

## A.P. Psychology Exam Review

### Chapter 1: Methods, Approaches, and History

#### EXPERIMENTAL METHOD

Dependent: One you don't change

Independent: One you change

Stratified Sampling: process that allows a researcher to ensure that the sample represents the population on some criteria

Confounding Variable: any difference between the experimental and control conditions, except for the independent variable that might affect the dependent variable.

Social Desirability: when someone tries to give you the answers you want

Situation-relevant confounding variable: placing subjects in the same kind of area

Hawthorne Effect: Selecting a group of people on whom to experiment has been determined to affect the performance of that group

Counterbalancing: If I wanted to test how frustration affects IQ performance I could give my group a non frustrating task, test them, and then give them a frustrating task. (This is somewhat bad though because of the order effect = higher performance of second test because you know the gist of it)

#### CORRELATION METHOD

-1 correlation = perfect negative

+1 correlation = " positive

0= none

Survey, Naturalistic Observation, Case Studies

Data Analysis/ Statistics

Descriptive Stats- describes a set of data

- Frequency Distribution (what kinds of pets your friends have)

  - frequency polygons or histograms

- Central Tendency- attempt to mark the centre of a distribution

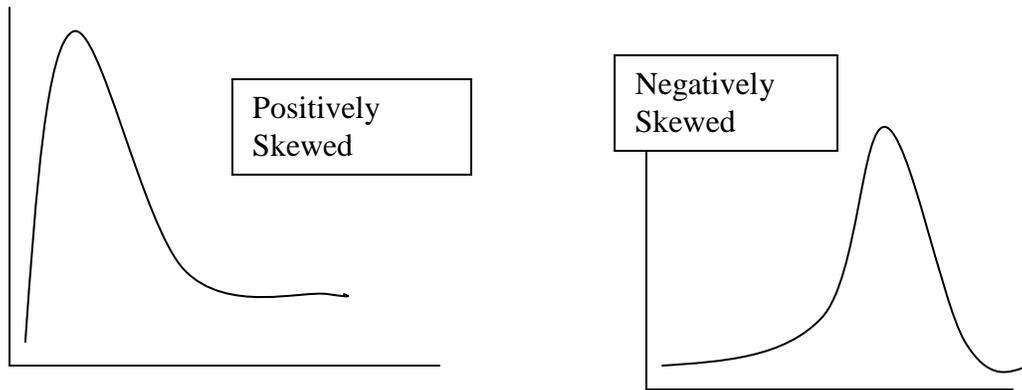
  - a. mean

  - b. median

  - c. mode

Positively Skewed- extreme score that is very high= more low than high (mean is higher than the median)

Negatively Skewed- extreme score that is very low = more high than low



**Standard Deviation:** Square root of variance. Higher the variance the more spread out the data is  
**Z Scores:** measure of the distance of a score from the mean in units of standard deviation (i.e. standard deviation= 8 mean= 80 I got a 88 (+1 z score))

**Inferential Statistics-** to determine whether or not findings can be applied to the larger population from which the sample was selected.

-p value (the smaller the p-value, the more significant the results)

-p value of .05 means that 5% chance exists that the results occurred by chance

## HISTORY OF PSYCHOLOGY

### Introspection

- a. Wilhelm Wundt - setup the first psychological laboratory and trained his subjects in introspection (record thoughts when stimulated)
- b. Structuralism- minds operates by combining emotions and objective sensations
- c. Functionalism- (William James) examined how structures wundt investigated function in our lives

### Gestalt:

- a. Wertheimer argued against dividing human thought and behaviour into discrete structures
- b. Sum of the parts is less than whole

### Psychoanalysis:

- a. unconscious mind, repression
- b. to truly understand human thought and behaviour, we must first understand the unconscious mind through dream analysis, word association, other techniques

### Behaviourism:

- a. Watson- in order for psychology to be a science, it must be observable
- b. Stimuli vs. response
- c. Skinner= Reinforcement- environment stimuli that either encourage or discourage certain responses

### Multiple Perspectives

- a. eclectic- drawing from multiple perspectives

## PSYCHOLOGICAL PERSPECTIVES

### Humanistic

- a. Maslow
- b. Stresses individual choice and free-will

- c. All people are good and “goodness” drives choices

Psychoanalytic:

- a. Repression
- b. Must examine unconscious mind through dream analysis , etc

Neuroscience Perspective:

- a. human cognition and reactions might be caused by our genes, neurotransmitters, and hormones

Evolutionary:

- a. examine human thoughts and actions through natural selection

Behavioural:

- a. conditionings
- b. looks at things in regard to reward and punishment

Cognitive:

- a. how we interpret, process, and remember environmental events

Socio-Cultural:

- a. looks at culture

### APA ETHICAL GUIDELINES

Any type of ethical research must first propose the study to the ethics board.

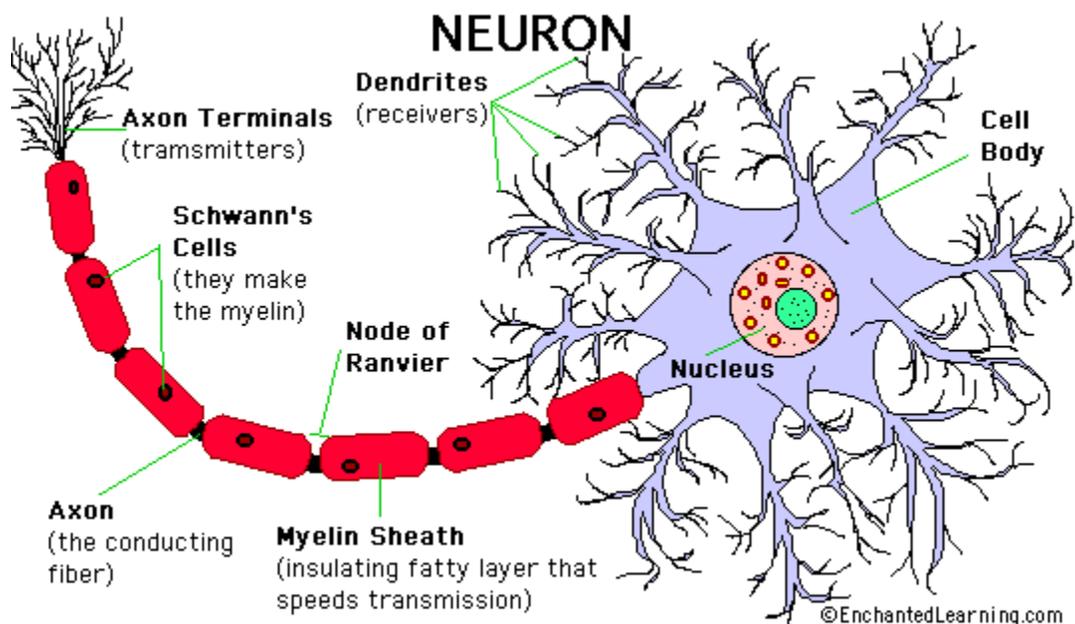
Animal Research Basics

- a. clear scientific purpose
- b. care for and house animals in a humane way
- c. Acquire animals humanly and legally
- d. Least suffering feasible

Human Research Basics

- a. Informed Consent
- b. Deception
- c. Coercion
- d. Anonymity- can't say anything the person did in experiment using specific names
- e. Risk
- f. Debriefing

### Biological Bases of Behaviour



Dendrites- rootlike parts of the cell that stretch out from the cell body (make synaptic connections with other neurons)

Cell Body (Soma)- contains nucleus and other parts of the cell needed to sustain life

Axon- wire-like structure ending in the terminal buttons that extends from the cell body

Myelin Sheath- a fatty covering around the axon of some neurons that speeds neural impulses

Terminal Buttons- the branched end of the axon that contains neurotransmitters

Neurotransmitters- chemicals in terminal buttons that enable neurons to communicate

Synapse- gap between the terminal buttons of one neuron and the dendrites of the next neuron

How it Fires!

Resting State- Neuron has overall negative charge (b/c it has mostly negative ions in it and mostly positive ions surrounding it) The reason why these ions don't mix is because the neuron has a semi-permeable membrane

IMAGINE THIS: Okay, there are basically two neurons. Let's suppose neuron A's terminal buttons release a neurotransmitter into the synapse and neuron B's dendrites pick up the NT in their receptor sites and becomes excited (threshold), so then the membrane of neuron B becomes permeable allowing the ions to mix. This change in charge rushes down the neuron like a bullet. This my friends is action potential. Then once the charge reaches the terminal buttons of neuron B, the buttons release the neurotransmitter into synapse.

Excitatory Neurotransmitters- excite next cell into firing

Inhibitory Neurotransmitters- self explanatory

Neurotransmitter	Function	Problem associated with excess or deficit
Acetylcholine	Motor Movement	Alzheimer's
Dopamine	Motor movement and alertness	Lack=Parkinson's Excess= Schizophrenia
Endorphins	Pain Control	Involved in addictions
Serotonin	Mood Control	Lack= Depression

## NERVOUS SYSTEM:

Afferent (sensory) Neurons: taking info from senses to brain

Efferent (motor) Neurons: brain to senses (exits)

### Nervous System

- a. Central
  - a. Brain
  - b. Spinal cord
- b. Peripheral - all nerves not encased in bone
  - a. autonomic
    - i. sympathetic - mobilizes our body to respond to stress
    - ii. parasympathetic- slowing down body after stress incident
  - b. Somatic - voluntary movement

### Ways of Studying the Brain:

Accidents: Phinease Gage Accident (railroad spike)

Lesions: Taking off random parts of the brain

EEG: Detects brain waves. Can determine what types of waves the brain produces during different stages of consciousness. Used primarily to study sleep and dreams

CAT: uses several X-Ray cameras that rotate around the brain and combine all the pictures into a 3 dimensional picture of brain's structure

- Only show structure, no functions or activity

MRI: Functions similar to CAT scan EXCEPT that it provides a much more detailed picture. Uses magnetic fields to measure density and location of brain material

PET: Lets researchers see what parts of the brain are most active during certain tasks.

fMRI: (function MRI) combines several elements of MRI and PET, shows details of brain structure with information about blood flow in the brain, typing brain structure to brain activity during cognitive tasks.

## I. The Brain

- A. Hindbrain- top part of the spinal cord, life support system
  1. Medulla: Breathing, blood pressure, heart rate
  2. Pons: connects the hindbrain with midbrain as well as forebrain, also involved in control of facial expressions
  3. Cerebellum: little brain; fine motor movement
- B. Midbrain- coordinates simple movements with sensory information
  1. Reticular Formation- netlike collection of cells that controls general body arousal and ability to focus attention
- C. Forebrain- controls thought and reason (limbic system)
  1. Thalamus- receives sensory signals coming up the spinal cord and sending them to appropriate areas
  2. Hypothalamus- metabolic functions, including body temperature, hunger, thirst, sexual arousal
  3. Amygdala- fear and aggression
  4. Hippocampus- memory

## II. Cerebral Cortex (surface is wrinkled=fissures)

- A. Hemispheres
  1. Left
    - a. Gets sensory messages and controls right half of body
    - b. Logical and sequential tasks
  2. Right
    - a. Same as left except it controls left half (contralateral control)
    - b. Spatial and creative tasks
  3. association area= any area of the brain not associated with receiving sensory information or controlling muscle movements
- B. Lobes
  1. Frontal
    - a. Top front part of brain behind eyes
    - b. Prefrontal cortex
      - i. Plays role in directing thought processes
      - ii. Foreseeing consequences, setting goals, abstract thinking
    - c. language processing
      - i. Broca's area- controls muscles involved in speech
      - ii. Damage= unable to make muscles movements needed for speech

- d. motor cortex- sends signals to muscles controlling voluntary movement
  - 2. Parietal Lobes
    - a. Sensory cortex- thin vertical strip that receives incoming touch sensations from the rest of our body
  - 3. Occipital Lobes
    - a. Interpret messages from our eyes
  - 4. Temporal Lobes
    - a. Sound sensed by our ears
    - b. Auditory cortex- where sound is interpreted
    - c. Werckicke's area= interprets written and spoken speech
      - i. Damage to this area would affect ability to understand language and speak like a normal person
- C. Endocrine System
  - 1. glands that secrete hormones that affect many different biological processes in our bodies
  - 2. Controlled by the hypothalamus
  - 3. Adrenal Glands
    - a. Produce adrenaline- fight or flight
    - b. Controls heart rate and blood pressure
  - 4. Ovaries and Testes
    - a. Sex hormones (estrogens and testosterone)
- D. Genetics
  - 1. Bouchard found that identical twins are quite similar
  - 2. Chromosomal Abnormalities
    - a. Turner's Syndrome- only an X Chromosome
      - i. Shortness, webbed necks, differences in sexual development
    - b. Klinefelter's Syndrome- extra X Chromosome
      - i. Minimal sexual development
      - ii. Down syndrome- extra chromosome on the 21<sup>st</sup> pair

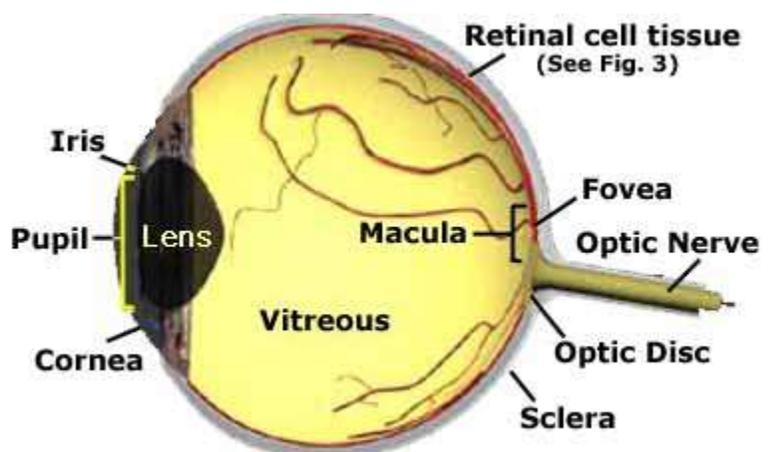
## Sensation Perception

Transduction- signals are transformed into neural impulses

Sensation- activation of our senses and perception is the understanding on the senses

Vision:

- 1. Gathering light
- 2. Within the Eye
  - a. Light enters through the cornea (protective covering)
    - i. Helps focus light
  - b. Iris increases or decreases size of pupil- accommodation
  - c. Light enters the pupil is focused by the lens



- i. Lens= curved and flexible in order to focus the light
  - d. as light passes through lens the image is flipped upside down and inverted
  - e. focused inverted image projects on the retina (like a screen on the back of your eye)
  - f. on this screen special neurons are activated by the different wavelengths of light
- 3. Transduction
  - a. Light activates neurons in the several layers of cells in the retina
    - i. Cones (1<sup>st</sup> layer)- activated by colour and rods (B&W)
      - 1. rods outnumber cones
      - 2. cones are concentrated towards the centre of the retina
      - 3. centre of retina= indentation called fovea (highest concentration of cones)
  - b. if enough rods and cones fire in an area of the retina, they activate the bipolar cells
  - c. if enough bipolar cells are activated then ganglion cells are activated
  - d. axons of ganglion cells make up the optic nerve that sends these impulses to a specific region of the thalamus- Lateral Geniculate Nucleus (LGN)
  - e. then sent to visual cortex
  - f. the spot of the optic nerve that leaves the retina contains no rods or cones so it is the blind spot
- 4. In the Brain
  - a. Visual cortex of the brain receives the impulses from the cells of the retina, and then impulses activate feature detectors

#### Theories of Colour Vision

Trichromatic Theory- we have types of cones in our retinas; cones that detect blue, red, and green. These cones are activated in different combinations to produce all colours

**-CANNOT EXPLAIN AFTER IMAGES AND COLOUR BLINDNESS**

Opponent Process Theory- sensory receptors arranged in the retina come in pairs (red/green) shades or (blue/yellow) or (black/white) pairs. When one part of the pair is stimulated it prevents the other from stimulating This explains afterimages because when you stare at something red for awhile and then stare a white piece of paper, you see green (red's pair)

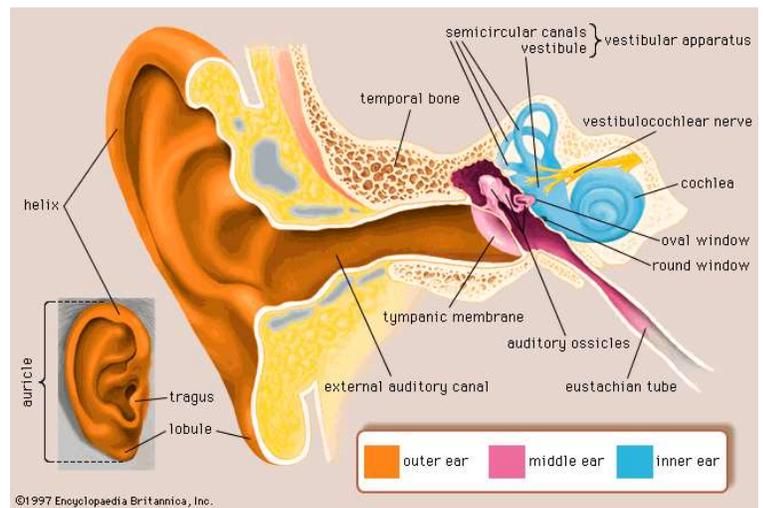
#### Hearing:

Amplitude: height of the wave and determines the loudness of sound

Frequency: determines pitch

#### Actual act of Hearing:

1. Sound waves are collected by the outer ear (pinna)
2. waves travel down the ear canal (auditory) until they reach the eardrum
  - a. thin membrane that vibrates as sound waves hit it
3. eardrum is attached to ossicles (three small bones)
4. eardrum connects with the hammer, which is connected anvil, which connects to the oval window



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5. Oval window is attached to the cochlea- structure shaped like a snail's shell filled fluid
6. As the oval window vibrates, the fluid moves
7. floor of the cochlea is the basilar membrane (BM)
8. BM is lined with hair cells connected to organ of Corti- which are neurons activated by movement of the hair cells
9. when fluid moves, hair cells move, which causes transduction
10. Organ of Corti fires, and these impulses are transmitted to the brain via the auditory nerve

#### Pitch Theories:

Place Theory: Holds that the hair cells in the cochlea respond to different frequencies of sound based on where they are located in the cochlea. We sense pitch because the hair cells move to different places in the cochlea

Frequency Theory: Lower tones are sensed by the rate at which the cells fire. We sense pitch because the hair cells fire at different frequencies in the cochlea

#### Deafness:

Conduction Deafness: something goes wrong with the system conducting the sound to the cochlea (can be repaired)

Nerve Deafness: when hair cells in the cochlea are damaged, usually by noise

#### Touch:

Gate Control Theory: helps explain how we experience pain the way we do

1. some pain has higher priority than others
2. when higher priority is sent the gate swings open for it and stays shut for a lower priority message (like stabbing and slapping Andrew)

#### Chemical Senses:

- I. Taste
  - a. Taste buds are located on papillae
- II. Smell
  - a. Olfactory bulb- where the receptor cells are linked
    - A. Gather messages from the olfactory receptor cells
    - B. Nerve fibres connect to the brain in the amygdala and then to hippocampus

#### Body Position Senses:

Vestibular sense: tells us about how our body is oriented in space

1. 3 semicircular canals in the inner ear give the brain feedback about body orientation
2. fluid in canals move, which activated hair cells, which activate neurons and their impulses go to the brain

#### Kinaesthetic Sense:

1. position and orientation of certain body parts

#### PERCEPTION:

Absolute threshold= smallest amount of stimulus we can detect

Difference threshold= the amount of stimulus needed to change before we notice a difference

Ernest Weber= Weber's Law

1. the change needed before we notice a stimulus is proportional to the original intensity of the stimulus (more intense, the more change, like chilli)

#### Perceptual Theories

##### Signal Detection Theory

- a. Investigates the effects of the distractions and interference we experience while perceiving the world
- b. Takes into account how motivated we are to detect certain stimuli and what we expect to perceive (response criteria)
- c. False positive- when we perceive a stimulus that is not there
- d. False negative- not perceiving a stimulus that is present

#### Top Down Processing

Perceive by filling in gaps in what we sense (I\_ov\_y\_u)

Schemata- how we expect the world to be

Perceptual Set- predisposition to perceive something in a certain way (like seeing random shapes in clouds)

#### Bottom Up Processing:

Using only features of the object itself to build a complete perception

#### Gestalt Rules

##### Factors of Grouping:

Proximity

Similarity

Continuity

Closure

##### Constancy:

Size

Brightness

Shape

##### Perceived Motion:

Stroboscopic effect: to perceived something is moving even though it is not (i.e. a flip book)

Phi phenomenon: a series of light bulbs turned on and off at a particular rate will appear to be one moving light

Autokinetic effect: staring at something for awhile will make it seem like it is moving

##### Depth Cues

##### Gibson- Cliff Effect

##### Monocular Cues:

- a. linear perspective
- b. relative size cue
- c. interposition cue (objects that block others must be closer)
- d. texture gradient
- e. shadowing

##### Binocular Cues:

- a. retinal disparity- see world w/ two eyes, brain must form image
- b. convergence- objects get closer to us, our eyes must move close together

##### Stages of Consciousness

Dualism- humans consist of thought and matter, argue thought gives man freewill

Monism- everything is of same substance, and thought and matter are aspects of the same substance , thought is a by-product of the brain and ceases to exist after we die

Priming- we respond more accurately to questions we have seen before, even if we do not realize that we have seen them before

Blind Sight- some people are blind yet they can describe the path of a moving object or accurately grasp objects they cannot see!

## The Conscious Levels (b/c he never taught us it)

Conscious Level	Information about yourself and the environment around you (like focusing on words and their meanings)
Non-conscious Level	Body processes controlled by the mind (like beating heart etc.)
Preconscious Level	Information about yourself and the environment that you are not thinking about (like what was your favourite toy as a little kid)
Subconscious Level	Information that we are not consciously aware of but we know must exist due to behaviour (like priming or mere-exposure effect)
Unconscious Level	Psychoanalytic psychologists believe that some events and feelings are unacceptable to our conscious mind and therefore are repressed into our unconscious

Sleep- one of the states of consciousness b/c we are less aware of ourselves as well as the environment than when we are awake

### Sleep Cycle

*Circadian rhythm- during 24 hour day, our metabolic and thought process follows a certain pattern*  
*EEG machines are used to record how active our brains are during sleep and describe different cycles of sleep*

### *Sleep Cycle Stuff*

- a. *sleep onset- when we are first falling asleep*
  - a. *stage between wakefulness and sleep*
  - b. *brain produces alpha waves when we are drowsy but awake*
  - c. *experience mild hallucinations*
- b. *stage 1*
  - a. *we are still awake*
  - b. *brain produces theta waves which are relatively high-frequency, low amplitude*
  - c. *get progressively slower and higher*
- c. *stage 2*
  - a. *sleep spindles begin forming (short bursts of rapid brain waves)*
- d. *stage 3 and 4*
  - a. *delta sleep (slow-wave sleep)*
  - b. *slower the wave (low frequency waves) the deeper the sleep and we are less aware of the environment*
  - c. *very difficult to waken*
  - d. *important to replenishing chemical supplies, releasing growth hormones in kids, fortifying immune system*

*After stage 3 and 4 our brain waves start to speed up and we go through stages 2 and 3. But when we reach stage one, our eyes start rapidly moving back and forth, and muscles twitch, this is REM or paradoxical sleep since our brain waves appear to be as active as they are when we are awake.*

*REM is usually when dreams occur (although they can occur at any point during sleep)*

*More stress implies more REM sleep. As morning approaches, we spend more time in stage 1 and 2 and REM.*

## SLEEP DISORDERS

Insomnia- persistent problems going to sleep or staying asleep at night

- a. cure is to have less caffeine , exercise at appropriate times, maintaining a consistent sleep pattern
- b. sleeping pills

Narcolepsy- RARE

- a. periods of intense sleepiness and may fall asleep at unpredictable and inappropriate times
- b. treated w/ medications and changing sleep patterns

Sleep Apnea

- a. causes people to stop breathing for short periods during the night
- b. robs a person of deep sleep and causes tiredness and possible interference with attention and memory
- c. treated with respiration machine

Night Terrors

- a. affect children, do not usually remember when they wake up
- b. probably related to somnambulism-sleep walking

## DREAMS

Freud (oh great books...) Dreams

- a. manifest dream content- literal content of dreams
- b. latent dream content- unconscious meaning of the dream
  - a. protected meaning, the ego secretly puts the message in there

Activation Synthesis Theory-

- a. looks at dreams first as biological phenomena
- b. brain's interpretation of what is happening physiologically during REM sleep
- c. Split Brain Patients
  - a. Sometimes make up elaborate explanations for behaviours caused by their operation
- d. JUST a physiological reflex of the body

Information Processing Theory

- a. stress during the day will increase the number and intensity of dreams during the night
- b. brain is dealing with stress and information during REM sleep
- c. babies need more REM because they are processing more information every day

Hypnosis

Posthypnotic Amnesia- when people report forgetting events that occurred while they were hypnotized

Posthypnotic suggestion- a suggestion that a hypnotized person behave in a certain way after being hypnotized

3 Theories to attempt to explain what exactly goes on during hypnosis

Role Theory- not an alternative state of consciousness at all

Hypnotic suggestibility- some people are more easily hypnotized

People of this, generally have fantasy lives, follow directions well, perhaps they most easily are hypnotized because that is what is expected of the role

State Theory- hypnosis meets some parts of the definition of an altered state of consciousness

This is why people report dramatic health benefits from hypnosis

Hilgard- Dissociation Theory

- a. hypnosis makes us divide our consciousness voluntarily
- b. one part responds to suggestions of the hypnotist while another takes care of reality
- c. Hilgard hypnotized patients who had arm pain, to put their arms in a nice ice cold bath, they reported feeling no pain from the ICEY cold water. But he told them to lift their index finger if they felt pain, and most of them raised it but did not remove arms
- d. Demonstrates the presence of a hidden observer, a part of our consciousness that monitors what is happening while another obeys the hypnotist's instructions

## Drugs

Blood brain barrier- this handy dandy thick walls around the blood stream that does not allow harmful chemicals to enter

Agonists- drugs that mimic neurotransmitters , fit in the receptor sites on a neuron normally receive the neurotransmitter and function as the neurotransmitter

Antagonists- drug that **BLOCKS** neurotransmitters, creates an abundance of that transmitter in the synapses (prevents reuptake)

Stimulants- speed up body processes, accompanied by euphoria	Cocaine, caffeine , amphetamines, nicotines, marijuana
Depressants - slow down body systems that stimulants speed up	Alcohol, barbiturates, anxiolytics
Hallucinogens- causes changes in perception of reality including sensory hallucinations, lost of identify, and vivid fantasies	LSD, peyote, psilocybin mushrooms Reverse tolerance effect- second dose of it may be less but cause same or greater effects b/c hallucinogens <b>REMAIN</b> in your system
Opiates- act as agonists for endorphins and thus are powerful painkillers and mood elevators	Drowsiness, euphoria, addictive b/c change brain chemistry and create tolerance and withdrawal symptoms- morphine, heroin, methadone, codeine

## Learning

Ivan Pavlov-Dog experiment with the salivation

Classical Conditioning- Living things can learn to associate neutral stimuli (sounds) with stimuli that produce reflexive, involuntary responses (food) and will learn to respond similarly to the new stimulus as they did to the old one (salivate)

Unconditional Stimulus (US)- defined as something that elicits a natural reflexive response (i.e. food elicits the natural, involuntary response of salivation (salivation is the unconditioned response)

Through repeated pairings with a neural stimulus such as a bell, animals will come to associate to the two stimuli together

Ultimately, animals will salivate when hearing the bell alone. Once the bell elicits salivation, a conditioned response, it is no longer a neutral stimulus but rather a conditioned stimulus

\*\*\* Learning has taken place once the animals respond to the CS w/o presentation of the US- acquisition (since animals have learned a new behaviour

Factors that affect acquisition

- a. repeated pairings of CSs and USs yield stronger CRs
- b. order and timing of CS and US pairings have also impacted the strength of conditioning

- c. most effective method of conditioning is to present the CS first and then introduce the US while the CS is still evident (like introducing the dog w/ food while the bell is still ringing- delayed conditioning)
- d. Trace Conditioning- presentation of CS (Bell) followed by short break followed by presentation of US (food)
- e. Simultaneous Conditioning- Food and Bell presented at the same exact time (CS and US)
- f. Backward Conditioning- US (food) is presented first and then the Bell (CS)-VERY INEFFECTIVE

Extinction- process of unlearning (when CS no longer elicits the CR) achieved by no longer presenting the CS without the US

Spontaneous Recovery- after the conditioned response has been extinguished, the response briefly appears upon presentation of the conditioned stimulus

Generalization- the dog might respond the same way as he/she hears a bell that is similar to the one they are trained w/

Discriminate- only responding to the type of bell trained with

\*\*\*John Watson and Rosalie Rayner

- a. conditioned a little boy Albert to not like a little white rat
- b. they paired a loud noise with the little rat, and taught Albert to cry when he saw the little white mouse ☹️
  - a. loud noise US b/c it elicits the involuntary fear (UR) (crying)
  - b. rat is US that becomes the CS and CR is crying in response to presentation of the rat alone
  - c. experiment is an example of aversive conditioning because Albert was conditioned to have a negative response to the white rat

Once a CS elicits a CR, it is possible to use that CS as a US in order to condition a response to a new stimulus “second order or higher order conditioning”

- a. after a dog salivates to the bell (1<sup>st</sup> order), the bell can be repeatedly paired with a flash of light and dog will salivate on light alone (2<sup>nd</sup> order)

Learned taste aversions- when you taste something and it makes you nauseous, you’re unlikely to eat it again just w/ single pairing of negative effects

- a. the food CS must be salient in order for us to learn to avoid it
- b. salient- easily noticeable and therefore create a more powerful conditioned response

Garcia and Koelling Experiment- illustrated how rats more easily readily learned to make certain associations than others.

CS	US	Learned Response
Loud Noise	Shock	Fear
Loud Noise	Radiation (nausea)	Nada
Sweet Water	Shock	Nada
Sweet Water	Radiation (nausea)	Avoid Water

Operant Conditioning - kind of learning based on the association of consequences of one’s behaviour

Edward Thordike- one of the first to investigate this. He put a cat in a cage, and placed food next to cage. He found that the time it took for the cat to get out of cage decreases as trials increase because the cat did not immediately find out how to get out of the cage. He claimed that the cat learned the new behaviour without mental activity but rather simply connected a stimulus and a response

Law of Effect- if consequences of a behaviour are pleasant, the stimulus response (S-R) connection will be strengthened and the likelihood of behaviour will increase

Skinner- Coined operational conditioning

- a. Skinner Box
  - a. Has a way to deliver food and lever to press or disk to peck in order to get food
  - b. Food=reinforcer
  - c. Process of getting food= reinforcement (SAME TERMS FOR PUNISHMENT)
    - i. Positive reinforcement=addition of something
    - ii. Negative reinforcement=removal of something
  - d. Escape Learning- allows one to terminate an aversive stimulus (i.e. create a ruckus in English class and you are asked to leave)
  - e. Avoidance Learning-allows one to avoid the unpleasant stimulus altogether (i.e. skipping English class)

### PUNISHMENT VERSUS REINFORCEMENT

Shaping- reinforces the steps used to reach desired behaviour

Chaining- perform a number of responses successively to get award (goal is to link together a number of separate behaviours into a more complex activity)

Primary Reinforcers- rewarding

Secondary- we have learned to value such as prize or chance to play a video game

- A. money is a special kind of 2<sup>nd</sup> known as generalized reinforcer b/c it can be traded for almost anything
- B. token economy-everytime you do good, you get a token, when you have enough you buy what you want

Premack Principle- idea that reinforcing properties or something depend on situation expressed

Reinforcement Schedules-

- a. continuous reinforcement- good things happened every time desired behaviour occurs
- b. Partial Reinforcement Effect- behaviours will be more resistant to extinction if animal has not been reinforced continuously
- c. Fixed Ratio Schedule (FR)- reinforcement after a set number of times
- d. Variable Ratio Schedule- (VR)- provides reinforcement based on the number of times, but number varies
- e. Fixed Interval (FI)- requires that a certain amount of time elapse before desired behaviour will end up a reward
- f. VI- same as FI except the time will vary

Instinctive Drift- There are some behaviours that an animal WILL NOT change no matter how many rewards are given etc.

Contiguity Model- postulates that the more times two things are paired, the greater the learning that will take place

Robert Rescorla- Contingency Model of Classical Conditioning- A is contingent upon B when A depends on B and visa versa

Observational Learning/Modelling- occurs only between members of the same species

Modelling TWO components

- a. observation
- b. imitation

Bandura and Ross Experiment

- a. kids watched adults play with in a room
- b. kids who saw adults act violently, acted similarly

## Latent Learning

Tolman- had three groups of rats run through a maze

- a. one group received an award
- b. one group never received an award
- c. one group not rewarded 1<sup>st</sup> half, rewarded 2<sup>nd</sup> half

Rats in 3<sup>rd</sup> group improved exponentially because they remembered the maze from the 1<sup>st</sup> half and then had the “will-power” to get through the maze w/ award

Abstract Learning- learning actual concepts such as tree or same rather than just simple tasks for awards

Insight Learning- when one suddenly realizes how to solve a problem

Kohler argued this was because of insight . He suspended a banana from ceiling w. boxes around room. Monkeys played around for a bit, and then all of the sudden they stacked the boxes together and got the banana.

## Developmental Psychology-

### Research Methods

- a. longitudinal- takes place over a long period of time and uses same peeps
- b. Cross-sectional- uses participants of different ages to compare how certain variables may change over a lifetime ( I would choose peeps of ages 10, 20,30)
  1. not so reliable since 30,40 and 50 year olds, if you were like testing vocabulary, probably had much different schooling

Teratogens- chemicals or agents that can causes harm to child in the mothers womb (heroin, cocaine, alcohol)

Placenta can protect the child from some harmful substances, but for some reason or another Teratogens get through

Reflex	Definition
Rooting Reflex	Touch the cheek, baby turns head and seeks for something to put into his or her mouth
Sucking Reflex	When an object is placed in baby’s mouth, he/she will suck
Grasping Reflex	Any object put in baby’s hand, he/she will try to grasp
Moro Reflex	Loud noise, baby will make his/herself big and then make small as possible
Babinski Reflex	Foot stroke = spread out toes

Myelinization- when the myelin sheath totally develops on neurons, then our motor skills improve

### Attachment-

Harry Harlow- Monkey Man, disproved the theory that child will love anyone who gives him or her food. We need loving touch to mature correctly

Ainsworth- Stranger Anxiety (strange situation)

- a. secure attachment- explore toy room when parents are there, cries when they leave, and walk toward them they come back
- b. insecure- don’t notice them leaving or entering, don’t like to be held

- c. anxious/ambivalent attachment (resistant attachments)- extreme stress when parents leave, but resist being comforted by them when they return

Parenting Styles-

Parenting Style	Definition
Authoritarian (rhymes w. no explanation)	Strict rules, punishment for undesired behaviour is used more often than reinforcement for good
Permissive	Unpredictable, like if you came home late they might not care, freak out, etc
Authoritative	Consistent standards, but they are reasonable and explained

Stage theories by definition are discontinuous (starts and stops in periods)

FRUED

Stage	Definition
Oral Stage	Seek pleasure from mouths, people who don't do this tend to over eat, and depend on a lot on others
Anal Stage	Toilet training, a person fixated in this stage might be over controlling or out of control
Phallic Stage	Become aware of gender Boys- Oedipus complex- boys envy father's relationship w. mom Girls-Electra Complex- girls envy mom's relationship w. dad Conflicts in this stage could lead to problems in relationships
Genital Stage	Latency stage- calmness, low psychosexual anxiety Focus of pleasure is the genitals= normal

PIAGET

Stage	Definition
Sensorimotor (0-2) only use senses	Object permanence, stranger anxiety, reflexes
Preoperational (2-7) use symbols to = real world things	Anism, artificialism, egocentrism, pretend play, no conservation
Concrete Operational (7-11)- think more logically	Categorize, conservation, basic math, reversibility
Formal Operational (11&up)	Abstract, conceptual , hypothesis testing (how would you be different if...) Metacognition (to think about how we think)

Information Processing Model- more continuous alternative to Piaget, since it is debated that perhaps Piaget relied to heavily on language in his test, hence older kids looked smarter

- a. points out that our ability to memorize, interpret, and perceive gradually develop as we age rather than in distinct phases

**Moral Development**

Kohlberg asked kids about Heinz Dilema (should the man steal the drug from the drug store to save his wife (he cannot afford the drug))

Stage	Definition
Pre-conventional	Avoid punishment, satisfy needs (Heinz might get caught and sent to jail)
Conventional	Acceptance of others, law&order (he should steal the meds because then he could save his wife and peeps would see him as a hero)
Post-conventional	Universal Ethics, social order, social contract, moral reasoning (Heinz should steal the drug b/c his wife's right to live outweighs the store wonder's right to personal property)

**Giligan's Research-**

- Boys have a more absolute view of what is moral while girls pay attention to situational factors
- Gender plays a role in morality development

**ERICKSON**

Stage	Definition
Trust v. Mistrust	Depending on how parents responds to baby's needs = baby's development of trust
Autonomy v. Shame & Doubt	Toddlers exert control over his or her body. Children whose parents don't let them to do this develop a feeling of doubt
Initiative v. Guilt	Asking tons of questions, children who don't have sense of trust and who are not encouraged to ask questions will feel a sense of guilt
Industry v. Inferiority	Inferiority complex- feeling you aren't as good as everyone else, industry, I can do things as good as other kids
Identity v. Role Confusion	Trying on different roles, find one that fits you helps prevent identity crisis
Intimacy v. Isolation	Self-explanatory
Generativity v. Stagnation	Look at our life path, if we feel we aren't doing as well as we should, then we might try to seize control of our life so that it goes the way we want it to
Ego Integrity v. Despair	Decide whether or not we're satisfied w/ our life

**Gender and Development-**

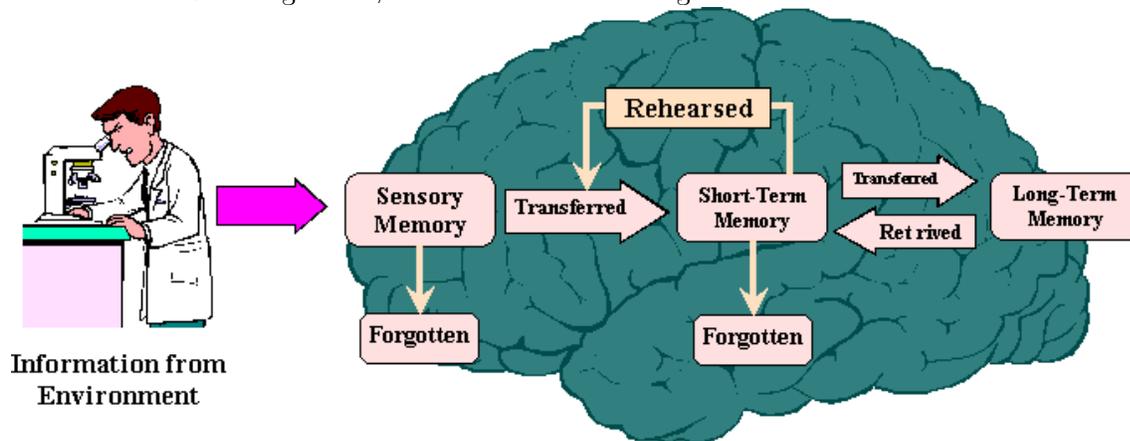
Biopsychological Theory- Studies demonstrate that there are differences in the brains between males and females. For example, females have a larger corpus collasums than men

Psychodynamic – gender development is a competition. (Oedipus and Electra Complex) Gender development occurs when a child realizes that she or he cannot hope to beat their same-sex parent at competing and identifies with that person instead

Social-Cognitive Theory- boys are encouraged in rough physical play, girls are subject to dainty playing.

## COGNITION:

Atkinson and Shiffring 3 Box/ Information Processing Model



## SHORT TERM

Iconic Memory- a split second perfect photograph of a scene

Echoic Memory- perfect memory of brief sounds

Cocktail Party Effect- selective attention

Short-term memory= working memory because these are the memories we are currently working with and are aware of in our consciousness

Memory Devices

Chunking- grouping (like phone number)

Mnemonic Devices

Rehearse

## LONG TERM

Episodic Memory- specific events (i.e. last time you went on a date)

Semantic Memory- General knowledge of world (vocabulary)

Procedural Memory- Memory of skills and how to perform them

Explicit Memory- conscious memories of facts or events we actively try to remember

Implicit Memory- unintentional memory (like watching people do something, and then knowing how to do it)

Photographic memory- self explanatory

## RETRIEVAL

Recognition: process of matching a current even or fact with one already in memory (have I smelled this before?)

Recall: Retrieving a memory with an external cue

Primacy Effect: more likely to recall items at beginning of a list

Recency Effect: more likely to recall items at end of list

Serial Position Effect: more likely to be able to remember items at beginning and end of a list but not middle.

Semantic Network Theory: our brain might form new memories by connecting their meaning and context with meanings already in memory. So each one of our memories is intertwined together, hence the tip of the tongue phenomenon.

Flashbulb memory: where were you on 9/11?

Mood Congruent Memory- greater likelihood of recalling an item when our mood matches the mood we were in when event occurred

State-Dependant Memory: phenomenon of recalling events encoded while in particular states of consciousness (I go to bed, remember the appointment. I go to bed next night, oh my god I missed the appointment)

Constructed memory- memory containing false details or never occurring at all

FORGETTING:

Retroactive Interference: learning new information interferes with recall of older information

Proactive Interference: Older information learned previously interferes with recall of information learned recently

Anterograde Amnesia: cannot encode new memories, but can recall past events

## LANGUAGE

Phonemes: smallest units of sound used in a language

Morphemes: smallest unit of meaningful words

Holophrastic Stage: when babies only speak using one words

Telegraphic Speech: speech with no "be" verbs

Overgeneralizations or over regularization: misusing grammar you were a kid

Chompsky: Language Acquisition Device, we are all born with it

Whorf: the language in which we speak perhaps limits our ways of thinking

Prototype: A bird = blue bird, not a penguin

## PROBLEM SOLVING

Algorithm: step by step way of approaching a problem

Heuristic: rule of thumb

Availability: judging a situation based on examples of similar situations that come to mind initially

Representative: judging a situation based on how similar the aspects are to prototypes the person holds in his or her mind. (young people commit suicide more than old people)

Belief Bias: Our tendency to not change our beliefs, even when contradictions are presented to us

Belief Perseverance: Our ability to keep on believing what we believe even when contradictory information has been presented.

Mental Sets: tendency to fall into established thought patterns

Functional Fixedness: a hammer is only for hammering

Confirmation Bias: we look for information to confirm our beliefs

Framing: The way problem is presented

1. A majority of students get this problem right
2. only about half my students get this problem right
3. Both mean the SAME thing, but are presented differently

Convergent Thinking: Thinking directed towards one solution

Divergent Thinking: " " " " towards many (mostly associated with creativity)

Social Psychology:

Attitude: a set of beliefs and feelings

Central Route to Persuasion: deeply processing the content of the message

Peripheral Route: Involves making decisions based on other random stuff that does not really matter (i.e. sales person)

LaPiere:

- a. made an effort to explore the relationship between Attitudes and Behavior
  - a. traveled throughout the west coast visiting many hotels and restaurants with an Asian Couple
  - b. only on one occasion were they treated poorly b/c of race
  - c. short time later, he called the places they had visited and asked how they would treat Asian guests, most said they would not serve them, but a majority did

Cognitive Dissonance Theory: people are motivated to have consistent attitudes and behaviour, when they do not they experience an unpleasant mental tension or dissonance

Festinger & Carlsmith Experiment:

- a. participants were asked to perform boring task and then lie and tell the next subject (confederate- someone who was working w. experimenter) that they had enjoyed the task
- b. one condition they were paid 1\$ to lie, other group \$20
  - a. dollar people had more dissonance than 20 because they did not have the motivation to lie
  - b. they changed their attitudes because they actually did enjoy the experiment

Compliance Strategies:

-Foot in Door Strategy small gradually to big

-Door in the Face- big to small

Norms of Reciprocity: ppl do nice stuff for you, you feel the need to do nice stuff for them (like when a charity sends you address labels)

Attribution Theory: how people determine the cause of what they observe

Dispositional/Personal Attribution: Chuckles got a good grade on his math test, therefore he must be good at math

Situational Attribution: Chuckles received a good grade on his test because it was easy

Stable Attribution(personstable attribution): chuckles has always been a math wizard

Unstable “ “ “ : Chuckles studied a lot for this one test

Situation Stable Attribution: Chuckles math teacher grades easy

Situation Unstable Attribution: Chuckles' teacher is a hard grader who happened to give an easy test.

Harold Kelly:

- a. made a theory based on consistency, distinctiveness, consensus
  - a. consistency: does chuckles usually do well on his math tests?
    - i. Useful when making a stable or unstable attribution
  - b. Distinctiveness: (how similar is this situation to others): does chuckles usually do well on all his tests?
  - c. Consensus: how others in same situation responded: did many people do well on the math test?
    - i. Important to use when determining whether to make a personal or situational attribution

Self-Fulfilling Prophecy: expectations we have about others can influence their behaviour (I was told Chuckles is hilarious, and then when I meet him, I might treat him in a way to elicit funniness out of him )

Rosenthal & Jacobson's "Pygmalion in the Classroom"

- A. administered test to elementary test that would signal who was on the verge of significant academic growth
- B. the teachers were told that specific children were ripe for intellectual progress
- C. at the end of year, these kids were then tested, and had higher IQs than at beginning of year

Fundamental Attribution Error: People systematically overestimate the role of dispositional factor in influencing another's actions

More likely to occur in an individualistic society than a collective society

False Consensus Effect: believing more people agree with you than actually do

Self Serving Bias: take more credit for good outcomes than bad

Stereo-Types: ideas about what members of different groups are like

Prejudice(ATTITUDE): undeserved usually negative attitude towards a group of people

Ethnocentrism: belief that one's culture is superior to others

Discrimination(BEHAVIOUR): when you act on your prejudices

In-group Bias: people's belief that they themselves are good people, so people of my group are good. A preference for member's of one's own group

Out-group Homogeneity: all members of different group look the same

Contact Theory: contact between hostile groups will reduce animosity but only if the groups are made to work toward a goal that benefits all and necessitates the participation of all.

Sherif's camp study:

- a. divided campers into two groups and arranged for them to compete in a series of activities
- b. two groups developed prejudices against the other
- c. Sheriff then setup random camp emergencies that required the two to work together

Aggression:

- a. instrumental- aggressive act is intended to secure a particular end
- b. hostile – no clear purpose

Frustration Aggression Hypothesis: feelings of frustration make aggression more likely

Pro-social Behavior: what exactly makes people help each other

Bystander Intervention: conditions under which people nearby are more and less likely to help someone

Diffusion of Responsibility: (Kitty Genovese) – the larger the group of people who witness it, the less likely the people are to help

Pluralistic Ignorance: people seem to decide what constitutes appropriate behavior in a situation by looking to others

Attraction: Three factors: similarity, proximity, and reciprocal liking

Self Disclosure: when one shares a piece of personal information with someone else

Social Facilitation: presence of others improves task performance

Social Impairment: when a difficult task that has been well practiced being watched by others, performance is hurt

Solomon Asch:

- a. showed participants 3 vertical lines, and asked them to indicate which one was the same length as the target line
- b. all members gave their answers aloud , and participant was the last one to speak
- c. 1/3 conformed, 70% conformed on at least one trial
- d. Groups larger than 3 generally do not have significant impact on conformity

Milgram: Obedience

- a. learner = confederate, teacher= participant
- b. teacher shock learner when he/she answered incorrectly
- c. experimenter, look at teacher as said please continue, 60% delivered all shocks

Norms- rules about how a group should act

Roles- specific jobs

Social Loafing- not working as hard when you're in a group

Group Polarization: tendency of a group to make more extreme decisions than the group members would make individually

Groupthink- tendency of a group to make bad decisions

De-individualization: doing things you would never do if you weren't in a group

Zimbardo: prison experiment

ABNORMAL PSYCHOLOGY: study of people who suffer from psychological disorders

1. maladaptive and/or disturbing to the individual
2. disturbing to others (like Zoophilia, being sexually aroused by animals)
3. unusual, not shared by many members, and does not make sense to average person

Insane??

- a. use a book called *Diagnostic and Statistical Manual of Mental Disorders (DSM)*
- b. **DOES NOT INCLUDE CAUSES BECAUSE PSYCHOLOGISTS DISAGREE**

Different Perspectives on Causes of Psychological Disorders

Perspective	Cause
Psychoanalytical	Internal, unconscious conflicts
Humanistic	Failure to strive towards one's potential or being out of touch w/ one's feelings
Behavioral	Reinforcement history, the environment
Cognitive	Irrational, dysfunctional thoughts or ways of thinking
Socio-cultural	Dysfunctional society
Biomedical	Organic problems, imbalances, genetic predispositions

Most psychologists are eclectic, which means they accept many different perspectives on what causes abnormal psychology.

Intern's syndrome,- tendency to see in oneself the characteristics of disorders about which one is learning

ANXIETY:

Type	Definition
Phobias	Specific Phobia- intense unwarranted fear of a situation (claustrophobia) Agoraphobia: fear of open spaces Social Phobia- fear of embarrassing yourself in public
Generalized Anxiety Disorder (GAD):	constant, low level anxiety. Constantly nervous
Panic Disorder	suffer from acute episodes of intense anxiety without any apparent provocation
OCD	persistent, unwanted thoughts causes someone to feel the need to engage in a particular action
Post-Traumatic Stress Disorder	Flashbacks/ nightmares following a person's involvement in or observation of a horrific event

CAUSES OF ANXIETY DISORDERS

Perspective	Why?
Psychoanalytical	Unresolved, conscious conflicts in the id, ego, and superego. Outward manifestation of inward conflict
Behaviorists	Learned. Fears are learned responses through conditioning or some type of cognitive learning
Cognitive	Dysfunctional ways of thinking, unhealthy way and irrational way of thinking and/or specific irrational thoughts

Somatoform Disorders: occur when a person manifest a psychological problem through a physiological symptom (a person experiences a physical problem in absence of a physical cause)

Disease	Definition
Hypochondriasis	Frequent physical complaints for which medical doctors are unable to locate the cause
Conversion Disorder	Report the existence of a severe physical problem (like blindness) and they will in fact be unable to see. No biological evidence though.

Theories of the Cause of Somatoform Diseases:

Field	Why
Psychodynamic	Merely outward manifestations of unresolved conscious conflicts
Behaviorists	Being reinforced for behavior. Conversion people may not have to do unpleasant tasks and Hypo may get lots of attention

Dissociate Disorders: disruption in conscious processes

Disease	Definition
Psychogenic Amnesia	Person cannot remember things and no physiological basis for the disruption can be identified (organic amnesias is when it is induced)
Fugue	Experience psychogenic amnesia, but also find themselves in unfamiliar environments
Dissociative Identity Disorder (formerly known as multiple personality)	Person has several personalities instead of just one. Different personalities can represent different ages as well as sexes. People with this disease commonly have experienced sexual abuse or terrible childhood.

Theories about Causes:

Psychoanalytic	Result when a traumatic event has been so thoroughly repressed that a split in the
----------------	--

	consciousness results
Behaviorists	People find it rewarding not to think about horrific events so amnesias results or DID results

Interesting Note: DID occurs rarely outside the U.S. and cases in the U.S. have risen drastically and become publicized. Some people question whether DID is actually a disorder since people diagnosed with DID may have been led to role-play the disorder as a result of therapists questions and media portrayal

Mood or Affective Disorders: experiencing of extreme or inappropriate emotions

Disease	Definition
Major Depression (uni-polar)	Most common mood disorder. Remain unhappy for more than 2 weeks w/ absence of a clear reason. Other symptoms = sleep trouble, los of appetite, fatigue, etc.
Seasonal Affective Disorder (SAD)	Experiencing depression only certain times of the year, usually in winter when there is less light
Bipolar Disorder (Manic Depression)	Feeling symptoms of major depression on minute, but then at another time feeling high energy. Normally during high energy time they engage in poorly thought out behaviour

Theories

Theory	Definition
Psychoanalysts	Product of nager directed inward, loss during the psychosexual stages, or an overly punitive superego
Learning Theorists	Brining about some kind of reinforcement such as attention or sympathy
Aaron Beck (cognitive)	Depression results from unreasonably negative ideas that people have about themselves, world, and future. Cognitive Triad.
Cognitive	Exploring the kind of attributions (explanations) that people make about experiences (pessesmisitc attributions promote depression) People who tend to make internal (I am bad at math), global (I am bad at all subjects), and stable (I will always be bad at math) for bad events are more likely to be depressed
Martin Seligman's- Learned Helplessness (LH)	Dogs were shocked, one group was able to prevent it, the other was not. Then the groups were placed in a situation where they could easily escape the shock, but only the dogs who were able to prevent it moved. Seligman believed that due to their lack of ability to control their fate in the

	1 <sup>st</sup> phase of experiment they had learned to act helpless. The same can be applied to humans. LH is when your previous experiences have caused you to believe you cannot control aspects of the future that are controllable.
Biological	Low levels of serotonin, people who suffer from bipolar have more receptors for acetylcholine in their brains and skin. Low levels of norepinephrine are associated w. depression, but most depression can be helped w/ somatic therapies

Schizophrenic Disorders: strike people in young adulthood, disordered, distorted thinking often demonstrated through delusions (beliefs that have no basis in reality) and/or hallucinations. **BREAK FROM REALITY**

- a. delusions of persecution- people are out to get you
- b. delusions of grandeur- you enjoy greater power and influence than you do ( I am the president)

Hallucinations

- a. perceptions in the absence of any sensory stimulation

**TYPES OF SF**

Type	Symptoms
Disorganized	Odd use of language. Neologisms- made up words. Clang associations- string together a series of nonsense words that rhyme. No emotion- flat affect. Inappropriate affect- laugh when someone dies
Paranoid	Delusions of persecution.
Catatonic	Engage in odd movements. Remain motionless for an hour, etc. Waxy flexibility- motionless, allow their body to be moved in an different way and stick like that
Undifferentiated	Exhibit disordered thinking but no symptoms of the other type of schizophrenia

**Theories of the Causes:**

Theory	Definition
Dopamine Hypothesis	High levels of dopamine seem to be associated with SF -Antipsychotic drugs are used to treat SF and greatly reduce dopamine -Parkinson's treated w/ l-dopa which acts to increase dopamine levels, when given in excess patients experience SF-like thoughts
Biological	-enlarged brain ventricles, abnormality on 5 <sup>th</sup> chromosome, genetically inherited

Cognitive Behavioral	Double binds- when a person is given a contradictory message. (don't have sex Sally, but her parents give her slutty clothing) People who grow up in this kind of environment may develop distorted ways of thinking due to the impossibility of rationally finding answers
Diathesis- Stress Model	Environmental stressors can provide the circumstances under which a biological predisposition or illness can express itself

Personality Disorders- maladaptive ways of behaving that negatively affect people's ways of functioning

- a. antisocial- have little regard for other people's feelings , world is hostile and you need to look out for yourself
- b. Dependent personality disorder- rely too much on the attention and help of others
- c. Paranoid po- always feel persecuted
- d. Narcissistic pdo- seeing oneself as the center of the universe
- e. Histrionic pdo- overly dramatic behavior
- f. Obsessive pdo- overly concerned with certain thoughts and performing certain behaviors

Other Random Psychological Disorders

-paraphilias or psychosexual disorders- feeling sexually attracted to an object, person, or activity not usually seen as sexual

- a. pedophilia- children
- b. zoophilia- animals
- c. fetishism- objects

-voyeur- sexually aroused by others engaging in the activity

-masochist- sexually aroused by having pain inflicted upon them

-sadist- aroused by inflicting pain on others

-Anorexia Nervosa- self starvation, lose more than 15% of body weight, obsessed with being fat and food, self image

Bulimia- binge-purge cycle, eat lots of food and then throw up or use laxatives

Substance Use Disorder- use substances regularly and it negatively affects his/her life

Substance Dependence = addiction, cannot cut down on the amount of substance

Autism- less emotional contact than other children, slow to develop language and less likely to seek parental help

ADHD: difficult paying attention or staying still

Rosenhan Study: Influence of Labels

- Dr. R and a few associates decided to go into a mental hospital and claim they were hearing voices, they were admitted to institutions and seen as suffering from SF
- Then they acted as they normally did, and they ultimately left the hospital with diagnosis of SF in remission
- Should people be diagnosed with a psychological problem the rest of their lives?

Testing and Individual differences:

Standardized: test items have been piloted on a similar population of people as those who are meant to take the test and that achievement norms have been established

Standardization sample: people testing on a particular day accurately reflect the population as a whole

Reliability: repeatability or consistency of the test (results) as a means of measurement

Split Half Reliability: randomly dividing the test into two different sections and then correlating people's performance of the two halves, closer the coefficient is to +1, the greater reliability

Equivalent For Reliability: correlation between performance on the different forms of the test

Test-Retest- correlation between a person's score on one administration of the test with the same person's score on a subsequent administration

Validity: does the test measure what it is suppose to?

- Face Validity: superficial measure of accuracy: if you are looking for a doctor, a cooking test would not be a good test to distribute
- Content Validity: if it's a geometry test, but has psychology questions, it is not valid. I want a chef, so I make the test requiring the chef to bake a cake and make a salad
- Criterion Validity:
  - Concurrent validity: measures how much of a characteristic a person has now
  - Predictive Validity: measure of future performance

Construct Validity: (err... look at notes, book gives crappy definition)

Speed Tests: answer a large amount of questions in a small amount of time. The goal is to see how fast a person can answer questions

Power Test: gauge the difficulty level of problems an individual can solve (increasing difficulty levels)

Group tests: interaction between examiner and people taking test is minimal. People are given a certain amount of time to complete each part of the test, usually "cheap"

Individual Tests: great interaction between the examiner and individual, like IQ tests

Intelligence: ability to gather and use intelligence in good ways

Fluid Intelligence: ability to solve abstract problems and pick up new information and skills (depletes as you age)

Crystallized Intelligence: using knowledge accumulated over time (holds steady and may increase with age)

Charles Spearman: single factor intelligence, factor analysis (a statistical technique that measures correlations between different items) to conclude that underlying many different specific abilities "s" that people regard as types of intelligence is a single fact that he named "g" for general

L.L. Thurstone: intelligence is comprised of seven main abilities including reasoning, memory, and verbal comprehension

J.P. Guilford: over 100 different mental abilities

Gardner :Multiple Intelligences: linguistic, logical-mathematical and spatial, musical, bodily kinesthetic, intrapersonal (ability to understand oneself), interpersonal, naturalistic

Goleman: Emotional Intelligence: EQ

Sternburg: triarchic theory:

- a. analytical intelligence
- b. creative intelligence: use knowledge and experiences in new innovative ways
- c. practical intelligence: apply what they know to real life situations

Binet: wanted to design a test that would identify which children needed special attention in schools. Created a mental age, would help identify the kids that lagged behind

Terman: Stanford-Binet IQ test (divide a person's mental age by his or her chronological age and multiply by 100)

Weschler-

- a. W. Adult intelligence scale (wais)
- b. W. intelligence scale for children (wisc) (6-16)
- c. W. preschool and primary scale of intelligence (WPPSI)
- d. MEAN IS ALWAYS 100 W/ STANDARD DEVIATION OF 15

Heritability- measure of how much of a trait's variation is explained by genetic factors (ranges from 0-1, 0=environment sole cause, 1=genetics)

Flynn Effect- intelligence has been increasing steadily as the years increase – perhaps because of nutrition, education, and television etc, have contributed

Monozygotic twins score higher on IQ tests than dizygotic twins do, also identical twins separated at birth have similar intelligences but some people claim they were put in similar environments

#### TREATMENT FOR PSYCHOLOGICAL DISORDERS:

Deinstitutionalized: when you are given drugs and sent home, meant to save money.

Unsuccessful because many patients were unable to care for themselves

Preventative Efforts:

- a. primary prevention
  - a. reduce the incidence of societal problems that can give rise to mental health issues
- b. Secondary prevention
  - a. Working with people at risk for developing specific problems (counseling people who have experienced a trauma like terrorist attack)
- c. Tertiary prevention
  - a. Efforts to aim to keep people's mental health from becoming more severe

Psychoanalytic

- a. view the cause of disorders as unconscious conflicts
- b. find the underlying cause of a problem
  - a. believe that if you do not address the true problem that the patients will suffer from symptom substitution- after a person is successfully treated for one disorder, that a person will develop another one
- c. hypnosis- in this stage people are less likely to repress thoughts
- d. free associate- say whatever comes to your mind
- e. Dream Interpretations- manifest vs. latent content
- f. Resistance- when you disagree with interpretation on your dreams, etc this shows that the psychologist is most likely correct about the problem
- g. Transference- when patients begin to feel strong feelings toward their therapist, some psychologists believe patients are redirecting strong emotions toward people with whom they have troubling relationships with to their therapist
- h. Psychoanalysts= people who follow Freud by the book psychodynamic= people who have modified his theory a bit
- i. Humanistic/psychoanalytic theory = insight theories = highlight the importance of patients/clients gaining an understanding of their problems

Humanistic Theories: strive for their patients to self-actualize (reach one's highest potential) and believe people possess freewill and therefore can control their destination (determinism is the opposite of this)

- a. Carl Rogers- client-centered therapy aka (person-centered therapy)- hinges on providing the patient with unconditional positive regard- which is a blanket of acceptance and support no matter what the person says or does.
- b. They would not tell the person what he or she should do to improve themselves, rather they would help the client choose a course of action for themselves
- c. Encourage clients to talk a lot about how they feel and sometimes mirror back those feelings to help clarify the feelings for the client- active listening
- d. Gestalt Therapy- encourage clients to in touch with their who selves, including feelings they may not be aware of
- e. Existential Therapies- help clients achieve a meaningful perception of their lives

## Behavioral Therapies-

- a. counter conditioning
  - a. Mary Cover Jones- unpleasant conditioned response is replaced with a pleasant one (chuck cries when he goes to the doctor, so in order to prevent this we bring toys to the doctor to prevent crying)
  - b. Systematic desensitization- teaching the client to replace the feelings of anxiety with relaxation
    - i. First they create a anxiety hierarchy
      1. in vivo desensitization- client confronts the actual fear objects of situations
      2. covert desensitization- imagine fear-inducing stimuli
- b. Flooding- involves the client addressing the most frightening scenario first
  - a. Purpose is that people will eventually see that what they are afraid of is irrational
  - b. Fear would then almost be extinguished
- c. Modeling- watching someone else deal with the anxiety-inducing stimuli
- d. Aversive Conditioning
  - a. Involves paring a habit a person wishes with an unpleasant stimuli
- e. Token Economy- like in 3<sup>rd</sup> great good behaviour is awarded with coins and then you get a prize

## Cognitive Therapies

- a. changing unhealthy thought patterns
- b. healthy attribution style
- c. Beck-cognitive therapy –involves trying to get clients involved in pursuits that will win them success
  - i. Cognitive triad- people’s beliefs about themselves, world & future

## Cognitive Behavioral Therapies

- a. Cognitive Behavioral Therapy – CBT- combines therapy of cognitive and behaviorist
  - a. Rational Emotive Behavior Therapy (Albert Ellis)
    - i. expose and confront the dysfunctional thoughts of their clients
    - ii. REBT Therapist would question the likelihood of and event occurring, and if it did occur it would not be that bad

## Group Therapy

- A. Family Therapy – meeting of the whole family is helpful in revealing patterns in family interaction and altering the behavior of everyone, not just one person
- B. Self-Help Groups
  - a. People with a common problem meeting together

## Somatic Therapies- therapies that produce bodily changes

- a. psychopharmacology or chemotherapy = most common
- b. more severe the disorder the more likely drugs will be used to treat it
  - a. schizophrenia- antipsychotic drugs like thiorazine or Haldol, usually the drugs function by blocking the receptor sites for dopamine
  - b. Mood Disorders-
    - i. Uni-polar depression- tricyclic antidepressants
      1. Monoamine oxidase inhibitors
      2. Serotonin reuptake drugs
      3. All increase serotonin
    - ii. bipolar – lithium
- c. anxiety disorders- treated with drugs that depress activity in CNS, thus making people feel relaxed

- d. electroconvulsive therapy (ECT)- electric current is passed through both hemispheres, patient experiences a brief seizure, lose consciousness
  - a. may change blood flow pattern in brain

Psychosurgery- involves purposeful destruction of part of the brain to alter a person's behaviour

Prefrontal Lobotomy- cutting the main neurons leading to frontal lobe, it was done a long time ago, and it now rarely performed since a person loses functioning abilities, which eventually leads them to a vegetative state

Kinds of Therapists-

- a. psychiatrists- medical doctors, only therapist allowed to prescribe medicine, less extensively trained in psychotherapy
- b. Clinical Psychologists- (PHDs) require 4 or more years of study and then work in an internship overseen by a more experienced professional
- c. Counseling Psychologist- graduate degrees in psychology, less training and deal with less severe problems than clinical psychologists
- d. Psychoanalysts- specially trained in Freudian methods, they may or many not hold medical degrees

SEX DRIVE

Initial Excitement- genital areas become engorged in blood penis becomes erect, clitoris swells, respiration and heart rate increase

Plateau Phase- respiration and heart rate continue at an elevated level, genitals secrete fluid in preparation for coitus

Orgasm- rhythmic genital contractions that may help conception, respiration, heart rate increases, males ejaculate

Resolution phase- things to turn back to normal, males go through a refractory period