

Lecture #01

15-09-2022

- Study of human mind & behavior

↳ Mind & behavior :-

- What is behavior?

components

- Feel

- Thinking : Thought process

- Action.

- Types of psychology:

i- Research : again research, on research things

ii- Applied :

- History of psychology:

comes from Greek words:

- "psyche" meaning mind or soul.

- "logos" meaning reason.

Acs:

Ques:- What is introspection? Define it with example?

- Structuralism: (structure of mind).

i- Reasoning

↳ break down different structures of mind.

ii- feelings

iii- Emotions

iv- Learning

v- Memory

vi- Mood Swings

body structure

Functionalism of the mind:

How different components "functions on the mind."

- conscious state

- unconscious state.

Introspection is self-examination, analyzing yourself → looking at your own personality and actions, and considering your own motivations.

"An examination of one's own thoughts and feelings".

→ The word:

"Intro" means "within"

"pection" means "looking"

- "Individual is looking within one self"

Example: Suppose you are happy & in the state of happiness you look within yourself. It is said you are introspecting your own mental feelings & examining what is going on in your mental process in the state of happiness. Similarly, you may introspect yourself in the state of anger & fear etc.

Introspection is also defined as the notice, which the mind takes of itself.

Lecture #02

22-09-2022

- Mary Whiton Calkins:

She was ~~American~~ psychologist.

She was very famous memory researcher.

- APA : American Psychological Association.

- Margaret Floy Washburn:

Second president of APA.

- Sigmund Freud:

Psycho means mind

Analytic means find something.

Maladaptive behaviors: Abnormal behaviors.

- Focused on talk therapy
- Childhood events leads to maladaptive behaviors.
- Unconscious drives leads to conflicts.

- Psychoanalysis:

personality composed of three elements.

• ID : leads to ^{Pleasure} common principles
Satisfaction level.

• EGO :

Reality principles.

• SUPEREGO :

Morality (what is good &
what is bad for us).

- Pleasure principles, Reality principles, &

morality principles linked
with psychoanalysis.

Common wealth
Full Bright

- Ivan Pavlov:

~~Stimulus~~ ^{Stimulus}
~~Strengthless~~ leads to reaction.

- John B. Watson:

- Founder of behaviorism.
- Studied only observables
- Emphasized on scientific methods

- Little Albert experiment:

leads to Imitation

- The things we observed we doobt there in our daily life.

- Jean Piaget:

- Burrhus F. Skinner:

Operant conditioning

leads to motivation, rewards,

→ Enfor Reenforcement : internal state

- Reward 3 internal (will Powers, Insignif)

- Motivation 3 environments

Positive Reinforcement :

Negative Reinforcement :

~~Humanistic Psychology:~~

Abraham Maslow was a psychologist

- Self-Actualization is the theory of maslow
- Gestalt psychology:
 - Gestalt: as a whole.
 - To perceive things as a whole.

Chapter #02: Research Methods.

→ Introspection method:

- Self observation method

Advantages of introspection:

- Cheap
- Economical

→ Observation method:

- Types of observation:

- i- Covert observation: Researcher doesn't tell the participants that they are being observed.
- ii- overt observation: observed are aware of the fact.

→ Interview Method:

Face to face communication b/w two persons.

Types of interview:

- Structured : Questions are already prepared
- Unstructured : General question
- Focussed : Main goal.

Clinical :

Non-directive : we use proper clinical techniques

→ Experimental method:

we check cause-and-effect method.

Hypothesis : prediction.

→ Clinical or case history method:

In-depth investigations, deep study.

- Socio-economic history : society & income etc.
- Chief complaints (symptoms).

→ Genetic or Developmental method:

• Cross-sectional study : psychological & physiological study.

→ Survey method:

Nervous System

What is the nervous system?

Nervous system exist inside the brain.

It totally consist of brain & spinal cord & nerves.

- Types of neurons.

i- Motor neurons : parts axon & dendrites

ii- Sensory neurons : Senses

iii- Inter neuron :

→ Associated with body movements (relaxation, contraction).

→ Associated with sensory system of the body (all senses sense of sight, hearing, touch etc).

→ Located in central nervous system.

→ Grab message from sensory neurons and transmit/send to motor neurons.

- Nerve fibers:

Schwann cells : Defensive cell, fight against diseases (white blood cells).

Types of nerve:

i- AFFERENT :

ii- EFFERENT :

- Pituitary gland is the master gland of body
- Synapses: gaps:
Synapses means gap. (gap of nerves).

- Gap of white matter of the central nervous system:
 - Located in our brain & spinal cord.
 - Brain & spinal cord located in central nervous system

- Brain & spinal cord meninges:
Membranes are called meninges in our brain (to collectively join the brain).
 - Types of membrane:
 - i- Dura mater : outside membrane
 - ii- Arachnoid : middle membrane
 - iii- Pia mater : inside membrane.

- Parts of the brain - the cerebrum.
 - i- Cerebrum: weight 7/8ths.
part of the brain. It governs all sensory & motor activity. (perception, emotions & memory).
Two parts. left & right hemispheres.
Have 4 lobes.
 - Frontal
 - Parietal
 - Temporal
 - Occipital

ii- Cerebellum:

Second (largest) part of the brain.

- Coordinate voluntary & involuntary patterns.

iii- Diencephalon:

This is the part of the brain.

- It refers to thalamus & hypothalamus.
- Thalamus is only associated with sensory system.
- Hypothalamus associate behavior and emotional expression & body temperature.
- Attached to the pituitary gland.

iv- Brain Stem:

This is also the part of brain.

It consist of 3 structures-

- Gray matter : work on the visual system of the body
- White matter : associate with internal organs
- Medulla oblongata : regulate breathing, sneezing and blood pressure.

- Spinal cord:

↳ 31 segments.

- 8 cervical segments.
- 12 thoracic segments.
- 5 lumbar segments.
- 5 sacral segments.
- 1 coccygeal segment.

• 44 cm long spinal cord is shorter than

The spinal column:

- Cerebrospinal fluid.
 - colorless fluid in brain
 - protect from injury (blood not scattered in brain).
- Peripheral nervous system:
 - 12 cranial nerves (associated with face).
 - i- olfactory nerve associated with smell
 - ii- optic associated with vision.
 - iii- oculomotor
 - iv- trochlear
 - Equilibrium: Balance b/w voices.
 - Autonomic nervous system.

Flight: emergency fight: overcome.
homeostasis: balance body temperature.

Lecture #04

13-10-2022.

Chapter #04: "Sensation & Perception"

"Gain sensory info" → process of receiving, converting, ^{transmitting} from outside world.

Sensation: hearing, sight, vision, sense of smell

Transformational receiving of sensory information. Gain info in our own environment through our senses.

Perception: How our mind "processes info".

1. Vision: Two main vision components

rods: night vision

cones: color vision

• Receptors cells (through which we receive).

2. Hearing:

Main component is

• Sound waves leads to inner ear (cochlea).

• Receptors located in the "inner ear" (cochlea)

3. Smell & taste.

• Olfaction (smell) leads to nasal cavity.

• Gustation (taste).

- Body Senses;

• Tendons (small tiny bones)

- Vestibular (sense of balance)

- Kinesiology (body posture).

- Skin senses

- Processing.

- Production

- Transduction

- Adaptation : adopt sensory stimuli from environment.

↳ Psychophysics:

Physio: "Study of mind"

Physics: "Study of physical stimuli".

• Absolute threshold: minimum amount of energy we can detect.

• Difference threshold: little bit change in the thing we detect in environment.

(stimuli & provide something in environment and you react?).

↳ Perception:

Construct a meaningful situation.

- perceptual processing.

o Top-down: from higher level to lower level.

o Bottom-up:

- key concepts.

i. Selection: Selection for meaningful experience.

ii. Organization:

iii. Interpretation: Attaching meaning to the selected stimuli.

↳ Gestalt principles:

Perceive things as a whole.

anomaly (dissimilar).

- Continuation: Follow any one stimuli
- Closure: close of stimuli
- proximity: similar to closure.

↳ Extra sensory perception: In vision
senses and not involved (gives feelings).

- Errors in perception:

Defective functioning in the brain

- illusion:

- Hallucination: voices you hear but
there is not exist in reality.

Classical conditioning

Learning: Relatively permanent change in the behavior, with the help of practice and lot of experience.

Conditioning:

- Environmental stimuli
- Behavioral responses or reactions

- Classical conditioning:

- NS - natural stimulus (no bias ness, favoritism)
 - UCS - unconditioned stimulus
 - CR - conditioned response
- ∴ NS → UES → CR

Higher-order conditioning

Point

1. Classical conditioning
2. Operant conditioning
3. Social learning conditioning

Law of effect:

Depend pleasant & satisfied events.

- primary reinforcers: unlearned needs
- Secondary reinforcers: learned desire
leads to adding something
- Positive reinforcement: praise, strengthen response
- Negative reinforcement: taking away or removing.

→ Basic Principles:
just names.

- ↳ Shaping: desired response.
- punishment: weakening a response.
- cognitive: thought process.