PTS NOTES

RECIPROCAL DETERMINISM = x has the power to determine y and y has power to determine x

Communication from Industrial Perspective = so that MNCs can flourish

Smart Phones = Pleasurable means (Instant Gratification)

Personality does not change rapidly

Technology has social impact on life of others , so it is no longer a neutral object . we can apply concepts of psychology on technology also. Technology has power to connect to others , so it is a social object.

Life editable in virtual world , not in real world.

Basic psychology does not change.

Reason for religious conflict ? – I am the best, not acknowledge the presence of others. Don’t give space to other ideology.

Three basic needs of human :

* Need for affiliation
* Need for power
* Need for achievement

Attention is of two types :

* Sustained attention (selective attention )
* divided attention

What is psychology ? – is the science that studies behavior and the physiological and mental processes that underlie it, and it is the profession that applies the accumulated knowledge of this science to practical problems.

What is science ? – branch of knowledge or study dealing with a body of facts and truth systematically arranged. = I should not cook truths or facts.

Conflict between two friends = facts or truth not systematically arranged.

Knowing oneself better = psychology

Scientific theory = a reasoned explanation tested by many observations and experiments. (not single observation and experiment ).

Scientific theory = describe , explain ,predict ,control and improve.

Characteristics of Science :

* objectivity
* verifiability
* ethical neutrality – cloning , obedience experiment
* systematic exploration
* reliability
* precise
* accuracy
* predictibility

permanent damage to self-esteem of the person = Stanford prison experiment

Psychology is :

* uses scientific method
* is factual
* laws of psychology are universal
* laws of psychology are verifiable
* cause and effect relationship in human behaviour
* prediction of human behaviour
* ethical issues in psychological research

Conformity means = set pattern of behaviour of individuals.

Technology = conformity = stops exploration process

Good science

* Science is a human endeavour
* Acceptance of scientific ideas is based on a process of publication and peer review
* Replication is also vital to good science = manual for good science.
* Good science is human-friendly
* Not involve many technical jargons

Fact vs. Opinion :

* Fact in a scientific context is a generally accepted reality. Hypothesis and theories are generally based on objective inferences , unlike opinions, which are generally based on subjective influences.

Bad science

* Unrealistic claims
* Small sample size
* Correlation and causation confusion
* Using too much scientific jargons – words that are difficult to understand
* “Scientifically proven” or “Gauranteed results”
* No control group = 10 students , hasty conclusion.
* Non-replicable results
* Exagerration

Exampe : Multigrain , burger king

Correlation and Causation :

Correlation only talks about the relation between x and y , it does not talk about what is causing what. While in causation , we clearly know what is causing what.

Favour and familiarity goes hand in hand.

Social Science vs. False Science :

Psychology is a social science based on verifiable evidences and theories that are tested according to scientific method.

False Sciences , on the other hand do not rely on verifiable evidences and does not follow basic premises of scientific approach.

Example : Horoscope section of newspaper.

* Uncertain about of our future , our insecurities , seeing the prosperity of others , I feel I am unfortunate.
* Information about places where I cannot be should reach to me.

We should start restoring ourselves for objective and scientific approach to life.

Behaviour guided by mental and physiological processes.

Example : Lie detectors = eye ball movement , perspiration , heart rate , these are the things on which lie detector works. Two persons – lay and expert , an expert in deceiving the emotions. Lay person may be nervous , he can be proved guilty. Expert who is mastered in controlling physiological processes may come out clean chit.

More about psychology :

* Scientific way of studying human behaviour
* Comprehensive discipline
* Uses Variety of methods to study a research question
* Pragmatic in approach : intuitive or naïve psychologist.

Goals of psychology :

* Describe : it describes what happens in an objective manner – empirical in approach (can be tested out) , data driven , operational definition
* Explain = provides explanation of an event
* Predict , control and improve ( enhancing quality of life).

COGNITION

Cognition = knowing what I am doing

Basic difference between “person in coma” and “fully conscious” – both biologically alive, responsive , capable of receiving information from outside and responding to them

Why I am moody – is it social media , underevaluation etc. = we need to know our internal processes of mind.

Why I could not perform not well on a task – nervous , could not learn task better, underevaluation , not much effort.

Interaction is time bound between two people = first impression ( behavioral unit )

Psychology do not follow stimulus and response model, we follow cognitive model.

Mediational process = we can find cost and profit of input

Quality of output depends on mediational process.

* Information from CEO to lower hierarchy = top-down
* National Educational Policy (Govt is floating ) = top-down
* Recommendations to govt. = bottom-up
* Senses to mind = bottom-up
* Mind (processed , analysed , directing your behavior) = top-down

Cognition = top-down approach heavily realied on bottom-up

Person in coma = top-down is failed , bottom-up working perfectly.

When we perplexed, confused, indecisive = top-down not working perfectly. – judgement , underevaluation , social judgements

Extrovert – talkative, enjoys party , admirable by others

Cognition = includes past experience

IQ is fixed. = Genetic Contribution

Example : Mental retardation

Cognition = elaborates information from sensory memory = example = extrovert person

Time management , good lifestyle and targeted practice, no procrastination = to improve cognition

Our effort = using IQ to improve our cognitive ability

Example : Hanuman cursed by saint ( he knows not to release energy in constructive way ) , he will get back all his powers when reminded of his potentials.

Let our energy out in a constructive way.

Notion of cognition = universal

Empathy = perspective taking

Raw data = bottom-up

Products from factories = top-down

Cognitive abilities develop over time.

In child , tongue and hand = working

Preoperational = egocentric ( world starts with him )= idea of others perspective not developed = not empathetic

Concrete operational = multiple characterization. Abstract thinking

Formal operations = development depends on kind of interaction.

Small child cannot handle abstract thinking

Scheme = A plan

Schema = Blueprint of the world that we carry in our world by interacting with environment ( peer groups , school , teacher ) .

Formation of schema = assimilation and accomodation

Benefits of time table = predictable and organized life.

Example : day 1 not able to reach class, this experience comes with some effort since new environment was new.

Assimilation = when we come across a situation same as previously we experienced, we use assimilation.

Example = fitting things brought from grocery store into designated containers.

* Subjects we study in engineering curriculum = HSS and Technical = schema of engineer , hostel life vs. kota

Accomodation = new info that we come across , we need to modify existing schema or create new schema.

Example : when a guest comes to our house , we adjust.

Technocrat = science , maths and subjects from HSS .

Example : rigid person and person who is eager to learn

A rigid personality ( fundamentalist approach ) uses assimilation , looking for consistent pieces of info , ideologies that support their notion . They lack empathy as they cannot take into account feelings of others.

Assimilation = less effort , accommodation = more effort , putting vegetables into already present containers but if no new container for new things , more effort we put.

Fully-functionaling personality = we should question also our blueprint.

Don’t fully rely on assimilation.

How to cope with disequilibrium = accommodation OR escaping ( faulty strategy )

Technology follows assimilation process. = similar videos in excess , similar groups in excess.

Root cause of prejudice , discrimination = assimilation since it does not allow us to see the full picture of world , cannot think contrary facts.

Reduce the anxiety , indecisiveness , confusion , conflict = psychological homeostatis ( equilibrium ) = uses of schema.

One of the processes in cognitive process not work = whole cognition circuit don’t work.

Standard Context is being imposed = less variation in responses.

Boundless = we have our own interpretations.

PERCEPTION

Every perception starts from sensation ( bottom-up approach ).

How I am processing information derives our perception.

Listening = not automatic, if we focus on hearing , we get listening

Hearing = automatic process

Childish = rely on making castles in air , not expected of mature person = relying on assimilation

Child-like = child is exploratory = expected of mature person

Simplifying things = just simply ignore it, identify the nuances , errors then try to ignore it.

Poll Questions :

* Psychology says most genius people are born in June , July and October = false
* Psychology is the science that studies only the behavior and not the physiological and mental processes = false
* In scientific approach , facts and truth systematically arranged = true
* Science studies correlation between variables and not causal relationship between variables = false
* Cognitive development takes place in 4 stages = true

Role of context in perception

Mismatch between sensation and perception = optical illusion

Ambiguity = seeing one thing from different perspective

Fictions = viewing something which is not there = away from reality

Localization = helps you direct your attention

Perceptual constancy = certain things are constant , like door is door whether it is closed , open , partially open

Cocktail party metaphor

Spotlight metaphor = only able to see things that are in spotlight on stage

Zoom lens metaphor = focus on things that we desired to capture.

ATTENTION

no attention = disorganized life

Attention = zoom in perspective of the things that we like to do.

Selective attention = controlled processing ( since we put our effort to focus )

Divided attention = automatic processing

Imagining = selective attention

Divided attention for complex tasks = we fail since task is not learned

Divided attention on things with some practice = will work

Selective attention , if we gain some expertise , use divided attention.

Multiswitching instead of multitasking = divided attention on complex processes

Complex tasks to easy tasks = saves time

We should move beyond imagination , imagination = stress buster.

No radio in initial days of “learning to drive”.

LOCALIZATION : looking for finite things in infinite world

Content vs. context :

Content = figure

Context = background

Syncing psychological attributes = to minimize conflicts , effective teamwork.

What you say = content , how do you say = context

If we want to change our perception of others = change our behavior.

Background = large , figure = image

Perceptual world different from mathematical world = 2+2 =4 in mathematics but in perceptual world, 2+2 is always greater than 4.

Example :

Room allotted in hostel = along with my friends ( law of similarity ) and we need to be close to them ( law of proximity ).

Discrimination = law of similarity ( we discriminate on basis of colour, gender , caste ).

Law of closure = even though we are provided with insufficient information , we try to fill it from our side.

Example : Rumours are a case of “law of closure”

Example : example of perception is SOP and recommendation letters. SOP touch upon the various aspects of personality , other people make a perception about you. Reco letter = what other people think about you.

Monocolour cues = important in “engineering drawing” subject , artists also use it.

Similarity = provides uniformity = may develop a close bond , attraction between two individuals.

LEARNING

Learning can be when “there is error and trial”. Past experiences not useful to decode the new situation. Learning is a behavioral phenomenon.

Physical and mental environment contributes to learning. Learning is a life phenomenon.

Why learning is relatively permanent ? = good and bad , personality attributes come into picture , example of drug addicts and concept of rehabilitation centres. If it was a permanent change , there is no scope of improvement. It is also NOT a daily change . we remain the same person when we wake everybody

We can change learning if we are focused, goal oriented.

Can we change habit ? = not easy to change habit but IT CAN BE CHANGED.

Example : is it easy to approve sapling or tree = sapling is easy to be detached

Habits in formative stage = habit otherwise it would become routine (tree).

Doping = accelerating performance temporarily in sports due to drugs.

Learning can be done by three types :

* Learning by association ( Classical conditioning ) = Advertisements use this ( Glamarous girl in advertisement of car )
* Learning by consequences ( Operant conditioning ) = code of conduct and rewards in Job, Academic
* Learning by observation = Observing the consequences of others , there can be learning

Serendipity = results expected when “not expected”

Learning is the building block of personality.

Learning should be product of our experiences, if any change occurring due to other factor ( drugs , unfair means ) is not learning.

Biological maturation , we have no control over it. ( so it cant be learning ).

Classical conditioning = learning by association

Coca – cola = neutral stimuli

Neutral stimuli when paired with “natural stimuli” takes the power of natural stimuli. It acts as a parasite or zombie.

Illusional Correlation in case of “neutral stimuli” = correlation in wrong sense.

If we can discriminate between neutral and natural stimuli , we can unlearn that phobia.

Fear is generated when we start associating two different things.

Phobias are learnt from “classical conditioning”.

OPERANT CONDITIONING

based on two principles = reinforcement and punishment

reinforcement = something that yield a pleasurable reward = example : coming first in class , birthdays

punishment = diminish “not socially accepted behavior”.

Reinforcement = increase socially acceptable ( desirable ) behavior

Punishment = decrease undesirable behavior

Example :

Legal system = based on punishment

Q) reinforcement for undesirable behavior = antisocial behavior , Social unrest , converting people , terrorist.

BF Skinner = Operant conditioning concept developed

Why Every behavioral theory start with lower cognitive species ? = easier than humans to study , they will react naturally , no “rights on lower species” , highly unethical to perform experiment on humans.

Example : subject determines reinforcement or punishment = if we pass on easy test , not much rewarding but if fails = large punishment

Example :

Paying fine = negative punishment

Stopped by the cop = positive punishment

Looking at red light stopping the vehicle = negative reinforcement

Negative reinforcement = professor gives -10 marks if assignment not submitted on correct time.

Fastening the seatbelt = punishment

Classical conditioning = subconscious learning

Why reinforcement not always good ?

Motivation = external and internal

External motivation = driven by rewards

Matchfixing = replaces passion with money = a good example of “bad effects of reinforcement”.

Reinforcement validates the positive side of behavior.

Variable interval = incentives payment in company ( they can vary ).

Permanency in learning = interval schedule

memory = retaining and retrieval of information

no organization = life difficult

memory is stored due to social learning

OTP remembered for short amount of time and then we forget.

In exam , we use retrieval of information from memory.

Maintenance rehearsal = storing info

Elaborate rehearsal = assigning meaning and storing

Example :

Practice Sessions and Test series during JEE = To make the process of retrieval easy

Classes Attend = Process of encoding

Doing homework = Process of storage

Teaching curriculum aligned with memory

How do we know that left hemisphere is for encoding and right hemisphere is for Retrieval ?

= Through PET scans and fMRI scans

Phonological = sound of voice = meaning of what someone is saying

Acoustic = change in voice = change in pitch

Taking in the input = through visual and auditory senses

Three stores of memory = sensory memory , short term memory and long term memory

Sensory memory = taking in input through senses

Attending and recognizing the input = it goes to short term memory

Maintenance rehearsal = information will remain in short term memory

Elaborate rehearsal = information will go to long term memory

If we attend to input information , it goes to short term memory.

How encoding is done for short term memory ? = visual , phonological or semantic

Largely phonological , then visual and very less times “semantic”

Phonological buffer = through left hemisphere

Visual-spatial sketchpad = through right hemisphere.

Miller’s magic number = 7+-2 information in STM

Serial search = begin from the starting and find the word

Parallel search = random search , we try to remember what all was there in list and we find the word

Remembering the words of the list = we were using visual-spatial sketchpad.

In STM , we rely upon parallel processing.

Example :

In the institute, I lost the key = trying to remember what all places I went , example of serial processing.

Randomly trying to remember where the key was = like I went to mess, I went to lab = parallel processing

Techniques to improve memory = mnemonics

Techniques to improve short term memory = chunking

Information decay = happens when we don’t revise an information

before the exam = storage + retrieval

experiences = bundle of past information used to solve “new” problems

negative things are like cold air , they settle down. Positive things are like hot air they motivate you.

It takes a lot of courage to appreciate someone.

Try to make negative things like neutral things.

Storage is like cupboard = two sections – systematically and randomly arranged

In memento , the person “storage” part of memory was not working properly . He was creating an artificial storage.

Stage fright = not go away with social anxiety due to fear of judgement = they should work on social anxiety

Long term memory and short term memory work together.

ADHD = cannot sit properly on a place = lot of information in sensory memory , which they cannot attend to

Retrieving from short term memory = serial processing

Method of LOCI = imagine short term memory as a house

Memory = recollection of self

Memory is also about connecting the dots.

Short term memory = working space of day to day activities.

Why losing short term memory makes you non-functional ?

Something in long term memory but if there is no short term memory , how can we retrieve it. Same thing happens when we are in stress, we are not able to recall information from the long term memory.

LONG TERM MEMORY

We use here semantic encoding = since we have to derive the meaning of information in order to keep it for a long time

Recall or recognition = recognition is better than recall.

Example :

* MCQ exams = if queues are competitive and racing , recognition becomes a problem
* Lineups = suspect is there , every suspect is suspicious so recognition

Procedural memory

Basic ingredients of food remain same , but how they are cooked = this is example of procedural memory.

Episodic memory = like memories of a trip you have gone to

Items from the top of list = coming from long term memory

Items from the bottom of list = coming from short term memory

MOTIVATION

Motivated for something , things required :

* Intensity of drive / need
* Direction
* Persistence
* Goal

Why direction ? = know what to do , but don’t know how to do.

We fail at persistence. We have to search for interesting.

Immediate pleasure with short term benefits : window shopping , cheating

Without motivation , goal is just like “wishful thinking”, “daydream”, “building castles in the air”

Consequences are good = we are motivated to do that thing.

Needs that are at top of triangle = not all are able to achieve it.

Self esteem= derived from internal sources , derived from external sources

Those derived from external crisis = suffer from identity crisis

Technology makes us stack at “safety level” only and we cannot move forward unless we have motivation.

Organizational Implications

* Salary should satisfy physiological and safety needs of people
* Foundation day , office party = love/belonging
* R&D development

Marketing structures

* White hat junior = falls into esteem stage of triangle
* CCTVs , job security , tracking device = safety stage of triangle
* Esteem needs

Wifi = falls into physiological needs

Perspective and counter perspective = for understanding things better

Sigmund freud = absence of free will = day to day activities are guided by unconscious mind.

Conscious mind = guard

When sleeping , conscious mind goes to sleep.

ID is guided by the pleasure principle. = immediate gratification

Ego = certain inputs from ID and inputs from superego

Pleasures = to bring balance in the life.

ANXIETY

Anxiety is a clash between any two components of personality = id with ego , superego with ego

Jobs where intellectualizations = doctor,police

EMOTIONS – 10:27

Emotions help in development of cognitive system.

Motivational emotions are just like lubricants.

Things that challenge our positive emotional states – rejection , unexpected criticism, remarks = it disrupts out emotional hygiene

Emotions = complex multicomponent episode

Moods = free floating , we don’t know why it happens

Moods = good mood / bad mood

To handle emotions = isolate yourself

Two factor of emotion = watch on youtube = placebo and epinephrine

Cognitive appraisal = cognitive evaluation

Negative feelings are more liked by mind.

SOCIAL COGNITION

PR team recrafting the image of person.

We are cognitive misers

We develop schemas about everything.

Person schema

Role schema

Event schema = 4 star hotel and dhaba

We can form scripts in our minds about how the events will unfold , we live in a world of reviews.

Schema is persistent

Pride prejudice = perseverance effect = religious discrimination

Pop music = developed by black people

ADHD = bottom up more fast , top down not so fast