is left in life. All the intellectuals feel this progress and condition. For the solutions of such problems psychologists consider guidance as an important tool. The following may be taken as the major reasons for the necessity of guidance-

1. Scientific development of industry- Alongwith the progress of science trade and industry have also developed along scientific lines. All the major works are done by machines. So, manpower is consumed less and lesser. Because of this machinisation it has become incumbent upon the worker that he possesses full knowledge of his trade and that he is trained. Proper guidance is needed for the selection of a suitable person to operate machines.

2. Capitalist system- Despite progress in the country capital has gone into the hands of a few families and poverty is on the rise. Capitalists don't work at all while the worker works all his life. Every profession and job is dominated by this capitalist system. Many intelligent people fail to get proper jobs because they cannot adjust to such an arrangement. Industrial system is totally disorganised today. To get rid of all this guidance is necessary.

3. Unwanted education- Educational institutions have turned into factories. Today education is aimless. Education of students doesn't suit industries. Unsuitable persons are appointed for work. To overcome the problems of education guidance is required.

4. Harmonious development of personality- In our society the personality of some people does not develop as required. There are some people who develop a healthy personality but because of maladjustment and contrary circumstances they go astray. One of its main reasons is professional maladjustment too. To avoid ill development of personality and for complete development of personality educational guidance is needed. In other words, for all round development of personality and balanced development everyone should seek guidance from early stages. The welfare of family, neighbourhood, school, society and the country lies in it.

5. Lack of personal contact- Due to indirect social relations in industry there remains a condition of competetion and stress there. Because of that the worker fails to chose a right path for himself. Many people get frustrated with this and they spend an unsuccessful life. To keep the youth away from such a disease guidance is a must.

6. Multiplicity of professions- Due to multiplicity of professions training and specialization problem has also become complicated. After studies the first problem a youth faces is which profession to chose and how to get trained in that. In such complicated situations personal and professional guidance is required.

7. Personal Problems- Through guidance the individual may be helped find a profession suitable to his qualifications.

8. Not selected for the desired job- Everyone desires prosperity and happiness in life, irrespective of whether he possesses desired abilities or not. For the need of the country and for development those jobs are also to be done that are considered inferior in the society. To keep a check on this maladjustment condition guidance is needed. One should know a determined path to chose.

Kinds of Guidance-Scholars have differing opinions on the types of guidance. They have classified guidance on the basis of needs-

Proctor describes six types of guidance-

1. Educational guidance.
2. Vocational guidance
3. Guidance in social and civic activities
4. Guidance in health and physical activities.
5. Guidance in the proper use of leisure time
6. Guidance in character-building activities

Jones (1930) describes six types of guidance-

1. Vocational guidance
2. Course, curriculum and school guidance
3. Civic and moral guidance
4. Leisure time, vocational or cultural guidance
5. School guidance
6. Leadership guidance

Kous and Keauver, Patterson, Shnidler and Williamson have also described more or less the same types of guidance. Mainly, guidance is of three types-

1. Personal guidance   2. Educational guidance   3. Professional guidance

1. Personal guidance- In this era of progress man fails to maintain his mental balance. Due to this his family life also goes to be unhappy. Anxiety, worry, stress, excitement and depression, etc., problems crop up. Slowly the condition of abnormality takes over. Due to abnormality maladjustment arises. For the solution of all these personal problems there arises a need of help which is called personal guidance.

Before guidance the maladjusted individual is tested, through personal test, for his intelligence level, mental abilities and capacities, specific features of personality, etc. He is interviewed many times. His family, social, economic and cultural background, incidents related to college and profession, etc., are gathered. After this diagnosis the methods of his treatment are found out. For treatment, methods like, suggestions, sublimation, reeducation, group-therapy, psycho-analysis, play-therapy and vocational therapy, etc. are used.

2. Educational guidance- This guidance is a kind of personal assistance through which the student selects suitably a good school and course according to his abilities. Through this assistance he adjusts himself with the educational environment. This guidance helps the student know his future prospects. He also gets to know the type of education needed for various professions. As a result he chooses the subjects of his interest so that his professional life is happy. Thus, for intellectual development educational guidance is required. Every process of learning is a form of guidance. Brewer approves this view through following definition-

" Educational guidance may be defined as a conscious effort to assist in the intellectual growth of an individual......Anything that has to do with instruction or with learning may come under the term educational guidance."

Myers considers educational guidance a kind of process which is related to the development of the distinctive characteristics and integrated personality of the student. He defines educational guidance thus-

"Educational guidance is a process concerned with bringing about between an individual pupil with his distinctive characteristics on the one hand, differing group of opportunities and requirements on the other, a favourable setting for the individual's development or education."

Aims of Educational Guidance-In 1918 in the United States of America National Educational Association constituted a commission where it was suggested that the objective of education must be to assist students fulfill the needs of life. Therefore, various needs of man concerned with health, basic expertise, recreational activities and ethical character must be included in education. The objective of guidance is to adjust student in all the above functions according to their abilities. The main objectives of educational guidance are as follows-

1. Choosing appropriate course of study according to the interest, mental ability and future needs of students.
2. Improving the habit of working while learning so that satisfactory success is achieved.
3. Students should know and have experience in other areas too apart from their interest areas.
4. Students should understand the goals and functions of school/college with regard to the fulfillment of their needs.

5. Students must feel that his school/college makes various plans according to their needs.
6. Students getting advanced education understand the objectives and functions of the field of advanced education.
7. Students are given the opportunity to develop insight in learning through 'Try out or Explorative' method for his future study.
8. Students are provided opportunity to participate in extra-curricular activities so that they develop leadership qualities.
9. Students are made aware of continuing education and of special professions and their appropriateness.
10. Developing the tendency of interest in studies in the student.
11. Fully adjusting the student in the education system of the school.

3. Vocational guidance- National Vocational Guidance Association presented the definition of vocational guidance first of all. After many revisions in 1937 the following definition of vocational guidance was given-

"Vocational guidance is a process of assisting the individual to choose an occupation and prepare for it, enter in it and progressing in it. It is concerned primarily with helping individual made decisions and choices involved in planning a future and building a career -decisions and choices necessary in effecting satisfactory vocational adjustment."

On the basis of the definition above it may be stated that guidance is a non-stop process through which the individual tries to choose his profession, training for it and progress in that profession. The fundamental aim is to help out a particular person so that he could chalk out a determined line for his future life, decide suitable profession for himself and make out necessary extracts affecting the satisfactory professional adjustment. In this regard Myers opines that- "It includes helping the individual to work out for himself an adaptable vocational plan and to proceed in accordance with that plan. It includes aiding the individual to acquire a method or procedure in leading with his vocational problems that will enable him to make changes in his vocational plan at any time in his life when changes become necessary or desirable."

Through vocational guidance the individual finds out his own way. He starts finding his own solutions and cares for his responsibilities. Through vocational guidance he makes his family, social and professional life happy and avoids professional maladjustment.

Meaning and Definitions of Vocational Guidance-

"National vocational guidance is the giving of information, experience and advice in regard to choosing an occupation, preparing for it, entering in it and progressing in it."

Vocational guidance is a means to help seeking a suitable profession which helps in preparing plans regarding a profession according to abilities and qualities. Through this the individual can solve his professional problems and in case of need makes plans for another profession and implements them.

Myers describes problems related to vocational guidance like this- "The problem of vocational guidance is that of assisting an individual who possesses certain assets, liabilities and possibilities to select from these many occupations one that is suited to himself and then to aid him in preparing for it, entering upon and progressing in it."

Vocational guidance is such a medium that helps every youth make a bright future for himself according to his abilities. Adjustment, satisfaction and happiness are based on it. The fundamental aim of vocational guidance is to direct a person on a specific path through which he can determine his vocational life-goal. According to his abilities, interests, mental and physical capabilities he gets an occupation and solves his personal problems too so that his economic and social life becomes fully pleasant and along with his professional progress society also makes progress.

In 1924 International Labour Organisation presented this definition- "vocational guidance is an assistance given to an individual in solving problem related to occupational choice and progress with due regard for the individual's characteristics and their relation to occupational opportunity."

Aims of Vocational Guidance - The main aim of vocational guidance is suitable occupation for suitable person and selecting a suitable person for a suitable occupation. The specific aims of vocational guidance are as follows-

1. Making students aware of functions, duties, responsibilities and pay at various professions.
2. Helping out students evaluating mental faculties, abilities and interests and teaching them their social value.
3. Teaching the individual the importance of work so that he could make progress in his profession.
4. Giving opportunities to students to carry out research in school education and telling them of various occupations to impart them knowledge of work.
5. Developing in them the tendency to judge the good or bad nature of occupations.
6. Developing in students physical, mental and economic abilities so that, by adjusting themselves in the society they achieve personal and social welfare.
7. Creating faith and reverence towards the teachers and guide so that they could freely discuss occupation choices.
8. Making students aware of the facilities provided by professional colleges.
9. Adjusting students with their classmates during their study period.
10. Making them active in community.
11. Long-term training.
12. Not having doubts over others and not criticising others.
13. Working with readiness and skill.

Methods of Vocational Guidance- These methods are used to properly guide people. For the suitable choice of occupation the following methods should be followed- 1. Orientation talks 2. Psychological tests 3. Knowledge from college/school 4. Information from family 5. Interview

1. Orientation talks- First of all the individual is informed of professions. He is encouraged. Films, tours, inspection, career pamphlets, expert lecture series, etc., are made use of as means for proper vocational guidance. After introducing all these the individual is encouraged towards that occupation which he is going to take up for livelihood. Before entering into that field he very well knows his abilities and interests.

2. Psychological testing- The individual has to go through various tests. Intelligence test, interest test, personality test and aptitude test, etc., are used. The individual is informed of profession suited to him after all these tests.

3. Information from school- Psychological tests give correct results if information is gathered on individual's educational record. This reveals his interests in situations and subjects of his schooling.

4. Information from family- Information regarding family occupation must be gathered from individual's family. This helps guidance greatly and the individual may be offered suitable advice.

5. Interview- After all these information and encouragement the individual must be prepared for interview. In interview all the methods, rules and principles must be made use of and only the suitable person tested through interview must be selected.

Scientific steps in vocational guidance- The physical and mental state of the person offering vocational guidance is to be known. There are many steps used to gather information. These are the scientific steps of guidance concerned with personal information. For such type of information two types of lists are prepared. The first list refers to need, abilities, aptitude and interests while the second list is based on the facts regarding the individual's adjustment. A few scientific steps are-

1. Physical information- Under this the capabilities of various body parts, like, eyes, ears, nose, lungs, heart, etc. are checked. Similarly, blood pressure, temperature and other systems' functioning is recorded. For such information doctors and clinical experts provide help.

2. Personal information-In this information like, personal, familial, social, economic, religious, educational and cultural facts are gathered. The order is as follows- name of the person, age, sex, definitive order, age of parents, economic status, social/religious status, hereditary disease, mental and physical health, etc.

3. Information related to psychological tests- These tests measure the mental status of the individual. The tests are comprised of two parts-intelligence test and personal test. Intelligence tests measure various capabilities while personal test measures interests, values, tendencies and adjustment, etc. They are described separately as-

(i) Intelligence tests- Intelligence is a common ability but it is put to use in complicated situations. Guidance is offered to an individual on the basis of intelligence as psychologists found that various jobs are concerned with intelligence. About the importance of intelligence tests May Smith writes-

"Experience has shown that if no other information is available then the intelligence test is for practical purposes the most useful measure of a person one can have."

Without intelligence test one cannot think of vocational guidance. Today, along with intelligence test Differential Aptitude Battery is also used.

(ii) Test of mechanical ability and other aptitudes- Aptitude is that condition which refers to future abilities of the individual. Aptitude means the ability to do a particular work successfully. Psychologists have constructed tests to measure various skills like, mechanical skill, clerical skill, musical ability and drawing skill, etc.

(iii) Speed and accuracy- Some professions require speed while some other require accuracy. Apart from that some others require both speed and accuracy. Speed is measured by R.T. Apparatus and accuracy is measured by Hand Dexterity Test.

(iv) Other mental qualities- To test other mental activities different tests are used. The mental abilities measured are-memory and concentration. Some of the occupations require quick memory, instant memory and permanent memory. In some other occupations concentration is an important process to perform the job. In some others one has to concentrate on many tasks at the same time.

(v) Interest inventory- There are many tests constructed to measure interest.

(vi) Measurement of personality adjustment- Personality adjustment tests are used to remove maladjustment problems.

(vii) Attitude and values test-Attitude is an expression of person's likes and dislikes and values are his expression of faith. Sponger enumerates six types of values- religious, social, political, economic, theoretical and aesthetic values. Allport Bernan constructed a value test inventory. Seeing its success and utility other scholars constructed similar types of tests in their mother tongues.

Limitations of vocational guidance- Today measurement related abilities are preferred for vocational guidance. Whatever inabilities are found at present they are measured. Measurement of the present stage of the individual is not an easy task since guidance has its own difficulties. There are major four aspects of the limitations of guidance as follows-

1. Some of the abilities are hereditary but they do not surface out due to lack of suitable environment, so, they are not measured correctly. This affects guidance too.
2. Guidance services cannot be operated in hard economic conditions. Their running needs able and trained persons and measurement requires various tests. All this needs money. Economically backward countries do not have such services and facilities.
3. Vocational guidance means able people must be employed suitably. Due to population explosion and multiplicity of occupations one cannot get proper guidance in all these professions.
4. Alongwith multiplication of occupations their specifications and requirements are not determined. Unless that are determined and psychological tests are constructed there, measurement is not possible. Once they are determined guidance may be offered.

Exercise

1. Defining personnel counselling. Explain the qualities of a counsellor.
2. What are the methods of counselling?
3. Why do we need guidance?
4. Briefly explain the methods of vocational guidance.

LESSON 15 :
PERSONNEL SELECTION PROCESS

Industrial field has made astonishing progress after independence. The growth of education is praiseworthy. But, in spite of all this, social balance, social system and social peace are deteriorating and exploitation is on the rise. gherao, lockouts, picketing, etc, problems have cropped up. The solution to this problem from the viewpoint of industrial psychology is-suitable person appointed for suitable job. This is known as vocational selection in industrial contexts. Professional selection cannot be successful without knowing the requirements of the job in detail and this cannot succeed without work analysis. The second problem is that of worker analysis. In this there is a need to determine various dimensions for vocational adaptation. All the jobs have differing requirements still these dimensions may be categorised in the following four major classes-

1. Competence : Intelligence, i.e., general and special abilities

2. Proficiency : Achievements in various fields

3. Aptitude and interest : Learnings and interests in specific fields

4. Temperament and character traits : incomplete project specialities.

With reference to the above mentioned character traits regarding worker analysis to get information about vocational adaptation of the individual three major sources and methods may be mentioned. These are put to use time to time in industry. They are-1. Application Blank, 2. Interview, 3. Psychological tests.

1. Application Blank- To work in the industry the applicant first of all fills in an application from. This describes his educational qualifications, training and experience of work, etc. In a detailed application form applicant's interests, hobbies and expertise, etc., are also described. Generally application forms are attested. This serves two purposes-

1. Getting information in future

2. Getting full knowledge through application forms.

Merits of application form-If application forms are used with full alertness and thinking this can prove to be an invaluable instrument for vocational selection. Application forms are used in many forms. For selection of candidates for orthography and handwriting they serve as good demonstrators. Application blanks save the applicant from monotony since waiting for the interview the applicant can fill in the form if not sent in advance. When the application blank is filled in expert observers can gather invaluable information by closely observing the behaviour and feelings of the applicant. Researches have also revealed that for the success of the job some of the details given in application from have a very high predictive value. This helps sort out the weak applicants in the very beginning.

Limitations of application form- Based on above mentioned qualities following are the limitations of application blanks-

1. Putting exaggerated claims

2. Biased items

3. Photographs leading to wrong notions

1. Putting exaggerated claims- Filling in the application forms the applicants may make exaggerated claims about their abilities, experiences and achievements. This does not apply every where. Applications of this type may be used in the form of interview, psychological and situational tests, etc.

2. Biasd items- One of the defects of application forms is that sometimes details supplied in them encourage biased views. Blunders may occur due to such details being used for recruitment purpose.

3. Photographs leading to wrong notions- Photograph may generate wrong notions in the mind of the interviewer about the looks and dressing sense of the applicant. Due to this too application blanks lose credit as methods of personnel selection.

2. Interview- Interviews have been in vogue for personnel selection in the industry. This has been the oldest and universally accepted method of selection. Today interview is used as an essential means in every field. This is a live social way to judge the candidate and his fitness. It has two aspects/sides. The conversation between these two sides form the basis for the final decision.

Bingham and Moore (1924) consider interview to be a purposeful talk. They consider interview such a picture through which the interviewee may be declared fit or unfit. At present there have come up many changes regarding differences in the purpose of interview. On the basis of differences interview may be selection, attitude, advice or evaluation sometimes. Vitales thinks that interview is a direct talk between the applicant and the employment officials.

Today interview is not only a means of gathering information but also of measurement. As a means of knowing vocational fitness there appear many objectives of interview-getting opportunity of direct contact, becoming a source of hypotheses, collecting qualitative facts, studying the oral expressions of the person, etc. The good thing about interview process is that the interviewee cannot easily produce fake responses. If the interview conditions are well organised they can act as big motivator. This is the only source of getting information. During the interview the applicant constantly tries to get the hint the effect of talk on him has and what the interviewer thinks of him. This hint gives him reinforcement. All his next behavioural steps are guided by this reinforcement. Thus, there is circular behaviour in interview conditions. Experimental support to this fact comes from the studies of Verplank and Greenhspoon, (1955). Kahn and Cannel (1957) give much importance to the motivational aspect of interview. They consider the following conditions essential for the success of interview- accessibility, congnition and motivation.

If during interview these conditions are fulfilled at various levels like, question formation, actual conduction, candidate's mental level, his readiness and desire to participate, etc., the measurement and decision given on the basis of this would also be matchless. A successful interviewer is not only soft spoken but also a patient listener. All the pieces of information pass through the interviewee. Therefore, it is the duty of the interviewer that he collects useful information, weighs the information hints, adjusts them correctly and arrives at the decision regarding the selection of the applicant. Interview is made up of only conversation. Therefore, its success also depends upon the conversation skills of both the sides. If because of some unexpected incident sometimes the established agreement during the interview goes berserk, there must be efforts to find the balance once again in such situations. Interviews are put to therapeutic use too in the industry. Everywhere structured interviews are used. At present there have occurred innumerable changes in the theory and practice of interview. Symonds (1939) gives importance to four factors for the success of interview-

1. Factors implied in the applicant
2. Factors implied in the interviewer
3. Factors related to the situation of interview
4. Factors related to interview proforma and subject matter

The final success of the method depends on the fact that personnel's protectionary, honour of other's confidentiality and the right use of received information are followed. That way interview method can prove to be an invaluable asset to study industrial problems.

But this method also cannot be fully relied upon because of certain defects in it. Observation shows that there are innumerable differences in the evaluation of candidates by different interviewers. Interview is the most subjective of methods. Since there is no constancy in evaluations, this method can not be taken to be reliable. The method that is not reliable cannot claim to be true too. Scott, Hollingworth (1922), Wagner (1949) et al., conducted studies on this. All of them did not show full faith in this method. Some of the defects in the interview methods are-

1. Conditioned reactions- Most of the interviewers unknowingly get influenced by conditioned reactions to useless things, for instance, the accent and pronunciation of the candidate, etc. Everyone expresses his likes or dislikes in conditioned responses but one does not know how one likes or dislikes a particular behaviour.

2. Belief in the generalisation of habits- The general belief is that the habit shown by the candidate during the interview will be shown everywhere. But it does not have any solid psychological basis. Therefore, as a result of belief in the generalised habits it is difficult to reach a conclusion. The interviewer must try to get free from such habits otherwise his decisions may be faulty and that may affect the whole selection process negatively.

3. Unconscious bias of the interviewer- The interviewer tries as far as possible to be free from any bias. But despite all possible honesty he may fall to such unconscious tendency that affects his behaviour and visualization of things, persons and events in a specific manner. Therefore, an interviewer cannot be fully free from all kinds of biases.

4. General nervousness in interview- Applicants are found generally nervous during interview. It is also possible that some candidate does not correctly present his/her abilities and ideas in front of the board due to nervousness. On the contrary, a weak candidate may impress the board through his experience at repeated interviews. The success of interview does not thoroughly depend on the abilities and achievements of the candidate but also upon the cleverness and expertise to face such situations too. An able person fails because of not knowing the art of facing interview. Thus, interview method cannot be relied upon fully.

5. Minertic tendencies- In this the individual follows others' behaviour and politeness. This tendency is repeatedly visible during interviews because the position of the interviewer being high the candidate unconsciously follows him and tries to establish identity with him. On expressing friendliness by the interviewer the applicant also feels the same tendency and reactions. These minertic tendencies are viewed wrongly, and as a result, decisions based on them are also false.

6. Inability to define useless terminology in interview- The biggest source of defects in interviews perhaps is the useless terminology is not fully made clear. Generally, the interviewers are not given any list of traits of the candidates. Even if the list is supplied too the traits are hardly defined. Naturally, it opens the way for subjective decisions and explanations. Because of which interviewers differ drastically on the question of selection of any candidate and errors related to decisions abound. But the important thing is that despite all these difficulties the popularity of interviews does not decline. In this face-to-face exchange process many secrets of the personality and behaviour of the candidate may also be revealed.

Suggestions to improve interview system- Interview is that medium through which candidates get the opportunity to express themselves, their feelings and ideas orally. This is a useful system, but there are mainly two difficulties in declaring it fully useful selection process-

1. Comparatively consumes more time
2. Being a subjective system there is no way of assigning objective marks for decisions.

Keeping these difficulties in view the following may be the suggestions to improve this process-

1. Proper selection and training of interviewers- The success of interview depends upon the skills of the interviewer. Therefore, it is essential that the interview board members are selected carefully. Interviewer must be an able person. He must have the sharpness of visualization, changeability, adjustibility and experience of conducting various interviews. He must be trained in the art of conducting interviews. Without this he can not conduct successful interviews. They must be trained in following one system of interview at one time and to follow similar code of conduct. Bingham and Moore have suggested the following pieces of advice for the training of the prospective interviewers-

1. Interviewers must know the ways to win self-confidence.
2. Expertise in putting the candidate at ease, free from nervousness.

3. Encouraging the candidate to talk.

4. Quick judgement of the candidate's viewpoint and nature of thinking.

5. To act more as a listener than a speaker during interview.

6. To be aware of preconceptions and giving relaxations accordingly.

7. Finding clues from the candidates' talk and finding questions from the same automatically.

2. A list of traits to be measured should be given in advance- Objective method must be used to measure traits. For that the use of authentic evaluation standards is expected. The more there are sub-sections in the standard, the more is the authenticity of the judgement. The list of traits must be prepared in advance through experience by the personnel managers or observers or the list be constructed through work analysis process.

3. Questions should be clear and transparent- Questions should not be erroneous that create difficulties for the candidates to know their meaning. Social questions are desirable in interview which are related to desired traits.

4. Sitting should be more than once- Interviewers must divide themselves in different groups. Every candidate must face each group at least once. This will minimise decision making errors and, at the same time, the reliability of interview will also increase. Even being very useful this suggestion is hardly followed practically. The difficulty is that interview in itself takes a lot of time which is a very important defect of this method.

5. Providing ample scope to candidates for objective performance- Interview is not only an exchange of ideas. The external behaviour of the candidate must also be encouraged during interview. In such a situation interview functions as behavioural or situational test.

6. Interview should be authenticated- Modern psychologists, on the basis of their experiences, have expressed the opinion that objective steps may be included in interview process. Marking process may also be adopted similar to this. For the authentication of steps followed in interview if all the candidates are asked the same type of questions it does not serve the purpose of interview. Interview is a process of mutual original conversation where new ideas and thinking come up. But it is difficult to predict the direction the conversation will take. To make interview authentic a manual copy of the check list should be given to the board members so that they stick to the items in it. In this list, listing the desired traits in advance the traits found in candidates are marked. This is called Interview-candidate Evaluation Proforma. Giyen offers the following suggestions for interview process-

1. Interview should be authentic. The atmosphere should be friendly and amicable as far as possible.

2. The interviewer must be supplied with evaluation standard in advance.

If right methods are followed in interview it can be made an important means of vocational selection. In the words of Blum and Neller there is a need of much scientific research regarding interview. Unless this is done there are questions unanswered in considering it the best method of selection as regards its reliability and use.

3. Psychological tests- In the words of R.N. Giyen psychological tests are those that measure aptitude, abilities or personal special traits through samplings of psychometric standardised behaviour.

With the advent of psychological tests industry has gained a new direction. Though they are used everywhere, the most extensive use of them is made in the selection of workers. They have proved to be very important as primary means of vocational selection today. When the managers got frustrated with the subjective nature of interview system psychological tests caught their attention. Through these test they got an objective base for evaluation for the selection of candidates, transfer, promotion, training and guidance. In comparision to application forms and interviews these test have proved to be better. They leave no chance for subjective decisions and reality as well as reliability is found to be more in them.

Merits of psychological tests- Psychological test sort out weak candidates in the very beginning. The tests are predictive too. Through them one can predict the future success of the candidate. Selection made through these tests may prove to be important in skill improvement. Following are their plus points-

1. **Reduced possibility of failures-** There are least possibilities of failure if selection is made through psychological tests. Wadsworth and Hapner found in their tests that after going through these tests the number of failure candidates is drastically reduced. Stromberg in his study found that if these tests are used as selection procedure good and able candidates can be attracted. Thus, psychological tests act as fascinating agents too.

2. **Improved qualitative output-**With the use of psychological tests the quality of output can be enhanced. Viteles found in his study that with the use of these tests the previous errors were reduced, which gradually got lesser and lesser. Thus, psychological test have the power to find suitable candidates.

3. **Reduced Chances of accidents-** Chances of accidents have come down with the use of these tests. Ill vision, physical illness, weakness of muscular control, etc., deformities are responsible for accidents. Through psychological tests these deformities come to the fore in advance which helps to be alert for such accidents and reduce them as far as possible.

4. **Limited Cost of training-** The cost of training of candidates selected through psychological tests is very less. Berlin found in his studies that after these tests train drivers had to be trained only for half the time.

5. **Reduced chances of labour turn over-** Psychological tests reduce labour turn over. Wadsworth and Hapner have suggested these results. Cook has proved through the study that the workers who fail in psychological tests leave their jobs within ten weeks ultimately. This makes clear that if the attitude of the candidate is known in advance through psychological tests he may be sorted out beforehand and the problem of turn over in the industry can be solved.

Defects of psychological testing- If psychological tests on the one hand greatly contribute to enhancing skills as the basis of selection, there are some limitations, on the other hand, of these tests that are with them since inception, which cannot be overlooked. A few defects are as follows-

1. **Inadequacy-** No psychological test is so complete in itself that it does not have to depend on any other method. These tests can merely observe some works being performed but they cannot present the naturalness, seriousness, etc., of the factory as it is. These tests can be asked to complement these methods. The success of work cannot be predicted satisfactorily merely through these tests. The fact that has come up is that the success of work and the marks achieved in psychological tests do not correlate much.

2. **Want of trained staff-** Psychological tests are generally administered by those people who are not fit to use them or who have no experience in conducting them previously. To novices it is an entertaining thing, therefore, it is possible the results obtained are exaggerated. In such circumstances these tests are not put to use properly.

3. **Undue trust-** It is not right to use psychological tests to solve all kinds of problems in the industry since every problem can not be set right by them.

4. **Wrong use of critical scores by executives-** There is always a lurking danger of critical scores being used repeatedly and wrongly at the hands of non-psychologist executives. Some of the activities emphasise to follow the scores in the same form. Some people select only those candidates who score higher marks than the set ideal standard. Candidates below the set ideal standard are sorted out. This gives a bad name to psychological tests. The problem of labour turn over becomes more acute.

5. **Excessive Cost-** These tests require an excessive cost. They need a trained administrator and a furnished laboratory. This is not possible at an industrial unit having limited resources.

Exercise

1. Throw some light on interview.

2. Explain the merits and demerits of psychological tests.

3. Discuss different psychological methods used un Personnel Selection.

LESSON 16 :
SCIENCE OF LIVING, JOB SATISFACTION, ANALYSIS AND INDUSTRIAL PRODUCTION

Job Satisfaction- Among industrial goals job satisfaction is given the topmost priority. This is not only desired by the worker but also by managers and industrialists. Whatever work the individual performs if he achieves enough job satisfaction in it the condition may prove to be a boon to the whole industrial world. This affects both the quality and quantity of the work in the most positive manner. Therefore, job satisfaction may be considered the means and goal of industry.

Job satisfaction is a kind of motivation as a result of which the worker gets a kind of pleasure in working. Job satisfaction is individual, never group feeling. In psychological terms satisfaction is a state of general feeling that motivates the individual achieve his desired goal. Thus, satisfaction is there where there is a goal. Job satisfaction is the resultant of mental attitudes inherent in the individual. These attitudes are not only related to work but also to specific elements like, salary, observation, promotion, etc.

Definition of Job satisfaction- Some definitions of job satisfaction are- According to Blum and Neller- "Job satisfaction is the resultant of those various mental attitudes of the worker which are maintained by the worker towards factors related to his occupation and towards his whole life."

The worker, being satisfied with his job, maintains good mental balance. A healthy mental balance motivates the worker to work. Many studies have proved that the productivity of that worker slides down who remains dissatisfied with his job. Thus, job satisfaction affects both the individual and the production. Almost all the studies put emphasis on the need to awaken job satisfaction in workers.

Walvin (1947) opines that, "Efforts are made that every average worker gets such an occupation that is not only a means of livelihood but that also includes all the elements of life automatically."

Therefore, it may be stated that job satisfaction is such a pleasant and positive impulsive feeling of the individual which automatically arises from the individual's own work or from the evaluation of work experiences."

Factors of job satisfaction- factors related to job satisfaction are put into three groups-personal factors, factors related to work and factors related to the management.

1. Individual factors-These factors are concerned with the worker. The characteristic traits and physical aspects of the worker definitely affect his job satisfaction. These are-

(i) Sex-The result obtained from many research studies show that women are comparatively most satisfied with their job. Morse (1953) conducted such a study. Women are less ambitious than men and at the same time they feel less pressure of responsibilities.

(ii) Age- Age affects job satisfaction. But some studies do not accept this as proper. Super considers that people in the 25-34 and 40-45 group are found not satisfied with their jobs. Morse thinks that with increase in the age satisfaction at job also increases.

(iii) Intelligence- All the jobs require intellect. No training is possible in the absence of intelligence. Researches have shown that there is a special relationship between I.Q. and workmanship. Job staisfaction and intelligence are also closely related.

(iv) Ambition- The basic reason behind maladjustment and dissatisfaction among workers is ambition level. Because of high ambition level he does not evaluate his abilities and means, etc. but wishes to reach at the top position. He overlooks his conditions. The higher is the level of ambition, the higher is the dissatisfaction. The result available show that people with limited ambitions live satisfied.

(v) Education- Morse's opinion is that job satisfaction is found more in educated people. But the theoretical aspect is that educated people are more dissatisfied.

(vi) Personality- Personality is a mirror. The wholeness of the individual develops from personality. An agonised individual remains dissatisfied with his job. Apart from this, other mental problems also make a worker dissatisfied. Person's traits are responsible for his job satisfaction/dissatisfaction.

(vii) Adjustment- Evaluation of his abilities is essential for a worker. This evaluation is the first step towards adjustment. To save oneself from mental imbalance and other abnormalities adjustment power is required. The more adjusted the worker, the more satisfied at job he is.

(viii) Family responsibility- If a worker has to bear more than necessary family responsibility he remains disturbed more. If his income is less and the number of dependents in more he lives in stress. More responsibility creates a mental imbalance in him. He develops anxiety and job dissatisfaction grows up.

2. Factors related to work-There are following aspects under this point-

(i) Nature of work-If the same type of work is done continuously that creates monotony, fatigue, disinterest, etc., and at the same time dissatisfaction crops up. If changes are there at work job satisfaction increases. Therefore, to increase job satisfaction variety at work is a must.

(ii) Structure of the factory- Studies obtained the results that in comparison to a big factory workers are more satisfied at work in a small factory. The reason is that facilities and opportunities are more there in a small unit. Due to this the worker expects promotions. He can press his ideas to the owner and other staff members. Because of small size of the factory the mutual relations between workers are also good. They can influence each other's attitude. This hardly happens in big industrial units.

(iii) Geographical conditions- People living in small towns and villages lead a more satisfactory life than those living in metropolitan cities. People living in metropolitan cities fall prey to complexes more. Similarly, people in coastal areas are found to be happier than people living in hill areas. Workers in small industrial towns have job satisfaction more than the ones in big industrial towns. In small town the worker gets a kind of good psychological environment. That is the basic source of satisfaction.

(iv) Job prestige- Workers get more job satisfaction in the job which have a higher prestige value. There are many jobs where salary, future security, lesser working hours and other facilities are provided but they don't have a common prestige in society. On the contrary, even if less wages, more work and inadequate facilities are there but the job has a social prestige, the worker would like to go for that job. Thus, the worker gets satisfaction in jobs that have higher social prestige value.

3. Factors related to the management- Given below are its aspects-

(i) Salary-Today money is the only means of happiness, therefore, salary plays a big role in job satisfaction. Sometimes money becomes the main factor for job satisfaction while sometimes it becomes a medium. Some industrialists think that awareness for wages is the root cause of strife but it is also observed that increment in salaries increases dissatisfaction in workers. Studies also show that even if other facilities and perks are sufficient but the wages are low the worker remains dissatisfied. On the contrary, if they get less benefits and perks but a high salary they remain satisfied. Studies also show that high salary generates high social prestige for the worker, therefore, he gets satisfaction.

(ii) Promotion- More opportunities for promotion satisfy the worker more. Salary and future prospects are the backbone of worker satisfaction. Even if there are more benefits and perks but less opportunities of promotion, the worker's morale slides down. Blum says that young workers are found more anxious for promotion. Workers in intellectual field also desire for promotion. A worker even unfit for promotion gets dissatisfied if not promoted. Therefore, every worker desires strongly for promotion.

(iii) Nature of Colleagues- Mental tension cuts worker's job satisfaction. If worker's relations with colleagues are good they help keep his mental balance. If any colleague misleads him and he is fooled, he remains dissatisfied.

(iv) Feeling of responsibility- Watson concludes through his study that if the worker is given a less responsibility job he remains more satisfied. On the contrary, if he is assigned a high responsibility job he gets dissatisfied. Responsibility gives a kind of nature force. High morale generates high satisfaction in the worker. The same feeling of satisfaction keeps the worker going and activity is the main reason behind satisfaction.

Job Analysis- The fundamental objective of industrial psychology in suitable job for suitable person. This objective cannot be achieved by merely selecting the worker through psychological techniques but it also depends on sufficient knowledge of the worker. For progress in the industrial field, apart from traits and abilities of the worker, enough knowledge of every aspect of the job is equally essential. Study of the needs and specifications of the job is called job analysis.

Appointment of a suitable person depends not only on analysis of the person but also on the study of the need of vocational activities. Viteles says, "The first step in fitting men to jobs and in maintaining fitness at work, is to make comprehensive study of occupational activities and requirement."

A worker is not selected until he very well knows the conditions of work. Minimising unnecessary fatigue, preventing accidents, increasing the sharpness of inspirations, etc., all need a good knowledge of work which affects all these things. Thus, it may be stated that the method through which we get information related to suitable aspects is called work analysis.

Definitions- Following are some of the definitions of job analysis presented by scholars-

In the words of Blum, "A job analysis is an accurate study of the various components of a job. It is concerned not only with an analysis of the duties and conditions of work but also with the individual qualifications of the worker." Viteles explains the views of Teed, Metcauf and Heckett like this-Teed and Metcauf: "Job analysis is the scientific study and statement of all the facts about the job which reveal its content and the modifying factors which surround it."

Heckett: "It involves a determination of the essential elements in the job and the qualifications a worker should have for its successful performance." According to Viteles, "Job analysis is concerned with those methods through which information related to jobs are collected and the need of the workers is gathered for knowledge."

Purposes of job analysis- In the opinion of Mine there are four purposes of a job. Based on these purposes he has put job analysis into four groups-

1. Reformation in working methods 2. For health and security
3. For training of workers   4. Job analysis for jobs, like, selection, transfer, promotion and salary, etc.

Uses and Value of job analysis- In the opinion of Lawhe and Salter job analysis serves four major functions-

1. Inference regarding training materials   2. Establishment of employee details
3. Reformation in work potentials   4. Determination of salary scale

After studying 401 articles on job analysis Zegra has concluded that job analysis may be put to at least 24 uses. They are as follows-

1.   Order and classification of job.
2.   Determination of salary and standardization
3.   Questions related to other details
4.   Clarification of duties and responsibilities of the job
5.   Transfer and promotion
6.   Adjustment of genuine demands
7.   Establishment of common understanding between various levels of managers and workers.

8. Definition and outlining of promotion steps
9. Finding out accidents
10. Indicating towards erroneous jobs and methods.
11. Proper maintenance of machines, jobs and adjustment
12. Study of time and speed
13. Defining the limits of higher officials
14. Indicating towards individual potential level
15. Education and training
16. Providing the facility for working place
17. Study of fatigue and health
18. Scientific guidance
19. Finding jobs for professional treatment

On the basis of uses above mentioned it may be stated that job analysis is such a foundation on which is based the working potential system and to solve industrial problems these must be followed.

Job Analysis for Employment Purpose- The main objective of job analysis for employment purpose is to analyse those elements of job that are helpful in the appointment of new workers and transfer and promotion of old workers. This job analysis has two aspects- job aspect and worker aspect. In the job aspect we look at the requirements of the job, other things and abilities of the worker. The joint form of these two aspects is job analysis.

For job analysis Viteles used the following list which describes the job and worker-

1. Knowledge of work
2. Number of workers
3. Description of duties
4. Description of machine
5. Analysis of activities
6. Work conditions
7. Salary and non-economic incentives
8. Relation with other jobs
9. Opportunities for transfer and promotion
10. Training period and nature
11. Worker's abilities-
    (i) General-age, sex, nationality, marital status (ii) Physical
    (iii) Educational
    (iv) Previous experience
    (v) General and special abilities
    (vi) Temperament and character

12. Special advantageous and disadvantageous features
13. Employment conditions

Most of the industries do job analysis. But they think psychologists are not needed for this purpose. As a result, none of the aspects of job analysis is given proper attention. Customarily, a duty list for workers is prepared.

Psychological techniques of job analysis- According to Viteles there are seven techniques of job analysis. They are as follows-

1. The individual psychographic method- Taking the success of an all-round successful employed person in his willingly selected profession a scale is prepared. The list of traits of such a successful person is demonstrated through line drawings. To form psychological bases of success in profession family background, individual growth, memory, language, ability, reaction time and habits, etc, are kept in mind. On the basis of these aspects analysis of traits and mental reactions in successful individual is done. Interview, observation and tests are also used for analysis. The results obtained are demonstrated through individual psychograph. Through this psychograph a scale is constructed which shows traits for success in profession. At the time of selection these traits are kept in mind as required traits.

2. Questionnaire method-To collect information on job specific traits and needs this is considered as the best

method. In 1916 Lipmann constructed a questionnaire comprising 86 questions. The questions are such that measure the essential elements of a job. This questionnaire was used on people, workers, workers' unions and people engaged in professional training. In 1947 it contained 105 questions and sometime later there were 148 questions. Alurichs also worked on the same lines. His questionnaire was meant for measuring mental abilities and required traits for higher occupations. Questions in this questionnaire were grouped in four categories- physical aptitudes, psychophysical aptitudes, mental aptitudes and adaptability. This techqnique also has its demerits. This technique is subjective. The answer for every individual is changeable. Special abilities cannot be arrived at correctly. The answers of the worker are not considered thoroughly right. If the questionnaire is filled in under the guidance of an able observer the answers may be accepted as valid.

3. The job psychographic method-for a scientific study of professional abilities three things are essential-classification of special mental qualities, measurement technique of evaluation and direct testing of work activities by trained observers. Viteles put to use all the three bases in job psychographic method for job analysis. Using this technique he marked every trait on five point scale- 1. Negligible, 2. Barely significant, 3. Significant, 4. Of great importance.

5. Of utmost importance : At the scale above the traits of a person are shown through lines, thus, this is called job psychographic method. This is shown as follows-

Job- operating lathe machine-	1	2	3	4	5
1. power		x			
2. control				x	
3. concentration			x		
4. attention					x
5. agility					
6. vision		x			
7. memory	x				
8. grasp and sense					x
9. observational ability			x		
10. intelligence					x
11. decision	x				
12. reasoning analysis				x	
13. visualization					
14. patience				x	

The line diagram above shows that the traits marked against column 5 are very essential for a lathe machine operator, for example, control, attention, agility, grasp and sense. Through this method we can know the dangerous as well as favourable elements of a job. But one of the defects of this technique is that it lacks a skilled trained observer. Even if there is one he may not be an expert.

4. Job analysis by test- Mental ability is a must for job work. This analysis is based on many techniques. The techniques till now described are all subjective in nature. To overcome this defect the test method is found suitable.

Link consulted some tests concerned with job analysis. After the experimental study of these tests he administered these tests to workers ranked much successful. The maximum marks obtained were selected for ability measurement. Thus, there came up a test series, and employees were selected through this test now.

O' Connor also constructed an inventory comprising of 30-40 tests which was good but not practical.

5. Job analysis by activity- Through 'activity technique' the physical activities of the worker at work are studied. Through this technique Charters and Whittey analysed the traits and responsibilities of people working at the secretariat. Apart from that other scholars also used this technique on people working in different fields.

6. Time and motion study- 'Job analysis by activity' technique was developed by Taylor. A little later Gillbreath couple made this technique more scientific. After serialization Taylor's technique appeared in 'time and motion study' form. He divided each job into smaller parts. Through this he tested that on being given lucrative incentives what was the expected time taken by the worker in his work production. Then he studied motion. That is, dividing job into smaller fractions what was the speed of the worker.

Gillbreath's work was important in this area. He is considered to be the founder of time and speed study. In this dividing the job into smaller fractions the physical movements are analysed and then necessary movements are abolished. First Gillbreath used stop watch and then camera for this work. Afterwards this was started to be performed with the help of some machines. Using this technique maximum benefits can be obtained using least time and energy.

7. Analysis of skill- This technique is an extended form of time and speed method. In this, time and speed are studied on the basis of psychological abilities found at the time of work conditions. This technique was developed by Fairchild. He developed and used this technique to analyse the skills or specific potentials of workers engaged in metal trade.

All the techniques mentioned above have one or the other defects in them and they cannot be equally used for different jobs but still they are used in one or the other form in industries.

Utility of Science of Living- Man desires for pleasure and peace in his life. He makes constant effort for the same. If he succeeds he feels satisfaction. On the contrary, if he fails or does not get desired results he feels sad and dissatisfied. If dissatisfaction lasts long it affects the individual. As a result he develops negative tendencies which are not good for him. Similarly, if a worker in the industry grows dissatisfaction with any of the aspects of his job it affects production since a worker is an important unit in the industry. Therefore, to increase production satisfaction of the worker is essential. The dissatisfaction of the worker may be due to industrial concerns or it may be due to personal reasons. It is required that the inner aspect of the worker is strong and his insight is awakened.

Through the practical aspects of science of living insight can be awakened. Once individual's insight is awakened he cannot be lured by outside charms. Problems don't affect him. His various desires and needs are controlled automatically. Therefore, awakening the insight is an important task. Mental peace. happiness, patience, non-attachment, prudence, awakening of conscience-all follow awakening of insight. If workers engaged in industry are convinced of these changes they shall be alert to their duty and work sincerely. That will lead to increase in production. To increase production worker satisfaction is a must since worker is an important unit in the industry. If the inner aspect of the worker is strong he is not disturbed at his work. Thus, it may be stated that with the increase in the speed of production, industrial development will also take place.

Exercise

1. What is job satisfaction? What are the main factors for job satisfaction?

2. What is job analysis? What are its objectives and utility?

3. What are the psychological techniques of job analysis?

4. How can job satisfaction be improved with the help of science of living?

Reference: Industrial Psychology. Dr. R.K. Ojha.

LESSON 17 :
INDUSTRIAL MORALE AND TRAINING IN SCIENCE OF LIVING

Industrial Morale

'Enthusiasm' or 'morale' word was used commonly for military actions or in defence field before industrial revolution. In social field it was used only now and then. At present 'morale' has become so important that it is publicly used in schools and industry. Although it may be used with reference to any field yet its central meaning relates to the feeling of full cooperation by everyone. The process of morale operates only in group structure. It is a product of group. Morale will get an important place as a significant factor on the study of the practical/behavioral aspect of the group.

There was a time when machines were considered more important for industrial production enhancement, while there is a time when the ability of the worker, his life and mental satisfaction are considered more important than machines. Today encouragement is considered essential which is the fundamental basis of morale. If the worker is interested and he feels pleasure at work, production will automatically go up. Therefore, morale is helpful in increasing production.

Nature and Definition of Morale

Morale in industry means the feeling of the worker by which he puts faith in the common objectives of the group. He works with sincerity and cooperation, patience and at odd situations forgetting personal benefits works according to the code of conduct of the group. If these are the ideas of the worker he will have an indefatigable courage towards achieving the industrial goals. This is called the morale of the worker and in industrial fields this is called industrial morale.

In the words of Blum, "Industrial morale is that feeling of the worker which makes him feel a member of the working group and to achieve the common objectives of the group he shows full faith."

According to Giyen (1958) "The needs of the individual are fulfilled to the extent he expects satisfaction from his job conditions. That is morale."

Researchers in this field have defined morale in various forms. Some of them consider it the symbol of group unity while some other call it personal adjustment, others feel morale is the condition of experiencing full attachment with work. Similarly, morale is taken to be a symbol of happiness, a method of maintaining equal enthusiasm for struggle in the group, etc.

In the words of Blum industrial morale may be defined in the four forms.

1. Feeling of group unity

2. Need for the goal

3. Progress towards the goal

4. Some functions of the individual in the group through which he could achieve the common goal.

Maintaining the morale of a group means preserverance towards work. The word morale is used in various forms in industry. It is not necessary that the workers generally having job satisfaction in their industrial environment have a high morale too. The workers dissatisfied with their work conditions lower the morale of the factory. Morale is also of two types-high and low. Morale of the workers at strike is high, whereas, in the view of the industrialist that is low. The morale of the industrialist is high at the time of lock-out, whereas, in the eyes of the workers that is low morale. Thus, morale is a relative term the meaning of which keeps changing with time, situation, place, group, etc. If morale develops in the workers they develop their abilities to work and increase production.

Factors influencing morale- For stability and mobility of morale in every field it is essential that every worker gets pleasure at work and he ever gets satisfaction from his work. The factors affecting workers' morale are controlled by the mental condition and feeling of satisfaction. The more is the job satisfaction, the higher is the morale. The main factors affecting morale are-

1. Salary
2. Promotion
3. Working conditions: (a) mutual relations (b) physical conditions
4. Desire to know about his work
5. Rank
6. Social factors

1. Salary- Industrialists, workers, production and the government machinery are complementary to each other. If relations between them go bad, production suffers. If production is affected, the balance of capital goes bad and all the industrial activities stop. Despite being provided with many facilities and perks the worker considers salary as a special aspect of his job satisfaction. If the salary fulfills the primary needs, the worker feels job satisfaction and keeps morale high.

2. Promotion- If an able worker does not get a chance of promotion even after attaining seniority, he develops complexes. If less skilled workers are promoted, the senior worker loses interest in work. His mental condition weakens and he avoids work. Slowly his morale slides down and he takes his work to be a burden.

3. Working conditions-Working conditions affecting morale are like this -

(a) Mutual relations-Half of the problems arising in industries crop up because of mutual conflicts. If the worker's relations with the managers, owners or colleagues go bad, his feeling of cooperation reduces itself. He takes interest in mud-slinging and inhuman activities. At that time they forget the future of their families, their duties and goals. Because of indulging in unnecessary conflicts their working power decreases; encouragement vanishes and finally only a fraction of morale is found in them.

(b) Defective physical conditions- If physical conditions in industries are defective there lurks a danger of accident. Accidents affect workers physically and mentally. Defective physical conditions include light, temperature, working hours and satisfying facilities, etc. If these conditions are not favourable the worker's work is affected. If these conditions are balanced the worker also remains balanced.

4. Desire to know about his work-Psychological experiments have concluded that instead of personal work if any job is performed with cooperation and competition, production increases. If the worker is aware of his good performance he is encouraged. Every worker desires to know about his work in the group. If the work is only second or third rate instead of being first rate he makes efforts to improve upon it. Such desire being strong indicates morale. The worker also desires to know what plans are being made by the manager or the owner for his progress. This gives a special satisfaction to him. He takes interest in his job and his morale goes up.

5. Rank- Rank also satisfies the worker in a way. He also aspires to obtain the rank of manager, owner or other officers. He keeps a healthy feeling for his job and the factory and to an honest worker his rank reminds him of his duty.

If a worker at a lower rank is given incentives his morale goes up. Therefore, the managers should take care that the worker is not troubled because of his rank, or it will badly affect production.

6. Social factors- Mayo says that feeling of security and certainty in the worker is an important aspect in the stability of morale. This feeling arises when the worker accepts membership of a particular group. The managers should arrange a meeting of workers every month and the managers should also take part in it. This clears the confusion of the worker, develops sociability and healthy attitude.

It is found that the worker's activity increases after rest period. During rest period workers see each other, cut jokes, etc. This removes their fatigues and work related tension. The praise and appreciation of the worker also improves his morale. If sincere workers are praised and rewarded appropriately their morale goes up. The managers must also look into the family problems of workers that may down their morale otherwise. The healthier is the social life of the individual, higher is his morale and good progress he makes.

Determinants of morale- Kretch and Crutchfield have indicated the following determinants of morale-

1. Togetherness among workers will keep their morale high.
2. Disintegrating elements causing conflict must be minimum.
3. Common goal for workers towards which they work together cooperatively.
4. The interests and hobbies of workers must be looked after.
5. Positive attitude of managers towards workers and vice-versa.
6. Inner feelings of all the workers for the factory.

Wherever the special features mentioned above are found, morale of workers is found to be high. The positive determinants of morale enumerated by Blum are-

1. Feeling of togetherness-Workers in a factory do not work separately, but together. According to psychologists where there are least groups or sub-groups, there workers' morale is found to be high. An ideal group is a single group which includes all-the industrialist, managers, and workers. If the reactions of this group are favourable, morale is maintained high. For dynamism and high morale in the group it is required that time to time there are structural and general condition changes brought in the group. To increase the morale of workers a group of workers may be constructed so that the feeling of cooperation increases among them and they are provided with proper facilities. In the opinion of Blum consciously or unconsciously workers form a group. If the manager understands this fact and puts the power of workers towards cooperation these groups may become a fundamental force behind morale building.

2. Need for goal- After forming the group the managers should fix such goals that are beneficial for everyone. Only production and personal gains should not be kept uppermost while fixing the goals. These goals may have several aspects- physical and mental health of the worker, his progress, social progress, solution of household problems etc.

In fact goals work like magnetic centres towards which the workers have the enthusiasm to reach. If the manager encourages these goals the workers get an assurance for them.

3. Progress towards the goal Workers can make progress towards their goal only when they are clear about the present and future activities. Therefore, the workers must be told very well that they maintain a relationship between their future plans and the present. They should not set future goals overlooking the present.

In addition to the determinants mentioned above psychologists have mentioned some more positive determinants of morale. They are-

1. Realistic goal setting- To maintain the high level of morale achieving success is essential. Repeated failures put morale down. Therefore, realistic industrial goals must be set that are within easy reach of the workers.

2. Satisfaction of secondary needs- In addition to satisfying the primary needs of the workers it is also required that his psychological needs are also satisfied. For example, alongwith partnership in company work social acceptance also boosts up the worker's morale.

3. Equal share in sacrifice and gain- Observations have made this clear that if the workers are given the feeling of equality and sacrifice their morale keeps high level. The worker should feel that similar to others he also bears the responsibility and he gets the equal share in benefits too.

4. Identification and involvement- With the feeling of identification and involvement the "I" of the worker gets replaced with the feeling of "we". In the opinion of Watson, "Convictions are firmer when it is felt that other people join in them."

Through Factor Analysis Techniques various dimensions of industrial morale have been studied. The Survey Research Centre, Michigan, has given the following four factors- job satisfaction, progress towards goal, supervision and company satisfaction. Some researchers have identified a few more factors-individual rewards, company running, psycho-physical conditions of job, human relations, etc.

In conclusion, it may be stated that the determination of industrial morale always depends upon the activity of suitable positive determinants. To increase industrial dexterity, the morale and the direction of its determinants have to be changed. Morale is such a mental state because of which the individual performs his job with fresh energy, enthusiasm and self-restrictions. He maintains his faith in the belief that in odd conditions too his personal and social ideals will be followed. The manager strives to maintain indentily and involvement in the company. As a result of high morale the higher is the workmanship of the worker, the lesser are the chances of tensions and industrial conflicts.

Methods of increasing industrial morale- The measurement of industrial morale works as a barometer for the managers. If after measurement it is found the morale of the workers is falling it works as a warning to the managers. They must take necessary action in this regard. Following are the methods to increase industrial morale-

1. Expert method
2. Industrial spy method
3. Industrial counsellor method
4. Employee problem approach

1. Expert method- In this method the manager appoints an expert. The expert analyses the reasons and finds out which department has the lowest morale. He prepares a report through mutual conversation with the workers. He offers many suggestions there. For example, encouraging posters, promises, lectures, meetings, tea-party, welfare arrangement, etc. Managers implement the plans made following these suggestions. These results are observed again and again. If morale is not boosted up even now, the expert is replaced and again suggestions are invited and implemented.

2. Industrial spy method- This method is not considered good since the results of this may sometimes prove to be reverse. The manager appoints an expert in the factory who works like a common worker. The workers are kept in dark in this regard. The expert mingles with the workers and collects much information from them. Then he compiles a report and offers suitable suggestions. The managers work on the suggested lines.

3. Industrial Counsellor method- The studies conducted by Harthorne have shown that counsellor plays an important role in increasing the morale of workers. The counsellor functions as a link between workers and the reasons behind falling morale. He invites suggestions from the workers to solve the problems and then offers his suggestions to them. If the morale slides down because of the industrialist and managers the counsellor functions as a representative between them. He suggests to have faith in each other to solve the problems. He makes his best efforts to put maximum adjustment between them.

4. Employee problem approach- This technique is considered better than the three techniques mentioned above. In this method the problem is tackled in a democratic manner. This technique is used by skilled employees. In this method the foreman or the owner puts some problems before skilled and trained psychologists. He interferes the least during discussion on the problems. He gives the maximum opportunities to the workers and gives them advice to find the solution themselves. When the workers face this situation they feel the group feeling instantly. To solve the problem they set a certain goal. They feel that the progress of the factory is their own progress, therefore, they get active to think collectively and find the solution. The greatest special feature of this technique is that as the workers reach towards problem solution, their morale also increases.

In this method a meeting is organised. The group leader presents the problems in brief before the gathering. The leader may be a worker or an outsider trained person. The leader assures the workers that the management is ready to solve their problems and that it is ready to implement the schemes planned by the workers. Thus, two to four meetings take place. Gradually, talks start. This technique is used to bring dynamism in the group, feeling of devotion towards the group among members and solving the conflicts in a peaceful manner.

Measurement of morale- Mereno constructed sociometric system of measurement of morale in 1943. A little later Jonicans brought some revisions in this system and called it Nomoneting technique. This was used to measure the morale of on duty soldiers. In this technique the worker is asked to select the best worker from amongst the group who could be appointed as the director. Everyone marks a line drawing through a circle. Everyone's circle is joined through an arrow mark. The person chosen by maximum number of people becomes the leader.

Motowidlo and Borman (1977) consider the Behavioural Doting Scale the best method in which important behaviour and event indicating morale are taken to be the indicators of high or low morale. On the same considerations Campbell, Landy, Giyen and Smith and Candel suggested the use of 'Scald Expectations' method to measure morale. Today, the advent of such behaviour evaluation scales have brought newer possibilities for the study of morale.

To measure group cooperation feeling as a determinant of morale 'sociogram' has proved to be very important. Apart from these, techniques like, attitude scale questionnaire and interviews, etc., are also used to measure morale.

Utility of Science of Living

Morale to a greater extent, depends on the personality of the individual. When the worker works in any industry to maintain his morale at work his personality plays a very significant role. Apart from environmental factors affecting personality the personal reasons/factors are also important. The intellectual level of the individual, his ego, super-ego, self-concept and physical and mental tensions also influence morale. Apart from that, his health, mental health, science of living and its practical aspect Preksha meditation can play an important role in increasing and maintaining morale. Although there haven't been much research in this field, but whatever the extent of research they have proved that through training in the Science of Living and Preksha Meditation the personality of the individual can be changed towards positive and meaningful facts. Through Preksha meditation experiments many factors of personality are found to undergo positive changes. Gaur and Vetal (1997) have found the effect of Preksha Meditation on adjustment in people. With two months practice of Preksha meditation the social, impulsive, health and family adjustments of people are observed to change meaningfully. That is, their adjustment power was enhanced. Similarly, in one more study they found meaningful and positive changes on the personality factors like, intellectual ego, super-ego, self-concept and physical and mental stress, etc.

Thus, it may be stated that the practical aspect of the science of living is helpful in building personality. Workers engaged in industry will also be positively influenced by them. They may be helpful in building up morale. Mental problems can be prevented only if one's mental aspect is strong. Therefore, to strengthen the mental aspect of industrial workers the practical aspect is essential. The strong mental aspect will keep problems off and there will develop such capabilities in him that are essential to face difficulties. The touchstones of mental health are-tolerance, patience, intelligence, memory, etc. If these changes take place in the worker his morale will be automatically high.

Exercise

1. What is industrial morale? Describe in detail the factors influencing morale.

2. What are the techniques to increase morale? Describe.

3. What are the techniques of measurement of morale?

4. How can morale be increased through science of living?

References: Industrial Psychology- Dr. R.K. Ojha

LESSON 18 :
LEADERSHIP

Oswald Spangler in his book <u>Man and Techniques</u> writes, "In the present era there are not only two types of techniques but also two types of men. Like every one has the tendency to work and to give directions, similarly, there are some people who tend to follow orders. This is the natural form of human life. This form may change to any extent with the changing times still it will exist till the world exists."

To rule, to take decisions, to direct and to order, etc., is an art, a difficult technique indeed. But, like other arts, this is also an inborn quality. All of us do not have this art in equal degrees. For the adjustment of the individual in industry supervision, administration and management are very important. Imbalances in industries are not created only because of behavioural defects of workers but also because of wrong and unwise leadership. The manager gets the job by his subordinates done according to his directions. As is the behaviour of the manager, his ideals, etc., the same is the behaviour determined by the workers. So, as is the leadership of the manager, the workers will also work accordingly. Today, the problem of management and leadership has acquired a dangerous proportion. There are strikes and lock-outs on small issues which ignore both the society and production. The main reasons behind everyday rampages in industries are the folly and preference for only their benefits by the management.

The worker must remember that a worker is an important unit in industry. He is more valuable than costlier machines since he is the base for managers. The whole happiness of management and the whole system lies in workers. If the worker is ever infested with problems production suffers and the nation becomes weak. If the worker is reduced to merely political activities due to indulgence in strifes for salary and economic benefits or indulgence in struggles between management and the owners, he cannot face skilful leadership then. He and his organisation have to face dire consequences of such conditions. The management starts ruling the roost-workers are divided into small groups; in place of a solid leadership there crop up several petty leaders. This affects workers' organisation adversely. This imbalances production, creates mismanagement and chaos and puts the psychological level of the workers down. Thus, the more organised, skilful and gumptious is the leadership, the more effective is the impression on the workers.

Smith says, "If one has a beautiful invaluable watch and it has gone out of order he would't give it for repair to an ordinary watch maker. The more intricate is the workmanship of the watch the most skilful should be the watchmaker. The same is true with reference to a factory too. No machine is so complex and delicate and needs such skilful conduct as is the progressive management policy. It is not necessary that the management policy is progressive, what is required is that the policy works properly. If the policy works properly, progress will automatically follow.

Meaning of Leadership- Scholars have explained leadership in different ways. Sometimes it is taken to mean fame. From the democracy point of view leadership is that condition when some people follow other's orders willingly. If someone has the ability to get his ways by force that is also considered leadership. The fact is, none of the behaviours given above mean leadership but leadership is that manner of behaviour in which one is not influenced by the behaviour of others, on the contrary, he influences others by his behaviour more, irrespective of the fact whether this is achieved by force or by his personality traits. Pingor defines leadership this way, "leadership is a concept that keeps the relationship between the individual and his environment clear. This describes that situation where one individual acquires a status in a particular environment that his will, feeling and insight directs others to achieve a common goal and control them." This definition may be put in the form of a base equation like this- specific environment, status of the individual, direction, leadership. That is, in a specific environment (economic, religious, etc.) one individual acquires a special status from where he influences others through his capabilities and/or qualities. This is the situation of leadership. In the opinion of Lapiere and Farnisworth, "Leadership is that behaviour which influences the behaviour of others more than the behaviour of others influence the leader."

Seemen and Morris put that, "Leadership lies in those activities of the individuals which influence others in a particular direction."

According to Kinwal Yung, "Leadership must be explained in terms of dominance."

Specialities- Leadership possesses the following specific features-

1. Leadership is that behaviour which is an admixture of dominance, suggestion and influence.

2. Leadership is a two-sided affair requiring a leader and a follower. The leader influences the behaviour of the follower to a great extent.

3. Leadership influence is not of pressure. Generally, it is accepted willingly. The pressure is only of the moral stature of the leader.

4. Leadership is not planned, rather, it steers the behaviour of the followers in a particular direction carefully.

5. According to Peagers "leadership is a process of mutual stimulation." This explains that the changes in behaviour under leadership are due to stimulation.

6. Leadership has a particular situation (field). Thus, the same person may be influenced in different situations (fields) differently by leadership.

Importance of Leadership- Every group requires a leader, whether it is political group or social or religious or industrial. A group without a leader is non-existent. In the industrial field the owner or the workers elect their leader. In fact, the owner and the worker both should take part in the selection of the leader. Through this ideal selection process petty scuffles between the owner and the workers may well be avoided and solutions also may be found quickly. A person selected leader by the owner or the management will have more loyalty towards them and he may ignore the welfare of workers. On the contrary, the leader selected by workers is answerable to them. This increases policy struggles. Therefore, for an effective leadership it is essential that the owner and the workers both participate in the selection of the leader who is able, experienced and expert individual. Leadership may be divided into three groups at three levels 1. Top Management   2. Middle Management 3. Front line Management

At the first level management high class Big Boss, at middle level only Boss and at the last level there are foremen or supervisors. All the three types of leaders function at different levels. Their responsibilities and duties are also different. To maintain his post it is essential for the leader that he is capable of maintaining relations at every aspect of his group. Thus, for proper functioning it is necessary that the leader maintains close relations with the workers of his group. This will avoid any tension between the leader and the workers.

Role of the Officers- The major work in the factory depends upon workers. The worker is the important unit of production. Whether he is technically trained or not, the first step of production begins with him only. Above the worker there is a supervisor and then, depending upon the nature of work there are various officers one above the other. Officers have various tasks to perform. The officer looks into the proper running of work, the responsibilities of workers, quantity of production, its quality, etc. On the other hand, directing the workers time to time, keeping control over them, solving their petty feuds, attending to their just or unjust demands carefully and then solving them, etc., also fall in the jurisdiction of the officer. He has to be always attentive and ready, otherwise the system breaks down and that affects production, workers and the management too.

Officer in the Form of Leader- To observerve the workers' jobs there are supervisor leaders. For production it is essential that the worker adjusts with his work. The adjustment of workers depends upon the officers and their manner of management. Chaos in industries like, strike, lock-out, bad mutual relations between workers and the management, etc., arise due to misunderstandings between workers and the management. But the main reason of them all is unintelligent leadership. Leadership maintains balance in the system. Such leadership is provided by the officers, therefore, the officer or the management is called the leader too.

A lot of workers getting good salary and other perks and benefits in the industry attend to their job with perserverance, whereas, some of them create a lot of hurdles in their work. Such workers create problems for the leader. To maintain a practical proportion with such type of workers is the characteristic feature and trait of leadership.

Psychological role of the officers- Officers should remain in close contact with the workers and they should accept them as a unit in the industry. This can minimise mutual differences, hatred, jealousy, etc. Workers too, like officers, are gentlemen, having honour and respect. The officer should be wary of such behaviour that makes the worker feel he is seggregated or he is made to work under pressure. The officer should keep in mind that workers too have their desires and that they are a big power in the industry. This organisation plays an important role in the welfare and progress of the industry. Therefore, officers and the owner should have nice thoughts about this organisation so that no evil crops up there. Workers going wrong must be properly guided and there must be meetings arranged to orient the thoughts of workers. The officers should think of the welfare of workers and they must attend to their genuine demands. Their demands are generally regarding salary, and dividend, etc. They give much importance to the demands of medical and housing facilities too. They talk of social upliftment too but create chaos in the industry. Rampage, strike, fast unto death, etc., are very common happenings. Managers, owners, and officers have to play a very important role at such emergency situations. They should take the demands and tendencies of the workers seriously. They should remember that with the increase in prices of commodities the demand for dearness allowance is also just. In such adverse circumstances the officers must organise a meeting with the workers and find a solution to the problems through mutual discussions. They should have a right viewpoint. The abilities of officers lie in the fact that they understand each other closely.

Nature and type of leadership- To observe the work of workers there are supervisors in the industry. These supervisors are called leaders. The qualities and sober behaviour of supervisors depend upon the types of policies in the industry. The policies are framed by the management. Policies should be such that awaken faith of the workers. The policies are implemented by the supervisor, therefore, it is required that in the selection of the supervisors their honesty, sympathy, perseverance and all other good qualities are given due credit. Only an able supervision can establish a good balance between the work and the workers. Gumptious and tolerant supervisor leaves a special impression on the workers. They succeed in getting the work done as they will. It is not essential that the supervisor is very intelligent but it is required that he is tactful and trained.

Training in leadership- If the supervisor is trained the workers find it easy to adjust themselves. Therefore, the appointed supervisor must be trained. A trained and experienced supervisor is not only a skilled leader but also he can solve problems in adverse circumstances. Such type of a democratic leader does not make his prestige an issue at the time of compromise or conflict with the workers. He controls his impulses and behaves impartially. He gives importance to civilised, honest and laborious workers and saves them from any harassment. He makes more and more facilities available for workers. A democratic leader possesses a high morale and he helps build a high morale in the workers too. He makes use of community feeling for creative work. The leader distributes rights among workers so that they understand their duties. A democratic leader must have the following qualities-

1. A democratic and trained leader must have, in addition to the knowledge of work, the art of getting the work done.

2. He must possess such qualities that workers have good faith in him.

3. The leader should be patient, quiet and sympathetic.

4. The leader should avoid to be more sentimental, sensitive and impulsive.

5. He should have the ability to convince the workers of his ideas reasonably.

6. He should have the ability to solve the problems arising due to conflicts between the workers and the owner, working as a mediator.

7. He should have the ability to adjust to the views of the workers.

8. He must be able to make the subordinate staff feel that he is a part of them.

Characteristics of a successful leader in industry- Craige and Chartes have considered the following characteristics essential in a successful leader-

1. Forcefulness. That is, he should have the ability to get the work done.

2. He should have such qualities that workers respect him.

3. The leader's behaviour with the workers must be impartial.

4. Leader should be trained and experienced, even to train the workers too.

5. He should be at good terms with the workers and must not be backbiting.

6. He must have enough self-confidence so that in adverse circumstances he does not feel weak.

7. Leader should have the power to control his temper.

8. He should take care whether workers follow his instructions or not.

9. He should have the tendency to accept the genuine reasons of his subordinates and the ability to get the work done through his abilities and suggestions.

10. He should have the ability to scold the workers wisely and praise them if they deserve.

11. He should have the power to face all circumstances.

Blum has described five principles for a successful leader-

1. Proper evaluation of work.

2. Enough representation of officers.

3. Equal and proper behaviour with all the workers.

4. Giving time to workers if they want to see him.

5. Discussing the problems of workers with the management and the owner in detail.

In this regard Blum directs a leader not to do some things so that there is a distance maintained between the leader and the workers. They are-

1. Respect the workers-It is incumbent upon the leader that he does not impose his superiority over the workers. He should not show off that he is the most able, more salaried and experienced. He should solve their problems through his technical skill so that they respect his technical skill.

2. The leader should not raise hurdles in any of the work of the workers. Unnecessary hurdles discourage the worker and he loses interest in work. This may cause an accident or damage to machines. He should explain the worker properly so that he does not feel he is finding fault with his work.

3. The leader must behave impartially to maintain discipline among workers. Those who shower their favours on a selected few neither succeed in the industry nor maintain balance and discipline.

4. He should not issue such instructions to the workers that are unclear or create mental tension. If the leader does so there arises a dilemma between him and the workers and the situation of struggle comes up. If there is given any erroneous suggestion or instruction by mistake, it is better to accept one's mistake. One should neither argue on this issue nor blame the worker. It is required for a leader that he does not issue orders in haste, neither should he give suggestions in haste.

5. It is expected of the leader that he does not criticise workers, rather, explain things to them alone. He should not scold them before others. This cajoles the ego of the worker and he does not feel insulted.

Functions of a democratic leader-Following are the functions of a democratic leader

1. Attending to problems- The leader should attend to the problems of workers to save them from unnecessary frustrations. If their problems are overlooked or suppressed they get a negative sign from it. Therefore, their problems must be properly discussed.

2. Collective meeting- The leader should arrange for a collective meeting with the workers where he should listen to the workers and offer his own suggestions. He should inspire the workers to work collectively. He should exchange ideas on the problems of the workers with them.

3. Informing them of a definite goal-The workers must be informed of the definite goals of their group. At the same time, it is also required that he finds out the suitable means of achieving the desired goal. This will keep the workers informed of the suitable jobs to achieve their goals.

4. Determining the standards of workmanship-It is required of the democratic leader that he determines the standards of workmanship and informs the workers of those standards.

5. Suitable decision- It is necessary for the democratic leader that he takes suitable decisions that are acceptable to the workers too. If the workers raise their doubts in the decisions they can raise those doubts in the collective meeting; he should tell them to solve them.

6. Inspiring - He should make the workers feel that the hard labour, honesty, etc., make a lot of difference in production. This brings progress in the institution. For this progress to talk of special rewards, economic benefits, promotion, etc. for the workers is the duty of a democratic leader. This, in a sense, relieves the workers and they work with doubled enthusiasm.

Rules of leadership- The success of a leader in the industry depends upon him following some fundamental rules too. This brings a balance in the leader and the workers. A few rules are as follows-

1. Attending to the problems attentively- Workers have their own problems which they put before the leader. If the leader gets excited or loses temper the workers cannot tell the whole story and this discourages the workers. Therefore, the worker should neither be stopped nor interrupted in his talk. He should be listened to patiently and quietly. This reinforces his faith in the leader.

2. Taking decisions thoughtfully- The leader should not take hasty decisions. A well thought-out decision does not bring in problems and solves many issues.

3. Not Discouraging Workers- If the leader discourages workers it affects the industry certainly. Workers should be encouraged now and then so that they remain alert at work. If the worker comes up with a problem he should not be snubbed, rather, his morale should be increased.

4. The leader should be least sentimental and impulsive-The leader has to face all kinds of situations-odd and even, in the industry. If the leader imbibes all these situations within himself, it is not good for the industry. The complaints reaching the leader are generally impulsive in nature. If the leader, instead of controlling himself, behaves impulsively that may aggaravate the problem more. On the contrary, if the leader shows more than necessary sensitivity to the worker, he may take undue advantage of the situation. Therefore, the leader should behave prudently.

5. The leader should keep away from conflicts- It is observed that generally conflict creates enmity. Therefore, the leader should keep himself off the conflicts with workers. Because of more conflicts the workers also feel insecure. The workers may be instructed, but orders cannot be imposed upon them because the worker takes it to be an external burden.

6. Praising the workers- Workers play an important role in the industry. It is required of the leader that he praises workers on proper time. The praise should be in public since it gives happiness to the worker and his morale is boosted up. On the contrary, if he is criticised publicly he feels insulted. His mistakes should be told to him in private to safeguard his ego.

Research Work related to Officers-J.D. Houser constructed a questionnaire to comprehend the psychology of officers. This was meant to know what is the mental condition of officers who live in an industrial environment and come in direct contact with workers. The questionnaire is like this-

1. What are the major problems of industrial field?

2. What must be the responsibilities of an officer towards workers?

It contained several questions of this type. The answers obtained were analysed and the following picture came into view-

1. Condition of apprehension and fear-The officers and the leaders always live in an atmosphere of apprehension and fear. The officers apprehend that the number of workers is more; if they organise themselves they may cause harm to the owner. Officers are also afraid that if the workers are pressurised to work they may cause harm him too.

2. Feeling of self-satisfaction related to rights-The reason behind dissatisfaction in the industry is the dictatorial behaviour of the officer. The officer who believes in dictatorship is found to be more satisfied. Whereas, they greed for rights. This causes strikes everyday and production slides down.

3. Self-expression-Generally, officers take wrong steps just for self-expression, against their own and the management policies even ignoring other officers. This puts other officers also in a tight spot.

4. Indifference to social responsibilities-It is required of the officers that they analyse workers' problems in the social contexts. The social difficulties of workers must be connected to workmanship and productivity. The officer should always be alert to this so that the worker's social adjustment and familial balance is   maintained.

Exercise

1.   Explaining the nature of leadership write on its importance in detail.

2.   What are the qualities of a successful leader?

3.   What are the functions of a democratic leader?

4.   What are the rules of leadership?

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FATIGUE AND ACCIDENTS

There was a time when accidents were considered the cause of divine inspiration. With the development of science and the advent of psychology into the field of industry this old view has been rejected. The problem of accidents attracted scholars' attention and the question was taken up with seriousness. Scholars collected all the given important factors on accidents and turned it into a subject of research. Western countries made rapid progress in this area. Indian scholars presented important facts to the general public. Gradually, this created deep interest in the industrial field. Scholars have highlighted the reasons of accidents in railways, roadways and individual accidents too. But, because of non-cooperation and lack of necessary materials knowledge related to accidents has not been organised. In modern industry accidents are considered as a curse since they cause great damages.

Accident: Nature and Definitions- In day-to-day language accident is that unexpected event which causes damage to property and people both. In industrial psychology the word 'accident' is used in specific contexts and meanings. Industrial accidents are only those events that take place because of some mistakes in working conditions and work performance systems. It is difficult to define accident still these are those unexpected events that are unpleasant and unpredictable. Psychologists think that famine, drought, epidemics, earthquake, etc., are unexpected and they cause a great damage to property and people, still they cannot be considered as accidents. With regard to industries these views are not valid. Industrial accidents are confined to people working in the industry who operate machines and conduct jobs. Accidents here take place because of defective work conditions, etc. The definition of accident changes according to works and situations. Modern psychologists view accidents from a different angle. They opine that because labour laws differ from one to the other country, the definition of accidents also keep changing.

Accident proneness- Generally, the causes of accidents are ascribed to the carelessness of the worker. Chance is also taken to be an important factor. Through observations in the industrial fields it is found that usually accidents occur due to only a few people. Because of some people's work and individual situations accidents take place. Once this factor was clear, psychologists were involved in accidents-analyses. Psychologists propounded that susceptibility to accidents is due to individual differences. The research conducted at New York brought out the fact that accidents are not by chance but by some people commonly, and other people cause accidents due to situational factors. In this regard one research observes- "Accidents do not distribute themselves by Chance but they happen frequently to some men and infrequently to others as a logical result of a combination of circumstances."

According to psychologists accident proneness is a trait of the worker, because of which he becomes a victim of accident. Previous research works in this regard show the fact that as the number of accident-victim workers go down, accident frequency increases. Initial researches showed that the curve of accident resembles the letter 'J' that means, if one worker commits three accidents in one month, he would commit on an average three accidents in the next month too. The later researches showed that there is not completeness found in accidents. If working conditions are reformed enough accidents can be reduced. Mintz and Blum criticised this view vehemently. Other researches found that like traits accident proneness is not eternal but changeable. Woods and Greenwood were the first to carry out research work on accident proneness. They considered individual differences responsible for accidents. These scholars gave the following four principles of accident proneness-

1. Accident by Chance
2. Unequal liabilities
3. Increased susceptibility
4. Decreased susceptibility.

1. Accident by Chance- In this view the individual has no control over accidents; they are destined by fate. The supporters of this view believe that if the time or luck is not good, whoever be the person or whatever be the

method used, accidents can not be averted. To check the truth of this fact Greenwood and Woods studied 648 women working in a factory. Through this accidents occurring at two times were compared. There was found a special correlation between the two. Through this the view of destiny was rejected as meaningless.

2. Unequal liabilities- This principle means that only a few selected people are found to be victims of accidents. That is, accident proneness is also a trait which is found predominant only in some people. This trait appears in regular jobs and situations continuously. The theory of accident proneness was propounded by this principle.

3. Increased susceptibility- With the beginning of the work every worker is equally susceptible to accidents. Those workers who commit accidents first of all become susceptible to future accidents more than other workers. This view is called increased susceptibility. According to this theory the self-confidence of that worker lowers down who falls victim to any accident. He remains always afraid and that is why he commits more accidents in future. Viteles compares this theory with the disease TB. He writes- "The situation here would be similar to that which occurs in connection with diseases such as tuberculosis, in which a first occurrence of the disease predisposes the individual to the second occurrence of the same illness."

4. Decreased susceptibility- According to this theory the reasons of accident are found out. Knowing the reasons the workers get alert to those things that are responsible for accidents. This reduces the susceptibility of other worker for accidents.

The accident report-Accident reports are the means to collect information.

Through this we get authentic information for accident prevention programme. A good accident report should have the following features-

1. Date, hour of the day, shift and location   2. Job analysis, job operation and job unit
3. Accident type   4. Immediate cause of the accident
5. Results of the accident   6. Experience   7. Psychological data.

1. Date, Hours of the day, Shift and Location- The situations of work generally change in a systematic order according to day, hour and shifts. Night workers usually have their work more changed. Similarly, there is the effect of fatigue after work. The same way, other reasons/factors too affect accident behaviour.

2. Job-analysis, Job-operation and Job-unit- Through this given fact information regarding the format causing accidents are collected. The possibilities of sudden accidents in the performance of job may be determined. Suppose, a painter while getting down, with his back turned towards the scales of the ladder, fell off the ladder. His job analysis would be: painter; job operation-to use the ladder and his job operation unit is getting down the ladder.

3. Accident type-The information in this group includes the correct description of the nature of the accident. This is not given in detail. The painter who fell off the ladder would be described- 'fell on the ground.'

4. Immediate cause of the accident- This includes information on the reasons of accident related to specific or unsafe work or conditions or both. Through this information we get to know that because of this particular safety norm getting flouted the particular accident has taken place. Actually, accident has taken place because of doing this or not doing that.

5. Result of the accident- This includes the physical state of injury, description of injury and the amount of damaged property, etc. One can take the help of a medical practitioner and a responsible person to evaluate property damage.

6. Experience-It's source is the accident report. This given data is very helpful in making plans for safety training programmes.

7. Psychological data- Aptitude test, personality table and the data available on performance tests may be included in the accident report. This may provide information on individual factors involved in accident.

The data mentioned above fulfills the minimum requirements of an accident report. The major factors for accident in it are as follows-

1. Work situations : (i) temperature   (ii) Illumination   (iii) Shifts
2. Work methods (i) Length of work period (ii) Severity of work (iii) Speed of production (iv) Fatigue
3. Worker   (i) Age   (ii) Experience   (iii) Health and Physical deficiency
  (iv) Sex   (v) Mental-emotional state

1. Work Situations- The situation under which workers perform their jobs usually make them prone to accidents, if they are not favourable. Therefore, the worker meets an accident. Following are the major reasons-

(i) Temperature-Many research studies have shown that compared to high or low temperature there are less accidents in medium temperature conditions. High or low temperature disturbs the mental balance of the worker and causes accident. Medium temperature keeps mental balance and his body organs also function properly. Temperature may be varied according to individual differences and working situations.

(ii) Illumination- Good lighting arrangement is necessary for work. Stephenson conducted study in this area and concluded that if the work place is properly illuminated at night accidents can be averted.

(iii) Shifts- Shifts also play a big role in minimising or increasing accidents. In many industries there are arranged three shifts due to over work, so that workers work as suits them because fatigue at work increases possibilities of accidents. In his research studies Vernon concludes that compared to night shifts there are 17% more accidents in day shifts. In his opinion the reason behind this is that for the day shift workers come early at work and slowly become very careless. For night shifts workers keep awake for long before they come to work. Therefore, they are careful at work. But today's industrial system has made big differences and thus this view of Vernon does not hold good. If looked from another angle we find that accidents at night shifts are less because compared to daytime there is less din and noise at night. So, the worker works with full attention and concentration at night.

2. Work methods- It includes the following factors deciding accidents-

(i) Length of work period- Scholars have concluded through research studies that those workers commit more accidents who work extra time after normal duty hours. That is, more work causes accident while normal work hours reduce accidents. Osborne and Vernon's research is also worth mentioning in this regard. They found that a cut in the working hours means a reduction in accidents too. Vernon has conducted one more study in this regard. He concluded the fact if working hours are not cut but the speed of work is slowed down accident frequency definitely comes down.

(ii) Severity of Work- The jobs that need hard labour are called hard tasks. Evidences prove that during hard tasks accidents occur more. Many research studies have been conducted in this matter. In 1912 Goldmork conducted a study. He concluded that increased work hours and severity of work increase fatigue. Therefore, tasks requiring hard labour cause more accidents.

(iii) Speed of production-With an increase in the speed of production, accidents also increase. Miles proved through Pendulum Test that fastness of speed increases the frequency of accidents. Because of fast speed of work the worker fails to pay attention to other factors causing accident. So, there are chances of accidents more.

(iv) Fatigue-Fatigue in worker causes accidents. Researches prove that long working hours cause fatigue and the condition leads to accidents. Vernon's opinion is that compared to fatigue speed of production causes more accidents. But it is sure that accidents are connected to fatigue.

3. Worker- Accidents are due to workers too. There are many aspects related to workers that are responsible for accidents. They are-

(i) Age-Researches in this matter show that immature age group people fall victim to accidents more than mature age people. This view is supported by studies of Lipmann, Gates, and Schmit.

(ii) Experience- Inexperienced workers are more prone to accidents than experienced workers. Fisher concludes the same in his study. Thus, a major reason of accidents is lack of experience of the worker.

(iii) Health and physical deficiency- Every work of man depends upon his health. Those people who suffer from some illness or physical defects commit more accidents. Newbold, Farmer & Chamber and Viteles conducted studies in this area. They concluded the fact that accidents are connected to health. Ill people or physically weak people are more prone to accidents.

(iv) Sex- Commonly, women are unfit for hard tasks. They commit accidents more. Women are tender by nature and fail to control themselves in dangerous situations. Therefore, they are victims of accidents more.

(iv) Mental emotional state-Mental emotional states are closely connected to accidents. Mentally ill people commit more accidents. Heresey has concluded that accident happen more during unstable emotional states. That is, mental imbalance of the worker will lead to accident.

Measures to prevent accidents- All the big industrialists grapple with the question how to prevent these everyday accidents. Obviously, it is a well-known fact that if the major causes responsible for accidents are removed accidents can be averted to a great extent. The major elements responsible for accidents are concerned with workers, working conditions and working methods. If there are enough reformations on these factors, accidents will decrease. Modern industries have safety programmes to prevent accidents. Psychologists and engineers tell the workers about safety. Psychologists have prepared materials for safety habits. Three types of safety measures are used to decrease accidents. They are-1. Mechanical safety devices, 2. Indirect safety measures, 3. Psychological safety devices

1. Mechanical safety devices- It includes such systems that maintain safety. Improvements in machines also are done. This thing has three specific features-

1. If the safety devices are removed, machines should not be put on.
2. These devices must be foolproof.
3. These devices should not affect production at all.

2. Indirect safety measures-This relates to controlling atmospheric conditions, fatigue and the maximum speed is determined. This can be divided into four parts-

(i) Elimination of fatigue　　　(ii) Proper speed at work

(iii) Proper lighting　　　(iv) Controlled atmospheric conditions.

3. Psychological safety devices-This emphasises on various safety committees, asanas, methods, habit formations and motivations, etc.

Ill effects of accidents-The ill effects of accidents may be studied under three heads- (i) Economic loss (ii) Individual loss (iii) Social loss

(i) Economic loss- Accidents cause damage to machines, instruments, etc.Workers get injured and sometimes even lose their lives. Treatment of the injured and paying indemnities to the families of the deceased cost money. Sometimes loss of good workers affects industry. Damaged machines may take a long time to get repaired. That negatively affects production and creates industrial and economic imbalance conditions.

(ii) Individual loss-There take place many such accidents in industries that affect the common public. Workers may lose legs, limbs or suffer any other injury and become disabled. Thus, accidents make their lives miserable. Many workers lose their mental balance and suffer from pscho-neurosis.

(iii) Social loss- The social effect of accidents is beyond count. The family which loses a member gets disturbed thoroughly. The other members get no proper education, enough food to eat or other needs fulfilled.

Tests for accident proneness- Industrial psychology uses five types of tests to measure accident proneness.

They are-
1. Sensory motor tests,
2. Intelligence tests,
3. Emotional stability tests,
4. Muscular and perceptual tests,
5. Clinical tests

1. Sensory motor tests- Through these tests the sensory and functional balance of the worker is tested. The possibility of accidents is more because of low sensory-functional capabilities. Using these tests right kind of workers are selected for work. Such tests include Dotting test and Reaction time test. Mire found in his study that accident and sensory-functional balance are related.

2. Intelligence tests- Scholars commonly believe that I.Q. and accident proneness have a special connection. Some say they are not connected. But it is commonly observed that low I.Q. level workers fall victim to accidents more. A low I.Q. level worker does not use his common sense in operating machines, so commits accidents repeatedly.

3. Emotional stability tests- Emotional unstability causes accidents. Therefore, before appointment the worker must be tested for his emotional stability. Emotional stability is measured on the basis of muscular and glandular reactions.

4. Muscular and perceptual tests- Through these tests the difference in the muscular and perceptual reactions is checked. On the basis of facts the conclusion drawn is that the people whose muscular reaction is faster than perceptual reaction are accident prone.

5. Clinical tests- If the appointed worker commits accidents he is given clinical tests for reformations. Through these tests the irrelevant and abnormal behaviour of the worker is analysed. And if required, desired improvements are brought in him.

In brief, there is a need to implement accident proneness- indicating various test results very carefully. Eysenck proved that the correct knowledge of accident proneness may be gained through selection process, not only through statistical analysis. Selection process is more psychological and objective in nature.

Industrial Fatigue- The use of machines in industry has increased production and decreased physical labour. This also has solved the problems of accidents, monotony and fatigue. But the solution is not achieved in the proportion it should have been. Machines do increase production but their contribution in decreasing fatigue is almost negligible. Machines are run by men. They do not get tired, but men do. Fatigue is manifested in many ways. Sometimes it appears as production loss. But the feelings of workers are hardly looked into. Now and then fatigue affects the feeling tone of the worker but it does not affect production. Sometimes feeling tone as well as production both suffer loss. Physical tests may not give any sign of fatigue. Thus fatigue is a multifaceted event that may have various manifestations.

What is industrial fatigue?

Fatigue is known to everyone, still it is difficult to know its nature. Traditional definitions tell that the reduced capability of work due to working for a long time is called fatigue. A decrease in production speed because of working continuously for long is fatigue. The scientific definition of fatigue is presented by Gilbreth. His definition is based on three facts-

1. Loss of the power to work
2. Feeling of pleasure at work
3. Lack of happiness in free hours.

According to Mires in fatigue condition the control of higher level neurons over lower level neurous disappears, because of which muscular activities go up instead of going down.

Man cannot think properly in fatigue conditions and he feels depressed. He considers more work harmful for body. In fatigue conditions the individual does that which he avoids doing normally. Researchers have concluded through studies that industrial fatigue affects not only worker's adjustment but also production and society.

Florance divides the study of fatigue into three parts-

1. Work decreasement,   2. Physical state,   3. Feeling of fatigue

The nature of fatigue may be comprehended as follows-

1. Decrease in mental powers- If the works that require mental exercise more are done for long at a stretch they create the condition of fatigue. When mental power decreases, production of work falls down and finally disinterest for work develops. This state is known as fatigue. Mental work spends mental energy and man can not work more than a limit. Because of individual differences working power of people are also different. Those who possess high level of inspiration, determination to work and a strong desire to achieve their goals do not feel tired easily. Similarly, in some abnormal conditions too one does not feel tired.

Mental fatigue is harmful for the industrialist and the worker both. This brings down one's happiness and thinking, and decision making power.

2. Decrease in physical power- Fatigue affects physical actions as well. It causes many physical changes. It increases respiration and blood pressure. The changes that occur in the body due to fatigue are due to chemical reactions. These chemical reactions are as follows-

(i) Lack of power generating elements in muscles- Glycogen supplies energy to body to perform various tasks. This material changes into sugar. Working for a long time produces a lot of poisonous substances in the muscles. That is, long stretches of work change glycogen into lactic acid. Due to this muscles start contracting. With the fresh supply of oxygen to lactic acid it once again changes into glycogen. But in the absence of oxygen this process is stopped. At that time respiration is very fast and the person starts gasping and panting.

(ii) Addition of unnecessary elements in muscles and blood circulation-Many research studies have proved that there are many elements responsible for fatigue. When these elements start depositing in muscles the person feels tired. Potassium phosphate and carbon-di-oxide deposit in muscles and produce fatigue. Finally, at one stage work power is reduced to nil, physical development is stopped and mental balance disturbed.

(iii) Other physical changes in fatigue-Apart from the poisonous elements mentioned above many other physical activities and changes are also affected in fatigue. Blood circulation, heart beat and digestive system also are affected. Endocrine glands, nervous system also change. Blood cells and their chemical reactions clearly show differences. Thus, it may be stated that as a result of fatigue the whole body with all its parts, is affected. Physical and mental fatigues are mutually related. That is, physical fatigue causes decrease in mental powers, and after mental work physical fatigue is felt.

3. Decrease in production- The effect of loss of physical and mental powers is felt on production. Due to individual differences the degree of fatigue in different people is different. Production is more or less affected the same way. Through Orgograph experiment Moso concluded that the working capacities of people differ. On the basis of working power Lehman categorised people into three types-energetic, unenergetic and normal energetic or fatigueable. Martin says the individual works more in the initial working hours but works very less before rest. After rest once again he works more.

4. Effect of fatigue on other aspects- Fatigue is a serious problem in the industry. If affects many industrial aspects. For example, fall in production, wastage of material and possibilities of accident.

(i) Fall in production-With fatigue increasing in the worker production starts falling down. Vernon says whatever less may be the work hours, fatigue has its impact on the worker and reduces production.

(ii) Wastage of material- Because of fatigue the worker neglects his work. As a result there arises carelessness and disturbance in the work. The merits of production/production quality disppears. The worker wastes material. Thus, there is a fall in the quality and quantity of production.

(iii) Possibilities of accident- Because of fatigue possibilities of accident are more. It causes damage to property and individual losses.

Causes of fatigue-Every effect has a reason behind it. Fatigue causes loss of working powers. There are some elements, conditions and situations that produce this state of affairs.These are-

1. Influence of working hours   2. Effect of rest period   3. Temperature and ventilation
4. Machine design   5. Effect of atmosphere   6. Effect of proper posture
7. Individual factors   8. Social factors

1. Influence of hours of work- Psychological tests have brought out the fact that working for long stretches of hours decreases production every hour. On the contrary, if working hours are cut, production increases. Thus, if working hours are longer the worker feels fatigued.

2. Effect of rest period- Along with reducing the working hours, it is also necessary that there is rest period in between. After rest the worker attends to his work better and increases production.

3. Temperature and Ventilation- Workers feel fatigue early working at a more cold or more hot place. They may catch diseases too and production suffers.

4. Design of machine- Some machines are designed in a way that the worker can operate it either standing or sitting. Working in a single posture for long causes fatigue early. Some machines are designed in a way that a particular body part has to be used more. This also causes fatigue.

5. Effect of atmosphere- Noise and fatigue are closely connected. If more noise is produced in industry the worker feels fatigue very early. Experiments have proved that in a noisy atmosphere the worker has to use more force to work. It disturbs his attention. It may cause errors in the work. Weston conducted experiments on sewing workers and concluded that in peaceful atmosphere production rose to 7.5% more

6. Effect of proper posture- Improper posture at work not only causes fatigue early but also raises possibility of accidents. So, there must be a good arrangement of right posture at work.

7. Individual factors- Many individual factors are also responsible for fatigue. Two of the more prevalent are- lack of sleep and lack of inspiration.

(i) Lack of sleep-Hours of sleep are almost fixed for man according to age. If workers working on big machines do not take proper sleep they feel fatigue early and production falls. In addition to lack of sleep more sleep is also a factor for fatigue.

(ii) Lack of motivation-Lack of motivation induces early fatigue in the worker. If the engaged worker is enthused by information on promotion or economic gain he is inspired to work hard. It will help overcome fatigue and increase production.

Apart from this, maladjustment, lack of required power, lack of practice on work and worker's family life also induce fatigue.

8. Social factor- Society is the worker's factory. If he is dissatisfied with any of the family members he will feel tired at work. If he feels insecure or there is any prestige issue at hand he would get fatigued. It decreases production and increases possibility of accidents.

Methods of eliminating fatigue-Whatever are the reasons behind fatigue if they are removed, fatigue will disappear. Some of the methods are given here in brief.

1. Proper working hours- To save the worker from fatigue it is essential that the working hours are not too long. The working time should be set keeping in mind the climatic conditions, worker's health and age, etc. A set working time frame is the key to success in the industry.

2. Sufficient rest- Rest is essential to overcome fatigue. Rest period and its proper distribution is very helpful in overcoming fatigue.

3. Change of work- Working on the same thing at a stretch generates fatigue and monotony. Experiments have proved that if changes at work are introduced the problems of fatigue and monotony can be solved.

4. Industrial atmosphere- Industrial atmosphere needs to be controlled to put control over fatigue. Proper temperature, light, ventilation and peaceful atmosphere will help workers feel less tired.

5. Machine- The designs of machines should be changed if fatigue is caused due to them. Sometimes machines are very noisy and that creates fatigue. So, the sound of machines should be made rhythmic. If the speed of machine is set according to the capability and experience of the worker he will not feel fatigue soon and production will also not fall.

6. Health of worker- Fatigue is connected to health. If the worker's health is not good he faces many other problems too. Therefore, the health of the worker must be properly cared for.

Measurement of fatigue- The measures to overcome fatigue can be properly implemented only if there are used proper methods to measure fatigue. The tests constructed at international level to measure fatigue are as under-

1. Physical tests- Through these tests energy output of a particular person at a particular time is measured. These tests include Hand Dynamometer, Mercury Dynamometer and Water Dynamometer, etc.

2. Physiological tests- In this the pulse rate, quantity and rate of oxygen intake, and various skin sensations of the worker in fatigue condition are measured.

3. Psychophysical tests- In these tests psychophysical changes are studied. In this the measurement of body oscillations and restlessness are also done.

4. Chemical tests- Blood circulation, urine, stool and saliva of the worker are analysed in these tests.

5. Mental tests- Through this all the mental process are studied. Sensory discriminations, concentration, imagination, intelligence, memory, etc., are measured.

6. Production record- These are used the maximum in industries. Regarding their use Viteles writes- "The production curve has been generally accepted as the most satisfactory test of fatigue in determining the effect of methods and the conditions of work upon the capacity to work."

Although this will be an over statement to say that these tests are free from errors but with careful use they can be made suitable for the purpose. The errors cannot be overcome completely.

Exercise

I. Essay type questions:

1. Highlight the reasons and preventive measures of industrial accidents.

II. Short answer type questions:

1. Explaining the nature of fatigue describe the methods of its measurement.
2. What are the ill effects of industrial accidents? What are the methods used to measure accident proneness?
3. Write down the measures to overcome fatigue.

SOLUTION OF INDUSTRIAL PROBLEMS THROUGH TRAINING IN THE SCIENCE OF LIVING

On the one hand if the industrial world helps people make economic progress, on the other it faces many problems too. Every industrial unit has its own problems. If some problems are general, some are specific. Some major problems pertain to all industrial units, for example, problems related to production, problem of consumption of produced goods, personal problems of workers, problems arising out of mutual relationships between workers and management, fatigue and accident problems, problem of workers' morale and pollution problems, etc. Industrial units take various measures to solve these problems and they succeed too. But, sometimes these measures cost dearly and sometimes the problems escape solution.

For the last few decades to solve human problems in the industries many meditation and yoga systems are being used. The experiments have shown good and positive results and many industrial problems have been solved too. The Science of: Living and Preksha meditation experiments also have been conducted in the field of industries and positive results have been observed. Although the Science of Living and Preksha meditation experiments have not been conducted in the form of scientific research, yet whatever experiments have been conducted they have hypothetically and theoretically proved that Science of living and Preksha meditation are capable of solving many problems in industries.

Major problems of the industrial field- The problems pertaining to industries can be classified into the following major divisions, and how we can solve them through science of living and preksha meditation also follows-

1. Workers' personal problems
   - (a) Family problems
   - (b) Health problems
   - (c) Morale problems
   - (d) Adjustment problems
2. Problems arising due to mutual relations between the workers and the management
3. Fatigue and accident problems
4. Maladjustment problems of workers like, characterlessness, bribery, neglect of duty and addiction, etc.
5. Problems related to unskilled workers.

The problems listed above are found generally in all the industrial units and there are constant efforts made to solve them. If these problems are paid no attention at right time and not solved, they may acquire a dangerous proportion and leave a very much negative impact on the function of the unit. To solve all these problems the management and the owner take various steps time to time and make efforts.

To comprehend these problems correctly and to settle these problems what use of science of living and preksha meditation can be we shall describe in detail in the next few pages. Science of living teaches people the art of living whereas preksha meditation opens up the inner dimensions of a person's powers. Most of the problems are basically connected to man. These problems arise because of the person concerned not knowing the art of living properly. If the person knows the art of living the problems end up soon while if he is ignorant of the art of living the problems get complicated. Preksha meditation reforms the inner core of man and its regular practice develops insight in man, develops his potentialities and knowledge.

Problems and training in the Science of Living
1. Personal problems of workers and the Science of Living

(a) Family problems- Among other personal problems of the individual there are his family problems too that give him tension. Because of family tensions the individual fails to perform his duties properly. Quarrels at home, the problem of the arrangement of children's education and adjustment with family members are some predominant

problems that create tension and disturb the person due to which he fails to do the work assigned to him. As a result he commits mistakes and performs the job badly. Some of the practices of Preksha mediation like, kayotsarga, perception of breathing, etc., are helpful in normalising the behaviour and activities of the individual. If other members of the worker's family also practice preksha meditation they will also get benefitted and there will arise an atmosphere of adjustment in the family. Through regular practice of science of living and preksha meditation by the worker the gumption and tact improve and he attains normal behaviour. It will subside his tension and he would not commit mistakes at work. The job is performed perfectly and production increases.

(b) **Health problems-** The worker may suffer from many health problems. He may be physically, mentally or emotionally ill. Because of competitive life of today it is but natural to suffer from such problems. It directly affects the working capacity of the worker and indirectly affects industrial production. All these problems can be set right through science of living, preksha meditation, yoga postures and yoga activities. The worker will live a healthy life; his working capacity will remain intact and the industrial production will rise up.

Physical ailments decrease the physical abilities of the individual. He feels fatigue. Due to mental ailments he feels irritated, worried and mentally unstable. Due to emotional ailments his behaviour turns extremely sensitive and he develops impulsive instability. This causes irregularity in the function of his endocrine glands and hormones secreting glands also function abnormally. These ailments can be treated through some practices of the science of living and preksha meditation, like, kayotsarga, perception of the centre of consciousness, perception of body and anupreksha training, etc. Through these practices the functioning of endocrine glands become normal and hormone secretion also acquires normalcy. As a result the individual lives physically, mentally and emotionally healthy. His working power increases which ultimately increases industrial production.

(c) **Problems of morale-** Personal morale, collective morale and industrial morale leave a deep impact on the health of the industry and production. We have explained some of the factors affecting morale in the previous chapters. Job satisfaction of the worker and good relation with the management boost up his morale. Individual morale influences the group morale and group morale influences the industrial morale. Fundamentally, individual morale is very significant. To maintain high individual morale it is essential to maintain job satisfaction as well as the interactions with the management also need to improve. For this there is a necessity to develop insight in the worker as well as in the management so that they adjust with others better and understand each other's problems and satisfy each other. To develop insight some centres of consciousness are meditated upon and some anuprekshas are observed, for example, the centre of vision, the centre of enlightenment and the centre of knowledge are meditated upon and the anupreksha of tolerance is observed.

(d) **Problems of adjustment-** Adjustment of the worker affects production and performance of work. It is essential that the worker is properly adjusted with himself, with his job and with his colleagues. Therefore, to achieve this, some of the personality traits of the worker need to be developed. Individual's intelligence, ego, super ego, self-concept and self-esteem and physical and mental tension, etc, factors show his state of personality. Some research studies (Gaur, 1997, Gaur and Betal, 1998) have proved that preksha meditation enhances intelligence powers as well as the powers of ego and super ego. It helps the individual grasp his job properly. Preksha meditation also enhances individual's self-esteem and self-knowledge powers. Apart from that individual's physical and mental tensions decrease meaningfully. Gaur and Betal (1998) have observed a significant effect on the adjustment power of the individual under the effect of preksha meditation. According to them persons practicing preksha meditation develop the capability to adjust better with their family, society and work place. If industrial worker also practices preksha meditation regularly he can adjust better with himself, with his job as with his colleagues. With better adjustment of workers industrial problems arise less and industries prosper and progress.

2. Workers' management problems and the Science of Living

It is generally observed that relations between workers and management are hardly sweet in almost all the industries. The chief objective of the management and the owner is to earn maximum profit at minimum cost. To

achieve this goal they mostly ignore the welfare of their workers. Taking more work from workers and paying them less, ignoring the difficulties of workers and neglecting their welfare, not paying them on time, deliberately finding fault with their work and magnifying their errors and building pressure on the workers generate dissatisfaction among workers and as a result first the individual morale of a worker suffers set back, then group morale sinks down and finally the industrial morale takes a dip. This creates an atmosphere of unrest and instability. Strikes take place and workers and the management come to a direct conflict. Under such conditions workers as well as industrialists, means the industries, bear all kinds of losses.

Similarly, industrial workers too expect more than necessary from owners and the management. Not completing the work on time, not working properly, creating factions in the factory, using unfair means to put pressure on the owner and the management, also create dissatisfaction towards workers in the owner and the management. This also results in coming the management and the workers to a conflict. The industry is locked-out and retrenchment process starts. On many occasions this happens because of lack of proper communication between workers and management. The workers fail to understand the management and vice-versa. This creates misunderstanding between them and unnecessary tension crops up. Therefore, in an ideal industry such behaviour is expected of the workers and the management that they respect each other's feelings, show tolerance and understand each other properly. The workers must have the feeling of belongingness to the industry, that any damage to the industry is their own loss. Similarly, the industrialists and management must have the sentiments that workers are important units of industry and to safeguard their welfare is their duty and any loss to workers is a loss to the industry.

To generate the feelings thus described training in the science of living and preksha meditation can play an important role. Kayotsarga, perception of the centres of consciousness and some specific anuprekshas, like, anupreksha of tolerance, of adjustment, of sweet temper, of dutifulness, etc.; practices can make improvements in the feelings above mentioned. They can establish a good adjustment between the workers and the management.

3. Fatigue and accident problems and the Science of Living

Accidents are directly connected to fatigue. Most of the accidents take place due to workers' Fatigue. Fatigue in workers is of two types-physical and mental. Physical fatigue occurs because of overwork and lack of rest while mental fatigue occurs because of excess mental work, disinterest in work, mental pressure, worries and anxieties mounting up. Fatigue affects working capacity and production. Accidents are directly related to fatigue, though accidents occur because of several other reasons too like no careful handling of machines, losing concentration, fault in the machine, excessive work and any illness of the worker.

These problems can be tackled, in principle, to a greater extent through science of living and preksha meditation. Bodily fatigue can be overcome through kayotsarga. Similarly, mental fatigue can also be overcome through Kayotsarga, perception of body and perception of centres of consciousness. To increase interest in work and concentration too preksha meditation practices are helpful. Some research studies (Gaur, 1998, Gaur & Betal, 1999) have observed that through regular practice of preksha meditation mental and ergic tensions of a person can be decreased significantly.

4. Maladjustment problems of workers and the Science of Living

Adjustment is a serious problem in industries. The major problems of maladjustment are-characterlessness, bribery, neglect of duty and drug addiction. Some workers are characterless so, they disturb the workers of opposite sex because of which their working capacity slides down. Their performance goes down and their bad reputation creates unnecessary tensions in the industry, sometimes even quarrels too take place. Some workers start accepting bribes and indulge in theft. They take bribes from their subordinates. Similarly, to get their work done they give bribes to their senior officers. Such acts put others' morale down and that affects performance. Some of the workers do not attend to duties seriously and waste their time in useless talks and activities. Because of this the expected production level is not achieved by the unit. Some of the workers get addicted to drugs and alcoholic drinks. They themselves get drunk and induce their colleagues also to do the same. Some workers use opium to enhance their

efficiency and some use wine. Alcoholic drinks and intoxicants are very dangerous because under their effect psychomuscular system of body does not work properly as the mind loses its control over body parts. Mostly such workers meet with an accident at work and cause damage to the industry.

All the problems mentioned above can be tackled with the use of science of living and preksha meditation techniques. Apart from Kayotsarga and preksha meditation some anuprekshas may be used to enhance moral values. The specially recommended are self-discipline, authenticity and compassion anuprekshas. They help develop person's moral values and his character. Similarly, self-introspection, self-analysis, anupreksha of harmony, sincerety to work anupreksha, etc., can help solve the problems of maladjustment of workers. Workers used to alcoholic drinks should meditate upon the centre of unerring. Gaur and Betal (1999) conducted a research study on drug addicts and found that if the drug addict meditates upon the centre of unerring regularly for 20 to 30 minutes everyday he feels relieved of his tendency and many of them get total freedom from this bad habit.

5. The problem of unskilled workers and the Science of Living

Due to wrong selection sometimes unskilled workers get entry into the industry. The working manner of unskilled workers being wrong or due to their ignorance of work there arises a possibility of accidents. These workers affect the efficiency of other workers too. Such workers must be trained in the science of living alongwith their training in the industrial job. Training in the science of living and preksha meditation develop insight, learning power and their intellectual power as well as some other capabilities. Thus, the worker can easily and quickly get trained in the industrial job and can become a skilled worker.

Thus, we see that the various constituent parts of the science of living and preksha meditation are capable enough to solve various problems plaguing the industry. In addition to the problems mentioned above various other industrial problems can also be solved through them. At an ideal industrial unit training in the science of living and preksha meditation must be essentially recommended for the workers. Many industries appoint psychologists and counsellors for the welfare and proper guidance of the workers. On the same lines there must be established a department of Science of Living and Preksha Meditation and a preksha instructor must be appointed there. The regular use of science of living and preksha meditation will not only solve the workers' problems but also add to the prosperity and efficiency of the industry.

Exercise

1.   Explain the problems of industries in detail.
2.   What are the individual problems of a worker in the industry? How can they be tackled with the help of the science of living and preksha meditation?

3. Write short notes:
(i)   Fatigue-accident and Science of Living.
(ii)   Workers' maladjustment and the Science of Living.
(iii)   Workers-management problems and the Science of Living.

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JAIN VISHVA BHARATI INSTITUTE

(Deemed University)

LADNUN-341306 (RAJASTHAN) INDIA

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YOGA AND SCIENCE OF LIVING

PAPER-IV

APPLIED PSYCHOLOGY AND SCIENCE

OF LIVING

Writer

Dr. B.P. Gaur
Dr. Hemlata Joshi

Translated by

Dr. Pradeep Sharma
Ms. Geeta Sharma

Edited by

Prof. A.K. Malik

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