

Psychology 1-2

National Officers Academy
House # 614, Street # 29
G-10/2, Islamabad

By

Madam Arsala

NATIONAL OFFICERS ACADEMY
RAWALPINDI CAMPUS

NOA

National Officers Academy

Psychology 2:11 ①

- Perception
- Personality
- Personality measurement
- Learning
- Motivation
- Emotions (circulal + s. lano) -
- Persuasion (" + ") -
- Prejudice (" + ") -
- Central nervous system
- Peripheral nervous system
- School of thoughts -
- endocrine glands.

National Officers Academy
House # 614, Street # 29
G-10/2, Islamabad



∴ Perception :-

is defined as :-

- Processes that give understanding and unity to the sensory input.

- It is the awareness of an organic process or

- Perception is the process in which sensory information is organized and interpreted in the brain.

- It is a complex cognitive ^{mental} (understand) process that is concerned with the selection, organization and interpretation of stimuli.

- Perception is a process based on past experiences and sensory ideas who gave a meaningful picture and understanding of the situation.

- Perception is a personal thing that enables a man to know where he stands in relation to object.

- Perception is the use of both sensory data and past experience to make a picture

- Perception is the best guess about the object.

- It is an active process of choice.

- Perception structures the incoming stimulation

- Perception interprets the incoming stimulation

- It fills in missing details.

- It depends upon :-

1. (ear)
2. (eye)
3. (nose)
4. (tongue)
5. (skin)

i) intelligence level and

②

ii) Observatory level.

iii) past experience

Availability of sensory cues:

-- Perception is a bipolar process — a process with two main aspects, one aspect is the one which concerns characteristics of stimuli like size, intensity, change, that activates the sense organs, while the see involves characteristics of perceiver himself his past experiences, his motives, his attitude his personality and so on.

-- Perception is a more active process, in which sensory experiences are arrived through the nervous eye to the brain and there they are interpreted

(Matlin and Foley 1992)

Perception by Oxford

- ①. The way you notice things, especially with the senses.
- ②. The ability to understand the true nature of something.

Or Perception is a process by which an organism interprets and evaluates the sensory inputs so that it acquires meaning.

Types or Kinds of Perception :-

- There are four main types of Perception.
- ① Objective and form perception.
- ② Depth perception.
- ③ Motion perception.
- ④ Time perception.

- They also have sub-types, described as follow.

① Objective and form Perception :-

we are

accustomed to organizing things in our mind into a form, shape or a melody that gives a meaning full picture. (true picture)

- Types of obj. and form Perception.

- ① Figure and ground.
- ② Gestalt's law.

① Figure and ground :- we see objects as standing out from the background!

.. ex: a clock hanging on the wall is perceived as figure while the wall is the ground.

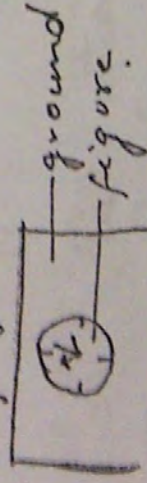


Fig ①

.. ex: a white cross (fig) and a black background (ground).



Fig ②

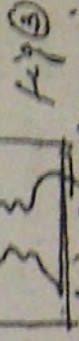


Fig ③

Fig ④

.. a two dimensional figure, we first perceive it as vase and black background and then vice versa - described by Gestalts: that we actively try to organize and make sense of what we see.

② Gestalt's law:-

- He gave laws of perception in 1900, by a group of German psychologists who studied patterns. They stressed that the whole is more than the sum of its parts.
i.e. perception has its own properties.
- The Gestalt's laws are as follows.

- i) Nearness.
- ii) Likeness.
- iii) Closure.
- iv) Inclusiveness.
- v) Simplicity.

i) Nearness:- This law states that "The things near to each other are considered as pairs."

Ex:- ●● ●●●● ●●

we don't say that they are 10 dots rather we say that there are 4 pairs of 2, 4 and 2 dots.

ii) Likeness:- This law states that, "The things alike are considered as one subset

ex:- x x ●● ● x x

 x x ●● ● x x

a subset of crosses, dots, dots and crosses,

iii) Inclusiveness:- This law states that, "we consider the collective unit not separate."

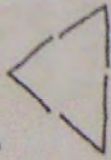
ex:- . . .
 . . .
 . . .

∴ we consider them as a collective unit of a hexagonal shape not separate 6 dots. This concept is called inclusiveness.

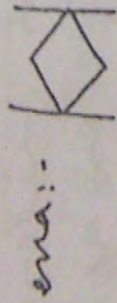
(1)

iv) closure:- It states that, "The things which are closed can be judged by us on the basis of our past experience although the proper shape is missing."

ena:-



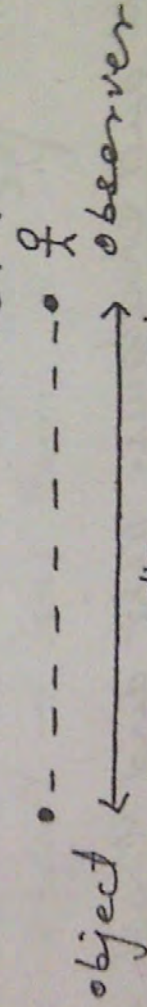
v) Simplicity:- It states that, "Our mind always perceives the most simple guess about the shape or structure."



ena:- \therefore in the diagram, the figure is a square in two parallel lines, inspite we never say that there are two K alpha bet's joined (KX).
(devil turning fork)

National Officers Academy
House No. 1, Street # 29
G-10/2, Islamabad

② Depth perception:- Depth perception is defined as the "perception of distance b/w the object and the observer."



Depth perception.

- It has two types.

① Monocular

② Binocular

→ Depth perception is the brain's tendency to see the world in 3-dim.

① Monocular:- These sense the depth and distance with just one eye.

mono = one

ocular = eye. It has following five types.

- i) clearness
- ii) linear perception
- iii) Texture
- iv) light and shadow.
- v) Motion parallel.

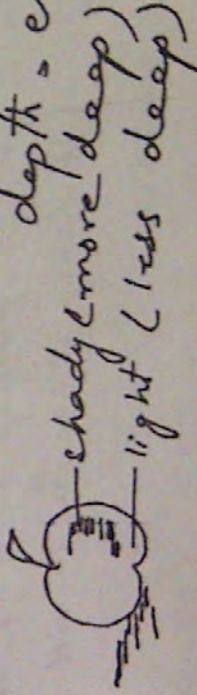
i) clearness:- Any familiar object appears closer when we perceive clearly the details of the object, clearness influences our depth perception. dust and dirt in atmosphere effects clearness.

ii) linear perception:- Objects appear smaller and closer together as they become more distant. Railroad tracks appear to meet on the horizon.

iii) Texture:- when we look at a landscape, we see that the Texture of the ground appears denser as distance increases.

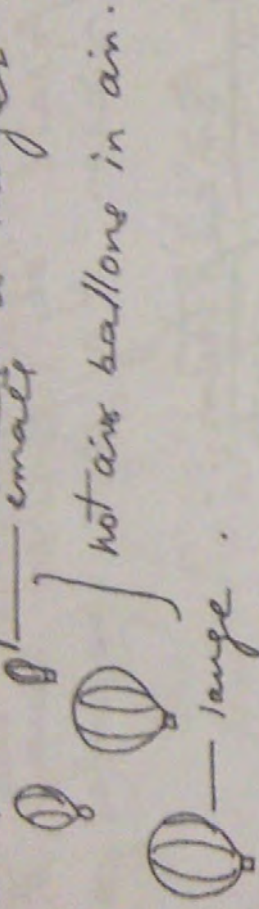


iv) Light and shadows- light and shadow effects describe abt the depth - ena:- in paintings

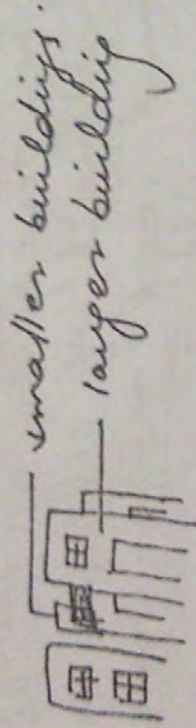


v) Motion parallel ex:- it is defined as, "A thing in motion see things coming opposite motion near, and things going parallel far off."

(15)
vi) relative size:- if two obj are of the same size the one that makes a smaller image is farther away than the one that provides a larger image.



vii) interposition when one image of an object appears to cut off our vision of another, we judge the obj to be closer to us than the sec.



Nations International Academy
Hoi:
G-1/1/2, Indraprastha

viii) accommodation:- the lens alter the shape on the basis of distance.
near object \rightarrow lens thick.
far object \rightarrow lens thin.

② Bionocular:- we need two eyed vision for the bionocular depth perception.
- There are two images are formed on the retina, brain interprets them and give us the image.
- It is in the range of 20 meter distance.
- Muscular stress and tension of eyes are related to bionocular vision.
- two concepts in it
i) Retinal disparity:- The difference in the image in the two eyes is called retinal disparity.

- right eye - see more - night hand side objects
- left eye - see more - left hand side objects.

ii) convergence:-

The eyes turn inward or converge when we look at near by objects. As we fixate obj further away, the lines of vision of eye becomes parallel.

③ Motion Perception:-

- The state of movement is called motion.

- It has three types - in apparent motion and real motion.

i) Real motion:- The perception of the actual movement of objects in the world is termed real motion perception.

A.P.A.S. (1961)

ii) apparent motion:- movement perceived in the absence of physical movement.

- It includes.

a) phi-phenomena:- when successive flashes of motion of light occur, they give an impression

ena:- lights on marriages

b) Auto kinetic motion:- The light spot in a dark room seems

ena:- stars seem moving on the sky.

c) Stroboscopic motion:- when the picture

are moved rapidly, they give an impression of motion ena:- frames of different sets

⑥
Time perception:- Perception made time is called time by the factor of. It has following factors.

i) Age:- in a factor,

The people of old age and young one feel that time is slow while teenagers feel it is running.

ii) Interest:- The time of interest passes quickly

iii) Extreme temp:- also effect's time perception - it effects the thinking of the people.

iv) Success or failure:-

The success time passes quickly and failure time passes slowly.

v) Drugs:- also effect the time.

- There are time reducing and time increasing drugs.

∴ Perception constancy :- (short notes)
- it can be defined as :-

∴ Perception constancy is a phenomena in which physical objects are perceived as unvarying and consistent, despite changes in their appearance or in physical environment.

∴ The tendency to maintain constancy of size, shape or color in the perception by stimuli, even though the stimuli have changed is called perception constancy.

∴ It is the tendency to perceive objects in a consistent manner, despite the changing sensations, received by our senses. ∴ Visual constancy plays an important role in helping us adapt to our environment successfully, it also focuses on the permanent features of objects rather than changing retinal images.

- There are three main types of perception constancy. They are :- (css)

- i) color constancy
- ii) shape constancy
- iii) size constancy

① color constancy :-

- colors of the objects tend to remain constant in perception when we know their true color.
- The tendency to perceive the real color of an object even if the color is changed is called color constancy.
- ex:- if a kid colors an apple orange, color of a coal, under colored light appears different but we know that it is black. bad sheet color in dark room.

② Shape constancy:- "The tendency to perceive the exact shape of an object as constant despite the difference in viewing angles."

- Shape of the table is considered as it is even if the leg is broken and it is presented distorted.

- while standing in the corner of the room the wall at rear makes smaller image than does the wall nearer to us and yet we will not perceive a distorted room bec of P.C.

National House

House

G-10/2, Islamabad

③ Size constancy:-

The tendency to perceive the exact size of an object as constant despite the difference in apparent size i.e. larger or smaller than the original one.

ex:- aeroplane in sky appears v-small but we are not astonished bec we know the real size of the aeroplane.

- learning and experience play a critical role in perceptual development.

"P.C is brought about by direct perception of all the stimuli in the scene!"

— (ecological theory by Bruce & Green)

∴ Relationship among different objects in a scene give us clues about their sizes (Gibson 1977)

∴ Determinants of Perception:-

or
factors.

- Perception has two factors or determinants.

- ① Objective or external
- ② Subjective or internal

① Objective factors or external:- Perception may be determined by

primarily by the stimulus involved.

- There are a no. of characteristics of stimuli that influence our perception.

- These are:-

① Size:- a full page add is more noticed than a half.

② contrast:- one student pass all others fail.

③ Modality:- good things are perceived more quickly, one cow standing among cows.

④ Novality:- new things perceived sooner i.e. new comer in the class, new product.

⑤ change:- any change in stimulus i.e. increase in noise, often attracts attention. someone suddenly shouting in the library.

⑥ Repetition:- repetition causes us to adapt the repeated stimulus, i.e. while reading a paragraph a word comes again and again.

⑦ Intensity:- The louder a sound, more likely a person will perceive it.

⑧ Movement:- When things move suddenly in still and motion less environment, it is quickly perceived. i.e. birds sitting on a tree and fly ^{suddenly}, quickly noticed.

⑨ Duration:- long T.V add are more attended

(8) Subjective factors or internal :-

- Sometimes perception is determined not only by the physical characteristics of stimuli but by the characteristics of the perceiver.
- Different characteristics of the perceiver are as follow.

① Biological needs :- related to our needs i.e

- research done by Lewin and Murphy, they added colored food fig in rough and boaring subjects and they found people attracted to the food fig bec it a bio. need.

② Expectancy :- Our perception is also influenced by our expectation i.e a phone call on a doctor's clinic, he may perceive it of some patient.

National Officers Academy
House # 614, Street # 29
G-10/2, Islamabad

③ Value :- Value has a great deal with perception. A botany professor and a sailor in park attend to quite different aspects of stimuli involved, botany professor attend more towards the plants there.

④ Motivation :- our motives or needs may lead us to expect to perceive certain things

⑤ Past experiences :- Much of our daily life is based upon past experience. Perception is largely influenced by it, women's husband died of gun shot. 19 Jan 2010 The gun dancing while dancing

⑥ Age:- Age brings a change in perception as well, There is a vast difference in perception of things between a young one and a baby when they look at the moon.

⑦ Social and cultural influences:- They also influence man's behaviour. They are as follows.

- A) social factors
- B) cultural factors.
- C) social suggestion
- D) pre-judice

∴ Motivation :-
can be defined as :-

- as a process that lead towards a goal.
or
- a state which drives for action
or
- Reason for action
or
- a desire which leads to the change in behaviour
or
- a force which compels for the destination
or
- intensions, need, desires, goals that determine
human or animal behaviour
or
- it is a cause to act in a particular way.
begin & end :-

∴ Motivation begins with a drive or urge and ends at adjustment.

∴ arise from :- motivation arise from two factors

① need

② Stimulus, internal :- hunger, thirst, sex etc
or
external :- society, temp, etc

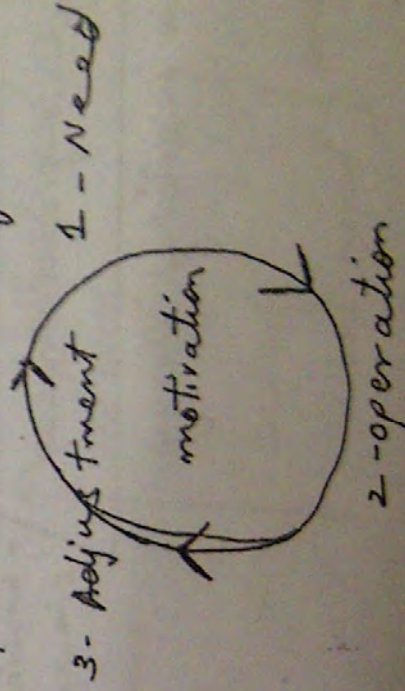
∴ Stages of motivation :-

There are three stages of motivation, they operate in a cycle.

① Need

② Operation

③ Adjustment



∴ Theories of motivation :- (N.P.I.)

- Many theories of motivation were put forward to explain motivation.
- There are three main theories of motivation.

- ① Need Theory (MAD) Need makes us mad.
- ② Process Theory (E^2)
- ③ Instinct Theory - (HSR) हा सरा,

"

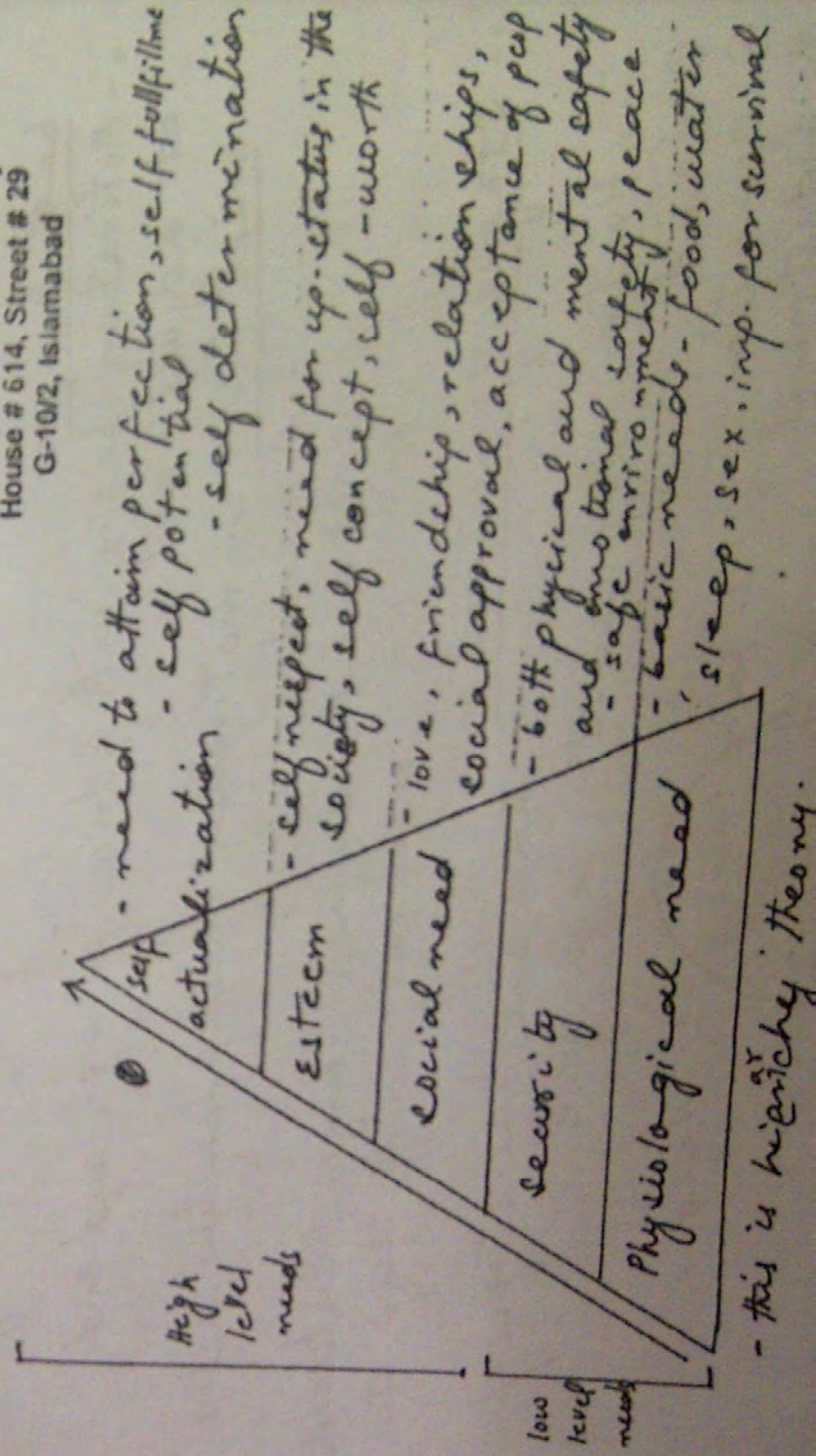
① Need Theory :- (MAD)

- There are three psychologists who gave theories based on need.
- The theories are named after them.

② Maslow's Theory :-

- based on the need of human.
- he gave hierarchy concept
- have five main points.

National Officers Academy
House # 614, Street # 29
G-10/2, Islamabad



- He explained that the biological needs are a step wise process, they increase step by step.

- He narrates that at low order needs should be fulfilled after that a person thinks about the high level needs.

- Maslow believes that human beings have the potential to solve all the problems, if the best human is who has realized his potential.
- criticism :- need tend to be in cluster of 2 or 3 group not in 5; hierarchy of need can be different for different individuals.

(ii) Alderfer's theory :-

or ERG theory. i.e. existence, E
relatedness, R
Growth, G

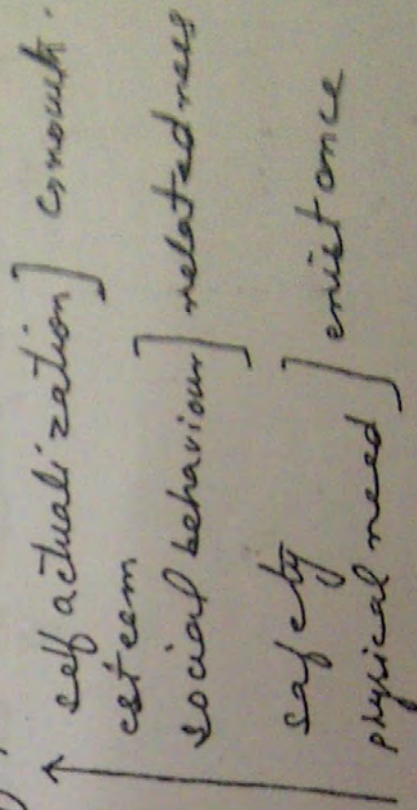
- Alderfer condensed the theory of Maslow.

i) existence :- for existence physical and safety needs should be fulfilled.

ii) relatedness :- i.e. social behaviour, it is also a need - it makes a person to stand on a point where society accepts him or rejects him.

iii) Growth :- it includes self respect and social acceptance, self actualization and self potential.

Alderfer →



(11)

maslow point of view was that need is like a ladder one fulfilled and then comes the next one but alderfer said that more needs can be operated at a time.

iii) By David McClelland:-

- based on 3 needs. (APA)

A - need for achievement

P - need for power

A - need for affiliation.

Achievement

Power

Affiliation

- people in this category desire to influence and are called high achievers.

- it is a desire to

fulfill and complete status

tasks and to achieve - for dominance in the society

a standard of excellence.

- they don't like

success by chance. to be assigned

- they like moderate with powerful

challenging and

goals.

- they are status

conscious.

- a person in this motive wants

to be assigned

with powerful

people.

- they are status

conscious.

- desire to maintain warm and friendly relations with others

- they are social

people.

- relationships

are more important

for them - i.e. family.

religion, love, or

any party.

National Officers Academy

House # 614, Street # 29

G-10/2, Islamabad

- According to D.M social needs are more important than physiological needs. and they differ from the person of society in one and another.

(by Rotter's)

(E²) ② Process theory :- or cognitive theories

- They include

- i) equity theory
- ii) Expectancy theory

i) Equity theory

- this theory focuses on individual's perception on how well he is treated with respect to others.
- equity mean equate by comparing things
- people compare edu. to pay, their ability with profession
- with efforts to benefits
- $\text{input} = \text{output}$

↓
equity

- $\text{input} \neq \text{output}$

↓
inequity

↓
increase input

- he left the field
- he will have different choices
- he can even change his perceptions just to equate his need.

ii) Expectancy theory

- in expectancy theory three things are interlinked
 - i) individual effort
 - ii) reward
 - iii) ultimate goal
- this theory says "...."
- "individual strength of Expectation for a particular thing depends on the strength of motivation that the act would be followed by a particular outcome and the attractiveness of the outcome."

③ Instinct Theory :- (H.S.R.)

- it includes three theories.

- i) H :- homeostasis theory
- ii) S :- self arousal theory
- iii) R :- Reduction theory, or incentive theory

"Motivation is the result of inborn pattern of behaviour" → instinct theory

- instinct means:-

"inborn pattern of behaviour that are biologically determined rather than learned."

- these patterns are not learned but they are present by birth.

i) Homeostasis theory:- a body's motivation to make a stable

state of balance" (by Grossman's)

- Hunger and thirst are two biological motives that operate with in homeostatic cycle
- It is a principle by which an organism tries to maintain "balance or steady state"

National Officers Academy

House # 614, Street # 29

G-10/2, Islamabad

2) Self-arousal theory:-

Accordingly "each person tries to maintain a certain level of stimulation & activity"

Drive-reduction theory (Hull's) & woodworth

3) Reduction theory:- Accordingly "an animal learning is based on the need to reduce some kind of primary drive".

Lack of basic biological requirement such as water produces a drive to obtain this requirement (thirst) and he will be motivated to fulfill this drive drink water.

Motives :-
or factors of motivation

Types of motives.

① Internal motives :-

also called 1) biological factors

2) biogenic "

3) primary "

Characteristics :- unlearned, self regulatory, involuntary, essential for survival.

(HT, SBS, MPA, D)

④ Types :- i) Hunger

ii) Thirst

iii) Sleep

iv) Body temperature

v) Sex

vi) Maternal drive

vii) Pain

viii) Air

ix) Defecation

② External factors :-

also called

1) sociological factors

2) sociogenic "

3) Secondary "

Characteristics :- learned, not self regulatory, voluntary, vary from person to person.

(NAP, SSS)

⑥ Types :-

i) Need to achieve

ii) Affinity with others

iii) Social approval motive

iv) Self esteem

v) Self actualization

vi) Power motive

National Management Academy
House # 614, Street # 29
G-10/2, Islamabad

1. Measurement of motivation:-

- It is not an easy task
- a few psychologists suggested to measure motivation by means of performance.
- but performance can't depict the motivation.
- Psychologists worked & developed followings Measurement of Biological Drives.

- ① Gross motor activity.
- ② Autonomic nervous system activity
- ③ Consummatory Behaviour
- ④ Force or Rate of responding
- ⑤ Speed of learning association
- ⑥ Preferences when alternatives are shown
- ⑦ Amount of effort offered to overcome an obstruction

(Fam) (Police Officer)

(GFC, ASP, A) → Key to remember them.
(ASLA)

Measurement of Social Motives:-

- to determine behaviour (IOPSP)

- ① interview
- ② Observation
- ③ Personality questionnaires
- ④ situational tests
- ⑤ Projective techniques.

MOTIVATION

- Motivation means "reason", it is defined as "The intentions, desires, goals and need that determine human and animal behaviour."

OR

- Motivation is :-

"the ability to change behaviour."

OR

- Motivation is :-

"an internal process that makes a person move toward a goal."

OR

- motivation is

"a process or an internal state of an organism that impels or drives it to action."

- motivation begins with a drive or urge and ends by adjustment.

- It arises by two factors: 1

- i) - Internal factors:-
 - food drive
 - thirst

- ii) - External factors
 - society
 - surrounding stimulus.

Motivation has three stages

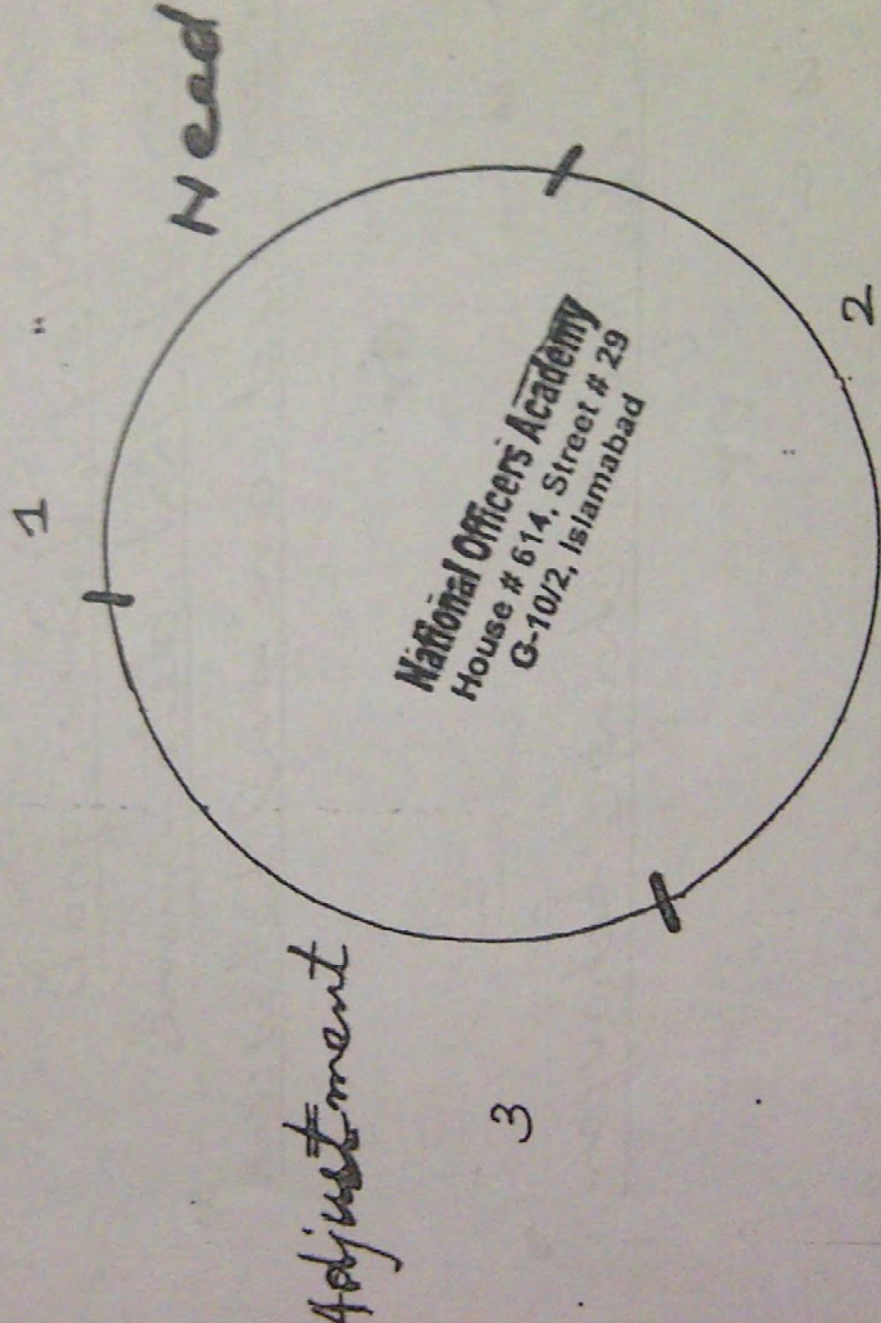
(18)

1. Need

2. Operational behaviour

3. Adjustment / satisfaction

These three stages operate in a cycle the homeostasis.



FACTORS OF MOTIVATION:-

BBPI

INTERNAL FACTORS:-

- these factors are also called biological "factors" or "biogenic factors" or we call them primary factors.

Characteristics of internal factors:-

- These factors are:-

- = unlearned
- = self regulatory
- = involuntary
- = essential for survival.

Types of internal factors:-

- The main types of internal factors are as follow. (HTSBSMPAD)

- Hunger.
- Thirst.
- Sleep.
- Body temperature.
- Sex.
- Maternal drive.
- Pain.
- Air.

Hunger :-

- (11)
- Every function of our body, from heart beat to thinking requires energy and this energy must ultimately comes from the metabolism of food.

The hunger is controlled and regulated by an "important part of the brain called hypothalamus."

Thirst :-

- urge to drink
- living things constantly need water because 90% of our cell part is composed of water.
- Water is lost from the body by the evaporation from skin and mouth and in the formation of urine.
- Most of the metabolic processes going in our body need water.

Body Temperature :-

- When ever every or any change occur in our surroundings to increase or decrease our body temperature.

to return our body temperature to its normal balance which is "98.6 F."

- Extreme cold temperature cause chivering in our body which entire hot temperature cause "sweating", as a result of these two we take measures to lessen down these effects and to maintain the normal temperature.

- Two centers in the brain; deep in side hypothalamus, control our body temperature.

Sleep :-

- sleeping is another important internal factor.
- We need to sleep, to relax our body physically and mentally.
- When we are tired of work we need to sleep.
- Some scientists say that sleep center in some where in the brain causes sleep when activated by nervous system impulses.
- To function actively and energetically we need to sleep comfortably.

Sex:-

- Sex is another biological factor needed for the body.
- Researchers have suggested that biological factors including "hormone levels, genes, prenatal environment" and "brain anatomy" would influence sexual orientation.
- The important hormone in male i.e. "testosterone" increases sex drive.
- Sex is necessary for reproduction in keeping species alive.

Maternal Drive :-

National Officers Academy
House # 614, Street # 29
G-10/2, Islamabad

"Maternal drive is an unlearned drive and it has its basis in a combination of hormones secreted during pregnancy and hence after."

- One of the important hormone is "prolactin" associated with the regulation of sex and maternity, it is secreted by the presence of fetus in the uterus.
- Prolactin stimulates the mammary glands which supply milk for the baby.
- Maternal drive is associated with mother and baby.

Pain :-

- pain is a feeling of discomfort that can vary in intensity from "mild" to "unbearable".

- The drive to avoid pain arises from the organisms need to escape damage through tissue injury and is created by the discomfort and intolerability of the painful state.

- By alerting you to danger and to avoid further harm pain works like an alarm.

Air :-

- one of the constant requirements of the body is "Oxygen"

- Oxygen is necessary for the process of the breakdown of food particles and to liberate energy.

- The "need of oxygen is so necessary that we can die without it".

Defecation :- (to discharge feces)

- As waste products accumulate in the "bowel and bladder" pressure builds up in these two organs.

- So due to this pressure we need and the drive to void or empty these organs.
- This need is again un-learned and is

INTERNAL FACTORS:-

(15)

These factors are also called the "Social factors" or "sociogenic factors".

Characteristics of internal factors:-

These factors are :-

- learned
- voluntary
- not self-regulatory.
- vary from person to person.

National Officers Academy
House # 614, Street # 23
G-10/2, Islamabad

These motives are learned by society "by environment by daily life".

It may vary from person to person because every individual has his own capability to learn things differently.

There are not self-regulatory means you have to need help and support of other people.

Types of Internal factors:-

There are five main types of internal or sociogenic factors. There are described as:-

- Need to achieve.
- Affinity with others.
- Social approval motive.
- Self esteem.
- Self actualization.
- Power motive.

There are described as:-

Need to achieve:-

- one of the drive is need to achieve.

- Achievement is some thing very good and difficult also, but you have succeeded

in doing.

- Many researches reveals that people who are high in achievement need generally to good work and effort as compared to those who are low.

- Independent training is itself a kind of achievement training.

- It is maintained, "through advice, reward and punishment."

- Some parents teach their children to approach challenging task.

- Success bring satisfaction and enhance the tendency to do best.

- Further more, achievement motivation is associated with "future economical" and

Affinity with others :-

- Affinity with others means "connection or affiliation with someone, may be to religion to a person, to a 'political' party or larger 'organization'.
- people wanted to affiliate themselves with others in order to :-

- ① - reduce fear
- ① - reduce anxiety
- ① - reduce tension
- ① - to seek comfort.

Social approval motive :-

- It is a common factor to seek social approval for the things we do and to avoid doing things that evoke social disapproval.
- It is a factor that makes us identifying with approval people of the surrounding of our society.

Self-actualization :-

- This motive refers to an individual's need to develop his or her own personalities.
- To do what he or she is capable of doing or
- "Self actualizers" are the people who use their capabilities fully.
- Its purpose is to get some thing either in education, scientific field, leadership

Self-esteem :-

- It is a factor that is needed and developed by a person for "prestige", "Success" and self-respect.

Power-motive :-

- It is a factor urge :-
 - "to be identified with powerful people"
- It is a very strong social need.
- In this the individual want to hold the others and want to rule
- It is empowered by :-
 - - gaining control over one body.
 - - identifying with powerful people
 - - try to make personal influence

o - an individual tries to dominate
him or herself. which is charged
and effected by age - and
experience.
o - women have less power motive
as compared to man.

(13)

Learning :-

Topics :-

- Definition
- Types of learning
- Factors affecting learning
- Theories of learning
- Transfer of learning.

manza1 142000 @Yahoo.com
Fida shah 555 @hotmail.com

Definitions:-

- Learning is defined as a permanent change in behaviour from experience.
- It is the modification of behaviour through permanent change.
- It is a continuous process by which we acquire various interests, habits, knowledge, skills etc.
- Learning results in change, modification or stabilisation of behaviour.
- Learning is a ^{permanent} change in behaviour which occurs as a result of practice or experience.
- It explains three things:
 - i) change in behaviour
 - ii) " through practice or experience
 - iii) the change must be permanent for learning.

National Academy
House
G-10/2, Islamabad

- An important thing over here is that short-term changes in behaviour are not due to learning rather they are due to declines in performance from fatigue or lack of effort.
- Permanent change ^{behaviour} → learning
- Temporary change → poor performance by fatigue or lack of effort.

Importance of learning:- (Bilal)

- to adapt to our environment
- for survival
- For growth
- it enhances our ability of change
- by learning we find food, ways, make friends, need etc.
- play an imp role in psychology - Psychologists emphasize on learning for the analysis of human behaviour and mental processes.

Characteristics / important aspects of learning:-

- change in behaviour for better or worst.
- Permanent change in behaviour, last for large time
- can be gained by experience.

Measurement of Learning:- B.

- can't be measured directly
- Some psy. suggest that the measurement of performance for measurement of learning.
- But empirical research reflects that performance is not a measure of learning bec. it also involves motivation
- difficult to measure learning.

Types of Learning :-

1- Habituation.

2- Associative learning.

National Officers Academy

House # 614, Street # 23

G-10/2, Islamabad

2A Classical conditioning.

2B Instrumental "

2C Operant "

3- Cognitive learning.

3A- Insight learning

3B- Latent learning

3C- Observational learning
(imitation) or Modeling

4- High-order learning.

5- Verbal learning.

6- Imprinting

7- Motor learning

①- Habituation:-

8- Shaping

"If the stimulus has no other consequence and occurs repeatedly, the response will diminish. This phenomena is called habituation."
- Human beings have a great capacity for habituation.

= or not responding to a huge no. of stimuli.

= ex: - i.e. crying children, snoring roommates

= in simple mean habituation means getting used to some event.

= or

"Due to frequent repetition of a stimulus the response I may diminish if the stimulus has no consequential effect."

or.

- It is a simple form of learning in which organisms stop paying attention to environmental stimuli that never changes.

② -: Associative learning :-
- A.S can be defined as :-

"it is the learning based upon the association of two different stimuli"

- Types of A.L

- 2A ● classical conditioning (C.C)
- 2B ● Instrumental conditioning (I.C)
- 2C ● Operant conditioning. (O.C)

conditioning :- the acquisition (gain) of a particular behaviour in the presence of a particular stimuli;

- "association between a particular form of behaviour and a particular form of stimuli"

- Following types

① forward conditioning :- where conditioned stimulus \rightarrow precedes

the unconditioned stimulus in time. U.C.S. \rightarrow C.S.

② Backward conditioning :- where U.C.S. precedes the C.S. in time. U.C.S. \rightarrow C.S.

③ Simultaneous conditioning :- is the presentation of C.S. and U.C.S. at the same time.

④ Delayed conditioning :- is where a considerable time between the presentation of C.S. and the U.C.S.

⑤ Appetitive conditioning :- where pleasant stimulus is used i.e. food.

⑥ Aversive conditioning :- where unpleasant stimulus is used i.e. electric shock.

Types of associative learning:

2A. Classical conditioning

or

- John B. Pavlov
- Pavlov conditioning
 - Respondent Conditioning
 - He was a Russian physiologist, he discovered this phenomena through an experiment which is conducted on a dog.

The experiment:- Ivan Pavlov observed a dog in control experiment. He paired sound of a bell with the supply of meat to dog as food. After few experiments he noticed that the dog salivate at the sight of experiment and after several experiment the dog began to salivate at the sound of bell (he named it psychic secretion) and named this behaviour as psychic Reflex.

- Pavlov used some terms for the things and factors involved in the experiment.

→ Neutral stimulus:- a stimulus that does not bring any response without conditioning. i.e the bell

→ U.C.S:- a stimulus that bring a particular response without any learning. i.e the meat.
stimulus = meat

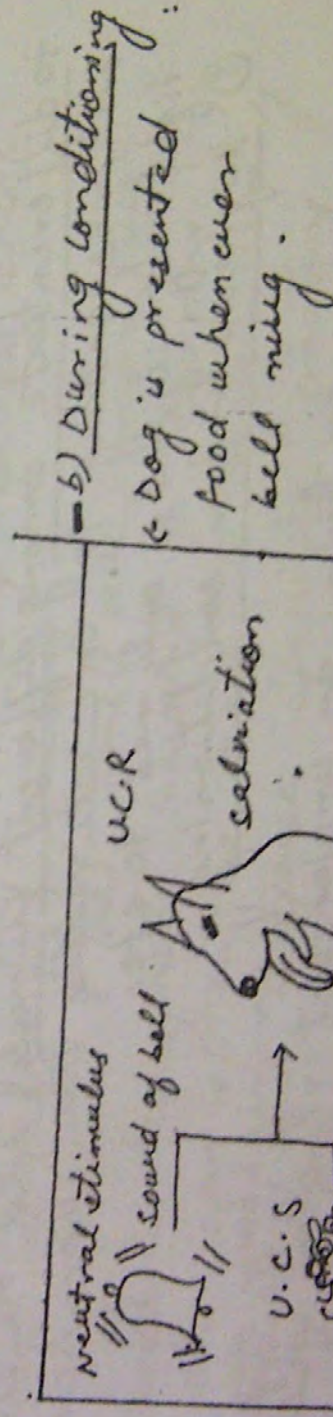
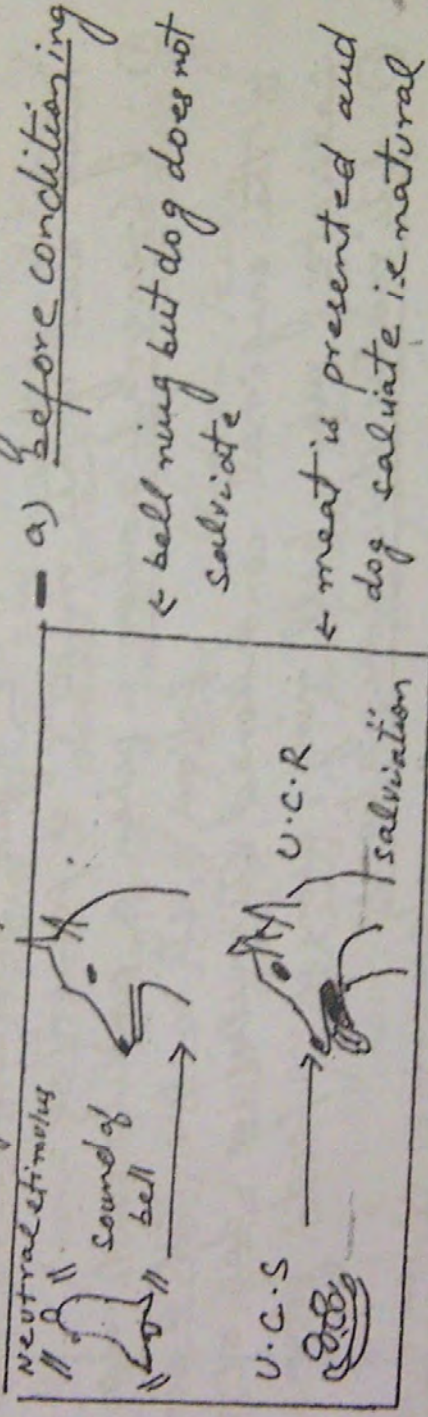
→ U.C.R = a response that need no learning. i.e natural response.
a natural response = salivation at the sight or smell of meat.

These were the stimulus and responses without any conditioning, because they are more natural.

- Now after conditioning:-

→ conditioned stimulus:- bell will be conditioned because now we associated a condition with the stimulus, that is presentation of meat when the bell rings.

→ conditioned response:- response after conditioning i.e. the dog salivates when the bell rings because food is served after it.



* - Note:- Draw the dog like a. (27)

(Bulb)
Processes in classical conditioning:-
Pavlov observed five different processes in the experiment which are known as classical conditioning. These are as follow.

① Acquisition:-

- C.R is acquired gradually (salvation)
- During the it fail there is no C.R
- C.R continues to strengthen until it reaches a maximum level.

② Extinction:-

The Process by which C:S (bell+food) stop producing the C.R (salvation) i.e if no food or meat is presented when bell ringing.

③ Spontaneous Recovery:- reappearance of response i.e again salvation when bell ring but if the meat is presented.

④ Generalization:- when a conditioned response follow a stimulus that is similar to the original conditioned stimulus i.e dog often salivate when bell ring, even if no food given.

⑤ Stimulus discrimination:-

learning of an organism to differentiate among different stimuli, and he strictly responding to one stimulus than other i.e b/w light of signals, only red to stop.

⑥ Higher-order conditioning:-

if you twice or thrice, an unpleasant reaction will be given by you even if someone takes his name this is called high order conditioning

Applying conditioning Principles to human behaviour

- Although initial c.c. experiments were carried out with animals, but then these principles found to explain many aspects of everyday human behavior.
- Emotional responses can be learned through c.c.
- Experiment:- John B. Watson in his experiment with 11 month Albert, studied how emotions are learned. He presented a white rat (C.S) and a loud noise (U.S) to little Albert. After several pairings baby showed fear of white rat. Later Albert's baby generalized the fear to stimuli similar to C.S such as white beard.
- Some fears or phobias are classically conditioned i.e. fear response to dentist chair.
- In humans learning is most prominent during pre-school and school years. Children learn to read and write.
- Adults learn job skills in practical life. [F:]
- " " how to care the family.
- C.C. does not explain the complicated skills such as talking & writing.
- Pavlov said that there are brains two cerebral hemisphere involved in learning.
- C.C. can often be used to explain many physiological responses specially emotions.
- fears or phobias are thought to be the result of c.c.
- baby - suck - any thing comes in his mouth ^{reason} ↓ nipple, breast
- any fearful sound if accompanied with, he will be frightened.

∴ 2 B. Instrumental conditioning :-

- Here instrumental means "useful rewards" or rewardful or trial-and-error learning"

- This concept of learning was given by an American psychologist. E. L. Thorndike 1932 from Columbia University.
- He used experiments of cats.
- He also named this conditioning type as "trial-and-error learning".

National Office of Education
House :
G-1014, Commerce Bldg

Experiment :- ✓ Thorndike put a hungry cat in a puzzle box. The box was such that it will open only if the cat pulled a certain lever associated with a string.

- Then he put food outside the box, in view of hungry cat. The cat's 1st response was that he scratch, leap, try to squeeze through the bars of the box and during these activities the cat would happen to work the particular escape device, he became free and fed.

- The next time, he took less time to step on the lever pedal and escape.

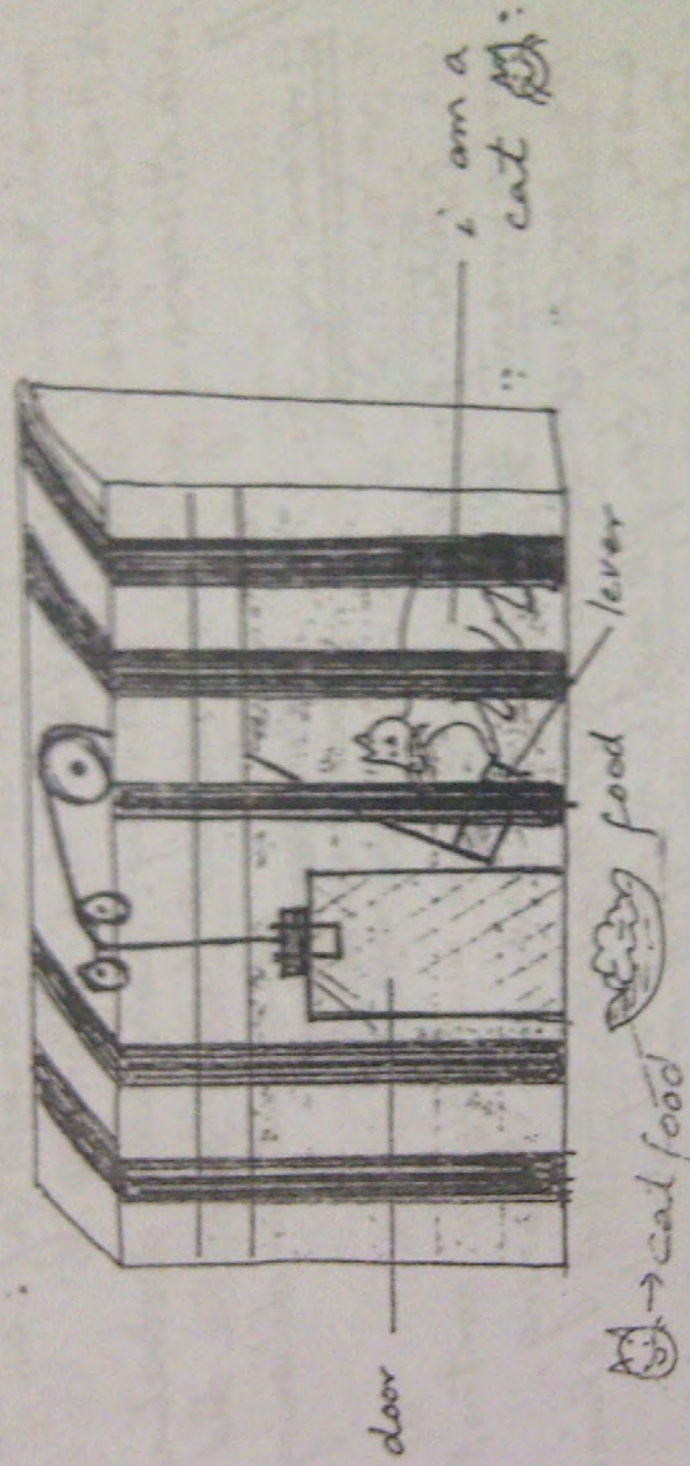
- After a few trials, the cat stepped on the pedal as soon as he was placed in the box.

Result :- According to Thorndike, the cat would have learned that pressing the pedal was associated with the desirable consequence of getting food.

II - formulated the Law of effect - it states,

"That responses that are satisfying are more likely to be repeated, and those that are not satisfying are less likely to be repeated."

II - Instrumental learning - He felt that the law of



effect operated as automatically as leaves falling of a tree in autumn.

II - I. I states :-

"individuals are instrumental in emitting or producing a response"

"a behaviour that is followed by a consequence"

- i.e work followed by a consequence of pay.
- cooking delicious food followed by a consequence of verbal praise from mother.
- Thorndike contended that it was the feeling of satisfaction and accomplishment that made a successful response more probable.

- Thorndike said it was necessary for an organism to understand that was a link between a response and a reward over time and through experience the organism would make a direct connection between the stimulus and the response.

2.C. Operant conditioning :-

1. B.F. Skinner 1938

- Operant conditioning is a concept of an American psychologist B.F. Skinner.
- He believed that learning can be described in terms of observational behaviour, he did the most in classical conditioning.

Experiment :-

National Officers Academy
House # 614, Street # 29
G-10/2, Islamabad

- Skinner devised a box with highly controlled environment to study operant conditioning.
- He constructed an apparatus called Skinner box, and he placed hungry rat in it.
- First he wander in the box exploring it.
- At some time however it will probably pull the lever by chance and received the food.
- The 1st time it happened, the rat was not learnt the connection b/w pressing a lever and receiving food but gradually the rat pressed the lever to receive food pellet.
- When he received food by pressing the lever his frequency of pressing the lever increased.
- Eventually the rat learned to press the lever

continually until it satisfied its hunger, that he learned to operate the environment, for his desired response

- operate the environment = pressing lever when hungry
- Desired response = food pellet.

Result :- He called the behaviour of rat, operant behaviour because it function to operate on the environment.

- And the behaviour in response to the stimulus is respondent behaviour (food presentation)

So the operant conditioning is defined as "a form of learning in which

the organism operates on its environment in order to produce some desirable results."

- in O.C. the subject is freely able to respond and operate his environment.

Principles of Operant conditioning :-

Following are the principle of operant conditioning as described by Skinner.

- i) Acquisition
- ii) Extinction
- iii) Spontaneous recovery
- iv) Generalization
- v) Discrimination
- vi) Shaping
- vii) Reinforcement

① Acquisition:-

The subject must be motivated to want what ever is used as reinforcement (reward i.e. food). If reinforcement is food then the subject should be hungry.

- It is imp that reinforcement follows the response i.e. the response then occur more frequently.

② Extinction:-

When response no longer leads to a reinforcing event i.e. by pressing lever no food is presented.

③ Spontaneous Recovery:-

The occurrence of behaviour that had been extinguished, can appear after a rest period. Rats that have been on extinction in Skinner box will begin to press the lever again when placed in box after a rest period.

④ Generalization:-

* (i.e. all response by agar faida hua hy to usy kis dursi jagah se apply krna)

- In which an organism learns to respond to stimuli and then applies it to other stimuli i.e. once a rat learned to get food by pressing lever he will again press a lever like thing.

⑤ Discrimination:-

* The ability to differentiate between stimuli.

* (i.e. Kisi ke eyes sy andaza lga lyna hy us ka Kia matlab hy, guddy wale ankhean $\hat{E}\hat{E}$ ya pyar wa good mood wait until your room mate is in a Jewellery, i.e. you are able to borrow her - b/w his good or a bad mood.

b) Shaping: a process of teaching a complex behaviour by rewarding the subject and close approximation to the desired behaviour.

* (i.e. Koi lalach dy Ky i.e. food Kisi organism ko push seakhana i.e. dogs & Train Kina, food ka lalach dy Ky)
• Pigeons trained to see we people last at sea.
• Dogs to pick up phone calls and giving to master.

① Reinforcement:

(means reward)

* (Kisi kam Ky end main Kia mil raha hy)

- The major factor underlying learning is reinforcement.

— Skinner.

- food, horses (not surf @), toys, good grades could also serve as reinforcers and they will strengthen the response.

- If behaviour increases the stimulus is called reinforcement.

Types of reinforcement:-

1) primary:-

* it satisfies some biological need and works naturally, regardless of a person's prior experience i.e. food for hungry person, warmth for cold person.

2) Secondary:-

in contrast to primary it is a stimulus that becomes reinforcing because of its association with the primary reinforcer.

i.e. Money is valuable because it allow us to obtain our needs i.e. food i.e. primary reinforcer.

Money → buy → food

(sec. reinforcer)

(primary reinforcer)

3) Positive reinforcer:- "is a stimulus added to the environment bringing in a preceding response in a preceding response" (kam achha ho)

* (i.e. jis ke presence sy kam achha ho) i.e. food, water, money if provided after a response it is more likely that the response will occur.

4) Negative reinforcer:- "is an unpleasant stimulus whose removal from the environment lead to an increase in the preceding response."

National Officers Academy
House # 614, Street # 29
G-10/2, Islamabad

* (i.e. jis ke absence sy kam achha ho) i.e. if you have cold symptom (unpleasant stimulus) that you are relieved when you take medicine you are more likely to take the medicine again. So here cold is a negative reinforcer. There are three forms of negative reinforcement.

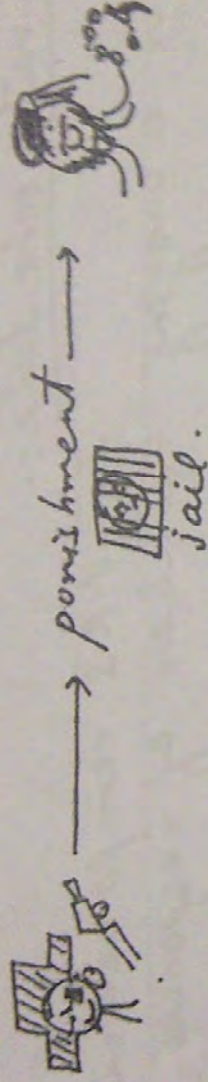
① Escape conditioning:- A form of learning in which an organism adopt or acquire a response that permit it to escape the painful stimulus.

- ex: Keeping hands in pockets if cold outside.
- acquiring a response (keeping hand in pocket)
- painful stimulus (cold outside)

② Avoidance conditioning:- A form of learning in which an organism learns to make some response that permit him to avoid the aversive stimulus.

ex: an automobile driver learn to fill his fuel tank in order to running out of fuel.

③ Punishment training :- "it is an unpleasant or painful stimulus that decreases the probability that a preceding behaviour will occur again".
 - a specific behaviour decrease due to punishment



(read from Feldman page 119 for concept)

Schedules of Reinforcement :-

Reinforcement means frequency and timing of reinforcement. There are two types of reinforcement schedules

a) continuous b) partial

a) continuous reinforcement :-

every time it occurs
 - (reward after a behaviour every time)

b) Partial :- Reinforcing of a behaviour some but not all of the time.

* (Kabi reward mila kabi na mila)
 Skinner described four basic partial reinforcement schedules in 1957.

- 1 - Fixed ratio schedule FRS
- 2 - Variable ratio schedule VRs
- 3 - Fixed interval schedule FIS
- 4 - Variable interval schedule VIs

① Fixed ratio schedule:-

In FRS reinforcement (reward) is given only after a specific number of responses.
i.e.:- a rat receives a food pellet every tenth time it presses a lever, so the ratio is 1:10.

② Variable ratio schedule:-

In V.R.S reinforcement occurs after a varying number of responses.

i.e. a person buys a lottery ticket each week in the hope of hitting it big someday.
(316, 36)

③ Fixed interval schedule:-

"A schedule that provides reinforcement for a response only if a fixed time period is passed away."

National Officers Academy
House # 614, Street # 29
G-10/2, Islamabad

i.e. student study near exams when the whole semester is passed away.

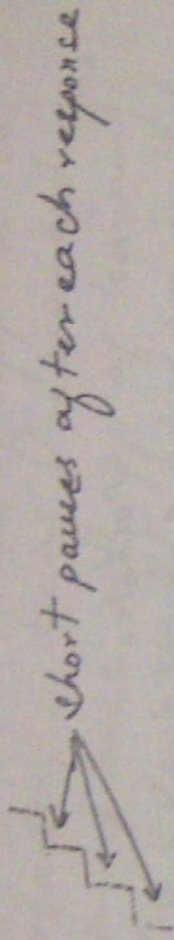
④ Variable interval schedule:-

"A schedule that provides reinforcement in varying intervals of time"

- different time intervals for trials i.e. one trial may be at 2-min, next at 4-min and a third at 1-min. There is no fixed time.

① F.R.S

frequency
of response.



② V.R.S

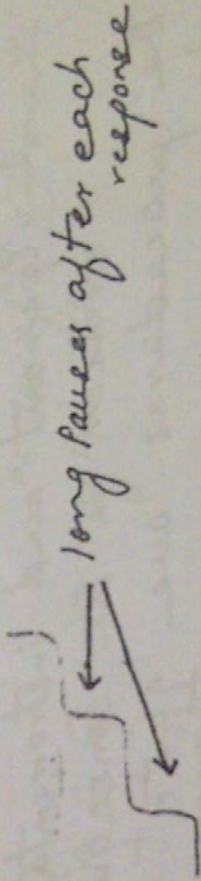
frequency of
response

← responding occur at a high
steady rate

Time

③ F.I.S

frequency
of response



Time

④ V.I.S

frequency
of response

← responding occurs at a
steady rate.

Time

(Q1)
comparison between classical conditioning
instrumental and operant conditioning.

- Focuses :-
operant & instrumental, focus → association
between the
response and
stimulus.

while
classical conditioning focuses → stimulus-stimulus
relationship.

- Base :-
operant and instrumental, base → conscious and
voluntary
learning.

classical conditioning, base → reflexive
learning.

- Object :-
operant and instrumental consider object → an
active
thing
classical conditioning consider object → passive
object.

National Officers Academy

House # 614, Street # 29

G-10/2, Islamabad

- Teaching :-

Operant and instrumental teach the organism
a lesson in the consequence while ^{imp of cause of behaviour} E.C. teach
the procedures are quite different but the
phenomena

- Reward :-

Notion of reward is more central in
instrumental conditioning.

- Approaches of learning :-

- Operant & instrumental, behavioral approach
- classical conditioning physiological approach of learning.

base of approach of learning:-

- operant and instrumental base of app is on what grounds organism is being rewarded
- classical conditioning base of app of learning is on knowing that you will be rewarded

Nervous system:-

- operant + instrumental \rightarrow central nervous system
- classical learning \rightarrow peripheral nervous system

- Association:-

operant + instrumental \rightarrow associated when

reward is given

classical conditioning \rightarrow two event or stimuli associate with each other.

- Learned response

- learned response in operant \rightarrow not triggered by a specific stimulus
- " " in C.C. \rightarrow reflex like

- Reinforcement:- (reward)

- operant \rightarrow reinforcement is dependent on what the learner does.
- classical conditioning: reinforcement is defined as the pairing of two stimuli
CS & U.C.S.

3)- Cognitive learning:-

It is defined as:-

- Cognitive learning proposes that learner utilizes mental process and memory to make decisions about behaviour.
- It proposes that the learner utilizes his mental structure and memory to make decisions about behaviour.
- Some kinds of cognitive learning.

Types

- 3A - Insight learning.
- 3B - Latent "
- 3C - Observational "

3A - Insight learning:-

- Kohler gave the idea of I.L.
- He believed that learning is fundamentally a process of perceptual reorganization and it not always occur on trial and error basis.
- Experiment:-

- A chimpanzee - confined in a cage - bananas placed outside some distance away.
- Two sticks in the cage - so fashioned that end of one could be inserted into the end of other to make it along one.
- Neither stick - it self sufficient length to reach



banana, but both can - then bananas can be pulled inside the cage

- Kohler observed following:-

- Animal it tried to reach the bananas through bars.
- Then after some time one of the sticks was employed but this too failed.
- Then a silent period.
- Suddenly, the animal seized the sticks, inserted one in the other and got bananas.

- state ment :-

The sudden solution of problems through perception of relation ships involved is called in sight learning²
(— Kohler. 1925)

3-B Latent Learning :-

- by Tolman and Honzik 1930

- experiment :-

- 3 groups of rats in a maze.

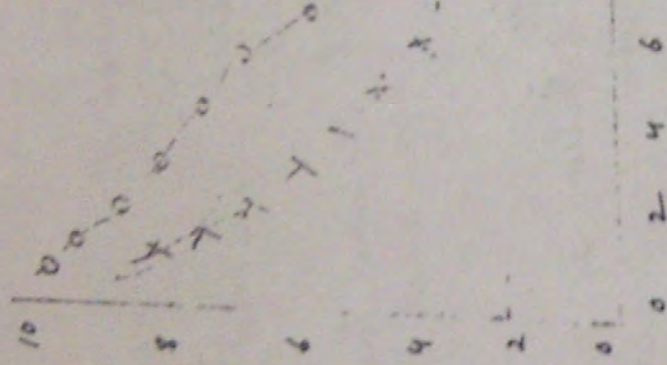
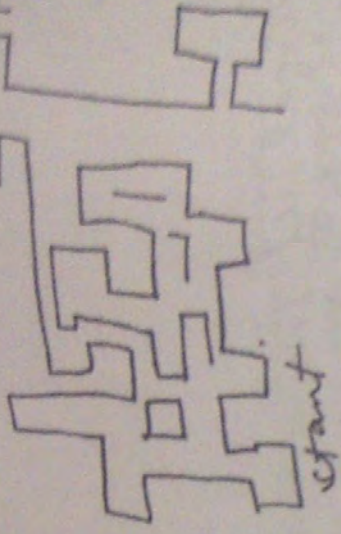
1st group

2nd group

3rd group

- no food reward at the end of maze
- always received food reinforcement at end of maze
- Performance = poor
- no reward in the ist few days
- performance = poor
- food reinforcement after some days
- performed = improved,
- better from previous poor

maze



no. of errors
for poor
performance

Days

National Officers Academy
House - 14, Street # 29
G-10/2, Islamabad

Group A = No food = Performance \rightarrow Poor
Group B = rewarded food = Performance \rightarrow good
Group C = Experimental group
(members) - their performance before no food
of group was the graph line of group A
A with - after giving reward as food
food reward) performance became better

Statement:- "Latent learning is a hidden learning in which a new behaviour is acquired but not readily demonstrated until reinforcement is provided"
Humans too develop cognitive maps of their surroundings, such as directions for an unfamiliar area i.e. sign boards. We develop cognitive maps through learning i.e. latent learning.

3.C. Observational Learning:- or (Imitation) or (Modeling)

- By Bandura 1977
- He said that the major part of human learning consists of observational learning.
- Definition:-

"Learning through observing the behaviour of another person"
— Bandura 1977

- experiment:-

He noticed, he gave toys to a young children and a person came and he hit the toys, after this the person went away and hid himself, baby done the same response he also hit the toys badly as he saw.

- According to Bandura, observational learning takes place in four steps

- ① Paying attention :- to perceive the behaviour of another person.
- ② Remembering :- the behaviour of the person.
- ③ Reproducing :- the act by doing it.
- ④ Motivate/d :- to learn and carry out the behaviour.

(AKRM)

∴ 4- High order learning:-

- conditioned stimulus + unconditioned stimulus → established bell food
- once the relationship b/w C.S & U.C.S is being established, the C.S can serve to condition other stimuli, this is high order learning.

with one another but not that how they are related.

Methods of Verbal learning:- ^{*} (Pak force of saray
(PFSV) ^{vaylay})

① Paired associate learning:- in it the subject is

shown a list of words where always the second or the right part of the word was missing

- The subject is supposed to deal with it.
- The process is repeated till the subject successfully anticipate all parts of the pairs.

② Free-Recall:- Where the subject is first shown a long list of words and then it is asked to recall the words

③ Serial-learning:- where the subject is shown words from a list one by one till it learns and then learn the next word i.e serial word learning.

④ Verbal discrimination learning:- where the subject has to learn several pairs of words. Then those pairs are again shown to him but in missing. The subject has to recall the exact matching pair.

Kinds of Verbal learning:-

- Words learning:- is a combination of following stages of learning.
a) imitation:- when a child learns by imitation (Bandura's obs. learning)

b) Operant Learning:- when a child names an object, i.e. he says "cup", then he is given milk.

National Officers Academy
House # 614, Street # 29
G-10/3, Islamabad

c) Concept Learning:- most imp. when mother says "red" etc. - red cup, red horse, red chair etc.
- initially child get confused but later on get the concept of red.

c-1:- Variety of concepts:- concept range from simple to complex

c-2:- Ways of learning concepts:-

Parents, friends
media, peers
Teachers, siblings

c-3:- Harry Harlow:- proved that concept learning is present in mammals and primates.

d) Associative learning:- is learning of sentences.

6- Imprinting :-

- "Imprinting" is a process by which certain animals learn to follow their mothers.
- it demonstrated by D.A. Capling 1873.
- "It is a special form of learning in which heredity mechanisms determine the time of appearance and general nature of the behaviour".
- Konard Lorenz ¹⁹³⁵ (Greec) and Eckhard Hees (Ducklings) are considered the people who discovered and developed this type of learning.
- They complained :-
 - Imprinting is an adaptive process.
 - It is not irreversible.
 - It can't be unlearned in the later life ^{adulthood} of human.
 - It open view into the rigidity of human.
 - It gave vital cues for the study of :-
 - .. homo sexuality
 - .. thumb sucking
 - .. nail biting
 - .. drug addiction etc.,

- imprinting, following of the mother for care and protection.
- Human new born also get attached to their mothers by imprinting.



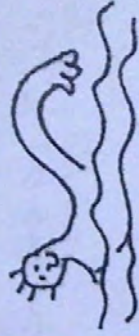
7 :- Motor/psychomotor skill

Learning :-

When learning involves primarily the use of the muscles, it is called motor skill. Learning like learns to walk, to swim, to type, to play games.



walk



swim



Type

8- Chaping :-

"Process of teaching a complex behaviour by rewarding the closer and closer approximation of the desired behaviour"



shaping.

Personality :-

Personality can be defined as :-

"a complex of different traits"
or

- Personality is the pattern of enduring characteristics that differentiate people.
- Personality refers to the sum total of characteristics that differentiate people.
- Personality is the distinctive pattern of behaviour of an individual.
- for layman, personality refers to person's social appeal or popularity.

∴ the word personality is derived from the latin word persona which was a mask used by the actors, while a drama or a play. It means it covers us as a mask that we have outer and inner personality.

∴ personality is a collection of different things, feelings, thoughts etc. Personality is umbrella like personality is inborn it can't be changed but can be influenced by different factors

Personality is the part of our genetic make-up
"Every one is as God made him"

Factors affecting Personality formation :-

- 1- What are the factors that help in personality formation?
- 2- How family helps, socialization and parental style affect the personality formation?

Personality formation is very important for an individual, to behave in an acceptable manner in the society and the people around him.

Personality formation is effected by two major factors :-

1) Genetic factors

2) Environmental factors

- Both these factors together make up a personality
- An individual personality is evaluated by observing his or her normal ways of adjusting to the situations in life.
- Personality plays an important role in dealing of a person with the society, a person learns by experiences and those experiences influence him.
- The factors that influence our personality are also called as nature and nurture.
- Nature = Genetic factors
- Nurture = environmental factors.
- Nature - Nurture concept :-
 - The issue of the degree to which environment and heredity influences behaviour is the nature and Nurture concept.

① Genetic factors:-

• Nature :- The nature of the personality is controlled by the genetic factors, which is our heredity.

• Heredity :- Heredity is the transmission of traits from parents to offspring, it plays an important role because the properties of the parents are transmitted to the children and will be a part of their personality. - Heredity determines the ultimate structure of our biological response systems and their functioning ability.

• It is the natural capability of the individual to develop the characteristics possessed by their ancestors.

• Heredity defines people's general level of intelligence setting an upper limit in it.

• Genetic make up :- The nature of an individual is greatly influenced by its genetic make up.

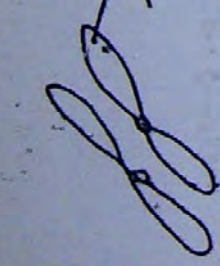
• Genetic make up consist of genes, which can be described as:-

• Genes :- They are the units through which genetic information is transferred. Thousands of genes are present on a chromosome.

• Chromosomes :- They are rod-shaped structures that contain all hereditary information.

• There are 23 pairs of chromosomes.

in human sex cells i.e 46 no. in total.

 rod shaped chromosomes.
gene

- they are present in pairs.
- The nature of a child will be on his parents which he will gain from the genes in chromosomes.
- The students who are intelligent, mostly their parents are also intelligent which will then be due to the brain anatomy.

:- Effect on the behaviour:-

The genetics effect the behaviour of an individual.

- The kid whose parents are social, then are 80% chances that their kid will be social, friendly.
- The children whose parent are strong will be strong and will have those abilities.

Phenotype

:- Effect on appearance:- The nature effects

an individual i.e sex, eye color, hair color, height, weight, looks, intelligence level, shyness, aggressiveness etc.

- All these properties effect the human personality a lot. If a person is beautiful and intorn he or she will be more confident. and

- function of chromosome
- .. responsible for the development of systems.
- .. control characteristics.
- .. determine sex i.e. xx & xy chromosome
- .. phenotype
- .. diseases due to chromosome number. i.e.
 - .. Phenylketonuria
 - .. sickle cell anemia
 - .. Tay-sachs disease
 - .. Down's syndrome
 - .. Klinefelter's syndrome.

- Parts of Personality :- A personality has two parts.

- apparent personality or Overt, looks, height, Covert :- mood, IQ attitude.
- these two parts of personality are determined by the nature of an individual.
- Nature plays a prominent and significant role in the development of a personality.
- " An apple never falls far from the tree."
- A person's attitude i.e. social or moral or personal depends greatly on his nature i.e. his genetic make-up.

② Environmental factors:-

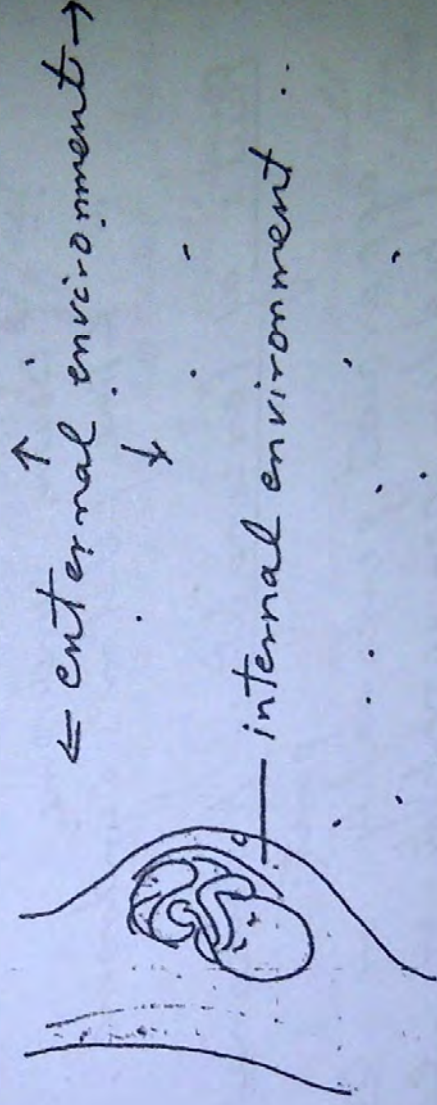
Nurture:- Nurture is the environmental conditions that influence one's behaviour, growth, development or other life processes.

- types of environmental factors:-

- ① internal environment
- ② external environment

① Internal environment:-

- The environment in the body of the mother is called internal environment



- the effects on the mother and her feelings will directly influence the developing baby in her body.

- Prenatal environmental influences:- that affect the development of baby are

- mother nutritional and emotional stage
- Mother's illness
- Mother's use of drugs
- Alcohol and nicotine use.
- AIDS

- All these will effect the personality of the individual. After birth, in severe conditions the new born can be mentally retarded or can have physical deformities.

② External Factors:-^{environmental}

The whole atmosphere outside the body of the mother is called the external environment.

- It include people, things - food, air, social interactions etc, which can be sensed by our sensory organs.
- Environmentall factors influence the personality.

•- Attachment:- The positive emotional bond that develops between a child and a particular individual is called attachment. This is an imp factor which effect personality.

•- Father's role:- More recent research has highlighted the father's role in parenting. The caregiving fathers play an imp. role in their children life and his personality.

•- Mother's role:- The nature of attachment between children and their mothers has far reaching consequence for later development.

1.- Social relationships with peers:-

- By the time of 2 year old, children becomes less dependent on their parents.
- The prefer to play with friends and toys.
- This play serves purposes other than mere enjoyment, it allows children to become increasingly competent in their social interactions, with others.
- It helps children in the development of their behaviour
- Situations that provide children with opportunities for social interaction, enhance their social-development.

2.- The consequence of day care:-

- A good day care centre with high quality can improve the personality of a child.
- Especially for poor children, a good day care with enriched environment i.e. books, toys, food can be good for the child.
- Children in child day care are generally more considerate and social than other children, and they interact more positively with their teachers.
- But the key to the success of day care is its quality.

- Parenting styles and social development :-

- Parent's child-rearing practices are critical in shaping their children's social competence.
- According to classic research by developmental psychologist Diana Baumrind — four main categories describe different parenting styles.

National Officers Academy
House # 614, Street # 29
G-10/2, Islamabad

① Authoritarian parents :-

- Parents who are rigid and punitive and value unquestioning obedience from their children.
- They have strict standards.
- They order and ask questions.
- went over obedience.
- kids are depressed and not confident.
- unsocial, unfriendly.

② Permissive parents :-

- give their children relaxed or inconsistent direction
- kids are immature, moody, dependent, low self control.

③ Authoritative :- Best type of Parenting.

- Firm, sets limits and goals, uses reasoning
- kids are good social skills, likeable, self-reliant, independent, confident.

④ Uninvolved :-

- parents who show little interest in their children and are emotionally detached
- sees role only in providing food, clothing and shelter.
- kids are indifferent, rejecting behavior.

⑤ Overprotected - anxious parents - anxious kids.

o- schooling:-

- Teachers play role
- kids follow play role
- formal atmosphere, rules effect:-
- obedience effect.

o- self concept:- How we think about us?

+ve self concept → - healthy

- progressive
 - confident personality
- ve self concept → confused
- abnormal
 - non-deciseive

o- Media:-

- effects the personality

- because aggressive behaviour
i.e video games.
- cartoon do influence i.e superman
as real.

- Watson, a famous psychologist says:-

Give me a dozen healthy infants,
well formed and well educated and
my own specified world to bring them
up in, and I will guarantee to take
any one at random and train him to
become any type of specialist, a doctor,
an engineer or a priest or a thief.

- John Locke, gave idea that man is
blind spaced, i.e black slate and
can be what the environment is, this
idea is called Tabular rasa.

Freud's Theory :-

- Sigmund Freud, an austrian physician. (1856-1939)
- originated psychoanalytic theory :- that unconscious forces act as determinants of the personality.
- He believed that much of our behaviour is motivated by the unconscious, which is a part of the personality of which a person is not aware.
- He believed that to understand personality it is necessary to explore what is in unconscious.
- The main point at which his theory is based is sexuality.

- How Personality develops :- (FLSPD)

• 1st five formative years :-

- Freud emphasized that personality is largely determined during the 1st five years of age.
- For him 1st five years are v. important.
- Any conflict or anxiety in this stage will effect on the future of the individual.
- He believed that in this stage there is a psychic energy called libido (associated with sexual desire), which is the main motivational force behind every action.
- Two instincts (natural) are observable in this stage

i) Eros :- constructive instincts

ii) Thanatos :- destructive instincts

→ Level of awareness :- (CPU) (according to Freud)

- there are three level of awareness

① conscious :- aware part, only thing we know, we talk logically and rationally is the conscious part of the personality.

② Pre-conscious :- we are aware of the memory but they are not active in our mind

③ Un-conscious :- related to guilt, anxiety, shame, pain and conflict feelings we are unaware of this part.

→ Structure of Personality :- (ies)

Personality consist of three separate but inter acting components According to Freud.

- ① The id
- ② The ego
- ③ The super ego.

① The id :-

- raw, unorganized, in born part of personality.
- its sole purpose is to reduce tension created by the primitive desires related to sex, hunger, aggression and irrational impulses.
- These drives are fueled by "psychic energy" i.e. libido.
- id operates through "Pleasure principle" i.e. fulfillment of the desire at any cost, however reality is against it.

② Ego:-

- part of personality that provides balance between the desires of id and the reality of the objective, outside world
- ego operates by the reality principle in which the instinctual energy is restrained to maintain the capacity of the individual and social acceptance.
- ego is the executive of the personality.
- it makes decisions, control actions and allows thinkings.

③ Super-ego:-

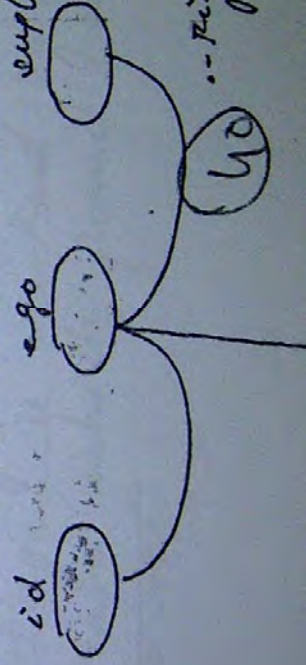
- final personality structure,

- represents the right and wrong of society as taught by parents, teachers and society.
- it has two components, the conscious and ego-ideal
- i) conscious:- make us guilty feel if we do wrong.
- ii) ego-ideal:- perfect-person, motivating to do the best
- super-ego helps us control impulses coming from id.



-- fig:- an iceberg analogy showing structure and level of personality.

- According to Freud a healthy personality is the one which has balance of three



examples of id ego and super ego:-

id:- a person will say if i want to do sex i have to because it is pleasurable.
ego:- i do sex but occasionally and with safety measures
super-ego:- i will not do sex bec it gives me guilty feelings.

→ Psychosexual stages of development:-

Freud describes the psychosexual stages of development as follows.

- ① Oral stage
- ② Anal stage
- ③ Phallic stage
- ④ Latency stage
- ⑤ Genital stage.

① Oral stage:-

- age (birth - 12 or 18 months)
- in this stage the zone of pleasure is mouth.
- child suck, mouth, bite only thing that will fit into their mouth.
- mouth is the primary site of a kind of sexual pleasure (with drawing of breast or bottle) is the main conflict in this stage.
- If infants are either over indulged (perhaps by being fed every time they cry) they become fixated at this stage.
- Fixation:- refers to concerns that persist beyond the developmental period.

② Anal stage:-

- age 12 or 18 months - 3 years.
- ~~is~~ period when the emphasis is on toilet training. is the anal stage
- majorly zone of pleasure changes from mouth to anal region and child feel pleasure from both retention and expulsion of feces.
- If toilet training is demanding, the result may be fixation which later on show unusual rigidity or carelessness.

③ Phallic stage:-

- age about 3 years.
- zone of pleasure is genitals
- this is also v. imp stage bec of an imp point of one's personality development i.e. oedipal conflict :- which is a child's sexual interest in opposite sex-parent.
- "Identification" concept is developed also i.e process of wanting to be like another person
- girls wish they have the anatomical part (penis) ~~enjoy~~

④ Latency stage:-

- age 5-6 years

- the period b/w the phallic stage and puberty during the child's sexual concerns are temporarily put aside.

⑤ Genital stage:-

- age 5-6 years - death.

- final stage
- this stage is marked by mature sexual behaviour which friend called sexual

Human Personality

① Genital stage
- puberty onward
- reawakening of sexual

④ Latency stage
- 6 yrs - puberty
- lack of sexual interest

③ Phallic stage
- 3-6 years
- pleasure focuses on genitals

② Anal stage
- 1.5-3 years
- zone of pleasure is mouth

① Oral stage

- birth - 1.5 years
- infant's zone of pleasure is mouth

→ The ego-defense mechanisms:-

Definition

- Unconscious strategies that people use to reduce anxiety.

aim for objective

1. Repression
2. Denial
3. Displacement
4. Projection
5. Regression
6. Sublimation
7. Identification
8. Rationalization
9. Undoing
10. Compensation
11. Reaction formation
12. Intellectualization
13. Altruism
14. Humour
15. Fantasy
16. Self-denial
17. Self-censorship
18. Self-repression
19. Self-punishment
20. Self-blame
21. Self-hatred
22. Self-loathing
23. Self-love
24. Self-respect
25. Self-esteem
26. Self-worth
27. Self-value
28. Self-importance
29. Self-significance
30. Self-meaning
31. Self-purpose
32. Self-fulfillment
33. Self-actualization
34. Self-realization
35. Self-achievement
36. Self-attainment
37. Self-perfection
38. Self-improvement
39. Self-development
40. Self-growth
41. Self-expansion
42. Self-enlargement
43. Self-broadening
44. Self-enrichment
45. Self-enhancement
46. Self-elevation
47. Self-exaltation
48. Self-glory
49. Self-honour
50. Self-dignity
51. Self-respect
52. Self-pride
53. Self-satisfaction
54. Self-contentment
55. Self-peace
56. Self-harmony
57. Self-unity
58. Self-wholeness
59. Self-completeness
60. Self-fulfillment
61. Self-actualization
62. Self-realization
63. Self-achievement
64. Self-attainment
65. Self-perfection
66. Self-improvement
67. Self-development
68. Self-growth
69. Self-expansion
70. Self-enlargement
71. Self-broadening
72. Self-enrichment
73. Self-enhancement
74. Self-elevation
75. Self-exaltation
76. Self-glory
77. Self-honour
78. Self-dignity
79. Self-respect
80. Self-pride
81. Self-satisfaction
82. Self-contentment
83. Self-peace
84. Self-harmony
85. Self-unity
86. Self-wholeness
87. Self-completeness
88. Self-fulfillment
89. Self-actualization
90. Self-realization
91. Self-achievement
92. Self-attainment
93. Self-perfection
94. Self-improvement
95. Self-development
96. Self-growth
97. Self-expansion
98. Self-enlargement
99. Self-broadening
100. Self-enrichment

- Critical analysis

Positive points :-

National Officers Academy
House # 614, Street # 29
G-10/2, Islamabad

- significant impact on psychology field
- ideas of un-conscious defence mechanism have been accepted
- un-conscious of brain is supported as now scientists do believe it in dreaming while sleeping.
- it's five formative years of development are indep, an appreciable point.
- the genital stage of development is common in all realities so it is again an important point.

criticism :-

- ① lack of scientific data to support the theories
- ② stages of development that Freud mentioned are not provide accurate description of personality development.
- ③ Fixation stage, how can a person be usually messy or unusually neat due to it
- ④ His faulty point of view that women are inferior to men (penis envy), his theory is male oriented
- ⑤ His theory is based on a limited population
- ⑥ As he was an Austrian, he observed the Austrian people not to other societies and cultures.
- ⑦ The base, determinant of his theory is "sexuality" not the cultural values.
- ⑧ Psychologists believe that conscious thought makes up more of the mind than un-conscious as Freud explained.

④ Oedipus conflict :- This point is again criticized a lot that how it become possible to have sexual love for the opposite-sex parent, it seem very unethical, a property of animals not the higher order human beings.

Personality measurement :-

National Officers Academy
House # 614, Street
G-10/2, Islamabad

Personality assessment
or
Personality tests

Purpose :- to describe and evaluate the individual behaviour.

- to assess personality and its functioning

Two types

i) Non-projective

ii) Projective

① Non-projective :- (IRP)

① Interviewing :- oldest method, widely still still

- purpose :- gather patient information
- face to face evaluation of the subject.
- the effectiveness of this test depends upon the skill and experience of the interviewer.

Positive point :- rich source of information

Negative point :- lack standardization & quantification

- dependent upon the interviewer.

② Rating scales :- a device, rater mark about the subject

- purpose Quantify obs. of an individual behaviour
- its true point is that it translate subject's judgment in to the form of numerical and statistical data

- Negative point :- limited scope, dependent upon skill of rater.

③ Personality inventory / Objective tests :- (MCIE)

- these test are standardized questionnaires

which give quantitative information about person based on true-false options abt personal information or behaviour.

- called as self reporting tests.

- it include MMPI, CPI, 16PF, EPPS

43

1) MMPI

2) CPI

3) 16 PF

4) EPPS

most famous
widely used

- Minnesota
Multi phase P

Inventory I

- designed in
1940 by people
with psychological
disorder

Now used both
for normal &

ab normal
Test consist of

567 items of
true & false

or cannot say
questions.

- they cover variety
of feelings
health and
issues.

- California C

Psychological P
Inventory I

- same as
MMPI

- it differs
from MMPI
in point
that it

- identifying
people

normal
trait

- it include
18 traits

i.e dominance
self control
flexibility
intellectual
efficiency
etc

General properties of
non-projective tests

- valid, clear form

- not ambiguous

- mc q's

- questions

- scoring objectives

- opt A-B & C will give marks - economical

- for conscious thoughts

- 16 16

Personality P
factors VF

- Raymond
Cattell 1972

made it
consist of

16 basic
Personality
traits

- Questionnaire
consist of
100 items

based on
Yes or no

- can be
applied

successfully
to the high

school etc to
make their

Personal
decisions

+ve points

- easy analysis

- valid

- one standard
reliable

- measurement easy

- time saving

- economical

-ve points

- uncomfortable
for uneducated

- forced choice

- limited Y or N

Edward's E
Personal P

Reference P
Schedule S

- 156 CPI

- it character

ee people

on the

basis of

dominant

motive,

need,

defense

etc.

- proved

useful

in

counseling

situations

- Two best test of projective type are RTSTA.

unilaterally used

- developed by Swiss Bcy Hermann Rorschach
- consist of 10 ink blots, 5 = different shades of black & grey

5 = Various other colors

- they are represented to sub, i.e. 5 and then 2nd
- then asked sub to tell what the ink blot resembles
- response written by the examiner
- interpretation of subject response is based on examiner skills and experience & comparison
- responses are recorded, though clinical judgement and classified as different personalities
- ena :- ink blot :- bear :- strong degree of emo. control

1. The first part of the paper is devoted to a discussion of the general principles of the theory of the structure of the atom.

② TAT, Thematic apperception. (Vygotsky)

- consist of series of picture and to write a story
- the story then describe about the personality
- 19 pictures of people with ambiguous expressions and a 2 black card.
- the subject bring its own interpretation about the picture.
- it reflect themes of concerns, interests, fears.
- No scoring sys in it.
- rather examiner look for theme reflected in subject stories
- sub will make a "hero" in the pic and then he will project his own feeling in it.

③ The sentence completion test:- I love.....

- manner of completion - give impression abt the psychology of person.

④ The Blocky Test:- Similar to TAT - for children,

- "I- cartoon drawing of a puppy Blocky in different situations
- Sub. makes up stories → personality described.

⑤ The Draw a man test and the house tree - person test,

- involve free hand drawing
- drawing accuracy, creativity interpret subject.
- evaluation:-

re- unconscious thoughts are evaluated.

- not easily falsified.

re:- difficult to score

on inter pret, not standard
on group, not individual

SCHOOLS OF THOUGHT

National Officers Academy
House # 614, Street # 1
G-10/2, Islamabad

- Structuralism
- Functionalism
- Behaviourism
- Psychoanalysis
- Humanistic Psychology - 32
-

1. STRUCTURALISM:-

"To analyze the structure of the mind

Launched in: 1898

By : Edward B. Titchener.

Conscious state of mind to be analysed, dissected and determine its constituent parts.

Then determine how these parts are combined, how connection achieve

45

self analysis of conscious ^{processes}

Introspection the only way of access to conscious ~~mind~~ experiences.

(Subjects had to be well-trained in introspection!)

Perception, association, memory, attention and thinking analyzed by structuralism.

Criticism:-

1. Introspection was the only way.
2. Methodology and narrowness.

Contribution:-

Introspection still used in many areas of Psychology.

Introspection =

Examination of ones mental experiences

- tried to reveal underlying structure of mind & find out mental processes

≡ FUNCTIONALISM:- Those as a protest against structuralism.

"deals with the functions of the mind and what it does."

It is concerned with function of the organism,

behaviour,

consciousness,

adaptation to its environment.

Darwin

Charles Darwin; Sir Francis Galton;

Morgan Thorndike Catell.

a Principles of Functionalism:-

- (i) Subject matter; mental operations, functions and their ends.
- (ii) Characteristic feature; Biological orientation
- (iii) Results of B.O; Theory of Evolution,

The Nature Nurture Problem,

The concept of Man As An

Organism,

Study of Animal Behaviour

Genetics,
Comparative Studies, and
Psychophysiological Studies.

(iv) Practical applications fostered by
Functionalists e.g education school.

(v) Increased scope of Psychology by
fostering differential & social psychology
and psychometrics.

(vi) Improvement of personal life, education,
industry and soon.

(vii) Broadened Psychology through
research on animals,

children and
abnormal human.

viii) Broadened Methodology through adding
puzzles,

mazes,
mental tests.

47
(ix) Interest in why of mental processes led to concern with motivation.

(x) More interested in what makes organisms different than similar.

(xi) Did not reject introspection.

(xii) Central concern with process of adjustment influenced history of psychology.

3 BEHAVIOURISM:-

"the goal of Psychology is the prediction and control of behaviour."

— Founder; J.B. Watson.

It rebelled against whole existing Psychology. To him, observation and objective human behaviour held great importance.

Principles of Behaviourism:-

Definition of Psychology:-

Study behaviour (reaction of organism to a stimulus). Psy. aim is to describe, predict and control behaviour.

Method:-

Measurement (means of providing valid data)

Stimulus-Response Bond:-

Complex Behaviour composed of simple stimulus-response units. Relationship of stimulus and response is fundamental task.

Learning:-

Been central in all behaviourism.

Watson regarded conditioning as a key process in habit formation.

Environmentalism:-

Watson's concept of 'Stimulus And Response' led him to extreme environmentalism.

Criticism:-

1. Importance of genetically determined behaviour was minimized.
2. Importance of unconscious was never mentioned.

Gestalt Psychology:-

"Form, pattern or whole"

— German Psychologist
(Max Wertheimer)

Said it's a mistake to analyze Psychological events into pieces ---

Gestaltists studied experiences as wholes.

Tended to define Psy. as,

"the study of the immediate experience of the whole organism." (40)

They began with perception this emphasized more on it than other areas.

Basic Postulate Of Gestalt's Psychology:-

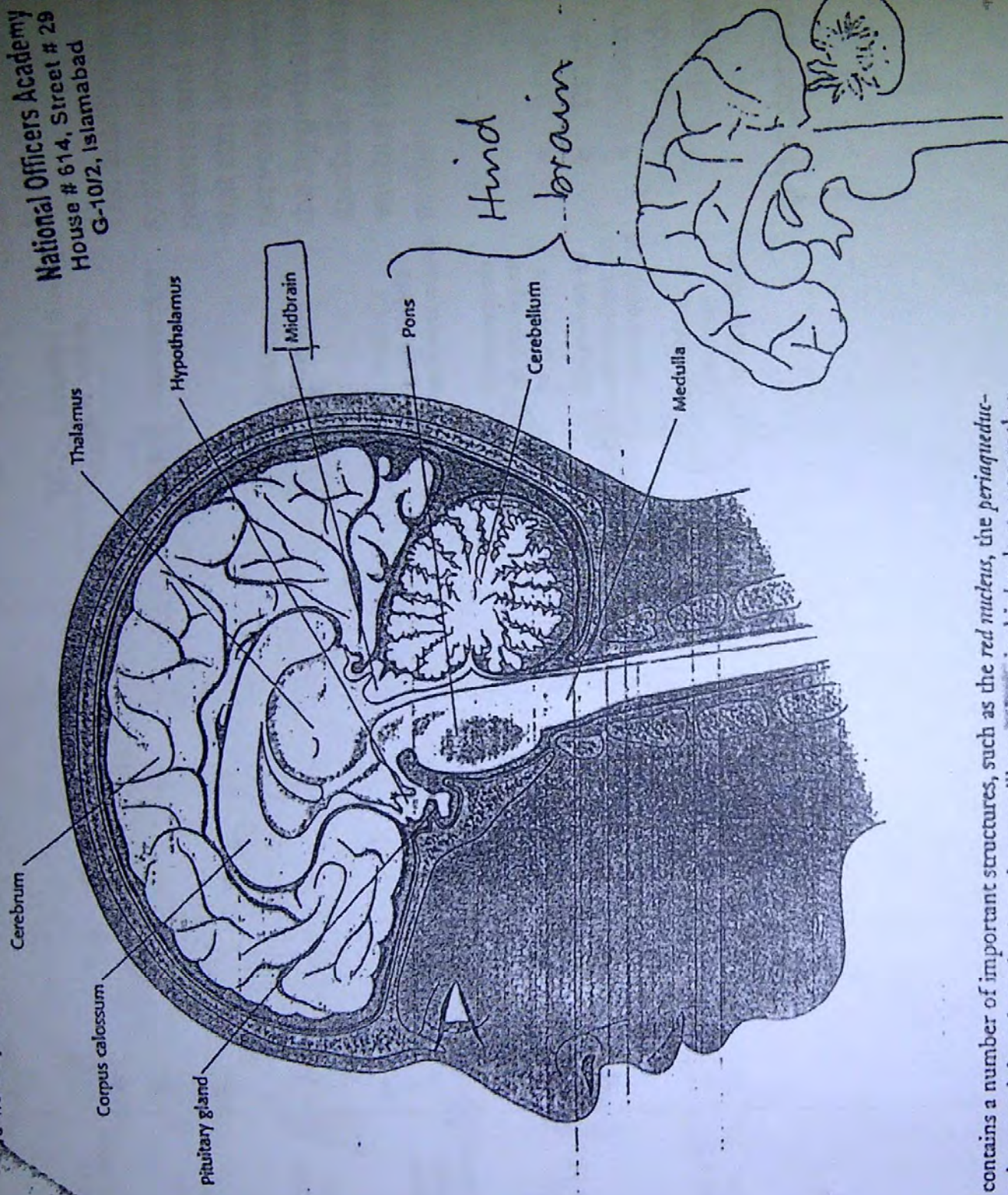
"Whole Part Attitude"

Whole dominates parts and constitutes the primary reality.

the world isn't as we perceived it.
some perceptions of objects came naturally

PSYCHOANALYSIS:-

HUMANISTIC PSYCHOLOGY } Shahida Hussain Malik



contains a number of important structures, such as the *red nucleus*, the *periaqueductal gray*, and the *substantia nigra*, that we will cover later in this book, structures that play a vital role in attention, pain control, emotions, and sensory processing. For the most part, the ventral area of the mesencephalon consists of tracts relaying neural information between the hindbrain and the forebrain.

The reticular formation, which runs from the hindbrain to the forebrain, takes up a large portion of the midbrain. As you will discover in Chapter 10, the reticular formation plays an important role in keeping you awake and alert. When your alarm goes off, it is your reticular formation that rouses you to consciousness. The reticular formation also arouses you when someone calls your name, when some creepy-crawly slithers up your arm, or when someone yells "Help!" Damage to the reticular formation can produce a state of unconsciousness called a *coma*, in which a person is unable to respond to external stimuli. We will discuss the comatose state in Chapter 10.

The Prosencephalon

The largest part of the human brain is the forebrain, or *prosencephalon* (see Figure 4.6). This area of the brain produces the most interesting human behaviors, such

reticular formation: group of neurons located in the brain stem that alerts the forebrain to important stimuli

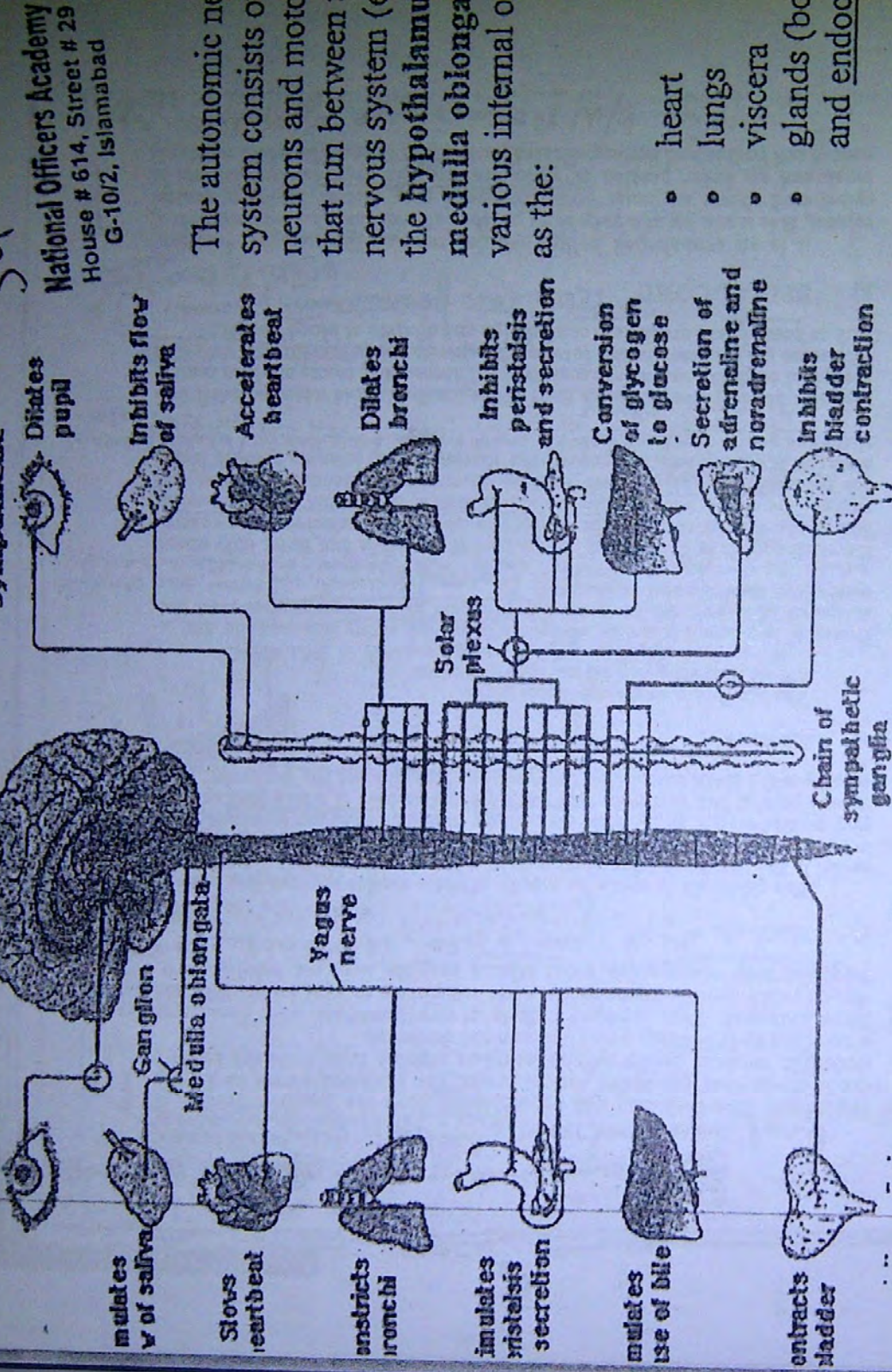
diencephalon: forebrain area that contains the thalamus and

telencephalon: forebrain area that

Parasympathetic

Sympathetic

51
National Officers Academy
House # 614, Street # 29
G-10/2, Islamabad



The autonomic nervous system consists of neurons and motor neurons that run between the nervous system (the hypothalamus and medulla oblongata) and various internal organs as the:

- heart
- lungs
- viscera
- glands (both endocrine and exocrine)

It is responsible for

$$[Cr: F/c]$$

$$b/a/c = 59$$

$$Flat = 2nd\ grade$$

-112 An easy approach to Intermediate Biology

Forebrain

limbic system, group of structures below cerebral cortex

Forebrain

The forebrain consists of:

- i) cerebrum
- ii) thalamus
- iii) hypothalamus

8 cm in diameter

Cerebrum: The cerebrum is the largest part of the brain. Its surface is called cortex which covers and overlaps most of the other brain areas. It is composed of gray matter of some two billion cell bodies forming a folded mass which increases its surface area. The cerebrum is divided by a deep groove into two halves or hemispheres. The underlying area of cerebrum is formed of white matter having nerve tracts which connect with the cortex as well as with the spinal cord.

neurons in cerebral cortex are non-myelinated

Cerebrum controls many of the sensory areas such as sight, hearing and smell; and motor areas such as voluntary muscles. Cerebrum is also concerned with many advanced functions such as memory, intelligence, reasoning, judgement etc.

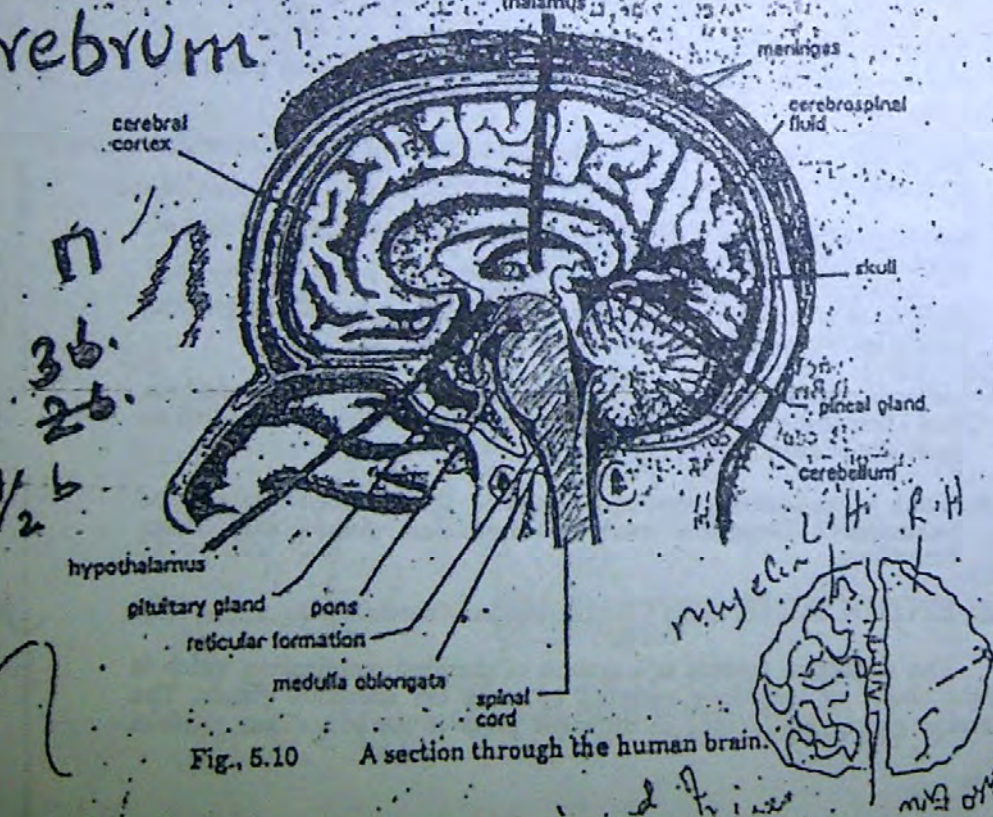


Fig. 5.10 A section through the human brain.

egg shaped, bulls like structure

Thalamus: The thalamus and hypothalamus form the posterior portion of the forebrain that lies above the midbrain. The thalamus serves as a relay station. It receives nearly all the impulses arriving from different sensory areas of the body before passing them on to the cerebrum.

Hypothalamus: The hypothalamus is a very important area possessing visceral reflex centres for controlling and integrating general metabolism and regulating body temperature, water balance, appetite, sleep etc.

Midbrain

Midbrain: The midbrain is made up mostly of white matter surrounding central cavity. It lies just below the lower part of the cerebrum, midway between the two hemispheres. The dorsal part of the midbrain has a prominent mass of gray matter which along with cerebellum controls muscular activities. The ventral part of the midbrain has two rope-like masses of white matter that constitute the main connection between the hindbrain and the forebrain.

Hindbrain

Hindbrain: The hindbrain consists of three parts.

It is a latin word meaning bridge

Pons: It is a small lobe-like structure lying just above the medulla and is composed of largely white matter. It conducts nerve impulses between the cerebellum, medulla and cerebrum. Sensory neurons in pons are connected with pain, touch, taste, etc. Life movements.

Cerebellum: It is the second largest part of the brain but forms only about 10% of the weight of the brain. It has two lateral hemispheres and a central narrow lobe called vermis. Cerebellum is folded. It controls and coordinates the balancing organs and the muscles so movement becomes precise and accurate. If cerebellum is removed the movements of animals become jerky, shaky and poorly regulated. *Latin word means little brain / back of brain stem*

Latin name

Medulla oblongata: It forms floor of the hindbrain and narrows down into the spinal cord. It consists of ascending and descending tracts of white matter with some gray matter in the interior. It controls many involuntary activities such as heart beat, breathing, constriction and dilation of blood vessels.

reticular formation, state of arousal, attention

SPINAL CORD: It is an oval-shaped hollow cylinder running through the vertebral column. It is made up of a very large number of neurons. The cross section of spinal cord shows an inner butterfly-shaped gray matter having a central canal, and an outer portion of white matter. The gray matter consists of neuron cell bodies and non-myelinated parts of the fibres. The white matter is

A line b/w Nervous & glandular system

Q. 15: List all the similarities and differences between nervous control and hormonal control.

Ans: NERVOUS AND HORMONAL CONTROL

Similarities

The nervous and endocrine systems work in similar or identical ways in controlling body functions.

- Nerve endings produce certain chemicals such as acetylcholine and adrenaline which may act as transmitter, inhibitor or accelerator. Similarly, endocrine glands produce hormones like adrenaline and many others which are also chemicals and function likewise.
- Both the nervous and endocrine systems tend to maintain the homeostasis.

Differences

The nervous and hormonal control may differ from each other in following functions.

- The nerve impulses travel much faster (at a speed of 100 m/sec) while hormones are circulated less rapidly in the blood.
- Sometimes the effect of hormone may be more generalized and that of the nerve impulse more specific.
- Hormones may also control some long term changes such as growth, rate of activity and sexual maturity.
- Nervous control is via nerve impulses that are carried by the neurons. The hormonal control is via hormones that are carried by the blood to their site of action.

Q. 16: What is endocrine system? What is the chemical nature of hormones? Describe various endocrine glands and their functions.

Ans: ENDOCRINE SYSTEM (Chemical Coordination)

The endocrine system is a system of chemical coordination which is brought about by hormones secreted by some ten endocrine glands. The endocrine glands are located in different parts of the body. They produce

CNS = Brain
PNS = 114
An easy approach to Intermediate Biology

made up of bundles of myelinated nerve fibres or tracts. The spinal cord is the centre for great many reflexes. It serves as a pathway for the conduction of impulses to and from different parts of the body and brain. (Fig. 5.8)

PERIPHERAL NERVOUS SYSTEM

The peripheral nervous system consists of the two types of nerves:

- Cerebral or cranial nerves that arise from brain.
- Spinal nerves that arise from spinal cord.

A nerve is a collection of nerve fibres, dendrites or axons bound together with connective tissue. Nerves may be sensory, motor, or mixed depending on their function. Mixed nerves have the fibres of both sensory and motor neurons. There are twelve pairs of cerebral nerves some of which are sensory, some motor and a few of them mixed. There are 31 pairs of spinal nerves all of which are mixed. The central nervous system depends on the nerves of the peripheral nervous system to receive and convey the nerve impulses.

Q. 14: Differentiate between conscious and unconscious activities. or What are the conscious and unconscious activities?

Ans: CONSCIOUS AND UNCONSCIOUS ACTIVITY

Conscious Activities

The activities about which we are aware of and we perform them consciously are called conscious activities.

Example: Even if our eyes are closed, we know the position of our arms whether they are out-stretched or at our sides. It is due to sensory neurons associated with muscles, which are constantly carrying impulses to the brain, informing it about the position and degree of contraction of the muscles.

Unconscious Activities

The activities that are controlled by the brain without our conscious participation are called unconscious activities.

Example: During exercise many physiological changes are involved that are carried out unconsciously. There is an increase in the consumption of glucose and oxygen. More carbon dioxide is produced. The requirements are met by increasing the rate and depth of breathing. The movement of blood is also accelerated. All these changes occur without our conscious effort or thinking.

hormones which enter the blood stream to be carried to the site of action. They are also called ductless glands because they do not have any duct to carry the hormones or chemicals.

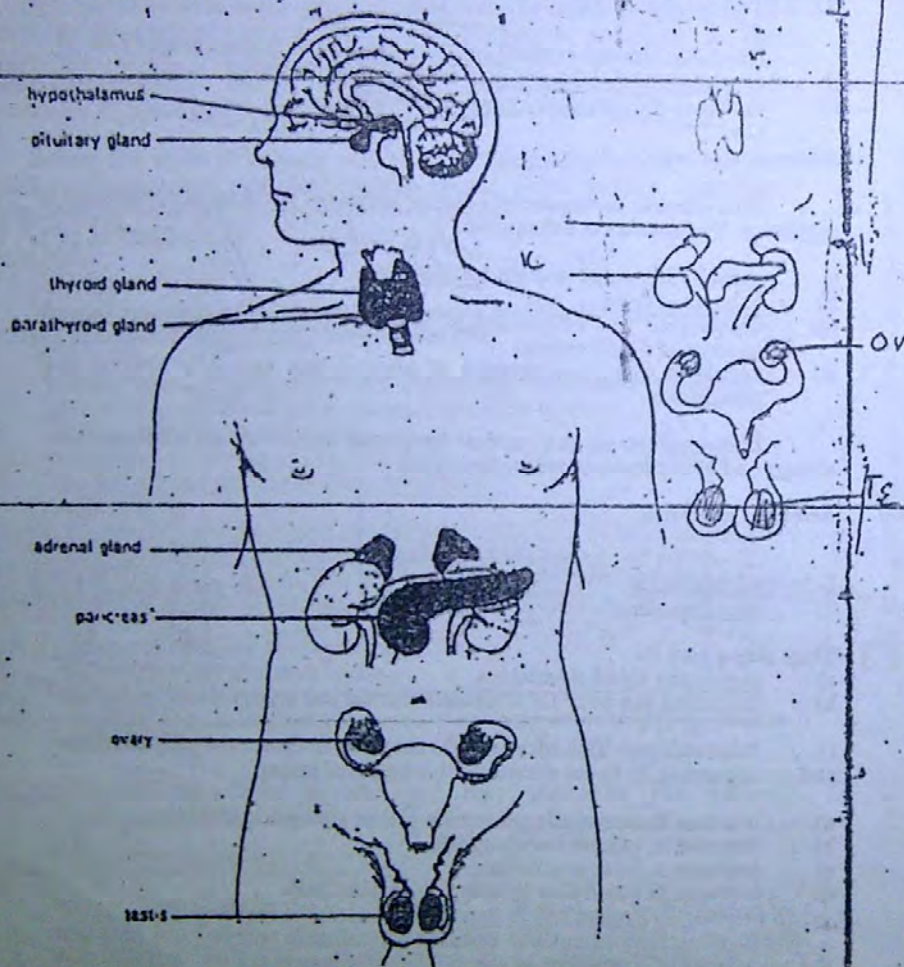


Fig. 5.11 Various endocrine glands in humans.

The hormones are the organic substances which have different complex structures. Many of them are proteins or polypeptides and some are the steroids e.g., sex hormones. The hormones do not irritate a process however they may either stimulate or inhibit a function. Some of the important endocrine glands are as follows, (Fig. 5.11)

- | | |
|--------------------|----------------------|
| 1- Thyroid gland | 2- Parathyroid gland |
| 3- Pancreas | 4- Adrenal glands |
| 5- Testes | 6- Ovaries |
| 7- Pituitary gland | |

THYROID GLAND

The thyroid gland is located in the middle part of the neck, slightly below the larynx. It consists of two lobes which store and accumulate iodine. Iodine is a component of the thyroid hormones collectively called iodothyroxines. These hormones perform many functions.

- i) They stimulate the rate of oxygen consumption and resulting heat production.
- ii) They regulate the processes of growth, especially, maturation, sexual development and mental development. For example in amphibians rate of metamorphosis is accelerated by iodothyroxines.

Effects of undersecretion of Thyroxine

- i) **Cretinism**: If insufficient amount of thyroxine is secreted at infancy, it causes a dwarfed condition known as Cretinism. This condition leads to retarded physical, mental and sexual development.

Fig. 5.12 Facial characteristics of a person with thyrotoxicosis. Note the goiter and protruding eyes.



118 An easy approach to Intermediate Biology

- ii) **Myxedema:** It is the condition produced in adults due to the deficiency of thyroxine. Myxedema is characterized by the lower metabolic rate, thickness of skin, brittleness of hair and nails and mental lethargy.
- iii) **Goiter:** Goiter is a disease caused due to the deficiency of iodine and results in the enlargement of the thyroid gland. It is common to mountain areas due to lack of iodine in soil and water.

Effects Of Oversecretion Of Thyroxine

Exophthalmic goiter: It is caused due to oversecretion of thyroxine. It is characterized by an enlargement of the entire gland, bulging of the eyeballs, higher metabolic rate, profuse perspiration and weight loss.

PARATHYROID GLAND

It is a very small oval gland attached to the thyroid gland. It secretes a hormone known as parathormone. It regulates the level of calcium and phosphorus in the blood. Undersecretion of parathormone causes a marked decrease in the blood calcium level, increased excitability in nerve and muscle, and convulsions. Oversecretion leads to increased blood calcium level, lowered phosphate concentration and increased excretion of calcium by the kidneys.

PANCREAS

- Pancreas has two parts:
- i) an exocrine portion that produces pancreatic juice.
 - ii) an endocrine portion consisting of islets of Langerhans which secrete two hormones - insulin and glucagon. Both the hormones play an important role in regulating the carbohydrate metabolism.

Insulin

Insulin decreases the concentration of blood glucose by accelerating its utilization in cell respiration and converting excess sugar into glycogen. The glycogen is stored in the liver and skeletal muscles. Deficiency of insulin leads to diabetes mellitus so glucose is not properly metabolised and its level rises to above 60 mg/100 cm³ of blood and begins to be excreted by the urine. Therefore persons suffering from diabetes need a regular injection of insulin.

Glucagon

Glucagon has the opposite effect of insulin. It tends to increase the level of blood glucose by promoting the liver glycogen to glucose.

ADRENAL GLANDS

- They are located on the top of the kidneys. Each gland consists of:
- i) an outer reddish brown part called cortex. *cortisone*
 - ii) an inner grayish part known as medulla. *adrenaline*

Adrenal cortex

The adrenal cortex secretes many hormones but most important one is *cortisone*. The cortisone influences: *cortisone* *glucocorticoid*

- i) carbohydrate and protein metabolism.
- ii) balance of salts.
- iii) accelerates the conversion of proteins to glucose (glycogen) by the process of deamination.
- iv) regulates the concentration of mineral ions especially sodium and potassium.

Disturbances in the cortical hormones may result to inflammation, allergy and breakdown of connective tissue.

Adrenal medulla

It secretes two important hormones.

- i) *adrenaline*
- ii) *noradrenaline*

They play a part in:

- a) regulating blood circulation.
- b) preparing the body for situations of stress and emergencies.

i) **Adrenaline:** The adrenaline is most closely concerned with emotions and emergencies. In these situations this hormone causes:

- a) increase in enzymatic conversion of liver glycogen to glucose.
- b) increase in oxygen consumption.
- c) increase in heat production.
- d) increase in blood flow by stepping up heart beat.

In situations of anxiety and fear adrenaline is secreted and produces the sensations of thumping of heart, hollow feelings in the stomach and pale face etc.

ii) **Noradrenaline:** It raises the blood pressure and is responsible for the constriction of blood vessels.

TESTES

The testes secrete male sex hormones, usually called androgens, in addition to producing sperms. The most important androgen is the testosterone. They are responsible for the appearance of secondary sex characters (moustache, beard, low pitch of voice etc.) at puberty and maintenance of reproductive functions including sexual desire.

Before the onset of puberty castration (or removal of testes) results in the failure of secondary sex characters to appear. After puberty, castration leads to malfunctioning of the reproductive system.

OVARIES

In addition to producing ova, the ovaries secrete a number of female sex hormones called estrogens. They control the:

- i) development of secondary sex characters (mammary glands, hair growth in armpits and other places, high pitch of voice),
- ii) thickening of the uterus lining,
- iii) ovulation i.e., release of ova from ovary,
- iv) conception and maintenance of pregnancy.

Progesterone: It is also an important hormone secreted during the latter half of the menstrual cycle mainly by the temporary endocrine tissue called corpus luteum. The corpus luteum is formed from the ruptured follicle shortly after the release of the egg. This hormone causes:

- i) further thickening of uterus lining.
- ii) vascularization of uterus lining.
- iii) In case of fertilization, maintains pregnancy.
- iv) prevents the uterus from contracting until the onset of 'labour' prior to birth.

Q. 17: Explain the role of the pituitary gland in the various processes?

Ans: PITUITARY GLAND

The pituitary gland is located at the base of the brain and attached to the hypothalamus by a short stalk. The pituitary or hypophysis is a very small gland having the size of a large pea. It is divided into two lobes:

- i) upper or anterior lobe
- ii) lower or posterior lobe

Both the parts secrete many hormones some of which regulate the organ systems of the body while others act upon and regulate the activity of other endocrine glands. That is why pituitary is called master gland.

ANTERIOR LOBE TSH, FSH, GH, ACT, LH

The anterior lobe secretes six hormones which mainly affects or controls other endocrine glands.

- 1- Thyroid-stimulating Hormone (TSH)
It controls:
i) development and maintenance of thyroid gland
ii) conversion of iodine into thyroxine
iii) stimulation of thyroid gland to secrete thyroxine.
- 2- Adrenal Cortex-stimulating Hormone (ACTH)
It stimulates the activity of the cortex region of the adrenal gland.
- 3- Growth or Somatotrophic Hormone (STH)
It stimulates growth specially body weight and skeleton. Its oversecretion leads to gigantism while undersecretion leads to dwarfism.
- 4- Follicle-stimulating Hormone (FSH)
It stimulates the growth of graafian follicle of the mammalian ovary. In males it induces spermatogenesis i.e., process of sperm formation in the seminiferous tubules of the testis.
- 5- Luteinizing Hormone (LH)
It stimulates:
i) development of egg
ii) ovulation i.e., release of ova from the graafian follicle.
iii) formation of corpus luteum from ruptured follicle.
- 6- Lactogenic Hormone (LTH)
It stimulates:
i) development of mammary glands with the help of estrogens.
ii) production of milk in case of conception.

Handwritten notes:
In women, LH is responsible for ovulation and progesterone production.
In men, LH is responsible for testosterone production.

POSTERIOR LOBE

It works in close cooperation with the hypothalamus. It is responsible for the secretion of two hormones:

1. Oxytocin

It causes:

- i) a powerful contraction of uterus after birth
- ii) ejection of milk when mammary glands are stimulated by suckling.

2. Vasopressin or Antidiuretic Hormone (ADH) - *maintain water level*

It promotes the reabsorption of water by changing the permeability of the membrane. A decreased water supply to the body results in increased secretion of hormone which decreases the volume of the urine. While increased water intake by the body leads to a decreased secretion of the hormone and more water can be lost by urine. Its undersecretion causes the disease diabetes insipidus in which huge volume of urine are excreted daily.

Q. 18: What is feedback mechanism? Explain with examples. *regulate water salt level in body*

Ans: FEEDBACK MECHANISM

An arrangement, in which a controlling mechanism is itself controlled by the product of the reaction it is controlling, is called a feedback mechanism. It means if some hormone promotes or stimulates, there should be another hormone checking it.

EXAMPLES

1. Thyroid-stimulating Hormone (TSH) and Thyroxine

In response to a message from brain the pituitary gland secretes TSH which stimulates thyroid gland to produce thyroxine. When a reasonable amount of thyroxine has been secreted, it also reaches the pituitary via circulation and production of TSH is suppressed by negative feedback mechanism. Thus feedback of thyroxine to the pituitary regulates the secretion of the TSH.

2. FSH and Estrogen

The FSH or follicle stimulating hormone is secreted by pituitary gland in response to a message from the brain. FSH stimulates the production of estrogen by the ovary. When estrogen reaches a certain level in the blood it suppresses the secretion of FSH. Thus secretion of FSH is inhibited by the negative feedback mechanism.

3. Sugar level and Insulin

The negative feedback also helps in homeostasis e.g. if the blood sugar level rises, the pancreas is stimulated to secrete insulin which removes glucose from blood. Thus a fall in sugar level to the normal suppresses the insulin secretion.

OBJECTIVE

FILL IN THE BLANKS

1. means attainment of unity out of diversity.
2. means working together in a regular manner.
3. Coordination is the remarkable ability to maintain a stability or constancy in the internal environment, known as
4. There are three important components of nervous co-ordination; receptors, neurons and
5. may be defined as any quantitative or qualitative change in environment that can be detected by an organism usually through receptors.
6. to the stimulus is known as response.
7. may be the neurons themselves or they may be cells or organs that are specialized for detecting stimuli.
8. In most animals the principal are the muscles and glands.
9. The first well-defined nervous system among the animals is found in the such as Hydra.
10. In planarian the nervous tissue is especially concentrated into a mass called cerebral ganglia or 'brain'.
11. There are at least distinct sensations or senses in man.
12. or eyes are sensitive to a certain range of wavelengths constituting the visible light.
13. Each sense organ is specialized to receive a specific type of

14. Our eyes are stimulated by electromagnetic radiations between the short-wave violet to the long-wave
15. The ultra-violet and infra-red do not our eyes but their presence can be detected by special instruments.
16. Our ear can detect sounds ranging in frequency from about 20 to cycles per second.
17. The range of frequency of sound waves used by bats is from about to 70,000 vibrations per second.
18. The neurons or nerve cells are the structural and functional unit of the system.
19. There are three main types of neurons: sensory, motor and
20. The neurons have many short branching processes on both sides of the cell body.
21. In some cases the nerve fibre is surrounded by an insulating sheath of fatty material called the sheath.
22. There are approximately ten to billion nerve cells in the human nervous system.
23. There is no cytoplasmic connection between the two neurons and microscopic gaps are left between them. Each of these contact points is known as a
24. A is a wave of electro-chemical changes which travels along the length of the neuron involving chemical reactions and movements of ions across the cell membrane.
25. The speed of the impulse varies in different parts and the normal rate is about meters per second.
26. reflexes are inborn, inherited or unlearned responses to stimuli and are immediate and automatic.
27. reflexes are not inborn or inherited but are acquired and dependent on the past experience or training.
28. The consists of cerebrum, thalamus and hypothalamus.

29. Surface of cerebrum, which is known as, covers and overlaps most of the other brain areas.
30. The hindbrain consists of, cerebellum and medulla oblongata.
31. is the second largest part of the brain but constitutes only about ten percent of the weight of the brain.
32. controls several reflex activities of involuntary nature such as heart beat, breathing, constriction and dilation of blood vessels, etc.
33. is an oval-shaped, hollow cylinder running through the vertebral column.
34. Twelve pairs of nerves arise from the brain.
35. All the pairs of spinal nerves that come out of the spinal cord are mixed.
36. may also control some long-term changes such as rate of growth, rate of activity and sexual maturity.
37. system consists of some ten endocrine glands lying in different parts of the body.
38. Many of the hormones are proteins or polypeptides and some such as the sex hormones are
39. The Thyroid gland is lying in the middle portion of the
40. Thyroid gland has the remarkable ability to store and accumulate iodine which is a constituent of the thyroid hormones collectively called
41. Insufficient secretion by the thyroid gland at infancy gives rise to a dwarfed condition known as
42. The deficiency of thyroxine in the adults produces a condition known as
43. An enlargement of the thyroid gland due to deficiency of iodine is a disease known as
44. Parathyroid gland secrete a hormone known as

15. The adrenal glands are located, on the top of the
16. The adrenal cortex secretes several hormones, an important of which is
17. The adrenal medulla secretes two important hormones, and noradrenaline.
18. The testes not only produce sperms, they also secrete male sex hormones usually known as
19. Ovaries not only produce ova, they also secrete a number of hormones known as
20. Progesterone is secreted during the latter half of the menstrual cycle chiefly by the temporary endocrine tissue, the
21. The pituitary gland or is a very small gland, about the size of a large pea.
22. Thyroid-stimulating hormone (TSH) controls development and maintenance of gland.
23. Adrenal cortex-stimulating hormone (ACTH) stimulates the activity of the of the adrenal gland.
24. Follicle-stimulating hormone (FSH) stimulates the growth of of the mammalian ovary.
25. hormones stimulates the development of egg as well as its release from the Graafian follicle.
26. causes the ejection of milk when mammary glands are stimulated by suckling.
27. Underscretion of or antidiuretic hormone results in the disease diabetes insipidus in which huge volumes of urine are excreted daily.

Answers

1. Integration 2. Organization 3. homeostasis 4. effectors 5. Stimulus
6. Reaction 7. Receptors 8. effectors 9. coelenterates 10. bilobed 11. 11 12. Photoreceptors 13. stimulus 14. red 15. stimulate 16. 20000 17. 30,000 18. nervous 19. associative 20. associative 21. myelin 22. twelve 23. synapse 24. nerve impulse 25. 100 26. Simple 27. Conditioned 28. forebrain 29. cortex 30.

pons 31. Cerebellum 32. Medulla oblongata 33. Spinal cord 34. cerebral 35. 31
36. Hormones 37. Endocrine 38. steroids 39. neck 40. Iodothyroxines 41.
cretinism 42. myxedema 43. goiter 44. parathormone 45. kidneys 46. cortisone
47. adrenaline 48. androgeps 49. estrogens 50. corpus luteum 51. hypophysis
52. thyroid 53. cortex 54. Graafian follicle 55. Luteinizing 56. Oxytocin 57.
vasopressin

TRUE/FALSE

Write the word True or False against following statements. Correct if it is false.

1. Integration means attainment of unity out of diversity.
2. Organization means working together in a regular manner.
3. Non-cooperation is the remarkable ability to maintain a stability or constancy in the internal environment, known as homeostasis.
4. There are three important components of endocrine co-ordination: receptors, neurons and effectors.
5. Response may be defined as any quantitative or qualitative change in environment that can be detected by an organism usually through receptors.
6. Reaction to the stimulus is known as answer.
7. Receptors may be the neurons themselves or they may be cells or organs that are specialized for detecting stimuli.
8. In most animals the principal receptors are the muscles and glands.
9. The first well-defined nervous system among the animals is found in the platyhelminthes such as Hydra.
10. In planarian the nervous tissue is especially concentrated into a trilobed mass called cerebral ganglia or 'brain'.
11. There are at least 7 distinct sensations or senses in man.
12. Photoreceptors or eyes are sensitive to a certain range of wavelengths constituting the visible light.
13. Each sense organ is specialized to receive a specific type of stimulus.

The paths to persuasion
The elements of persuasion
Who says? The communicator
What is said? The message content
How is it said? The channel of communication
To whom is it said? The audience
Case studies in persuasion:
Cult indoctrination
Attitudes follow behavior
Persuasive elements
Group effects

Resisting persuasion: Attitude inoculation
Strengthening personal commitment
Case studies: Large-scale inoculation programs
Implications
Personal Postscript: Being open but not naive

chapter 7¹

Persuasion

persuasion

The process by which a message induces change in beliefs, attitudes, or behaviors.

"Speech has power.
Words do not fade.
What starts out as a sound ends in a deed."

Rabbi Abraham Hirschel,
1961

Joseph Goebbels, Germany's minister of "popular enlightenment" and propaganda from 1933 to 1945, understood the power of persuasion. Given control of publications, radio programs, motion pictures, and the arts, he undertook to persuade Germans to accept Nazi ideology. Julius Streicher, another member of the Nazi group, published *Der Stürmer*, a weekly anti-Semitic (anti-Jewish) newspaper with a circulation of 500,000 and the only paper read cover to cover by his intimate friend, Adolf Hitler. Streicher also published anti-Semitic children's books and, with Goebbels, spoke at the mass rallies that became part of the Nazi propaganda machine.

How effective were Goebbels, Streicher, and other Nazi propagandists? Did they, as the Allies alleged at Streicher's Nuremberg trial, "inject poison into the minds of millions and millions" (Bytwerk, 1976)? Most Germans were not persuaded to feel raging hatred for the Jews. But many were. Others became sympathetic to anti-Semitic measures. And most of the rest became either sufficiently uncertain or sufficiently intimidated to staff the huge genocidal program, or at least to allow it to happen. Without the complicity of millions of people, there would have been no Holocaust (Goldhagen, 1996).

Powerful persuasive forces are also at work in today's world. In the wake of publicized research on the physical and social consequences of marijuana use,

¹This 7th edition chapter was co-authored by persuasion researcher Lisa M. Evans, Dr. Evans, Ph.D., Ohio State is assistant professor of psychology at Hanyu College.

Persuasion as a Process

- ☆ It occurs at Message, Communicator and Context level
- ☆ Persuasion----- The Message:-
 1. Repeated Exposure: Repeated exposure to people and thing (such as politicians and classical music) enhances their appeal.
 2. Emotional Appeal: Attempts to influence behavior on the basis of feelings that are aroused instead of rational analysis of the issues.
 3. Counter-arguments: People tend to believe arguments that run counter to the vested interests of the communicator.
- ☆ Persuasion: The Communicator and Context
 1. Persuasive communicators are characterized by credibility, likeability, trustworthiness, attractiveness, and similarity with their audiences.
 2. We also tend to be persuaded by the famous, health professionals and attractive individuals.
 3. Elements of the immediate environment, such as music can increase the likelihood of persuasion. Also, if the target of persuasion is in a good mood, they might be more receptive to a persuasive argument.

Resistance to Persuasion

- 1) Reactance - unpleasant, negative feeling experienced when someone is trying to limit personal freedom. Known also as negative attitude change. Principal reason why hard-sell persuasion fails because it is perceived as a direct threat to personal freedom
- 2) Forewarning - advance knowledge that one is going to be persuaded increases resistance, especially when the attitude is important to us. Formulate arguments against it because we have time to prepare defenses. More time to recall facts to refute information
- 3) Inoculation - get enough arguments and you become immune to them
- 4) Selective Avoidance - tendency to direct attention away from the information which challenges existing attitudes
- 5) Selective Exposure - deliberate efforts to only obtain information, which supports the current attitudes.

Some Suggestions for your Attitudes

- Stay calm and be well informed before making attitude for some one.
- Be aware of those attitudes that may lead to prejudice and discrimination.
- Try to have optimistic view of others and yourself.
- Persuade others as good leader of an organization.
- Especially keep up yourself when you form an attitude for yourself.

1) Collect statements also a topic given while variety of sources

56

2) These statements are rated by judges then put into 11 grps ranging from +ve to -ve. These groups are labelled by Alphabets A, B, C etc.

National Officers Acad
House # 614, Street
G-10/2, Islamabad

3) Marking/Ranking by judges is checked to know the range of diff. in value given to each statement

4) If the range is vast i.e. there is large difference in rating the item is dropped.

5) Accepted statements are subjected to calculation, there are the statements that have the highest level of agreement among the judges

6) Respondants are to state if they agree

7) The (average) attitude score is the average value of item agreed

- ☆ The Effects of Arousing Fear? Fear arousing messages can be potent. More frightened people are, the more they respond (Robertson & Rogers, 1988). Doctors who sent letters to their smoking patients found that they tried to quit when given a positive message (by quitting they would live longer) while those receiving a fear-framed message (keep smoking and you will die sooner) 30% tried to quit. In political campaigns, candidates often use negative advertising to frighten voters about their opponents. Advertisers also try to frighten consumers into buying their products. Who would want to get caught with dandruff, bad breath, or body odor?
- ☆ Primacy and Recency Effects: In a debate, would it be better to speak first or last? Primacy effect - other things being equal, information presented first usually has the most influence. Recency effect - information presented last sometimes has the most influence. Primacy is usually the rule in persuasion. Wells (1985) found a defense attorney's opening statement more effective if presented before the prosecution's presentation of the evidence. When the messages are back to back, followed by a time gap, a primacy effect usually occurs. However, if time separates the two messages the Recency effect prevails.
- ☆ Attitude inoculation - exposing people to weak attacks upon their attitudes so that when stronger attacks come, they will have refutations available.
- ☆ Sleeper effect: a message from a less credible source becomes more persuasive with time, as people forget the source and remember the message

The Goals of Persuasion: Why People Change Their Attitudes and Beliefs

Why would a person choose to become persuaded?

Functions of attitude:

People can gain rewards and avoid punishments thru their attitudes
Organize info efficiently

Express themselves to others

Maintain self-esteem

Fit in with their groups

3 major persuasion goals:

1. hold a more accurate view of the world
2. be consistent within themselves
3. gain social approval and acceptance

Factors that influence a person's motivation to process a message deeply are personal relevance of the topic, and the tendency to think hard about any topic (need for cognition — some people simply prefer to think more fully and deeply than others about almost any issue).

Having a strong desire to process a message deeply may not be sufficient, must also have the ability to follow thru. Prevention to weighing the points of the ad carefully: insufficient time, distractions, and information insufficient to let you know what to think.

Elements of Persuasion

- ☆ Credibility — believability: Would the headline: "12000 People die of AIDS in Pakistan every year" in Khabrain elicit more excitement from you if you read this in the BBC News Channel? The persuasive impact of a non-credible person may correspondingly increase over time, while the impact of a credible person may decrease over time.
- ☆ Perceived Expertise: - Saying things the audience agrees with makes you seem smart (YOU the customer deserves more choice!)
- ☆ Speaking Messages Confidently: In one study students found a straightforward witness (clear, straightforward response) much more competent than the hesitant witness (Erickson, 1978).
- ☆ Perceived trustworthiness: - Witnesses looking a questioner in the eye are rated as more believable (Hensley & Doob, 1978). Trustworthiness is higher if the audience believes the communicator is not trying to persuade them. In one study people were more influenced by speakers who's conversations were supposedly derived from hidden tape recorders (Walster & Festinger, 1962)
- ☆ Attractiveness: i.e. Having qualities that appeal to an audience. When stars endorse products, we know they are being paid to do so and are trying to persuade us. Emotional arguments are often more influential when they come from beautiful people (Pallak, 1983). Sometimes a speaker's physical appearance matters more than the quality of the arguments (Pallak, 1983). We also tend to like people who are similar to us and we are more likely to be influenced by them. Similar sources influence us more on topics of personal taste, but on judgements of fact, a dissimilar person is more influential (Goethals & Nelson, 1973)
- ☆ Personal Involvement: - When a message has personal relevance to your life, you pay attention to it and think critically about its arguments and implications
- ☆ Effect of Good Feelings: Good feelings enhance persuasion by enhancing positive thinking and by linking good feelings with the message (Petty, 1993). In a good mood people make faster more impulsive decisions and they rely more on peripheral cues.

Factors that influence a person's motivation to process a message deeply are personal relevance of the topic, and the tendency to think hard about any topic (need for cognition — some people simply prefer to think more fully and deeply than others about almost any issue).

Having a strong desire to process a message deeply may not be sufficient, must also have the ability to follow thru. Prevention to weighing the points of the ad carefully: insufficient time, distractions, and information insufficient to let you know what to think.

Elements of Persuasion

- ☆ Credibility — believability: Would the headline: "12000 People die of AIDS in Pakistan every year" in Khabrain elicit more excitement from you if you read this in the BBC News Channel? The persuasive impact of a non-credible person may correspondingly increase over time, while the impact of a credible person may decrease over time.
- ☆ Perceived Expertise: - Saying things the audience agrees with makes you seem smart (YOU the customer deserves more choice!)
- ☆ Speaking Messages Confidently: In one study students found a straightforward witness (clear, straightforward response) much more competent than the hesitant witness (Erickson, 1978).
- ☆ Perceived trustworthiness: - Witnesses looking a questioner in the eye are rated as more believable (Hensley & Doob, 1978). Trustworthiness is higher if the audience believes the communicator is not trying to persuade them. In one study people were more influenced by speakers who's conversations were supposedly derived from hidden tape recorders (Walster & Festinger, 1962)
- ☆ Attractiveness: i.e. Having qualities that appeal to an audience. When stars endorse products, we know they are being paid to do so and are trying to persuade us. Emotional arguments are often more influential when they come from beautiful people (Pallak, 1983). Sometimes a speaker's physical appearance matters more than the quality of the arguments (Pallak, 1983). We also tend to like people who are similar to us and we are more likely to be influenced by them. Similar sources influence us more on topics of personal taste, but on judgements of fact, a dissimilar person is more influential (Goethals & Nelson, 1973)
- ☆ Personal Involvement: - When a message has personal relevance to your life, you pay attention to it and think critically about its arguments and implications
- ☆ Effect of Good Feelings: Good feelings enhance persuasion by enhancing positive thinking and by linking good feelings with the message (Petty, 1993). In a good mood people make faster more impulsive decisions and they rely more on peripheral cues.

Covert techniques are preferred b/c they are a more Nonreactive measurement: measurement that does not change a subject's responses while recording them.

When there is little reason for a person to conceal their actual attitudes, a self-report measure is just as accurate as a covert one

- Likert & Thurstone Scale* *disinvolvement* *b/c*
2. After-Only Design: assesses persuasion by measuring attitude only after the persuasion attempt. Doing a before-after design could sensitize the people in your study to the issue so they were more receptive to its message. *Random assignment* can be used, in which participants are placed in one or another condition of the study completely by chance.

Dual Process Models of Persuasion: 2 Routes to Change

Incorporate two basic kinds of attitude change processes—those that involve hard thinking about message arguments and those that do not. Each addresses the question of when it is that people are likely to think deeply versus superficially about a communication. Each has same basic answer: message recipients will consider communication deeply when they have both the *motivation and ability* to do so.

★ Elaboration Likelihood model: there are 2 ways attitude change can take place—deeply or superficially. This model suggests that consumer attitudes can be changed by either central or peripheral routes to persuasion.

- a) In the central route, attitude change occurs because the person seeks and evaluates additional information about the object, or person. In this case, motivation levels are high and the person is willing to invest the time and effort to gather and evaluate the information, indicating a high level of involvement. People who are motivated to think through an issue are best persuaded through central route persuasion. When people think more deeply (not superficially), any changed attitude will more likely persist, resist attack, and influence behaviour (Petty, 1995).
- b) In the peripheral route, people are either unwilling or unable to seek additional information for analysis. Involvement is low, so persuaders must offer secondary inducements to induce attitude change. e.g. Prices are reduced

★ Heuristic-systematic model: there are 2 ways attitude change can take place—the message recipient uses heuristic shortcuts or processes info systematically

National Office
House # 614, Sir
G-10/2, Islamabad

2. Likert Scale

For each statement, check the extent to which you agree.

1. I believe that the church is the greatest institution in America today.

- (+2) _____ strongly agree
(+1) _____ moderately agree
(0) _____ neutral
(-1) _____ moderately disagree
(-2) _____ strongly disagree

2. The church represents shallowness, hypocrisy, and prejudice.

- (-2) _____ strongly agree
(-1) _____ moderately agree
(0) _____ neutral
(+1) _____ moderately disagree
(+2) _____ strongly disagree

3) Osgood's Semantic Differential: an attitude scale which includes various subscales that measure the connotative meaning of the attitude object. These subscales are bipolar and respondents are asked to check along the line between the two bipolar opposites: (e.g. good _____ bad). A respondent's score consists of the average of the ratings. This approach is based on the finding that there are three elements of meaning to all concepts: evaluation (good/bad), potency (strong/weak) and activity (active/passive). The first of these (evaluation) is directly relevant to attitudes, so by using scales that are defined at each end by purely evaluate opposites, one can measure attitudes towards any object.

3. Semantic Differential Scale

Rate how you feel about the church on each of the scales below.

| | | | | | | |
|-------------|------|------|---|------|------|------------|
| good | (+2) | (+1) | 0 | (-1) | (-2) | bad |
| unfavorable | (-2) | (-1) | 0 | (+1) | (+2) | favorable |
| pleasant | (+2) | (+1) | 0 | (-1) | (-2) | unpleasant |
| negative | (-2) | (-1) | 0 | (+1) | (+2) | positive |

Dr. P

Measuring Attitude Change (i.e. Level of Persuasion)

-difficult b/c people change their actions if someone is recording them

Methods:

1. Researchers sometimes measure attitudes unobtrusively (covertly) w/o asking subjects to give self-reports of these attitudes. Judge the attitude in question by observing an attitude-relevant behavior.

Ex: lost letter technique...learn attitude toward racial integration

Defining a Social Continuum

- 1. Would exclude from my country.
- 2. Would accept as visitor only to my country.
- 3. Would accept to citizenship to my country.
- 4. Would accept for employment in my occupation in my country.
- 5. Would accept to my street as neighbors.
- 6. Would accept to my club as personal chums.
- 7. Would accept close kinship by marriage.

Believing for the group is the
pre-accepted by the
the, vice versa, the
with the same
relation

A respondent's score is the closest distance at which he or she finds the relationship with members of the target group acceptable.

2) Thurstone's Method of Equal-Appearing Intervals: An attitude scale in which the many possible scale items are rated by a panel of judges. These judges sort the statements into 11 groups which are theorized to be equidistant. These groups range from very positive to neutral to very negative. The statements used in the final scale are a sample of statements from each group that has the highest level of agreement among the judges. Respondents are asked to state if they agree with each of the statements. Attitude scores consist of the average value of the items agreed with.

A 5 0 5 7 6 11 1 1
for neutral - 6.1

Different Direct Scales for Assessing Attitudes toward the Church

- 1. Thurstone Scale (Adopted from Thurstone & Chave, 1929)
Check the statements with which you agree:
1. I enjoy the church because there is a spirit of friendliness there. (3.3)
2. I respect any church members' beliefs, but I think it is all "bunk." (6.8)
3. I think the organized church is an enemy of science and truth. (10.7)
4. I believe in what the church teaches but with mental reservations. (4.6)
5. I feel that church services give me inspiration and help me to live up to my best during the following week. (1.7)
6. I feel the need for religion but do not find what I want in any one church. (6.1)

3) Likert's Method of Summated Ratings: An approach that does not require that judges first sort the items and where respondents indicate the extent to which they agree or disagree with a statement. Items usually have five response options: strongly agree, moderately agree, neither agree nor disagree, moderately disagree, and strongly disagree. A value ranging from -2 to +2 is associated with these options. A persons score is the sum of the values of the options they picked across all items (some items are reverse coded). To insure scale homogeneity they that correlate well with the total score are kept on the scale. This process of refinement is normally done during the development stage of the scale.

51 this is a

- ☆ Eye Contact If two people like each other, they will make more eye contact than if they do not like each other. This reminds us of Affiliative Conflict Theory (Equilibrium Theory) which states that people who like each other are more intimate and engage in more intimate behaviors like eye contact.

☆ Here are some techniques for measuring Attitudes:-

National Officers Academy
House # 614, Street # 29
G-10/2, Islamabad

a) The Lost Letter Technique

The Lost Letter Technique is an indirect attitude measure introduced by Stanley Milgram. Milgram 'planted' stamped, addressed envelopes in public places so that they appeared to have been 'lost' by someone. The letters were addressed to different organizations including UNICEF and Nazi groups. Milgram wanted to determine the relationship between the mailing rates (how many people mailed the letters) and the organizations the envelopes were addressed to. He was able to do this by counting all the envelopes that he received in his mailbox (all the mail was addressed to him). According to Milgram, the number of letters received for each organization reflected the general attitude of the population towards that organization. The higher the mailing rate, the more favorable the attitude. This is only an aggregate attitude measure, but it is useful measure, especially in countries where attitudes are suppressed.

physiological indicator :-

b) Galvanic Skin Response (GSR):

A drop in the resistance of the skin to the passage of a weak electric current, usually measured in the palm of the hand, indicative of emotion or physiological arousal. Are emotional responses related to attitudes? GSR data indicate that emotional responses do indeed relate to attitudes. In one study, when pleasant words like 'love' were presented to participants, their GSRs were greater than to neutral. The same type of responses were seen when unpleasant words like 'rape' were presented to the participants. On the other hand, when neutral words like 'chair' were presented to the participants, their GSRs remained neutral. The problem with the GSR is that there is no way to distinguish between a positive and negative reaction, so it is not a good indicator of attitudes. The GSR also shows novelty reactions.

c) Scales

1) Bogardus's Social Distance Scale: An instrument for measuring attitudes towards members of social or ethnic groups that is based on the assumption that one's liking for a group is reflected in the social distance that one finds acceptable in relationships with members of the group. People taking the scale indicate if they would willingly allow certain ethnic groups into increasingly close relationships with themselves. Here is how the continuum of social distance was defined in one study:

- Change discrepant cognition to more consistent
- Self Perception Theory:- When we are unsure of our attitudes then we infer that others are observing us and the situation (i.e. circumstances) in which that behavior occurs.

WHAT IS PERSUASION?

Persuasion: - change in a private attitude or belief resulting from the receipt of a message

Only when a message brings about inner change in your views on a topic can we say that it persuaded you

Attitudes: favorable or unfavorable feelings toward particular things
Beliefs: thoughts (cognitions) about these things

- o Persuasion efforts are everywhere in daily life
- o Why do they sometimes succeed while other times they fail?

Strong Attitudes Resist Persuasion

- ☆ Strong attitudes are more stable than weaker ones; more likely to remain unchanged as time passes. They are less pliant than weaker attitudes in that they are better able to withstand persuasive attacks or appeals specifically directed at them
- ☆ It is because of 2 reasons:

A) Commitment: more certain that it is correct, more sure that they won't change it; their position is more extreme. People dismiss evidence that goes against their initial attitude

B) Embeddedness: strongly held attitudes are more connected to additional features of the person (self-concept). Restricts change by tying the attitude to so many other features of the person that it became difficult to move in any direction.

Measuring Attitudes 1 - Scales (1) Thurstone (2) Likert (3) Bogardus (4) semantic differential (5) Guttman scale

- ☆ Social psychologists have looked for ways to measure attitudes by recording subtle behavioral and physiological indicators. These approaches have the advantage of not requiring self reports that are under the control of the respondent.

Behavioral indicators:

- Head movement - when people listen to messages they agree with, they tend to move their heads vertically (nod) more than horizontally (shake).
- Eye contact

☆ Attitudes are consistent. However, this does not necessarily mean that they are permanent; attitudes can change or be changed.

☆ Attitudes are directed towards an object.

National Officers Academy
House # 614, Street # 29
G-10/2, Islamabad

function of an Attitude

An attitude performs following functions:-

- Economy Function:** - We save time while evaluating others, because we can categorize people. We can make better decisions of present and future with the help of attitudes.
- Expression Function:** - We can satisfy ourselves by expressing our emotion in attitudes. E.g. expressing feelings of hatred by attitudes
- Utilitarian Function:** - We follow Pleasure principle in our life even in attitudes making. We adopt in society by using it. e.g. Good luck brings happiness.
- Ego-Defense Function:** - This function involves psychoanalytic principles: People use defense mechanisms to protect themselves from psychological harm. These mechanisms include denial, repression, projection and rationalization. e.g. Prejudicial attitude - A person may feel a sense of inferiority in the world and consequently develop negative attitudes towards other people. By putting other people down, the person gets the feeling of being superior.

Attitude Change

A process by which attitudes of person are changed is called Persuasion.

Research has suggested that:-

- It is difficult to change the attitudes of an intelligent and egoist person.
- A highly informed person is difficult to be persuaded.
- Overgeneralizations help in attitude formation. e.g. a helping person in India.
- The people who are member of a group resist change in their attitudes.
- Propaganda / Advertising is used to change attitudes of people.
- Negative attitudes are basis of prejudice and discrimination.

Theories about Attitude/s

Following are important theories of attitudes:-

- **Self-Presentation Theory:** - Act of presenting oneself and behaving in ways that create a favorable impression. This is done in two ways:-
 - a) **Self Enhancement** (i.e. Boost one's image) or b) **Others Enhancement** (i.e. others feel good by our presence). e.g. Impression Management.
- **Cognitive Dissonance Theory:** - We feel tension psychologically when as a person we have two inconsistent beliefs. e.g. An accident and doctor say no "I can not operate". This is discrepancy between behavior and attitude. Ways to reduce dissonance:
 - Generate consistent cognitions

Attitude and Persuasion

Attitude

- o Definition: - A general and enduring positive or negative evaluation of people, objects, or ideas.
- o "Attitudes are concrete ways in which an individual apprehends the world in which he/she lives". Marcues
- o "Attitudes are lasting and general evaluations of people to words oneself, objects, or issues". Petty & Caciopio
- o "A relatively stable predisposition to behave or react in a certain way towards person, objects, institutions, or issues". Dictionary of Psychology
- o An attitude has three component:-

- a) Affective Component:- We always have some feelings and sentiments in every attitude that makes it good or bad. e.g. A Muslim has a good attitude for fellow Muslim but bad attitudes for others like Hindus, and Jews.
- b) Behavioral Component:- When a person makes certain action on the basis of these sentiments then this is Behavioral Component of an attitude. e.g. You like a person in election and make a campaign for him.
- c) Cognitive Component:- These are our thinking and memories in an attitude. e.g. My father hated Jews, so do I.

Learning an Attitude

An attitude can be learned in two ways:-

- a) Socialization:- Process by which a person adopts to society for being a useful person in it is called Socialization. e.g. we learn from our mothers, teachers, friends, media, adults, etc. We also learn through Modeling or by observing others.
- b) Personal Experience:- People make their attitudes from their personal experiences. E.g. through group affiliations, learning from past experiences, when we are exposed to information etc.

The main characteristics of attitudes are:

- ☆ Attitudes are learned from personal experience, information provided by others, and market controlled sources, in particular exposure to mass media.
- ☆ Attitudes are predispositions. A predisposition is an inclination or tendency towards something; attitudes have motivational qualities.
- ☆ Attitudes have a relationship with behaviour.

Handouts Never Substitute Knowledge in the Books and Attendance in The Class!

If we have high level of self-awareness

Person's own attitude