13/18
Psychology 100
1. To be useful, laboratory experiments in psychology must recreate the behaviors of everyday life. T
2. The human brain produces its own natural opiates that ease pain and elevate mood. T
3. Psychologists have been able to breed rats to be serene or reactive, quick learners or slow learners. T
4. Newborns can see only light and dark shades. T
5. Advertisers are able to shape our buying habits through subliminal messages T
6. Psychological research clearly indicates that some people do have ESP. T
7. Some people dream every night; others seldom dream. F
8. The greater the reward promised for performing an activity, the more one will come to enjoy the activity. T
9. The amount of information that can be stored in human memory is limited. T
10. In general, people underestimate how much they really know. F
11. Heredity, not environment, determines one's score on an intelligence test. F
12. All phobias can be traced to a past event that the phobic person experienced in their Past. F
13. If you are truly innocent of committing a crime, you have nothing to fear from taking a lie-detector test. F
14. Most of us suffer from unrealistically low self-esteem. T
15. The most common form of schizophrenia is the split personality, in which a person possesses two or more separate identities. F
16. Without professional help, people who suffer psychological disorders inevitably get Worse. F
17. Internal bodily functions such as blood pressure and heart rate are not subject to conscious control. F
18. Most people would refuse to obey an authority who told them to hurt an innocent F

2/6/24

1. Conscious vs Unconscious
    a. Ex: freudian slip
2. Free will vs determinism
    a. Ex: can a person choose to get themselves out of a depressive state?
3. Individual differences vs universals
    a. Ex: is it ok to turn a trolley away from killing 5 people on one track to a track where it will only kill one person
4. Nature vs nurture
    a. Ex: does heredity play a major role in determining IQ

Perspectives in psychology

- Neuroscience
    - How does the brain/ biology affect behavior
- Evolutionary

    - How does behavior/ mental processes promote survival
- Behavior genetics
    - How much to genes vs environment affect who we are
- Psychodynamic
    - How much do unconscious conflicts/ drives determine behavior
- Behavioral
    - How do our experiences and environment affect behavior
- Cognitive
    - How does information processing affect thoughts/ behavior
- Socio-cultural
    - How do behavior/ thinking vary across situations/ cultures

Limits of common sense

- Overconfidence
    - People tend to be more confident than correct
- Hindsight bias
    - After you know the outcome of an event you tend to believe that you would have predicted it

Scientific method

- Where do hypotheses come from
    - Dissatisfaction with others' theories
    - New questions from prior research
    - Personal observation and curiosity
- Summary of research methods
    - Descriptive
        - Descriptive research: what is the nature of the phenomenon?
        - Case study
            - Examine one person in depth to understand human nature in general
            - Phineas Gage used to study human personality in the prefrontal cortex
            - Limited due to atypicality and limited generalizability
        - Observational research
            - Researcher observes people and systematically records measurements of their behavior
            - Unobtrusive observation and participant observation
            - Limited due to limited generalizability and some behaviors are difficult to observe
        - Survey research
            - Using questionnaires to ask lots of people to report their behavior
            - Can sample a selection of population to reflect whole population trend

            - Limited due to unrepresentative sample, order of questions, and question wording
    - Correlational
        - Prediction: from knowing X, can we predict Y?
        - When you want to understand relationship between two things and be able to predict behaviors
        - Positive correlation: two variables rise and fall together
        - Negative correlation: when one variable rises the other decreases
        - No correlation: no relationship between two variables
        - Strength: can examine factors like race, sex, and age
        - Weaknesses:
            - Correlation does not prove causation
            - Third variable problem
    - Experimental
        - Causality: is variable X a cause of variable Y?
        - Manipulation of some event or variable so that people experience it one way or another way and look to see if differences in behavior occur
        - Strengths: can determine cause and effect and can gain control over the situation
        - Weaknesses: lacks external validity

Statistics

- Central tendency measures:
    - Mode- most often reported score
    - Mean- average score
    - Median- middle score
- Other statistical measures
    - Range- from lowest to highest score

Neurons

- Dendrite: receives signals from sensory structures (ie taste buds) and other neurons
- Cell body: basic cell functions
- Axon: sends signals to other neurons and effector cells (muscles)
- Myelin sheath: fatty substance that encases the axons of some cells and increases the speed of transmission
- Axon terminals: store and release enzymes called neurotransmitters
- Synapse: space between the axons of one cell and the dendrites of the next cell
- Receptor sites: locations on the dendrite of the next neuron
    - Neurotransmitters bind to receptor sites and the whole process renews

Communication

- Action potential
    - All neurons have a resting state (-70 mv)
    - Dendrites are stimulated and positive ions flow into the cell

        - Threshold is reached (-65 mv) and action potential is triggered (all or nothing)
        - Wave moves down the axon
        - Wave reaches the axon terminals
        - Neurotransmitters are released into the synapse
        - Neurotransmitters bind with receptors on dendrite of next neuron
        - Process starts in the next cell
            - Can excite the next neuron
            - Inhibit the next neuron
- Refractory period
    - Brief period when the neuron is unable to fire again
    - Reuptake occurs: excess neurotransmitters are taken back for reuse in the axon of the neuron that released them
    - Axon returns to resting state of -70 mv

Neurotransmitters

- Acetylcholine
    - Movement, learning, memory
    - Too little causes Alzheimers and dementia
- Endorphins
    - Nature's pain relievers
    - Eating chocolate, athletics, stress
- Serotonin
    - Mood, sleep, hunger, arousal
    - Too little causes depression
- Dopamine
    - Movement, learning, attention, emotion
    - Too much causes Schizophrenia
    - Too little causes Parkinson's
- GABA
    - Eating, sleeping
    - Too little causes anxiety disorders

Drugs

- Drugs can have two effects
    - Agonists mimic the action of the neurotransmitter
        - Binds at neuromuscular sites (receptor sites)
        - Blocks reuptake of neurotransmitter (leaving more)
        - Counteracts enzymes that clean out synapse
        - Ex: valium/ xanax (GABA), prozac/ zoloft (serotonin)
    - Antagonists block the action of the neurotransmitter
        - Blocks neurotransmitter sites
        - Destroys neurotransmitter (leaving less)
        - Decreases effectiveness of neurotransmitters
        - Ex: haldol (dopamine)

Types of neurons

- Sensory neurons (afferent)
    - From the body towards the brain
    - Specialized for different sensations
- Motor neurons (efferent)
    - From the brain back to the body
- Interneurons (does the communication between the afferent and efferent neurons

Spinal cord

- Reflexes
    - Skip the brain
    - Info i fed up and down the spinal cord only
        - Fast response
        - Poor motor control and decision making

Brain and human behavior

- Early theory:
    - Phrenology: tried to relate behavior to bumps in the skull
    - Shape of brain and skull don't always match
    - Difficult to falsify
    - Cant "see" the brain or its activity

Neuroimaging

- CAT scan
    - X-ray of your brain
- MRI
    - Bombard the brain with radio waves which affects the naturally occurring magnetic field of your brain
    - Active areas produce different magnetic fields than inactive areas
- PET scan
    - Inject with radioactive glucose
    - Active areas in the brain use the glucose and "glow"

The brain

- Frontal lobe
    - Emotional behavior
    - Strategic behavior
    - Motor cortex
        - Sends information out of the body
        - Related to movement
- Parietal lobe
    - Sensory cortex
    - Receives incoming information

    - Related to sensation
- Occipital lobe
    - Vision
- Temporal lobe
    - Auditory behavior
    - Language
        - Wenicke's area: understanding
        - Broca's area: speech
    - Memory

Hemisphere differences
- Left favors tasks that require analytical processing
- Right favors tasks that favor holistic processing
- Corpus callosum
    - Membrane that connects/divides halves

Hemisphere communication
- Normal
    - Division of labor works very nicely
- In everyone
    - Left side of the brain controls right side of the body
    - Right side of the brain controls left side of the body
    - Left visual field is processed by right hemisphere and vice versa
    - Left and right sides of the brain can communicate with each other
- Severed corpus callosum (split brain)
    - Operation for patients with severe epilepsy
    - Reduces seizures immensely by severing corpus callosum
    - Outcome
        - Patients greatly benefit with reduction in seizures
        - Patients have two, ½ brains that do not communicate with each other

Evolutionary psychology
- Explain human behavior/ traits by examining the long term reproductive dis/advantages of said traits and behaviors
- People are 99.5% genetically similar to each other
- Different patterns based on different environmental pressures
    - Slower metabolism in colder climates
    - Darker complexions by the equator to adapt to the sun

Reproductive behavior
- Gender and sex are considered binary variables
- Male and females differ in their willingness to engage in sexual activities
    - Males are less concerned about:
        - Having multiple partners

        - Knowing their partner really well
        - Their partner's level of commitment
        - Males more quick to interpret "attention" as sexual intent
- Evolutionary psychology
    - Females have fewer opportunities to bear offspring
        - Need to be picky in choosing partners
        - Wealth, status, and power will protect the child, promotes her genes
    - Males can have thousands of kids if desired
        - If one partner turns out bad lots of other opportunities
        - Wants to have as many kids as possible to promote his genes
        - Wants to find really fertile women

Problems with evolutionary psychology

- Data are correlational
- "Just so" stories and backward reasoning
- There are variations in human behavior

Behavior genetics

- An approach to understanding the extent to which behavior/ trait differences can be attributed to genetic differences
- Key ways to investigate
    - Twins raised together
        - Both identical and fraternal twins
        - Identical twins are much more similar to each other than fraternal twins
        - Are identical twins raised more similar than fraternal twins (eg same environment)
    - Twins raised apart
        - identical twins raised in separate homes are remarkably similar to each other
        - identical twins are more similar than fraternal (small but consistent effect)
        - Unaffected by "age at separation"
        - Mix-ups
    - Adoption studies
        - How similar are adopted kids to other kids raised in the same house
        - Home environment have little effect on personality
        - Adoptive kids do not resemble biological kids
        - Religious and ethical values are heavily influenced by the values of the adoptive parents

Nurture

- The role that the environment (experiences) have on human behavior

Early environment

- Head start

- Mozart effect
- In-utero language tapes
- Rosenzweig studies
    - Rats raised in isolation vs with toys and playmates
- Neural changes translate into a cognitive or emotional advantage

Parental influence

- Freud: parents exert a huge influence on their developing children
    - Only partially true

Peer influence

- Huge influence of peers on their friends
    - smoking/ alcohol/ drug use
    - Language development
    - Toddler food preferences

Culture

- The behavior, ideas, attitudes, and traditions shared by a large group of people and transmitted from one generation to the next
- Cultural norms really affect behavior
    - Formality
    - Personal space
    - Pace
    - Expressiveness
- Generational differences within a culture prove culture is unlikely to be biological

Nature vs nurture conclusions

- Both genes and environment influence behavior
- It is not easy to distinguish the relative contributions of genes vs environment for any particular behavior
- It is not easy to predict any given behavior by controlling the genes or the environment

Newborns

- Born with reflexes and preferences
    - Reflexes:
        - Rooting: touch a newborn's cheek with your finger and they will turn and start sucking
        - Blinking: flash lights or wave your hand in your newborns eyes and they will blink
        - Moro: hold an infant and drop him slightly and they will reach with their hands and legs
        - Grasping: put your finger in a newborn's hand and they will grab it
        - Stepping: hold your baby upright, slightly off the floor and they will make walking motions

    - Preferences
        - face/face-like images
        - Human voices
        - Mother's voice and mother's smell
        - Driven by the need for food and comfort

Infancy and childhood (Cognitive development)

- Piaget's theory of cognitive development
    - Children are active thinkers who try to construct more accurate/ advanced understanding of the world
    - Assimilation
        - Schemas: knowledge structures
        - Accommodation: builds off schemas
    - Stage 1: sensory motor stage
        - Birth to 2 years
        - Stage where child learns relationships between actions and the real world (cause and effect)
        - Things that happen during this stage:
            - Exploring senses
            - Motor activities
            - Object permanence (8 months)
            - Attachment (stranger anxiety)
    - Stage 2: preoperational stage
        - 2 years to 7 years
        - Stage where child acquired the ability to form mental images of objects and events and can represent the world with words (language develops)
        - Symbolic play
        - Egocentrism
        - Lack conservation (Piaget conservation task/ water in tubes and quarters in a row)
    - Stage 3: concrete operational stage
    - Stage 4: formal operational stage
- Stage theory
    - Humans move through predictable stages
    - They move from stage to stage at certain ages
    - Order is unchanging

According to Harlow (Reading in 40 Studies), nutrition is not the most important component for developing attachment in infants. First, tell me **(1) what is the most important variable for the development of attachment?** Secondly, find an **(2) example** of how this **finding has been marketed to parents of young infants** (that is, what is a product that parents of infants might purchase to increase attachment for their babies)? Finally, **(3) do you think your selected product would actually work** in creating an attachment bond? (300 words maximum)

The most important variable for the development of attachment is “contact comfort.” An example of how contact comfort has been marketed to parents of young infants is those slings that a parent can carry a baby in so that they can always have close contact with each other. I often see mothers with their child wrapped tightly and securely around their chest thanks to the sling. This product works well at creating an attachment bond according to Harlow’s theory of contact comfort because the contact between parent and infant is maximized.

Attachment

- A strong emotional bond infants develop with their caregivers
- Strange situation test
    - The caregiver leaves the baby/child alone with a stranger for several minutes and then returns to the room with the baby
- Styles of attachment
    - Secure
        - Child: may cry when separated, but then explores a new place. When mom returns, they go to her
        - Parent: knows when to support and when to let go
    - Avoidant insecure
        - Child: doesn’t cry when left; acts like stranger is the parent; avoids mom on return
        - Parent: cold, distant; kid not highest priority
    - Ambivalent insecure
        - Child: seeks mom when she leaves but when she returns, fluctuates between seeking and rejecting mom
        - Parent: inconsistent treatment of child
    - Disorganized disoriented
        - Not well defined

Long term effects of attachment

- Sociability
- Relationship styles
- Securely attached
    - Comfortable in relationships
    - Depend on partners
    - Seek closeness
    - Don't fear abandonment
- Avoidance insecure
    - Uncomfortable getting close to others
    - Trust issues
    - Won’t depend on partners
    - Feel partner is too clingy
- Ambivalent insecure

        - Fear others are reluctant to get close
        - Worries partner does not love them

Contact comfort

- The most important factor in attachment
- Close physical contact between parent/ child
- Hugging, cuddling, caressing
- Harlow article
    - Monkey babies raised with surrogate mothers
    - 2 surrogate mothers
        - Cloth mother with milk and wire mother w/o milk
        - Wire mother with milk and cloth mother w/o milk
        - Cloth mother preferred in both cases

Parenting styles

- Authoritarian
    - High demands
    - Low responsiveness
    - Rule based parenting
    - Kid must obey or be punished
    - No explanations for punishment given
- Permissive
    - Low demands
    - High responsiveness
    - Warm parenting style
    - No rules/ kids do as they please
    - Never hold kids responsible for actions
- Authoritative
    - High demands
    - High responsiveness
    - Sets rules and enforces them but explains why rules exist
    - Discusses choice and consequences with kids
- Uninvolved
    - Low demands
    - Low responsiveness
    - Shows little, if any, interest in kids
    - Emotionally detached, neglectful
    - Provide food, shelter, and clothing

Moral development

- Kohlberg's Stages of moral development
    - Pre-conventional: good behaviors are rewarded and bad behavior is punished
    - Conventional: follow rules of society and be a good citizen
    - Post-conventional: certain rights transcend the written law

Sensation

- Process of:
    - Converting the physical world into a mental representation (transduction)
    - And relaying that information to the brain (conduction)
- Transduction
    - Variation of light → experience of color
    - Variation of air pressure → experience of sound

Psychophysics

- The study of the relationship between physical characteristics of stimuli (energy) and our psychological experience of them
- Absolute thresholds
    - Smallest magnitude of a stimulus that can be reliably discriminated from no stimulus at least 50% of the time
- Difference threshold
    - Minimum difference between two stimuli that a person can detect at least 50% of the time
        - Just noticeable difference
- Signal detection theory
    - Predicts how and when we will detect the presence of a stimulus amidst background stimulation
    - Complex decision mechanisms are involved to determine if a stimulus exists
- Based on both
    - Stimulus strength
    - Our experiences: expectations, motivation, level of fatigue
- absolute thresholds and just noticeable differences are not fixed
    - Our sensitivity to stimuli varies based on experiences
    - Factors
        - Chance variation (noise influences sensitivity)
        - Stimulus intensity
            - Weber's law- the greater the intensity of a stimulus, the larger the difference must be to detect a difference (they must differ by a constant proportion)
        - Sensory adaptation (our sensitivity to an unchanging stimulus diminishes)

Vision

- 2 aspects of light energy
    - Wavelength: the distance between peaks of the light wave
        - Corresponds to our sensation of color
        - Short wavelength → blues and violets
        - Long wavelength → reds and oranges
    - Amplitude: the intensity of the light wave

        - Corresponds to our sensation of brightness
        - Small amplitude → dull color
        - Great amplitude → bright color
- Rods: cells in the periphery of the retina sensitive to light
- Cones: cells in the center of the retina (Fovea) sensitive to focus and color perception
- Trichromatic theory (Young-Helmholtz)
    - Any color can be created by combining the red, green, and blue light in varying combinations
    - In our eyes we have 3 kinds of cones
        - Cone 1 maximally sensitive to blue
        - Cone 2 maximally sensitive to green
        - Cone 3 maximally sensitive to red
    - Our experience of colors results from mixing different levels of response from these 3 cone types
- Opponent process theory
    - Opposing retinal processes enable color vision
    - Neural impulses are antagonistic, a stimulus that elicits a response from the 'red,' depresses a response of green

Hearing

- 2 aspects of sound waves
    - Amplitude: the intensity of the wave
        - Correspond to our psychological sensation of volume (decibels)
    - Frequency (pitch): the number of complete cycles per unit time (hertz - cycles per second)
        - Corresponds to our psychological sensation of pitch
- Perceiving pitch (high vs low sound)
    - Place theory: different pitches produce responses on different places on the basilar membrane
        - Works well with high pitched sounds
    - Frequency theory: different pitches cause the basilar membrane, itself, to vibrate at different frequencies
        - Works well with low pitched sounds
- Perceiving volume (loud vs soft sounds)
    - Not movement of BM, but number of stimulated hair cells
    - Perceiving location (where sound is coming from)
        - 2 ears
            - Left vs right
            - Eup vs down
            - Front vs behind

Perception

- The process by which we:
    - Select, organize, and interpret these mental representations

- We can recognize the color green
- We can distinguish Bach from Bad Bunny
- There is not a 1 to 1 correspondence between out perceptual representation of the world and the physical reality of the world
    - Physical information is ambiguous
    - We take the available information and interpret it based on what we know about the world

Illusion

- Case where the rules that we use to interpret the world, which are usually true, are not true and lead us to misinterpretation
- Visual capture- vision dominates

Gestalt psychology

- What “rules of perception” do we use to determine objects and scenes
- We work hard to perceive coherence in our environment
    - World- has many discrete objects
    - We perceive each object as separate but combine to create complex whole scenes
- Rule 1: figure-ground
    - Perceive objects as distinct from its surroundings
- Rules of grouping:
    - Proximity: group nearby objects together
    - Similarity: group figures that are similar
    - Continuity: perceive continuous patterns
    - Connectedness: spots, lines, and areas are seen as units when connected
    - Closure: fill in gaps
- Sometimes local features assist with the perception of global features but sometimes global features assist with local features

Perceptual constancy

- We are able to perceive an object as unchanging even though the stimuli we receive from it change
- Once we lock onto a particular interpretation of a stimulus we tend to stick with that perception

Depth perception

- Binocular cues
    - Rely on two eyes
    - Each eye produces a slightly different retinal image because the eyes are in different locations
    - Brain averages retinal information
    - Retinal (binocular) disparity
        - Images from two eyes differ

        - The larger the difference (disparity) between two images the retinas receive, the closer the object is to our eyes
    - Convergence
        - The closure something is, the larger the angle formed by the two eyes
        - Two eyes move inward for near objects
- Monocular cues
    - Can be perceived with one eye only
    - Brain does not have to average retinal information
    - Interposition
        - If A blocks B, then A must be closer
    - Relative size
        - If two items are similar in appearance, then the one that looks “smaller” is farther away
    - Clarity
        - Clever is closer
    - Texture gradient
        - Coarse is close, smother is father away
    - Relative height
        - Things higher in our field of vision are perceived as further away
    - Relative motion, motion parallax
        - Things further away move more slowly
    - Linear perspective
        - Parallel lines converge in the distance
    - Relative brightness, light and shadow
        - Closer things are righter, if A casts shadow on B, then A is in front of B

Perceptual adaptation

- Humans are quite consistent
    - We all fall prey to the same illusion errors
- We are highly adaptive to changing environments
    - If some fundamental change in the environment occurs, we can adapt quickly

Learning

- Any relatively permanent change in behavior produced by experience (can be direct or indirect experience)
- Associative learning
    - A process in which you form associations between stimuli and other events
    - By forming new associations we behave differently

Classical conditioning

- The unconditioned reflex
    - Unconditional stimulus (food): the aspect of the environment that generates a response automatically without learning

    - Unconditioned response (salivating): the response evoked (not learned) by the US
    - Conditioned stimulus (bell): some aspect of the environment that we learn to respond to because it has been associated with an unconditioned stimulus
    - Conditioned response (salivating): the response reliably evoked (learned) by the conditioned stimulus

3 things necessary for classical conditioning
- An initially neutral stimulus - conditioned stimulus
- A stimulus that reliably elicits a response - unconditioned stimulus
- Contiguity: nearness in time and space of the conditioned stimulus and unconditioned stimulus

Key components
- Acquisition: training of the new conditioned response
- Extinction: the elimination of a conditioned response
- Generalization: the tendency to apply what you have learned to new, similar situations
- Discrimination: tendency to distinguish between a new situation and the original situation

Examples of operant conditioning
- Choices made by the learner
- Deliberate actions, not reflexes
- Voluntary
- Goal directed
- More complex than salivating to a tone
- Influenced by consequence

Operant conditioning
- The study of how the consequences of voluntary actions and behavior influence these actions and behavior
- Behavior operates (and has an effect) on the environment
- Shaping by successive approximations: reward behavior for little steps towards the desired and behavior

Law of effect
- Behavior varies: it occurs in a random, trial and error fashion
- Variation in behavior → pleasurable consequence → more likely to occur in the future
- Variance in behavior → unpleasant consequences → less likely to occur in the future
- Behavior is sensitive to consequences

Behavior consequence relationships
- Reinforcement:: a consequence that increases the likelihood of a behavior
    - Positive reinforcement: addition of a positive stimulus (consequence) to produce and increase behavior

    - Negative reinforcement: removal of a negative stimulus (consequence) to produce and increase behavior
- Punishment: a consequence that decreases the likelihood of a behavior
    - Positive punishment: addition of a negative stimulus (consequence) to eliminate or decrease a behavior
    - Negative punishment: removal of a positive stimulus (consequence) to eliminate or decrease a behavior

3 stages in learning new behaviors
- Acquisition: initial learning of the new behavioral unit
- Maintenance: learned response is often produced and often reinforced
- Extinction: gradual decreases in behavior when reinforcement is removed

Reinforcement
- Primary reinforcers: food, water, sex
- Secondary (conditioned) reinforcers: money
    - Social reinforcers: affection, attention, praise

Punishment
- Effective at reducing the punished behavior and very fast at reducing the behavior
- Problems:
    - Escape
    - Aggression
    - Abuse

Observational learning
- Indirect experiential learning
    - Not all learning has to occur from direct experience, especially with humans
    - Modeling: the process of observing and imitating a specific behavior

Steps to having a memory
- Encoding
- Storage
- Retrieval

Modal model of memory
- Sensory memory
- Short term (working) memory
- Long term memory

Sensory memory
- A brief persistence of sensory information
- Types of sensory registers (memory)
    - Iconic memory- where visual information is processed
    - Echoic memory- where auditory information is processed

- Information dissipates very fast
- Up to 9 pieces of information can be processed in sensory memory before it dissipates

Sperling studies of sensory memory
- Flash matrix of letters/ numbers for 1/20 sec
- Subjects reported what they saw
- Counted pieces of information remembered
- People could report 4-9 pieces of information
    - But they could see all of the information

Serial position curve
- Primacy effect: we typically remember the first few words list
    - Long term memory
- Recency effect: we typically remember the last few words on the list
    - Short term memory

Short term memory
- Digit span task
- The magical 7: we can cold seven (plus or minus 2) pieces of information in short term memory
- Chunking
- Easy to enter: attend to item last few attended items are in STM
- Lots of entry paths
- East to find info there

Long term memory
- Large in size: infinite
- Hard to enterL must be attended to and rehearsed/ elaborated for some time
- One entry path: from STM only
- Hard to find info there

How info gets from STM to LTM
- Rehearsal: conscious repetition (effortful processing)
    - Rote rehearsal
    - Elaborative rehearsal
- Coding
    - Levels of processing
    - Meaning
    - Imagery

Encoding
- Shallow processing vs deep processing
- The deeper information is processed

Encoding imagery coding

- Information that can be imaged will be better remembered than information that can't be imaged
- Dual coding theory: we can code imageable information two ways
    - Verbally
    - Visually

Explicit memory

- Memory for information that you can consciously recall and declare
- Testing explicit memory
    - Recall: retrieve and state
    - Recognition: identify
- Episodic memory
    - Memories that contain specific past experiences or episodes
    - Linked to a certain place and time
- Semantic memory
    - General knowledge
    - Composite of several experiences
    - Acquired over time

Implicit memory

- KJ the amnesiac- no signs of explicit memory
- A person's behavior or judgment is influenced by past experiences but is unaware of it
- "Unconscious" and "indirect" memory
- Priming: the influence a stimulus has on some measure of subsequent performance
    - Election

Forgetting

- Some information we learn may be permanently lost from memory ("forgetting"). Some memories will never be recovered. They can't because they are just not there anymore
- Everything we learn is permanently stored in our memories. "Forgetting" represents those memories that are currently not accessible, but with the proper cues all memories can be recover
- Decay vs retrieval failure

Decay theory

- Ebbinghaus
    - Learn list of 13 nonsense syllables
    - Retest himself after delay from 20 minutes to 1 month and see how long it would take him to relearn the list to perfection
    - Some forgetting always occurred
    - Forgetting was non-linear: rapid at first, then slows down dramatically
    - Decay: with the passage of time, memories fade away

Interference

- We can't remember some things because other events get in the way- interfere with our retrieving the specified memory
- Retroactive interference: new learning interferes with older memories
- Proactive interference: old learning interferes with new memories

Memory distortions: memory reconstruction and false memories

- Reproduction: exact reproduction of the event we have experienced
- Reconstruction: our memories have holes, missing pieces, and we try to fill in the blanks, many times incorrectly
- Ex when memories might be incorrect:
    - Eyewitness memory
    - False memory
- The misinformation effect
    - After having witnessed an event, if misleading information about that event is later presented, people often have difficulty remembering the original event
- False memories: a memory for an event that didn't occur

Intelligence

- Important, human characteristic
- Intelligence by itself is no guarantee for success, accomplishment, or happiness
- Problem solving skills
    - Analytical, logical, able to solve problems
- Verbal skills
    - Articulate, reads a lot, good at crosswords
- Social competence
    - Outgoing, friendly, or socially awkward
- Practical definition
    - Intelligence is whatever intelligence tests measure

Singe characteristic view

- G factor (general factor)
    - A primary intelligence factor that underlies all specific material abilities
    - Found people who score high on one sub test of intelligence typically score high on all subjects
    - Performance on all these tasks (math, verbal) depends on this primary factor

Several components view

- Garner's theory of multiple intelligence
    - People do not have one general intelligence, but rather multiple intelligences
    - Each is independent of the others
    - We need to access/ understand all types of intelligence to get the big picture
    - Savant syndrome
    - Olympic athletes

- Sternberg's triarchic theory of intelligence
    - Intelligence falls into 3 classes
        - Analytical intelligence
            - Ability to think critically, analytically
        - Creative intelligence
            - Insight, ability to form new ideas
        - Practical intelligence
            - Everyday problem solving
- Emotional intelligence (EQ)
    - A cluster of traits relating to the emotional side of life
    - Self awareness: know one's emotions
    - Regulation: know how to manage own emotions
    - Empathy: recognize emotions in others and respond
    - Social skills: able to handle relationships well
    - Motivation: able to motivate oneself optimistically

Measuring intelligence

- IQ (intelligence quotient)
    - Alfred Binet: first person to measure intelligence
    - Chronological age: actual age
    - Mental age: average level of performance on an intelligence test for someone of a particular age
    - IQ = mental age/ chronological age x 100
- Modern measures
    - Aptitude tests: used to predict future performance, ability to learn
    - Achievement tests: used to measure what you have already learned
- Wechsler tests of intelligence
    - Wechsler adult intelligence score (WAIS)
    - Wechsler intelligence score for children (WISC)
    - Verbal component
    - Performance (non-verbal) component
    - 2 component score and 1 overall score
    - Differences between component scores can illuminate learning disabilities
- Millers analogies test
    - Analogies: measure ability to perceive relationships

Creativity

- Components
    - Expertise
    - Imaginative thinking skills
    - Venturesome personality
    - Intrinsic motivation
    - A creative environment

Constructing intelligence tests

- Standardization
    - Give the test to a large group of people
    - Look at the mean score and the distribution of scores
- Normal curve
    - Most scores in the middle of the distribution
    - Fewer scores at either extreme
- Reliability
    - The test must yield the same scores each time it is given to the same quantity
    - Split-half reliability
    - Test-retest reliability
- Validity
    - The test must measure what is claims to measure
    - Content validity: does the test contain questions that directly assess the relevant behavior
    - predictive validity: can it predict what is is supposed to predict

The extremes of intelligence

- Intellectual disability- low extreme
    - IQ score is considerably below average
    - Difficulty in meeting demands of everyday life
        - More males than females- likely genetic
    - Mild (IQ 55-69)
        - 6th grade
        - Can support oneself
    - Moderate (40-54)
        - 2nd grade level
        - Can contribute to supporting oneself
    - Severe (25-39)
        - Can learn to speak
        - Can not be trained for a job
    - Profound (<25)
        - Requires constant supervision
- Intellectually gifted- high extreme
    - IQ score far above average (130 or higher)
    - These people tend to be very successful in school, occupations, socially, and health-wise
    - But high intelligence is no guarantee of success
    - And success comes to many people with IQs < 130

Nature vs nurture

- Nature (hereditary)
    - Several lines of research support the view that genes play an important role in human intelligence

        - Family relationships and measured IQ
        - Adopted children studies
        - Gene studies
        - Identical twins separated at birth
- Nurture (environment)
    - Genres are not the entire picture
    - Flynn effect
        - IQ test performance has steadily increased over the most recent decades
        - Nutrition, television, more education, computers-internet
    - Environmental enrichment/ deprivement
        - Headstart programs
- Conclusions
    - Both contribute to intelligence
    - Genes are likely to contribute more at the start
    - Intelligence can be changed by environment over the years

Differences in IQ testing

- There are sizable differences in IQ test scores of various racial and ethnic groups in the USA and everywhere
- Psychologists believe these group differences are due to environment, not genetics
- intelligence tests themselves might be biased against non-white test takers
    - Biased in that IQ tests detect cultural differences not intelligence themselves
    - This is an environmental issue
- Evidence for environmental factors causing race differences in IQ
    - Genetic differences within a race are often larger than genetic differences between two races
    - Flynn effect: IQ's have risen during the last 50 years
    - Black and white infant IQ: score equally on infant intelligence tests
    - Stereotype threat research
        - Minorities feel threatened by "intelligence tests"
        - Minorities dis-identify with "being intellectual"
    - Pygmalion effect

Consciousness

- Awareness of ourselves, our behavior, and our environment at any given moment
- Not a unitary construct
    - Awake, daydreaming, asleep, subliminal
- Awake
    - Different levels of awareness
- Altered state of consciousness
    - Sleep, dreaming, drugs

Sleep (circadian rhythm)

- Fluctuations in alertness, energy, and mood over the course of the day

        - Biological clock
            - About a 24 hour period
- These shifts are related to underlying bodily processes
    - Daily cycles occur in
        - Hormone production
        - Body temperature
        - Blood pressure
- Changes as age
- We function better (both cognitively/ physically) in our peak time
    - MEQ (morningness eveningness questionnaire)
- Our circadian cycles run 25 hours
    - Jet lag
    - Monday morning blues

Stages of sleep

- Different patterns of brain activity
- Awake
    - Beta waves
- Drowsy or relaxed
    - Alpha waves
- Stage 1 sleep - 5 minutes
    - alpha/ theta waves
    - Hallucinations
    - Jerking
    - Easy to awaken, reasonably coherent
- Stage 2 sleep - 20 minutes
    - Theta waves - sleep spindles, K-complex
    - Still somewhat easy to wake up
- Stage 3/ 4 sleep - 30 minutes
    - Delta waves- longer slower peaks
    - Very hard to wake you up
- REM sleep - 30/45 minutes
    - When dreams occur
    - Paradoxical sleep
        - Strong brain activity
        - Paralyzed to keep us from acting out our dreams

REM sleep

- REM - rebound
    - If we lose REM sleep, we make it up first
    - Important physio/psychological function
- Changes over the course of the evening
    - As the night progresses stages 3 and 4 decrease and REM increases
    - More likely to awaken in the morning during a dream

Purpose of sleep

- Provides some essential biological function
    - Make up lost sleep
    - Sleep deprivation effects
        - Mood - irritability
        - Mental work suffers - major accidents
        - Immune system
    - Sleep debt
        - Could have serious/ mental development repercussions

Why do we sleep

- Sleep provides some essential biological function
    - Problems:
        - The amount of sleep needed varies
        - Motivation can overcome cognitive deficits
        - Too much sleep increases mortality rates (<4 10 times higher and >10 2 times higher)
        - Paradox: when allowed to free-run, people sleep 9-10 hours

Sleep disorders

- Klein-levin's Disease
    - Days of nearly uninterrupted sleep
    - Adolescent males
- Restless leg syndrome
    - Tension in muscles, jittery, inability to relax during bedtime
    - Sometimes wake themselves up
    - Sometimes kick their partner
- Night terrors
    - Usually young kids
    - Suddenly awake in non REM sleep
    - Extreme fear and panic, sometimes screaming and shrieks
    - Go immediately back to sleep
    - No recollection of events
- Narcolepsy
    - Fall asleep at any time
    - Often triggered by intense emotional experience
- Apnea
    - Person stops breathing during sleep
    - Wakes up gasping, falls right back to sleep
    - Either
        - Brain signals to diaphragm are cut off
        - Interference from the tongue, throat, larynx
- Insomnia

    - Inability to fall asleep (10-15% of adults get it)
    - Main causes
        - Psychological (anxiety, depression, stress, stimulus overload)
        - Drugs (caffeine, alcohol, nicotine decongestants)
        - Health problems (anything that interferes with breathing)
    - Treatment
        - Limit time asleep/ in bed
        - Go to bed only to sleep
        - Relaxation training/ sleep apps
        - Nonsense syllables

Dreams

- Freudian theory: Unconscious Wish Fulfillment
    - Manifest content: what's going on in the dream
    - Latent content: the significance of the dream
- Consolidation of new information: "dreams for survival)
    - Two stages of learning/ memory
        - Experience event
        - Consolidate in hippocampus
- Physiological stimulation
    - Keeps neutral pathways exercised
- Activation synthesis
    - Attempts to make sense of random neural firing

Drugs

- Active
    - Tylenol analgesic
- Psycho-active
    - Morphine is an analgesic also produces euphoria

Depressants

- Slow down brain functions, neural activity and bodily functions
- Alcohol, barbiturates, tranquilizers
- Depresses inhibitory brain regions
- Shuts down sympathetic nervous system
    - Reduces tension
- Interferes with memory consolidation
- Suppresses self-awareness
- Promiscuity
    - Depresses sexual response
    - Provides an excuse for sexual behavior

Narcotics, opioids

- Reduces anxiety and pain

- Morphine, heroine hydrocodone, fentanyl oxycontin
- Increases relaxation
- Decreases concentration
- Slowed speech, physical activity

Stimulants
- Energizes the body, excites neural activity, arouses bodily function
- Caffeine, amphetamines, cocaine
- Turn on sympathetic nervous system
- Shut off digestion- less hungry (diet pills)
- Increases aggressive behaviors and thoughts - fight response
- Highly addictive

Hallucinogens
- Distort perceptions and evoke vivid images
- LSD, THC (marijuana)
- Affects sensitivity to colors, sounds, tastes, smells
- Curb nausea, increase appetite, reduces chronic pain
- Relaxation, disinhibition, and euphoria
- Severe effects on motor control
- Fertility issues with men

Factors that influence drug use
- Peers
- Biology
    - Parents and identical twin studies
- Culture
    - Amish kids don't abuse drugs
    - Teen alcoholism rates across Europe
- personality/ mood
    - Lack of hope
        - Prison populations or soldiers
        - Depression
    - Lack of direction
        - Young unmarrieds vs young marrieds
    - Low self-esteem
    - Type of drug
        - Addictiveness is correlated
            - With the intensity of the high
            - With the length of the high

Psychoanalytic theory of personality
- Sigmund Freud
- Attributes our thoughts and actions to unconscious motives and conflicts

- We get these conflicts through
    - Dream interpretation
    - Free association
- 4 topics central
    - Levels of consciousness
    - Structure of personality
    - Psycho-sexual stages of development
    - Anxiety and the defense mechanism

Levels of consciousness

- Iceberg analogy
- Conscious
    - Current thought at a given moment
- Preconscious
    - Below conscious realm
    - Contains memories not in consciousness, but can be brought into consciousness
    - Accessible long-term memory
- Unconscious
    - Below the unconscious, bulk of the human mind
    - Thoughts, desires, impulses for which we are unaware
    - Might have once been conscious but now are repressed

Structure of personality

- ID (unconscious)
    - All of our primitive thoughts, urges, needs, and desires
    - Present at birth
    - Pleasure principle: demands immediate gratification regardless of the cost
- Ego (conscious)
    - Develops in response to ID
    - Holds ID in check until conditions are right for gratification
    - Reality principle:takes external environment into account to direct behavior/ maximize pleasure
    - Resolves conflicts of ID with superego
- Superego (pre-conscious)
    - Acquired from parents/ teachers/ laws
    - Also seeks to control the ID< but focus is on morality
    - Will only gratify impulses if morally correct- not just safe
    - Conscience- expects good at all times

Psycho-sexual stages of development

- Early childhood has impact on unconscious and stays around forever
- 5 stages of psycho-sexual development
    - Oral
    - Anal

        - Phallic
        - Latent
        - Genital
- Conflict occurs at each stage
- Conflict resolution
    - If resolved- good
    - If not resolved- hyperfixation

Oral stage (age 0-1)

- Physical focus: mouth, lips, tongue
- Psychological theme: dependency
- Symptoms of conflict: way too independent or dependent
- Symptoms of fixation
    - Oral gratification: overeating, smoking, chewing on things

Anal stage (ages 1-3)

- Physical focus: anus, bladder
- Psychological theme: control
- Symptoms of conflict and fixation
    - Expulsive: messy, slobby
    - Retentive: controlling, neat-freak

Phallic stage (ages 3-6)

- Physical focus: penis, genitals
- Psychological theme: gender identification
- Fixations/ conflicts: promiscuous, asexual
    - Trying to replace mom or dad
- Conflict/ resolution: oedipus conflict
    - Love mom, want to kill dad
    - Can't kill dad
    - So, identify and be like dad
- Electra conflict (girls)
    - Love dad, want to kill mom
    - Can't kill mom
    - Identify and act like mom

Latent stage (age 6-puberty)

- Learning occurs
- Spend time with same sex

Genital stage (puberty-on)

- Physical focus: genitals
- Psychological theme: life enhancement, adult sexuality

Defense mechanisms

- When ID and superego conflict anxiety occurs
- Ego wants to reduce anxiety
    - Puts up defense mechanisms to protect us
- Defense mechanisms: keep anxiety into unconsciousness
- Distorts reality
- Regression
    - Threatening situation- act in way appropriate to earlier age
- Repression
    - Forgetting- pushing from conscious to unconscious
- Rationalization
    - Come up with acceptable reason for thoughts with unacceptable motives
- Displacement
    - Redirect emotional response from dangerous source to safe source
- Parapraxis: when ego can't control this conflict and the ID leaks into the conscious
    - Humor
    - Slips of the tongue (freudian slips)

Trait perspective of personality

- Trait: stable personality characteristics
- People have stable dimensions of personality and differ from other people in consistent ways
- Measures the ways that people differ
- Related differences on traits → differences in behavior
- The big 5
    - Extraversion: energetic, sociable, talkative/ sober, quiet, reserved
    - Agreeableness: good natured, cooperative, trusting, helpful/ irritable, suspicious, uncooperative
    - Neuroticism/ Stability: anxious, nervous hypo-chondriacal/ calm, poised, not hypochondriacal
    - Openness to experience: imaginative, witty, broad interests/ down-to earth, simple narrow interests
    - Conscientiousness: well-organized, careful, responsible, disciplined/ disorganized. Careless, impulsive, undependable

Projective tests

- Present person with ambiguous stimuli- multiple interpretations
- Person indicates what they see, make up a story etc
- Difference people see different things, tell different stories
- Answers reflect personality
- They project their inner conflicts, unconscious into their answers

Rorschach inkblot test

- Look at inkblot- “tell me what you see”
- Answers reflect one’s inner feelings and conflicts
- Low reliability
- Highly informative
- Reflections in water- self issues
- Mean animals/ monsters- anger
- Movement- psychotic

TAT

- Thematic apperception test
- Series of cards, each with an ambiguous picture
- Person should “tell a story” about the picture
- Answers reflect what person is thinking about
- Very useful with kids

Other projective tests

- Word association
- Draw a person/ draw a family
- Sentence completion

Self report personality inventories

- Questionnaires where people respond to lots of items which tap various personality traits
- Objective: can be scored without subjectivity
- IPIP-NEO: test of the big five
    - Scale of 5
- MMPI-2
    - True-false (no right answers)
    - Standardization on people with known disorders and without known disorders

Psychological disorders- a history

- Middle ages
    - Not thought of as an illness
    - Seen as witches
    - Seen a prophets
    - Mutilation as cure
- 1700-1900s
    - Mental illness as a problem

        - Placed in hospitals
            - Nothing like current facilities
            - Chains, tours
- 1790's France
    - Treatment more civilized
    - Fresh air
- 1800-1900's USA
    - medical model- diagnosis
    - rest/ relaxation
        - Spa-like facilities
- Current
    - Research-based
    - Bui-psycho-social
    - Diagnostic criteria to classify disorders

Psych disorders- classification

- DSM 5-TR
    - Handbook w/ basic organization of disorders
- Diagnosis
    - Descriptions of symptoms and behaviors
    - Certain number of these symptoms = diagnosis (checklist of criteria)
- Problems
    - Disorders are always evolving/ changing
        - Homosexuality removed in 1973
        - Asperger's folded into Autism Spectrum Disorder in 2013
    - Patients aren't sure of many symptoms

Mood disorders

- Major depression
    - Must have many symptoms for at least 2 weeks
    - Must affect your ability to conduct your life
- Symptoms (must have at least 5)
    - Depressed mood: lack of hope, feelings of helplessness
    - Reduced enjoyment of activities
    - Change of appetite and weight: (more or less)
    - Physical agitation or lethargy
    - Problems in thinking, making decisions
    - Change in sleep pattern
    - Listless or low energy
    - Thinking about death and suicide
- This combination of symptoms is very unpleasant
    - Purposefulness, underwater, jet lagged
- Suicide attempts and completion
    - Women 3 times more likely to try (women likely to use pills)

    - Men 3 times more successful (men likely to use violent methods/ guns)
- Dysthymia
    - Mildest form of depression
    - Still able to conduct life
    - Diagnosis: must have mild symptoms for at least 2 years
- Seasonal affective disorder (SAD)
    - Experience depression only during times of decreased light
        - Wintertime in NE, Alaska
        - Prevalent in NW US- lots on cloudy days
    - Treatment
        - Sit in front of UV lights for several hours/day
        - Melatonin- sleep hormone
- Bipolar disorder
    - Combines depressive episodes with manic episodes
    - Manic episode symptoms
        - Racing thoughts
        - Pressured speech
        - Lack inhibitions
        - Promiscuity
        - Feelings of omnipotence
        - Needs significantly less sleep
        - High energy
        - Spending spree, gambling
    - Upside to mania: can get lots of work done; vert creative time
    - Downside to mani: hard to manage; can lead to trouble with the law
- Causes of depressive disorders
    - Biological basis
        - Brain
            - Lack of serotonin, norepinephrine
            - Treat with SSRIs (Prozac, Zoloft, Paxil)
        - Genetic component
            - If a relative has it, it increases your odds
    - Environmental triggers
        - Stress at work, loss of loved one, fail a course can trigger depression
- Causes of bipolar disorder
    - Biological basis
        - Genetic component (large)
            - Very heritable
        - Brain
            - Response well to medication (lithium, depacote, neurotonin)

Anxiety disorders

- General symptom: anxiety in some form that is

    - Persistent- long lasting
    - Intense- severe
    - Maladaptive behaviors to reduce it
- Phobias
    - Fear which interferes with one's life
    - Specific phobias
        - Fear is focused on some object, situation or behavior
        - Develops from a past event or is irrational with no cause
    - Social phobia (social anxiety disorder)
        - Fear of humiliation or embarrassment in front of others
            - Won't attend social events
            - Won't speak out in class
    - Agoraphobia
        - Fear of being in a situation you can't escape
            - Never leave home
- Panic disorder
    - Has extreme attacks of anxiety coming from out of the blue
    - Anxiety attacks
        - Severe sympathetic nervous system arousal
        - Racing heart, sweaty palms, can't breathe
        - Lasts few moments- feels like forever
- Generalized anxiety disorder (GAD)
    - A continual, overanxious state
    - Worried, tense, concerned about what is appropriate
    - Arousal of sympathetic nervous system (at lower levels)
- Obsessive compulsive disorder (OCD)
    - Obsessions: repetitive, disturbing thoughts or images that you can not control
    - Compulsions: repetitive behaviors you do to try to alleviate the thoughts
    - Common obsessions: concern with germs, repetitive rituals, symmetry/ order
- Psychological basis
    - Disorders reflect some event that occurred which is internalized
    - Learn from classical conditioning
    - Learn from observation
- Biological basis
    - Frontal lobes overactivity
    - Many drugs reduce anxiety

Psychotic disorders

- Disorders where sense of reality is impaired
    - May hear voices that are not there
    - May see things not there
    - May experience false sensations
- Schizophrenia
    - Early signs may appear in childhood

    - Manifests during college years (full onset by age 25)
    - Thought disturbance
        - Delusions (false beliefs/ paranoid schizophrenia)
        - Hallucinations (visual less common/ auditory more common)
    - Disorganized speech
        - Illogical thinking
        - Word salad
    - Diminished/ inappropriate emotion
        - Catatonic schizophrenia
    - No cure: drugs have lots of side effects
    - No known cause
        - Genetics
        - High level and activity of dopamine
        - Brain abnormalities (abnormal activity/ enlarged fluid filled areas in brain)
        - Viral infection in prenatal development
        - Environmental factors (very unlikely)

Dissociative disorders

- Disorders involving disruptions in a person's memory, consciousness, or identify
- Dissociative fugue
    - Person leaves home and moves to new location
    - No memory of past life
- Dissociative identity disorder
    - Shattering of personal identity into 2 or more separate but co-existing personalities
    - Each personality has different traits, behaviors, memories
        - Host personality
        - Alters
        - Switching

Eating disorders

- Anorexia nervosa
    - Body weight → 85% of expected weight
    - Refusal to eat, gain, or maintain weight
    - Body distortion
    - Amenorrhea
    - Data
        - Affects females most (95%)
        - 10% mortality rate
        - Onset in early teens
        - Common among the upper income groups
    - Cause
        - Societal pressure
        - Biology

        - Vulnerability- low self esteem, perfection, control
- Bulimia nervosa
    - Binging: eating large amounts of food in short time
    - Purge: compensatory behavior (vomiting, laxatives, fasting, exercise)
    - Distorted body image
    - Normal to slightly overweight
    - Data
        - Affects females most often
        - Male HS wrestlers, jockeys
        - Onset: late teens to early thirties
- Binge eating disorder
    - Bulimia without the compensatory behavior
    - Accounts for 20% obesity rate
- Eating disorders not otherwise specified (NOS)
    - Causes significant distress or impairment
    - Does not fit criteria of other categories
    - Purging disorder, night eating disorder
- Medical complications
    - Anorexia
        - Osteoporosis
        - Kidney failure
        - Lanugo
        - Hair loss from head
        - Heart attack
        - Death
    - Bulimia
        - Tooth decay
        - Bowel problems
        - Vomiting blood
        - Organ failure
        - Heart attacks
        - Esophageal tears

Personality Disorders

- Pervasive, last for entire life
- Paranoid
    - Unwarranted suspiciousness
    - Hidden meanings
    - Unforgiving, holds grudges
- Schizoid
    - Detached social relationships
    - Solitary, few friends, doesn't care
    - Little emotion
- Antisocial

        - Disregard for others
        - Lacks conscience
        - Deceitful
- Borderline
    - Unstable relationships
    - Black and white thinking
    - Attention seeking
    - Self-destructive
    - Manipulative
- Narcissistic
    - Egocentric world
    - Self-importance
    - Entitled, arrogant
- Histrionic
    - Excessive emotions
    - Attention seeking
    - Shallow and shifting emotion
- Avoidant
    - Socially inhibited
    - Avoids interpersonal contact
    - Fear they won't be liked
- Dependent
    - Can't make everyday decisions
    - Depends on others for everything
    - Can't initiate
    - Won't disagree
- Obsessive compulsive PD
    - Unlike syndrome
        - Life-long
        - Less extreme
    - Preoccupied with lists
    - All work and no play
    - perfectionist/ inflexible
    - Pack rat

Psychoanalysis

- Help client gain an understanding of the unconscious, unresolved conflicts, repressed childhood experiences through therapist interpretation and client insight
- how/ when/ where
    - Individual therapy in office
    - 4-5 times for several years
    - Therapist is neutral, only talks to interpret
- Techniques
    - Dream analysis

        - Free association
        - Resistance
        - Insight
- Relationship with therapist: transference

Behavioral therapy

- Change the problem behavior; no thoughts, no reflection on past
- Techniques
    - Aversion therapy: pair behavior with a negative event to extinct it
    - Exposure therapy: people are confronted gradually or suddenly to a feared stimulus but with no bad outcome (positive event)
        - Eventually the anxiety will be extinguished
        - Systematic desensitization
            - Create anxiety hierarchy
            - Teach relaxation techniques
            - Pair relaxation with anxious stimuli
        - Token economy (from Operant conditioning)
            - Used with schizophrenics, children with behavior issues
            - Create s system where certain behaviors are rewarded with tokens, money

Client centered therapy

- Help the client solve their own problems by creating a warm, calm environment, and granting autonomy
- Non-directive, collaborative approach
    - Genuine
    - Accepting
    - Empathetic
- Techniques
    - Reflection: repeat back what they say in other words
    - Body language: eye contact, lean forward
    - Unconditional positive regard: therapist is always on the client's side
    - Empathy: therapist tries to show the client they can feel their pain

Cognitive therapy

- To change the way in which we think about things
- Change thinking from destructive to constructive
- Techniques
    - Identify irrational or maladaptive thoughts then challenge the thoughts
    - Come up with a rational interpretation of the situation

Cognitive Behavioral Therapy (CBT)

- Combine elements from both behavioral and cognitive therapy
- Premise: thoughts affect emotions and affect behavior affect thoughts

- Most widely practiced type of therapy worldwide

Contemporary therapies

Psychodynamic therapy
- Explores the aspects of the self that are not fully known
- Uses therapy relationship to uncover these aspects
- Similar to psychoanalysis but less intense
    - Shorter duration
    - Therapist more active
    - More focused on the present

Interpersonal therapy
- Short term therapy that examines the context of current social relationships
- Focus
    - Conflicts with others
    - Social skills
    - Role transitions
    - Grief
- Systemic therapies
    - Client is not an individual but rather a member of a system
        - Interactions of groups, their patterns and dynamics
        - Family therapy, couple's therapy

Therapeutic alliance
- The relationship between the client and the therapist
- #1 predictor of successful therapy
- Specific problems
    - CBT: eating disorders, OCD, depression
    - Behavioral: phobias, anxiety disorders, conduct problems
    - Psychodynamic: depressive disorders, anxiety disorders and interpersonal difficulties
    - Interpersonal: depression, anxiety, addictions, eating disorder
- Eclectic (integrative) approach
    - Combining the best aspects of different therapies

Social influence
- Conformity: a change in behavior due to real or imagined influence of other people
    - Giving into perceived group pressure
    - Acting in a certain way because of others
    - Acting differently than if you were alone
- Asch study: conformity in unambiguous situation
    - If tested alone- 99% accuracy
    - If tested with group- 76% of subjects conformed at least once

    - 37% of responses were conforming
- Informational influence: the influence of other people that leads us to conform because we see them as a source of correct information and use it to guide our behavior
    - We conform because we may not know what is the right behavior to commit so we look to others
- Normative influence: the influence of other people that leads us to conform in order to be liked and accepted by them

Facts in conformity

- Group size
    - Increases from 1-5
    - Over 5 people, not much increase
- Group unanimity
    - When everyone agrees
    - But when there is one dissenter
- Group cohesion
    - Is the group attached and does it have strong bonds?
- Group/ individual status
    - Person conforming status- high vs low
    - Group's status- high vs low
- Prior commitment
    - Backing down?
- Private vs public conformity

Obedience

- Instance in which someone in a position of authority simply tells another person to do something and they do it
- Stanley Milgram study- obedience to authority studies
    - Interest came from observing the tragic events of the holocaust during WW2
    - Would people obey commands from a relatively powerless stranger who told them to inflict considerable pain on another person?
    - 65% of the subjects in this study shocked the "learner" all the way up to 450 volts
- Factors that increase destructive obedience
    - Emotional distance of the victim
    - Real distance of the authority figure
    - Transfer of responsibility
    - Legitimacy of authority figure
    - Pace of the commands
    - Small increments of obedience

Social collective

- People in the same place, at the same time, not really interacting but can influence each other

Social group

- People interacting with each other, and are interdependent *same goals, relying on each other)

Social facilitation

- The strengthening of the dominant response in the presence of others
- If the task is simple and well-learned then:
    - Presence of others → performance improvement (ex cycling study)
- If the task is difficult then
    - Presence of others → performance declines (ex cognitive tasks)
- Arousal- dominant response
    - Mere presence of others is arousing
    - Arousal improves performance on easy tasks
    - Arousal hurts performance on hard tasks
    - Arousal makes the “dominant response” more likely
- Dominant response:
    - Easy tasks: success, correctness, speed
    - Hard tasks: failure, errors, slow-downs

Social loafing

- The tendency to exert less effort when working in a group than when working alone
- Your individual performance is not evaluated rather the group performance is evaluated
- Easy task results in more loafing
- Hard, challenging, appealing taste created less loafing
- Diffusion of responsibility

Deindividuation

- When people are in a group, they tend to loosen normal constraints on behavior, leading to an increase in impulsive, and sometimes deviant acts
- Caused by size of group, anonymity, arousal

Bystander intervention model

- Bystander effect: people are less likely to help when other bystanders are present
- 5 steps to deciding to help
    - Notice the event
        - Time pressure
    - Interpret the event as an emergency
        - Does this situation require help?
        - As the number of bystanders go up, the less likely we will interpret an event as an emergency
    - Assuming responsibility
        - When alone- easy decision
        - When others are around- difficult decision

        - Diffusion of responsibility: as number of witnesses increases, the feeling of personal responsibility decreases
    - Knowing how to help
        - Ex: you see an older woman collapse on a hot day (stroke vs heart attack)
    - Deciding to implement the help
        - When we don't implement help
            - I don't feel qualified
            - I would look foolish, make things worse
            - I would put myself in danger