## Unit 1 – History and Perspectives and Research Methods – 10-14%

- **Structuralism** = Introspection
- **Functionalism** = Mental / Behavioral Function
- **Psychiatrists** = Prescribes Drugs/Meds
- **Psychologist** = No Prescribing Drugs/Meds
- **Basic Research** = Knowledge Base
- **Applied Research** = Tackles Problems

### Key Ideas

<table>
<thead>
<tr>
<th>Perspective</th>
<th>People</th>
<th>Key Ideas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neuroscience - Bio</td>
<td></td>
<td>Brain, Body, CNS, Neurotransmitters</td>
</tr>
<tr>
<td>Evolutionary</td>
<td>Darwin</td>
<td>Natural Selection, Mutations, Survival of the Fittest</td>
</tr>
<tr>
<td>Behavior Genetics</td>
<td></td>
<td>Environment (parents/peers/surroundings) impact on genetic predisposition, Individual differences</td>
</tr>
<tr>
<td>Psychoanalytic / Psychodynamic</td>
<td>Sigmund Freud, Carl Jung</td>
<td>Unconscious, Id – Ego – Superego, Past Trauma, Sex, Aggression, Hypnosis, Transference, Resistance, Defense Mechanisms</td>
</tr>
<tr>
<td>Behavioral</td>
<td>Ivan Pavlov (Classical Con) B.F. Skinner (Operant Cond) Albert Bandura (Observational)</td>
<td>Learning, Classical Conditioning, Operant Conditioning, Observational learning, Modeling, Counterconditioning, Exposure therapies, Systematic desensitization, Aversive conditioning, Token Economy</td>
</tr>
<tr>
<td>Cognitive</td>
<td>Aaron Beck – Negative Thinking Patterns</td>
<td>Thinking, Memory, Problem Solving, Encoding, Processing, Retrieving, Thinking colors our feelings</td>
</tr>
<tr>
<td>Social Cultural</td>
<td></td>
<td>Different Environments / Situations</td>
</tr>
<tr>
<td>Humanistic</td>
<td>Carl Rogers – Unconditional Positive Regard – Client Centered Therapy Abraham Maslow – Hierarchy of Needs</td>
<td>Self Actualization, Self-Awareness, Self-Esteem, Client Centered, Active Listening/Reflective Listening</td>
</tr>
</tbody>
</table>

### Biopsychosocial Approach

- **Biological Influences:**
  - Genetic Predispositions
  - Genetic Mutations
  - Natural Selection
  - Genes responding to environment

- **Psychological Influences:**
  - Learning
  - Emotional Responses
  - Cognitive Processing
  - Perceptual Interpretations

- **Social – Cultural Influences:**
  - Parent / Peer Pressure
  - Social Expectations
  - Media

### Research

- Hindsight Bias “I knew it all along phenomenon” = Hindsight is 20/20
- Correlation does not = Causation
- Correlation Coefficient Scale (0-1) Examples .8 strong .2 weak
- Independent Variable = Factor Manipulated
- Dependent Variable = Factor Being Measured
- Mode = Most Frequently Score
- Mean = Avg. Score
- Median = Middle Score

*Experimental Design

**TERMS YOU MUST KNOW**

- Behaviorism
- Functionalism
- Structuralism
- Evolutionary Psychology
- Gestalt Psychology
- Cognitive Psychology
- Dependent Variable
Independent Variable
Case Study
Experiment
Control Group
Hypothesis
Naturalistic Observation
Survey
Theory
Correlation Coefficient
Operational Definition
Experimental Group
Correlational Research
Random Assignment
Mean
Normal Distribution
Double Blind Study
Median
Mode
Sample
Standard Deviation
Inferential Statistics
Placebo Effect

CONFUSING PAIRS
- Independent Variable (what is tested) v. Dependent Variable (what is measured)
- Experimental Group (group that is tested) v. Control Group (compared to the experimental, receives the placebo in a drug experiment)
Unit 2 – Bio-Psychology – 7.9%

- Neuron Firing Order
  1. Dendrites = Receive
  2. Cell Body = Decides (excitatory = gas pedal / inhibitory = break pedal)
  3. Axon = Sends
  4. Synapse (gap) = Sends across

- Neuron Firing is “ALL or NOTHING FIRING”
- Myelin Sheath (Covers Axon) = Knife Sheath (Protects/Speeds)
- Neuron Firing = “The Wave”
  1. Action Potential (Depolarization – Ions Coming In = Starts the Wave (Fire)
  2. Refractory Period = Ions Going Out - Can’t Fire = On your way to your seat
  3. Resting Potential = Sitting ready to start the Wave (Fire) again

<table>
<thead>
<tr>
<th>Neurotransmitter</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetylcholine (Ach)</td>
<td>Muscle action, Learning, Memory Alzheimer’s (too little)</td>
</tr>
<tr>
<td>Dopamine</td>
<td>Movement, Learning, Attention, Emotion, Schizophrenia (too much), Parkinson’s (too little), Antipsychotic block Dopamine Receptors</td>
</tr>
<tr>
<td>Serotonin</td>
<td>Mood (Depression – too little), Hunger, Sleep, Arousal, Antidepressants boost Serotonin levels (block reuptake)</td>
</tr>
<tr>
<td>Norepinephrine</td>
<td>Alertness, Arousal, Mood (Depression – too little)</td>
</tr>
<tr>
<td>GABA (Gamma-aminobutyric acid)</td>
<td>Inhibitory, Insomnia, Seizures</td>
</tr>
<tr>
<td>Glutamate</td>
<td>Excitatory, Memory</td>
</tr>
<tr>
<td>Endorphins</td>
<td>Opiate like, Pain control, Pleasure</td>
</tr>
</tbody>
</table>

- Agonist = Mimic Neurotransmitter
- Antagonist = Blocks Neurotransmitter
- CNS = Centrally located in the body, Brain & Spinal Cord
- PNS = Peripheral Vision Test, connect to rest of body
  - Autonomic Nervous System = Automatic, you don’t control
    - Sympathetic = Arouses
    - Parasympathetic = Calms, Paralyze
- Nerves
  - Sensory Neuron = Coming in
  - Motor Neuron = Going out
  - Interneuron = Simple Reflexes
- Endocrine = Hormones
  - Adrenal Glands = Adrenaline
  - Pituitary Glands = Growth
- Brain Parts/Factions = Items from home
- Brainstem
  - Medulla = breathing, heartbeat
  - Reticular Formation = nerve network, arousal, filter
- Thalamus = Operator for receiving sensory information
- Cerebellum = learning, memory, coordinating movement “Cerebalance”
- Limbic System
  - Hippocampus = Processes Memories
  - Amygdala = Fear, Emotion
  - Hypothalamus = Eating, Drinking, Body temp., Sex
- Cerebral Cortex
  - Frontal Lobe = Front, Master Lobe, Motor Cortex
  - Parietal Lobe = Sensory Cortex
  - Temporal Lobe = Hearing, Communication
  - Occipital Lobe = Vision
- Brain Hemispheres (Right controls Left) & (Left controls Right)
  - Left = Language, Speech, Math
  - Right = Spatial, Face recognition
- Motor Cortex = Motor Function (Going OUT to body)
- Sensory Cortex = Sensory Function (Coming IN from body)
• Association Areas = learning, remembering, thinking, speaking
• Aphasia = loss of language
• Broca’s Area = Speech
• Wernick’s Area = Comprehension
• Broca’s Area = Left is Language, (B before W) Broca’s Area before Wernicke’s Area = Broca’s Area Left Frontal Lobe and Wernicke’s Area Left Temporal Lobe
• EEG = Measures Brain Waves
• PET = Brain Activity – Glucose
• fMRI & MRI = Blood Flow, See Structures – Magnetic Field
• Brain’s Plasticity = Brain ability to Modify functioning
• Nature / Nurture
  o Nature
    • Biology
    • Genes
  o Nurture
    • Environment
    • Parent
    • Peers
• Behavior Genetics = Nurtures impact on Nature or Environments impact on Genes
• Chromosomes = (46 Total) 23 Male 23 Female
  o X Chromosome = Female
  o Y Chromosome = Male (The Y in BOY makes the baby a BOY)
• Identical Twins = One Egg / Clones / Same Genes
• Fraternal Twins = Two Eggs / Different Genes
• Heritability = Variation / Difference among Individuals

TERMS YOU MUST KNOW
• Axon
• Central Nervous System
• Cerebral Cortex
• Dendrites
• Peripheral Nervous System
• Synapse
• Thalamus
• Autonomic Nervous System
• Gene
• Hypothalamus
• Neurons
• Neurotransmitters
• Sympathetic Nervous System
• Action Potential
• Cerebellum
• Hormone
• Limbic System
• Parasympathetic Nervous System
• Homeostasis
• Chromosomes
• Corpus Callosum
• Myelin Sheath
• Pituitary Gland
• Endocrine System
• Somatic Nervous System
• Medulla
• Sensory Neuron
• Cell Body
• Frontal Lobes
• Glial Cells
• Positron Emission Tomography
• Electroencephalogram
• Endorphins
- Magnetic Resonance Imaging
- Occipital Lobes
- Parietal Lobes
- Temporal Lobes
- Heritability
- Amygdala
- Hippocampus
- Interneurons
- Reticular Formation
- Behavioral Genetics
- Natural Selection
- Pons
- Resting Potential
- Basilar Membrane
- Midbrain
- Motor Neurons
- Receptors
- Identical Twins

CONFUSING PAIRS
- Left brain (language and logic) v. Right brain (creative and spatial).
- Corpus Callosum (divides the brain) v. Cerebral Cortex (covers the brain)
- Sympathetic Nervous System (“fight or flight”) v. Parasympathetic (calming – parachute)
- Neurotransmitters (in the nervous system) v. Hormones (in the endocrine system)
- Lateral Hypothalamus (stimulates hunger - GO) v. Ventromedial Hypothalamus (suppresses hunger - STOP)
- Broca’s Area (makes words) v. Wernicke’s area (comprehends words)
- Identical Twins (same fertilized egg) v. Fraternal Twins (two separate eggs)
- Afferent Neurons (sensory, body to brain) v. Efferent Neurons (motor, brain to body)
Unit 3 – Development – 7.9%

- Continuity vs. Stages – people develop like a tree (no different stages) or people develop like a frog (different states)
- Stability vs. Change – do people stay the same or change over the course of their life
- Zygote = Z looks like a 2 (conception to 2 weeks)
- Embryo = 2nd Letter M (2 weeks to 2 Months)
- Fetus = Fetal Position (2 Months to Birth)
- Teratogens = Terrorize the Fetus w/ viruses
- Schemas = Concepts
  - Assimilate = Interpret them similarly.
  - Accommodate = “Make Accommodations”, Adjust / Change Interpretation
- Object Permanence = 8m. Objects are Permanent (Out of Sight Not Out of Mind)
- Conservation = 7yr. Mass (amount) is conserved even if shape is changed
- Egocentrism = Centralized Ego
- Primary Sex Characteristics = Reproduction (Genitals)
- Secondary Sex Characteristics = Non Reproduction (Breasts / Hair)
- Cross Sectional Studies = Across Various Ages (Different People)
- Longitudinally Studies = Over a Long Time (Same People)

- Piaget's Cognitive Stages
  
  Sensorimotor (0-2) | During this stage, infants and toddlers acquire knowledge through sensory experiences and manipulating objects. It was his observations of his daughter and nephew that heavily influenced his conception of this stage. At this point in development, a child's intelligence consists of their basic motor and sensory explorations of the world. Piaget believed that developing object permanence or object constancy, the understanding that objects continue to exist even when they cannot be seen, was an important element at this point of development. By learning that objects are separate and distinct entities and that they have an existence of their own outside of individual perception, children are then able to begin to attach names and words to objects.

  Preoperational (2-7) | At this stage, kids learn through pretend play but still struggle with logic and taking the point of view of other people. They also often struggle with understanding the ideal of constancy. For example, a researcher might take a lump of clay, divide it into two equal pieces, and then give a child the option of choosing two pieces of clay to play with. One piece of clay is rolled into a compact ball while the other is smashed into a flat pancake shape. Since the flat shape looks larger, the preoperational child will likely choose that piece even though the two pieces are exactly the same size.

  Concrete Operational (7-11) | Kids at this point of development begin to think more logically, but their thinking can also be very rigid. They tend to struggle with abstract and hypothetical concepts. At this point, children also become less egocentric and begin to think about how other people might think and feel. Kids in the concrete operational stage also begin to understand that their thoughts are unique to them and that not everyone else necessarily shares their thoughts, feelings, and opinions.

  Formal Operational (11-adult) | The final stage of Piaget's theory involves an increase in logic, the ability to use deductive reasoning, and an understanding of abstract ideas. At this point, people become capable of seeing multiple potential solutions to problems and think more scientifically about the world around them.

- Kohlberg’s Moral Stages

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Conventional</td>
<td>Make decisions based on a reward or punishment.</td>
</tr>
<tr>
<td>Conventional</td>
<td>Make decisions on what is right and wrong based on the law and group acceptance.</td>
</tr>
<tr>
<td>Post-Conventional</td>
<td>Make decisions based on your own ethics and morals (not everyone reaches this stage).</td>
</tr>
</tbody>
</table>
- **Erickson’s Social Stages**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust vs Mistrust (0-1)</td>
<td>Are the babies basic needs met?</td>
</tr>
<tr>
<td>Autonomy vs Shame and Doubt (1-3)</td>
<td>Need to be able to learn how to do things on their own or will always doubt themselves.</td>
</tr>
<tr>
<td>Initiative vs Guilt (3-6)</td>
<td>Want to initiate tasks and complete them or will feel guilty.</td>
</tr>
<tr>
<td>Industry vs Inferiority (6-12)</td>
<td>Compare ourselves to others and develop unfulfilled hopes.</td>
</tr>
<tr>
<td>Intimacy vs Isolation (10-25)</td>
<td>Developing some complexity of relationships or you will feel lonely.</td>
</tr>
<tr>
<td>Generativity vs Stagnation (26-64)</td>
<td>What have I contributed to society, if nothing then could have a midlife crisis.</td>
</tr>
<tr>
<td>Integrity vs Despair (65-death)</td>
<td>Look back at your life and see if it has meaning. If it does you feel like you had a complete life, if not you will become depressed and regret what you did not do.</td>
</tr>
</tbody>
</table>

**TERMS YOU MUST KNOW**
- Object Permanence
- Formal Operational Stage
- Schemas
- Accommodation
- Assimilation
- Attachment
- Concrete Operational State
- Puberty
- Critical Period
- Preoperational Stage
- Sensorimotor State
- Conservation
- Egocentrism
- Fetus
- Embryo
- Longitudinal Study
- Cross Sectional Study
- Developmental Psychology
- Gender Identity
- Maturation
- Zygote

**CONFUSING PAIRS**
- Assimilation (what is perceived in the outside world is incorporated into the internal world without changing structure of the internal world) v. Accommodation (internal world has to change itself to the evidence with which it is confronted, and thus adapt to it)
- Concrete Operations (logical thinking) v. Formal Operations (philosophical thinking)
Unit 5 – Sensation and Perception – 6-8%

- Sensation = Detection of Physical Energy
- Perception = Interpretation of Physical Energy
- Top-down processing = Experience / Expectations impact
- Bottom – Up processing = Mind (Perceptions) interprets what our senses (Sensations) detect
- Psychophysics = Physical Energy relates to Psychology
- Absolute Thresholds = minimum (smallest) stimulation detected 50%
- Difference Threshold = minimum (smallest) difference between two stimuli 50%
- Signal Detection Theory = Detect faint stimulus (Signal) amid background stimulation (noise)
- Experience, Expectations, Motivation, and fatigue
- Subliminal = Below one’s absolute threshold (conscious awareness)
- Sensory Adaptation = Diminished sensitivity (Senses adapt to environment)
- Weber’s Law = to perceive a change two stimuli must differ in constant %
- Vision
- Transduction = physical energy to neural messages
- Eye
  - Pupil = hole in the eye
  - Iris = Colored Muscle (pupil size)
  - Lens = Focuses light
    - Accommodation = Lens change curvature
  - Retina = Rods and Cones
  - Rods = Peripheral
  - Cones = Color
  - Blind Spot = Spot on Retina - No Rods / Cones
  - Nearsightness = Can see Near / Can’t see Far
  - Farsightedness = Can see Far / Can’t see Near
  - Fovea = Focus
- Color Vision
  - Young-Helmholtz Trichromatic (three color) Theory = Red, Green, Blue
  - Opponent-process theory (afterimage) = Michigan (Blue/Yellow) Christmas (Green/Red) & (Black / White)
- Ear
  - Middle Ear = hammer, anvil, stirrup (Conduction hearing loss)
  - Cochlea = Nerve impulses (Sensorineural hearing loss) = Cochlear Implants
- Pain (Gate-Control Theory) = spinal cords neurological “gate” (small nerve fibers open gate – large nerve fibers close gate)
- Taste & Smell = Flavor
- Kinesthesia = Body system for position and movement
- Vestibular Sense= Sense of body movement and position

Perception

- Selective attention = Limited focus
- Gestalt = Organized Whole
- Figure Ground = Object (Figure) Surroundings (Background)
- Groupings = perceptual organization tendencies
  - Proximity = Close = Together
  - Similarity = Similar = Together
  - Continuity = Continuous
  - Connectedness = Two things Connected = One
  - Closure = Fill in Gaps
- Depth perception = see objects 3D
- Binocular Cues = 2 eyes
  - Retinal Disparity = Difference between eyes
  - Convergence = Neuromuscular cue as eye turn inward
- Monocular Cues = 1 eye
- Review Monocular Cues brochure
  - Figure-Ground – most basic perceptual cue, first figure out what the image is and what the background is
  - Proximity – group things similar together as close
  - Linear Perspective – Convergence of Parallel Lines in the distance
  - Relative Clarity – further object hazy, close object clear
  - Continuity – a tendency to group stimuli into continuous lines and patterns
Parallel Processing – process Color, Shape, Size, Speed all at same time
Relative Size – a monocular cue; if we assume two objects are similar in size we perceive the one that casts the smaller retinal image as farther away

- Phi Phenomenon = motion (blinking lights)
- Perceptual Constancy = Unchanging / Constant (light, shape, color)
- Perceptual Set = Mental Set to see one thing and not another

**TERMS YOU MUST KNOW**
- Sensation
- Absolute Threshold
- Retina
- Cones
- Difference Threshold
- Perception
- Rods
- Opponent Process Theory
- Fovea
- Trichromatic Theory
- Cochlea
- Perceptual Constancy
- Monocular Cues
- Pheromones
- Transduction
- Weber’s Law
- Binocular Cues
- Place Theory
- Retinal Disparity
- Taste Buds
- Pitch
- Bottom-Up Processing
- Feature Detectors
- Gate Control Theory
- Psychophysics
- Sensory Adaptation
- Signal Detection Theory
- Top-Down Processing
- Accommodation
- Frequency Theory
- Habituation
- Lens
- Optic Nerve
- Pupil
- Vestibular Sense

**CONFUSING PAIRS**
- Sensation (bottom-up processing) v. Perception (top-down processing)
- Rods (night vision, in peripheral of the retina) v. Cones (color vision, in the center of the retina)
- Kinesthetic Sense (muscle memory) vs. Vestibular Sense (complex sense concerned with the perception of bodily position and motion / movement)
Unit 5 – States of Consciousness – 2-4%

- Consciousness = Awareness of ourselves
- Circadian Rhythm = biological clock 24-hour cycle
- Sleep Stages

<table>
<thead>
<tr>
<th>Awake, relaxed</th>
<th>Alpha Waves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>Hallucinations</td>
</tr>
<tr>
<td>Stage 2</td>
<td>Spindle Waves (Second = Spindles)</td>
</tr>
<tr>
<td>Stage 3</td>
<td>Delta Waves State, Night Terrors can occur</td>
</tr>
<tr>
<td>Stage 4</td>
<td>Delta Waves (Deep Sleep) Night Terror, Sleep Walking / Wetting</td>
</tr>
<tr>
<td>REM</td>
<td>Rapid Eye Movement, Active Sleep, Dream, Paradoxical Sleep (Paralyzed), REM rebound = REM increase after REM deprivation</td>
</tr>
</tbody>
</table>

- Insomnia = Can’t Sleep
- Narcolepsy = Uncontrollable sleep attack
- Sleep Apnea = Stop breathing during sleep
- Night Terrors = Terrified during sleep, seldom remembered (stage 4)
- Dreams Latent (Hidden) Content – Dreams Manifest (Apparent) Content - Freud
- Hypnosis = State of heightened suggestibility – More suggestible = More Hypnotizable
  - Posthypnotic suggestion = Suggestion during hypnosis to be carried out after hypnosis
  - Dissociation = split in consciousness
- Psychoactive drug = substance that alters perception and mood
- Tolerance = Need more for same effect
- Withdrawal = Discomfort from stopping use
- Addiction = Craving
- Depressants = Alcohol, Barbiturates, Tranquilizers, Opiates
- Stimulants = Amphetamines, methamphetamine, Cocaine, Ecstasy
- Hallucinogens = LSD, Marijuana

TERMS YOU MUST KNOW

- Circadian Rhythms
- Hypnosis
- REM Sleep
- Stimulants
- Consciousness
- Insomnia
- Psychoactive Drugs
- Hallucinogens
- Narcolepsy
- Tolerance
- Depressants
- Latent Content
- Manifest Content
- Sleep Apnea
- Opiate
- Activation Synthesis Hypothesis
- Meditation
- Physical Dependence

CONFUSING PAIRS

- Alpha Waves (occur stage 1 of sleep) v. Delta Waves (occur stages 3 and 4 of sleep)
- Nightmare (occurs in REM of sleep can be remembered) v. Night Terror (occurs in stages 3 or 4 of sleep)
Unit 6 – Learning – 7.9%

- Learning - A relatively permanent change in an organism’s behavior due to experience.
- Watson and Behaviorism – Psychology should be observable. “Observe these behaviors, Watson!”
  (Think Sherlock Holmes)
- Classical Conditioning – What goes with what – Pavlov and his puppies
  o UCS – Stimulus that unconditionally and naturally triggers a response (food in mouth of doggy).
  o UCR – Unlearned, naturally occurring response to the UCS (Salivation to food)
  o CS – Originally irrelevant stimulus that, after association with UCS, comes to trigger a conditioned response (Tone of tuning fork).
  o CR – Learned response to previously neutral stimulus (salivation to tone of tuning fork)
  o Acquisition – 1st stage in classical conditioning – associating a neutral stimulus (tuning fork) with an unconditioned stimulus (food) so the neutral stimulus can become the conditioned stimulus. Pavlov’s dog is acquiring the association/conditioning we desire.
    ▪ Pairing of two must, in most cases, be within ½ second of each other (neutral stimulus first, then UCS).
  o Extinction – Weakened conditioned response. Occurs when UCS (food) doesn’t follow (is extinct from) CS (tuning fork).
  o Spontaneous Recovery – Recovering the Conditioned Response (salivating to the tuning fork) after giving the subject a little break…the break being, of course, extinction. Spontaneous = Instantaneous REAPPEARANCE of the response after it is thought to have been extinct.
  o Generalization – Having the dog salivate to any sound…a general sound.
  o Discrimination – Having the dog salivate to a specific sound…the tuning fork. The dog is an elitist and will only salivate to an exclusive sound → the tuning fork. “Any other sound is not worthy of my saliva.”
- Operant Conditioning – How to get what you want – Skinner and his pigeons
  o Respondent Behavior – A natural, automatic response/behavior to a stimulus.
  o Operant Behavior – Every operation/behavior has a consequence. “Every action in this world will bear a consequence.”
  o Law of Effect – Thorndike’s Law – If I give you some chocolate, you’ll do it more often.
   If I prick you with a thorn, you’ll do it less often.
  o Operant Chamber/Skinner Box – Animal presses a bar or key to get food/rewards.
  o Shaping – Reinforcing behavior to become more and more in line with an end-goal behavior.
    ▪ A bit like the Foot-in-the-Door Phenomenon…if you want to teach your dog to make you breakfast, you first reward him for opening the fridge, then only reward him if he opens the fridge and gets out the eggs, then only if he opens the fridge, gets out the eggs, and cooks them, and so on and so on until finally he makes you an entire breakfast! *Put together little requests/tasks until you’ve shaped the subject’s behavior to what you desire in its entirety.
  o Reinforcer – Anything that makes someone/thing want to do something more. A pleasurable consequence.
    ▪ Primary reinforcer – Food (some biological need)
    ▪ Conditioned/Secondary reinforcer – Good grades, encouragement, money (G for grades, E for encouragement, M for money spells GEMs, which are things that are desired but not necessary for survival)
  o Continuous Reinforcement vs. Partial/Intermittent Reinforcement
    ▪ Continuous = Faster acquisition, much weaker response/easier extinction
    ▪ Partial = Slower acquisition of response, but much stronger response/tougher extinction
  o Fixed-ratio schedules – Getting a paycheck every time you sell 10 cars.
  o Variable-ratio schedules – Getting a paycheck whenever the lazy payroll director feels like writing one, regardless of how many cars you’ve sold.
    ▪ KEY TO “RATIO” SCHEDULES – # OF RESPONSES
  o Fixed-interval schedules – Getting a paycheck every 2 weeks…constantly checking the mail to see if the check has come yet.
  o Variable-interval schedules – Having a pop quiz every now and then to make sure students are studying.
    ▪ KEY TO “INTERVAL” SCHEDULES – AMOUNT OF TIME
  o Punishment – a consequence the decreases the behavior it follows = swearing and getting slapped.
Dangers of Punishment:
- Punishment not forgotten
- Increase subject/child aggressiveness by experimenter/parent modeling that aggression is OK.
- Punishment sometimes teaches subjects/children only how to get away with an act/how to avoid punishment.
- Punishment tells you what not to do, while reinforcement tells you what to do. Need a mix of both to be effective.

- Cognitive Maps = Mental Representations
- Latent Learning – Someone has learned how to run through the corn field maze through walking aimlessly, but will only be motivated to run through it and prove he/she’s learned if there’s money at the end of the maze.
  - Latent Learning has the word Late in it…learning that only shows up later when proving what’s been learned will bring on reinforcement.
- Overjustification Effect = Over-rewarding someone/something for something they already like doing.
  - If a student intrinsically pushes him/herself to get all A’s, paying him/her $1000 for every A may cause the student to lose intrinsic motivation and do it “only for the money”.
  - Alex Rodriguez going to play for the Texas Rangers for $252 million and saying, “It’s not about the money.” Yeah, ok Alex, you realize you are now playing baseball for the Texas Rangers, right? (Playing baseball for $ rather than for love).

- Observational Learning – Watching others and imitating them.
- Modeling – Watching others and imitating a specific behavior.
- Bandura and the BoBo doll – Children modeling aggressive behavior towards a blow-up doll.
- Prosocial Behavior – positive, constructive, helpful behavior.
  - Prosocial and Positive both start with a P.
- We imitate those around us based on whether we see them as rewarded or punished for the behavior in question.

TERMS YOU MUST KNOW
- Classical Conditioning
- Conditioned Response
- Conditioned Stimulus
- Observational Learning
- Operant Conditioning
- Shaping
- Spontaneous Recovery
- Stimulus Discrimination
- Stimulus Generalization
- Unconditioned Response
- Unconditioned Stimulus
- Learning
- Negative Reinforcement
- Positive Reinforcement
- Punishment
- Reinforcement
- Secondary Reinforcement
- Classical Conditioning Extinction
- Learned Helplessness
- Primary Reinforcement
- Fixed Ratio
- Law of Effect
- Variable Interval Schedule
- Variable Ratio Schedule
- Fixed Interval Schedule
- Partial Reinforcement
- Aversion Therapy
- Continuous Reinforcement
- Operant Conditioning Extinction
- Latent Learning
- Reflex
- Cognitive Map
- Discriminative Stimulus

CONFUSING PAIRS
- Classical Conditioning (involuntary) v. Operant Conditioning (voluntary)
Unit 7 – Memory, Thinking, Language – 8-10%

- Memory: Any indication that learning has persisted over time.
- Flashbulb Memories = Clarity of memories of surprising, significant events.
  - Clarity of memory of where you were on 9/11; Princess Diana’s death, etc.
- Encoding: Information going into our brains. Encoding = Enter.
- Storage: Retaining that information. Storage = Information Stays.
- Retrieval: Getting information back out.
- Three-Stage Processing model of memory:
  1. Record to-be remembered information as sensory memory.
  2. Process sensory memory into short-term memory, where it’s encoded for…
  3. Long-term memory, from where memories are later retrieved.

- Working Memory: Limited. Similar to short-term memory. Includes visual and verbal components.
- Automatic Processing: Unconscious encoding of familiar information, such as your route while driving home.
- Effortful Processing: Conscious effort, such as studying these concepts and terms! In order to do it, you need to focus and pay attention.
- Rehearsal: Method used to boost our ability to recall different information, such as people’s names. Rehearsal = Repetition = Remembering.
- The Next-in-Line Effect: In a line or circle of people, we remember the information presented by the person immediately before us because we’re so focused on our own performance.
- Spacing Effect: We retain information better if it is presented over time…so don’t cram!!
- Serial position effect: In memorizing a list, we remember the first and last items easiest.
- Three Ways of Encoding:
  - Meaning: We remember stuff so much better if it relates to us…self-reference effect.
    - Semantic Encoding: Encoding of meaning, including meaning of words.
    - Acoustic Encoding: Encoding of sounds, like words.
  - Visualization/Imagery: mental pictures
    - Often recall the times of most enjoyment far better than the mundane moments = Rosy Retrospection (It’s all roses)
      - IE = Remembering a past relationship as far more enjoyable than it actually was.
    - Mnemonic Devices: Imagery that aids recall, such as HOMES for the Great Lakes, or peg-words, such as one-bun, two-shoe, three-tree, etc. (See notes on other types).
  - Mentally organizing information for encoding
    - Chunking: Chunk information into meaningful units/parts/chunks.
    - Hierarchies: Organizing information by groups based on divisions and subdivisions of narrower concepts and facts. IE = Taking notes in outline form…the organization of this review sheet!
- Sensory Memory
  - Iconic Memory: Momentary sensory memory of visual stimuli, such as a slide of a tub of popcorn being “subliminally” placed in the middle of a film at the movies.
Echoic Memory: Momentary sensory memory of auditory stimuli.
- Sometimes you ask, “What did you say?” just as you hear in your mind the echo of what was said.

- Short-Term Memory = can remember seven, plus or minus two.
- Long-Term Memory = Unlimited
- Memories are not stored in single, specific spots.
- Long-term potentiation = prolonged strengthening of neural firing provides neural basis for memory…as you become more and more familiar with things/information, it takes less and less to have an action potential and process the information, which means you learn/remember easier.
- Arousal = Increased learning and retention.
  - It sears events into the brain.
- Implicit Memory: retention without conscious recollection…also called procedural memory.
  - Learning how to do something.
- Explicit Memory: memory of facts and experiences that one can consciously know and “declare”…also called declarative memory.
  - Declaring/knowing that you know how to do something.
- Hippocampus = in limbic system = helps process explicit memories for storage.
  - “A hippo never forgets.”
- Recall = a fill in the blank question on a test
- Recognition = a multiple choice question on a test
- Priming = activation of associations in memory.
  - Hearing the word rabbit and spelling the word hair/hare as h-a-r-e.
- What is the role of context in memory?
  - It’s easier to remember things when you are in an identical or similar mood to the mood you were in when you first learned.
  - Mood-congruent memory
- Proactive Interference = prior learning interferes with recall of new information.
- Retroactive Interference = new learning gets in the way of old information.
- Misinformation Effect = our tendency to include false information in our memory of events.
- Source amnesia = attributing to the wrong source an event we have experienced, heard, read, or imagined.
  - Austin saying, “Ben said _____,” when really it was Tim who said _____.
- Are memories brought out through hypnosis reliable? – NO, because of state dependent memory theory and leading questions.

- Concepts: Mental groupings of similar objects, events, and people.
  - Chair can be a high chair, car chair, reclining chair, etc.
- Hierarchies - is typically depicted as a pyramid, where the height of a level represents that level's status and width of a level represents the quantity of items at that level relative to the whole.
- Prototypes = A mental image or best example that incorporates all the features we associate with a category.
  - Which is the birdier bird, a goose or a robin (which comes to mind as a bird first)?
- Algorithms – step by step process (like a computer)
- Heuristics
  - Availability Heuristic - mental shortcut that relies on immediate examples
  - Representative Heuristic - making judgments about the probability of an event under uncertainty
- Insight – “It all makes sense now!” The light bulb flashes on.
- Confirmation Bias = Search for information that will confirm my perceptions.
- Fixation – an inability to adopt any different or new perspective on a problem
- Mental Set = Solve a problem using a method that has used before. Then you start to approach all similar problems the same way.
- Functional Fixedness = Needing to turn a screw, an individual ransacks a house when using a dime to turn the screw would’ve worked fine.
- Representative Heuristic = Judging the likelihood of things in terms of how well they seem to represent certain prototypes.
  - A person is short, slim, and likes reading poetry…is this person a truck driver or Ivy League professor?
- Availability Heuristic = Plane crashes seem far more frequent, as do terrorist attacks, because the memory of them is far more available than the memory of successful flights and foiled terrorist attacks.
• Overconfidence = Eagerness to confirm beliefs we have + knack for explaining away our failures.
• Framing = How we present an issue…we frame it to fit.
• Belief Perseverance = Cling to our beliefs even in the face of contradictory evidence.
• Phoneme = In spoken language, the smallest distinctive sound.
• Morpheme = In a language, the smallest unit that carries meaning; may be a word or part of a word (such as a prefix).
  o Pre-, un-, bat
• Grammar = system of rules (called semantics and syntax) that enables us to communicate with and understand others.
  o Semantics = Rules that tell how to get meaning out of morphemes, words, and sentences, such as adding –ed to laugh means it happened in the past.
  o Syntax = Rules used to put words in sentences in the correct orders.
• Babbling Stage = 4 months of age, babies babble, and babbling resembles no specific language. Babbling is babbling.
• One-word stage = 1-2 years, child speaks mostly in single words.
• Two-word stage = Beginning around 2 years old, child speaks mostly two-word statements.
  o Called Telegraphic Speech = Send Money. Me Hungry. (like a telegram).
• Thinking affects our language, which then affects our thought = two-way street/interaction between thinking and language.

TERMS YOU MUST KNOW
• Long Term Memory
• Working Memory
• Semantic Memory
• Episodic Memory
• Chunking
• Implicit Memory
• Proactive Interference
• Retroactive Interference
• Procedural Memory
• Anterograde Amnesia
• Encoding
• Explicit Memory
• Retrograde Amnesia
• Sensory Memory
• Flashbulb Memory
• Memory
• Mnemonic Devices
• Retrieval
• Elaborative Rehearsal
• Storage
• Serial Position Effect
• Priming
• Recognition
• Declarative Memory
• Primacy Effect
• Heuristic
• Algorithms
• Functional Fixedness
• Prototypes
• Concepts
• Morpheme
• Phoneme
• Syntax
• Insight
• Availability Heuristic
• Mental Set
• Representativeness Heuristic
• Language
• Semantics
- Confirmation Bias

CONFUSING PAIRS
- Primacy Effect (first items remembered) v. Recency Effect (last items remembered)
- Proactive Interference (loss of the new info) v. Retroactive Interference (loss of the old info)
- Implicit Memory (non-declarative; skills) v. Explicit Memory (declarative, facts)
- Recall Memory (no cues) v. Recognition Memory (some hints, priming)
- Algorithms (step-by-step, computer) v. Heuristics (rule-of-thumb, simple efficient rules, how we make decisions, come to judgement, or solve problems)
- Representative Heuristics (schema, prototypes) v. Availability Heuristics (based on available info)
- Phonemes (basic sound units) v. Morphemes (basic units of meaning)
Unit 8 – Intelligence, Motivation, and Emotion – 11-15%

- Intelligence Tests = Tests for assessing a person’s mental abilities and comparing them to others’ abilities using numerical scores.
- Is intelligence one general ability or several specific abilities?
- Factor analysis – a statistical method that identifies a variety of related factors in a test
- Multiple Intelligence – is intelligence one thing or multiple separate things that can be tested
- Charles Spearman: g factor underlies specific mental abilities; measured by every item on intelligence tests
- L.L. Thurstone. Critic of Spearman. Identified seven clusters of primary mental abilities. Critics of Spearman note that those who do well in one cluster do well in the others, thus, proving g does exist.
- Savants: have a special ability or brilliance in one area
- What makes up emotional intelligence?
  - Social intelligence: comprehending social situations and handling one’s self well in them.
- Creativity: the ability to produce new ideas that are useful
  - Five components of:
    - a. expertise
    - b. imaginative thinking skills
    - c. venturesome personality
    - d. intrinsic motivation
    - e. creative environment
- Intelligence tests give a numerical value to one’s mental abilities in order to compare them with others.
- Francis Galton - His research led to the eugenics movement.
  - His goal: link strength, reaction time, sensory abilities and head size to general mental abilities. He failed.
- Alfred Binet (and Theodore Simon): Predicting School Achievement
  - Founded modern intelligence testing
  - His goal: identify those with mental deficiencies
  - He created the concept of your mental age.
- Lewis Terman: The Innate IQ - Stanford Binet intelligence test
  - The test creates your IQ: mental age/chronological age times 100
- Aptitude tests: predict future performance; college entrance tests (SAT, ACT) are examples though Howard Gardner notes they are essentially intelligence tests.
- Achievement tests: reflect you have learned
- WAIS David Wechsler’s widely used adult intelligence test
- Standardization – allows you to compare scores with a pre-tested standardized group
- Normal curve: the results of a standardized test form a bell shaped curve
  - 68% fall within the center
- Flynn effect: James Flynn (1987) found the rise in intelligence scores across the world since the 1960s; (but aptitude tests are decreasing)
  - a. greater academic diversity
  - b. better nutrition
  - c. improved education with increased years of schooling
- Reliability: a test is reliable if it measures similarly each time given
- Validity: it’s valid if it measures what it’s supposed to measure
- Content validity: (for achievement tests); does a test measure it’s intended behavior?
- Predictive validity: (for aptitude tests): does it predict intended behavior?
- Criterion: an independent measure of what a test aims to assess
  - The behavior being tested
- To sum up: the criteria of a good test--
  - Standardization, reliability, validity
- Gender similarities
  - i. Girls are better spellers; boys better at math problems
  - ii. Girls better at nonverbal memory
  - iii. Girls more sensitive to touch, taste, color
  - iv. Geary & Silverman use evolutionary perspective to explain differences.
- Group differences in Intelligence Test Scores 548
  - Racial differences not based mainly on genetics
  - Racial groups differ in their test scores
  - higher scoring people attain more education and income
  - 10 point gap between black and white on most tests
  - Groups differences can’t be used to predict any one individual
Motivation – A need or desire that serves to energize behavior and to direct it toward a goal.

Instinct = Complex behavior that is rigidly patterned throughout a species, and is unlearned.

Drive-Reduction Theory = Physiological need creates aroused tension state (drive) that motivates an organism to satisfy the need.
  o Need (food, water) → Drive (hunger, thirst) → Drive-reducing behaviors (eating, drinking).

Incentives = positive or negative stimuli that lure or repel us.

Hierarchy of Needs = Maslow’s pyramid!!!

Glucose = Sugar that circulates in the blood and supplies energy. Increases in insulin hormone diminish blood glucose, and with decreased blood glucose comes hunger.
  o Brain monitors this, as signals from stomach, intestines, and liver signal the brain to motivate eating or not eating.

Lateral Hypothalamus = Brings on hunger.

Ventromedial Hypothalamus = Depresses hunger.

To estimate body fat, hypothalamus monitors leptin, a protein produced by bloated fat cells.
  o Leptin levels rise = brain curbs eating and increases activity.

Set Point = A set weight where if the body’s weight falls below this, it triggers hunger…if it goes above it, it triggers to stop eating or not start at all.
  o Like a weight “thermostat”

Basal Metabolic Rate = Rate of energy expenditure in maintaining basic body functions when body is at rest (for example, during sleep).

External Incentives and Hunger = Eating because of the mere presence of food.

Anorexia Nervosa = Normal-weight person diets and becomes at least 15% underweight yet still feels fat and continues to starve.

Bulimia Nervosa = Overeating + vomiting, laxative use, fasting, or excessive exercise.

Sexual Response Cycle = Four stages of sexual responding described by Masters and Johnson – excitement, plateau, orgasm, and resolution (know these).

Refractory Period = Resting period after orgasm during which a man cannot achieve another orgasm.

Estrogen = Sex hormone secreted in greater amounts in females.

Hormones influence sexual arousal via the hypothalamus, which monitors both variations in blood hormone levels and activates appropriate neural circuits.

Sexual Disorder = Consistently impairs sexual arousal or functioning.

Physiological readiness, Imaginative stimuli, and External stimuli all lead to sexual motivation.

Most psychologists now believe that nature, more than nurture, predisposes sexual orientation.

Achievement Motivation = Desire for significant accomplishments; for mastery of things, people, or ideas; for attaining a high standard.
  o Associate achievement with positive emotions.
  o Attribute achievement to own competence and effort, which raises expectations.

Intrinsic Motivation = Inside
Extrinsic Motivation = Perform to gain reward or avoid punishment.

Industrial/Organization (I/O) Psychology = Studies and advises on workplace behavior. How to motivate, boost morale and productivity, and design products.
  o Provide tasks that challenge and trigger curiosity.
  o Avoid snuffing out people’s sense of self-determination with overuse of extrinsic rewards.
  o Reward people informatively = Informing someone that his grades are really paying off, and we should celebrate that! is different, and better, than simply giving someone $5 for each A in school.

Better to praise people for effort than ability.

Task Leadership = Goal-oriented leadership that sets standards, organizes work, and focuses attention on goals. Tasks over people!

Social Leadership = Group-oriented leadership that builds teamwork, mediates conflict, and offers support. People over tasks!

Theory X = Assumes workers are basically lazy, error-prone, and extrinsically motivated by money and, thus, should be directed from above. EXTRINSIC MOTIVATION.

Theory Y = Assumes that, given challenge and freedom, workers are motivated to achieve self-esteem and to demonstrate competence and creativity. INTRINSIC MOTIVATION.

Emotions: Mix of physiological activation (i.e. heart pounding), expressive behaviors (i.e. quickened pace), and conscious experience (i.e. interpreting the person’s intent and feeling fearful).

James-Lange Theory
  o Sight of oncoming car (perception of stimulus)
Pounding heart (arousal)  
Fear (emotion)  

**Cannon-Bard Theory**  
- Sight of oncoming car (perception of stimulus)  
- Pounding heart (arousal) and Fear (emotion)  

**Schachter’s Two-Factor Theory** (emotions have 2 ingredients…physical arousal and a cognitive label (2 factor = 2 ingredients))  
- Sight of oncoming car (perception of stimulus)  
- Pounding heart (arousal) and Cognitive Label (I’m Afraid)  
- Fear (emotion)  

**Emotion physically arouses you.**  
- Autonomic nervous system controls arousal.  
  - Sympathetic activates arousal by directing adrenal glands atop kidneys to release stress hormones epinephrine (adrenaline) and norepinephrine (noradrenaline).  
    - Increases heart rate, blood pressure, and blood-sugar levels.  
  - Parasympathetic becomes active when crisis passes and calms body.  

- Easy tasks = higher arousal facilitates better performance.  
- Tough tasks = lower arousal facilitates better performance.  
- Women are better at reading people’s emotional cues.  
- Gestures vary from culture to culture.  
  - However, many cultures and languages share many similarities in the ways they categorize emotions – anger, fear, etc.  

**Emotions**  
- Fear: Prepares bodies to flee danger.  
  - Triggers emotion of worry.  
  - Can learn to fear, especially by observation. Nature and nurture.  
  - Fear some items biologically.  
  - Key to learning lies in the *amygdala*.  
    - Within limbic system.  
    - Associates various emotions with certain situations.  
- Anger  
  - OK, unless it causes us to feel guilty or fuels aggressive acts (verbal or physical).  
  - Catharsis – Reduce anger through releasing it through aggressive action or anxious.  
  - How to handle anger:  
    - Wait…time heals.  
    - Deal with it in ways other than chronic anger or passivity…exercise, play instrument, etc.  
- Happiness  
  - One’s state of happiness or unhappiness colors everything we do. Attitude is everything!  
    - Bad moods make the whole world look gloomy, and the opposite is true about good moods!  
  - Feel-Good, Do-Good Phenomenon: Happy people are more likely to help others.  
  - Subjective Well-Being – Self-perceived happiness or satisfaction with life.  
  - People have an undeniable ability to cope and find happiness in life’s circumstances.  
    - Bad break-ups  
    - Accidents (Christopher Reeve)  

**Adaptation-Level Phenomenon** – Our tendency to form judgments (of sounds, lights, income, whatever) relative to a “neutral” level defined by our prior experience.  
- EVERYTHING IS RELATIVE  
  - If our current condition, such as our income, goes way up, we’ll initially feel a surge of pleasure, but then “get used to it”.  

- Relative Deprivation – The perception that one is worse off relative to those with whom the individual compares himself.  
  - LeBron James thinking himself poor because he’s only looking at Bill Gates and Ted Turner.  
  - Latrell Sprewell, NBA Basketball Player, saying he needs to make $8 million/year because he “has to put food on the table for his family.”  

**Predictors of happiness:**  
- Engaging in challenging activities, especially if it *does not cost a lot!!!*  
- Sleep well  
- Meaningful, religious faith
Close friends and satisfying marriage
High self-esteem

TERMS YOU MUST KNOW
- Reliability
- Validity
- Intelligence Quotient
- Intelligence
- Creativity
- Crystallized Intelligence
- Fluid Intelligence
- g Factor
- Standardization
- Divergent Thinking
- Emotional Intelligence
- Factor Analysis
- Mental Age
- Anorexia Nervosa
- Motivation
- Bulimia Nervosa
- Emotion
- Drive
- Instinct
- James Lange Theory
- Intrinsic Motivation
- Sexual Orientation
- Set Point
- Cannon Bard Theory
- Generalized Anxiety Disorder
- Stress
- General Adaptation Syndrome
- Health Psychology
- Type A Behavior Pattern
- Biopsychosocial Model
- Social Support
- Psychoneuroimmunology
- Stressors

CONFUSING PAIRS
- Fluid Intelligence (processing speed) v. Crystallized Intelligence (acquired knowledge)
- Validity (test measures what it should) v. Reliability (same scores on a retest)
- Achievement Test (what you’ve learned) v. Aptitude Test (shows potential for future learning)
- Intrinsic Motivation (for personal satisfaction) v. Extrinsic Motivation (for rewards)
- Theory Y (democratic/intrinsic) v. Theory X (rewards or punishment/extrinsic)
- Lateral Hypothalamus (stimulates hunger - GO) v. Ventromedial Hypothalamus (suppresses hunger - STOP)
Unit 9 – Personality – 6-8%

- Personality: Your characteristic pattern of thinking, feeling, and acting.
- Free Association – have the patient talk about whatever comes to mind
- Psychoanalysis – using the unconscious
- Unconscious – below the normal level of human consciousness
- Preconscious – Information not conscious but retrievable into conscious awareness.
- Id – Devil on shoulder.
- Ego – Compromise – Your head in the middle of the devil and angel argument.
- Superego – Angel on shoulder.

Psychosexual Stages
- Oral Stage (0-18 months) = Pleasure centers on the mouth – sucking, biting, chewing
- Anal Stage (18-36 months) = Pleasure focuses on bowel and bladder elimination; coping with demands for control.
- Phallic Stage (3-6 years) = Pleasure zone is the genitals; coping with incestuous sexual feelings.
  - Oedipus Complex
  - Identification Process = Process of incorporating child’s parents’ values with own developing superegos.
- Latency Stage (6-puberty) = Dormant Sexual Feelings.
- Genital Stage (puberty on) = Maturation of sexual interests.

- Fixation = A lingering focus of pleasure-seeking energies at an earlier psychosexual stage, where conflicts were unresolved.
  - Fixation at oral stage may be seen through smoking and/or eating.
- Defense Mechanisms
  - Repression – Banishing anxiety-arousing thoughts, feeling, and/or memories from consciousness.
  - Regression – Anxiety causes someone to act in a manner consistent with earlier psychosexual stage, such as being afraid and curling up into the fetal position.
  - Reaction Formation – Hating someone and acting, because hate is unacceptable, like you love that person instead. Like with a boss.
  - Projection – “You want her/him, don’t you,” when really it’s you who want her/him.
  - Rationalization – Self-justification as to why eating cotton candy can actually be healthy.
  - Displacement – Boss yells at you, you kick the dog.
  - Sublimation – Aggressive person plays football and turns unacceptable impulses into socially valued skills.

- Projective Tests – Ambiguous stimuli presented for an individual to create a story about it…Rorschach Tests, etc.
- Thematic Apperception Test (TAT) – People view ambiguous pictures and make up stories about them.
- Neo-Freudians – Put more emphasis on the role of the conscious mind both in interpreting experience and in coping with the environment.
  - Also thought sex and aggression were all-consuming motivations, so put more emphasis on social interaction.
- Karen Horney – Neo-Freudian – says men have womb envy
- Carl Jung – Neo-Freudian - we wear “personality masks” depending on situation
  - Collective Unconscious - Memories of mental patterns that are shared by members of a single culture or, more broadly, by all human beings

- Trait Perspective of Personality
  - Describe people in terms of their characteristic behaviors and conscious motives.
- Big Five Personality Factors (CANOE, OCEAN)
- Minnesota Multiphasic Personality Inventory (MMPI) – Originally focused on emotional disorders, this now is most widely used personality test.
- Maslow – hierarchy of needs (Humanistic)
- Self-actualization – reaching the top level of Maslow’s chart
- Unconditional Positive Regard – loving someone no matter what, and with their flaws
- Self-concept – “Who am I?”
- Self-esteem – One’s feelings of high or low self-worth.
- Self-Serving Bias – Perceive oneself favorably.
- Individualism vs. Collectivism
  - Characteristics of each type of living and the individuals who live this life-style.
- Social-Cognitive Personality Theory – our personality is determined not only by the social situation, but our thought process and reaction to that particular situation
- Reciprocal Determinism – Interacting (back and forth) influences between personality and environmental factors.
- Personal Control – External vs. Internal Locus of Control
- Learned Helplessness – Hopelessness and passive resignation of an animal or human when unable to avoid repeated aversive (negative) events.
- Positive Psychology – The scientific study of optimal human functioning; aims to discover and promote conditions that enable individuals and communities to thrive.

TERMS YOU MUST KNOW
- Defense Mechanism
- Ego
- Id
- Projective Test
- Superego
- Personality
- Humanistic Psychology
- Trait
- Transference
- Repression
- Collective Unconscious
- Oedipus Complex
- Self-Actualization
- Self-Efficacy
- Temperament
- Unconscious
- Psychodynamic Theories
- Big Five
- Archetypes
- Freudian Fixation
- Psychosexual Stages
- Self-Concept
- Thematic Apperception Test

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Source: Adapted from McCrae & Costa (1996, p. 1302).
CONFUSING PAIRS
- Internal Locus (you control the environment) v. External Locus (environment controls you)
- Lithium (treats bi-polar) v. Librium (treats anxiety)
- Type A (high stress) v. Type B (low stress)
- Superego (provides conscious judgement) v. Ego (mediates among the demands of the id, superego, and reality)
Unit 10 – Abnormal Psychology and Therapies – 12-16%

- Disorder – Harmful, atypical, disturbing, maladaptive, and unjustifiable.
- Medical Model – Concept that diseases have physical causes that can be diagnosed, treated, and, in most cases, cured.
- Bio-psycho-social perspective – biological, psychological, sociocultural factors combine to produce psychological disorders.
- DSM-V – Classifies disorders
- Neurotic Disorder – Distressing disorder that allows one to still think rationally and function socially.
  - Freud thought of these as ways of dealing with anxiety.
- Psychotic Disorder – Person loses contact with reality, experiencing irrational ideas and distorted perceptions.
  - Classic example of a “psycho” with a psychotic disorder.
- Issues with labeling disorders, and therefore people…
- Anxiety Disorder – Distressing, persistent anxiety or maladaptive behaviors aimed at reducing anxiety.
  - Generalized Anxiety Disorder – A general case/sense of anxiety.
  - Panic Disorder – Person experiences terror and chest pain, choking, or other frightening sensations.
  - Phobia – Persistent, irrational fear and avoidance of specific object or situation.
  - OCD – Unwanted thoughts (obsessions) and/or actions (compulsions).
    - Bad when interfere with the way we live or when they cause distress.
  - Explanations for Anxiety Disorders
    - Learning Perspective
      - Stimulus Generalization
      - Reinforcement
      - Observational Learning
    - Biological Perspective
      - Evolution
- Mood Disorders – Psychological disorders characterized by emotional extremes.
  - Dysthymic Disorder – State between blue moods and depression.
    - Most days filled with down-in-the-dumps mood for 2 years or more.
      - Chronic low energy and self esteem
      - Difficulty making decisions and concentrating
      - Sleep and eat too much or too little
  - Major Depressive Disorder – Signs of depression last 2 weeks or more.
    - #1 reason why people seek mental health services.
  - Manic Episode – Hyperactive, wildly optimistic state.
  - Bipolar Disorder – Alternates between hopelessness and lethargy of depression and overexcited state of mania.
  - Facts:
    - Depression is widespread.
    - Behavioral and cognitive changes go hand-in-hand with depression.
    - Women 2x more likely to experience major depression.
    - Most major depressive episodes last less than 6 months.
    - Stressful events often precede depression.
    - With each generation the rate of depression increases and strikes at earlier ages.
  - Explanations for Mood Disorders
    - Biological Perspective
      - Genetic
        - Parent/sibling with depression before age 30 = higher risk
      - Brain
        - Norepinephrine = over-abundant in mania, scarce in depression.
        - Serotonin = scarce during depression
    - Social-Cognitive Perspective
      - Pessimism, self-defeating beliefs
      - Learned helplessness
      - Attributions of blame for life’s issues
        - Depressed people’s attributions are:
          - Stable – It’s going to last forever
          - Global – It’s going to affect everything I do
      - Negative Thoughts feed Negative Moods
• Negative thinkers are vulnerable to depression.
  • Negative Moods feed Negative Thoughts
    o People with negative moods are vulnerable to depression.
  • Depression’s Cycle
    o Self-blame and self-focused responses to bad events = depression, possibly over and over again.
    o 1. Negative, stressful events interpreted through, 2. a ruminating, pessimistic explanatory style create, 3. a hopeless, depressed state that, 4. hampers the way the person thinks and acts.
    o This, in turn, fuels more negative experiences, and the cycle continues.
• Dissociative Disorders – Person appears to experience a sudden loss of memory or change in identity.
  o Dissociative Identity Disorder (DID) – 2 or more distinct identities that alternately control the person’s behavior.
• Schizophrenia – SPLIT MIND – Group of severe disorders characterized by disorganized and delusional thinking, disturbed perceptions, and inappropriate emotions and actions.
• Delusions – False beliefs
  o “I’m Mary Poppins!!”
  o Delusions of persecution
  o Delusions of grandeur
    • “I’m Jesus Christ!”
    • “I’m Ghandi!!”
    • “I’m Allah!”
• Hallucinations – Sensory experiences without sensory stimulation (usually auditory).
  o Hearing voices…
  o Show inappropriate emotions.
  o Catatonia – Motionless for hours on end…in the same position.
  o Social relationships very difficult.
• Positive Symptoms – Symptoms that are present that should not be there.
  o Their presence is positively present.
  o Presence of inappropriate behaviors.
• Negative Symptoms – Absence of appropriate behaviors.
• Types of Schizophrenia
  o Paranoid – Preoccupation with delusions or hallucinations.
    • “Alien abductions!!! AHHHH!!!! I’m so paranoid!!!”
  o Disorganized – Disorganized speech or behavior, or flat or inappropriate emotion.
  o Catatonic – Immobility (or excessive, meaningless movement), extreme negativism, and/or parrotlike repeating of another’s speech or movements.
  o Undifferentiated – Many and varied symptoms.
    • Undifferentiated = many different symptoms
  o Residual – Withdrawal, after hallucinations and delusions have disappeared.
    • All that is left is the residue of old Schizophrenia.
• Brain Abnormalities in Schizophrenia
  o Dopamine Overactivity
  o Low activity in frontal lobes, shrunken hippocampus and amygdale in the limbic system.
  o Small thalamus
• Personality Disorders – Inflexible and enduring behavior patterns that impair social functioning.
  o Some express anxiety, some have eccentric behaviors, others dramatic or impulsive behaviors.
• Antisocial Personality Disorder – Usually affects men. Lack of conscience for wrongdoing, even toward friends and family members. May be aggressive and ruthless or a clever con artist.
  o Frontal lobe damage = bad planning and judgment
• Psychotherapy – An emotionally charged, confiding interaction between a trained therapist and someone who suffers from psychological difficulties.
  o Free association – say whatever comes to mind, not matter how small it seems
  o Resistance – Blocking from consciousness of anxiety-laden material.
  o Interpretations from therapist and insight.
  o Latent content – underlying meaning
    o Transference – Transferring emotions from someone close to you over to your therapist.
• Interpersonal Therapy – Looking at current relationships and helping with relationship skills.
• Humanistic Therapy – Aimed at making us successful humans.
Focus on:
- present and future
- conscious thoughts
- taking responsibility
- promoting growth

Client-Centered therapy – have to have empathy for the client so they are willing to pen up

Nondirective therapy

GER/GEA
- Genuineness
- Empathy
- Respect/Acceptance

Active Listening – listen to them and ask them questions while they talk

Behavior Therapy – Applies learning principles to elimination of unwanted behaviors.
- Counterconditioning – New responses to stimuli that trigger unwanted behaviors.
  - Systematic Desensitization
    - Progressive Relaxation – Relaxing one muscle after another until you’re totally relaxed.
    - Exposure Therapy – Exposes someone, in imagination or actuality, to a feared situation.
    - Flooding – Putting Mr. Sichak in the middle of a lake and leaving him there to “confront” his fear of large bodies of water.
  - Aversive Conditioning – Replace a positive response to a harmful stimulus (such as alcohol) with a negative (aversive) response.

Token Economy – form of operant conditioning, where you try to stop a negative behavior by reinforcing the positive ones

Cognitive Therapy – Teaches people new, more adaptive ways of thinking and acting.
- Based on the assumption that thoughts intervene between events and our emotional reactions.
- Seek to reverse clients’ self-defeating, catastrophizing thoughts about themselves.
- Cognitive-Behavior Therapy – Aims to alter the way people act (behavior therapy) and alter the way they think (cognitive therapy).

TERMS YOU MUST KNOW
- Schizophrenia
- Dissociative Identity Disorder
- Personality Disorders
- Obsessive Compulsive Disorder
- Panic Disorder
- Posttraumatic Stress Disorder
- Agoraphobia
- Bipolar Disorder
- Phobia
- Antisocial Personality Disorder
- Dissociative Disorder
- Delusions
- Hallucinations
- Major Depressive Disorder
- Mood Disorders
- Anxiety Disorders
- Mania
- Dissociative Fugue
- Psychoanalysis
- Systematic Desensitization
- Electroconvulsive Therapy
- Cognitive Therapy
- Client Centered Therapy
- Free Association
- Behavior Therapy
- Psychotherapy
- Antipsychotic Drugs
- Rational Emotive Behavior Therapy
- Resistance
• Unconditional Positive Regard
• Family Therapy
• Psychosurgery
• Group Therapy
• Meta-Analysis

CONFUSING PAIRS
• Lithium (treats bi-polar) v. Librium (treats anxiety)
• Delusions (an idiosyncratic belief or impression that is firmly maintained despite being contradicted by what is generally accepted as reality or rational argument) vs. Hallucinations (an experience involving the apparent perception of something not present)
• Positive Symptoms (schizophrenia Feelings or behaviors that are usually not present, hallucinations) vs. Negative Symptoms (A lack of feelings or behaviors that are usually present)
• Delusions of Grandeur (a false impression of one's own importance) vs. Delusions of Persecution (a false impression hostility and ill-treatment towards self from others)
• Histrionic Personality Disorder (characterized by a pattern of excessive attention-seeking emotions) vs. Narcissistic Personality Disorder (have an inflated sense of their own importance)
Unit 11 – Social Psychology – 8-10%

- Social Thinking - Attributing behavior to persons or to situations
  - Attribution theory - The cause of behavior is either situational (surrounding environment) or dispositional (inside/part of you)
  - Fundamental attribution error (FAE) Basing your attribution on only one of the two causes
    - Underestimating the situation and overestimating the personal factors. Example: “He’s poor because he’s lazy.” (maybe the situation of a bad economy keeps him jobless). FAE thinking is more likely to happen when we don’t know the person.
  - The Effects of Attribution - Judgments about people have consequences socially, economically, politically at the individual level, the larger group and even nationally.

- Attitudes and Actions
  - Attitude: beliefs and feelings predisposing us to people and objects
  - Persuasion: Central or peripheral route
    - Central: direct appeal to logic and thought
    - Peripheral: appeal is to superficial cues or gimmicks
  - Do our attitudes guide our actions?
    - outside influences on what we say and do our minimal
    - only if it’s specifically relevant to the behavior
    - only when we’re keenly aware of the attitude
  - Actions Affect Attitudes
    - Foot in the door phenomenon - Agreeing to a larger request because you’ve already agreed to a smaller one
  - Role Playing Affects Attitudes
    - Demonstrated by the Philip G. Zimbardo prison experiment; college students internalized the roles of prisoners and guards to such an extent that a two week study had to be shut down after only six days. (Illustrates the “power of the situation”)
    - Close up: Abu Ghraib Prison: some of the same behaviors in the Zimbardo study occurred in the American run prison in Iraq. Military guards abuse prisoners due to the powerful influence of the situation and other outside factors (lack of training, poor leadership).
    - Cognitive dissonance: relief from tension.
      - We act to reduce difference between our attitudes and actions; when a difference occurs we either change our behavior or our thinking.

- Social Influence

- Conformity and Obedience
  - What do experiments on conformity and compliance reveal about the power of social influence?
  - Chameleon effect: unconsciously mimicking others
  - Mood linkage: sharing up and down moods
  - Group Pressure and Conformity
    - conformity: going along with group behavior
  - Solomon Asch studies - Under certain conditions we will conform even though we know something is incorrect. Asch set up a study where most people on certain line pairings gave the obviously incorrect answer; they purposely gave these false answers to pressure the only real subject in the experiment to conform to their group judgment. Many did.
  - Conditions that strengthen conformity
    - More than three, they are unanimous, one is made to feel incompetent, one admires those trying to influence you
  - Reasons for conforming
    - normative social influence Conforming to gain approval
    - informational social influence Changing behavior by accepting other’s opinions about reality

- Obedience
  - Stanley Milgram, a student of Asch, studied complying with authority. He set up an experiment where “teachers” thought they were using punishment (escalating shocks) to improve the learning of word pairs in their “subject”. Actually the teachers were being pressured to obey the directions to harm another individual.
    - Findings - the teachers were more obedient than predicted (about two-thirds complied)
      - obedience was highest when teacher was close to experimenter and far from the learner
      - even ordinary people can be destructive
      - less likely to obey when others seen disobeying
• controversy: Milgram deceived his subjects and subjected them to stress
  o Lessons from the Conformity and Obedience Studies
    ▪ Social situations pressure us to conform. Ordinary people can do horrible things due to the power of the situation.

• Group influence
  o Individual behavior in the presence of others
  o How is our behavior affected by the presence of others or by being part of a group?
  o Social facilitation - the presence of others improves your performance on well-learned tasks. It hinders your performance on un-mastered skills
  o Dominant response: Robert Zajonc says when others are present we become aroused; social impairment leads to worse behavior with others present; the harder the task the more likely you are to be impaired
  o Social loafing - Giving less effort when working with others; we feel less responsible or accountable.
  o Deindividuation - Losing your awareness and restraints when in a group situation that makes you anonymous. ex. Klan behavior
  o Effects of Group Interaction
    ▪ Group polarization - When groups with members of the same views become more extreme; they had students discuss prejudice—they became even more prejudiced.
  o Groupthink - when no one in the decision-making group wants to disturb harmony, people will just go along on a bad decision. The result is usually disaster. Some American political decisions to illustrate the concept:
    ▪ NASA Challenger explosion
    ▪ JFK Adm. and the Bay of Pigs crisis
    ▪ Failure to anticipate Pearl Harbor

• Cultural Influence
  o How do cultural norms affect our behavior?
  o Culture: your behavior, attitudes, and traditions that are passed down
  o Variations Across Cultures
    ▪ Norms Rules for acceptable behavior
    ▪ personal space
    ▪ The area within which you’re not comfortable when persons invade
    ▪ North Americans prefer more personal space than do Latin Americans
    ▪ Expressiveness and pace of life also see differences.
    ▪ Variation over time

• The Power of Individuals
  o Social control and personal control interact
  o Minority influence
  o You are more likely to sway a group by consistently holding to your position

• Social Relations
  o Prejudice - Unjustifiable negative attitude towards a group; the powerful use it to justify social inequalities
  o Stereotype Overgeneralized belief about a group
  o Discriminate - actions carried out on the basis of prejudice
    ▪ How Prejudiced Are People?
      • Blacks are more likely to be pulled over
      • The kind of name you have affects applications for housing
      • Lesbians and gays are discriminated against around the world
      • A gender bias on pay exists in America
  o Us and Them: Ingroup and Outgroup
    ▪ ingroup bias - ‘we’re better than they are’ favoring one’s own group; you see this a lot in sports.
    ▪ outgroup ‘them’

• Emotional Roots of Prejudice
  o Scapegoating - theory of prejudice: frustration causes people to blame others for problems justifying discrimination

• Cognitive Roots of Prejudice
  o What are the cognitive roots of prejudice?
    ▪ Categorization: we put people into categories.
    ▪ Own race bias begins as a toddler.
  o Vivid cases: feed stereotyping. Some extreme case is called to our attention and then everyone we can put in that group is assigned those attributes.
• Just world phenomenon: you get what you deserve and you deserve what you get.
• Hindsight bias works here, too: blaming the victim—“she should have known better”

- Aggression - Any physical or verbal behavior intended to hurt another
  - The biology of aggression - neural influences, amygdala/limbic system, Genetic influence found through animal and twin studies, biochemical influences, testosterone increases aggression, alcohol increases aggression
  - Psychological and Social-Cultural Factors in Aggression

- What psychological factors may trigger aggressive behavior?
  - Frustration-aggression principle - frustration creates anger and people respond with the fight or flight response.

- Social and Cultural Influences
  - Ostracism, where people are excluded from groups
    - Observing Models of Aggression
  - Catharsis hypothesis is incorrect; they don’t blow off steam; more likely to have aggressive thoughts and behaviors

- The Psychology of Attraction
  - Proximity - someone near to you more likely to be friend (most powerful predictor)
  - Mere exposure effect - repeated exposure increases liking
  - Close Up: Online Matchmaking. Speed dating research finds that 4 minutes is enough time to form a good impression of someone.

- Physical attractiveness
  - The power of attractiveness: study found that the one thing that affected the rating of a blind date was attractiveness.
  - Similarity
  - birds of a feather flock together
  - reward theory of attraction - we like those whose behavior is rewarding to us
  - Passionate love - aroused, intense, present at the beginning; temporary
  - Companionate love; enduring.
  - Self-disclosure - revealing intimate details about self

- Altruism - When are we most---and least---likely to help? Unselfish regard for other’s welfare

- Kitty Genovese murder - no one responded to her cries for help when she was attacked and killed in a New York City building.
  - They found a diffusion of responsibility, as more people are around any one person feels less responsible to help someone in need
  - When people are in a group they may feel deindividuation, no longer an individual with responsibilities
  - Another factor is social loafing where we exert less effort because of the group.

- bystander effect - less likely to give aid when others present

- The Norms for Helping
  - Social exchange theory: aim is to maximize benefits and minimize costs
  - Reciprocity norm: you help those who help you
  - Social responsibility norm - we should help those who need our help

- Conflict and Peacemaking
  - Conflict: a perceived incompatibility of goals, actions or ideas.
  - Social traps - everyone pursuing their own gain, leading to destruction, the Tragedy of the Commons.
  - Mirror image perceptions: they see us as we see them.
  - Self-fulfilling prophecies

- Contact - How can we transform feelings of prejudice, aggression, and conflict into attitudes that promote peace?
  - People have to come together, but this is usually inadequate.

- Muzafer Sherif’s Robber Cave Study - Muzafer and Carolyn Sherif conducted this study in 1954 with groups of boys at a camp in Oklahoma.
  - Experiment summary: co-operation on shared goals is of vital importance in resolving conflict peacefully. The study showed that merely stopping fighting or bringing hostile groups together is not enough. Co-operation must be promoted at various levels in the social system, building a sense of positive interdependence.

- GRIT Graduated and Reciprocated Initiatives in Tension-Reduction

**TERMS YOU MUST KNOW**
- Cognitive Dissonance
- Fundamental Attribution Error
Stereotypes
Attitude
Diffusion of Responsibility
Social Psychology
Conformity
Prejudice
Groupthink
Gender Roles
Group Polarization
Social Phobia
Aggression
Social Behavior Discrimination
Self-Serving Bias
Attribution
Deindividuation
Obedience
Social Facilitation
Social Loafing
Altruism
Facial Feedback Hypothesis
Self-Fulfilling Prophecy
Social Norms

CONFUSING PAIRS
- Groupthink (desire for harmony) vs. Group Polarization (the enhancement of a group’s prevailing inclinations)
- Companionate Love (deep affectionate attachment we feel for those with whom our lives are intertwined) vs. Passionate Love (an aroused state of intense positive absorption in another usually present at the beginning of a love relationship)
- Dispositional Attribution (bad things blame someone else or environment) vs. Situational Attribution (good things give credit to self)
- Central Route to Persuasion (when a person is persuaded by the content of the message) vs. Peripheral Route (when someone evaluates a message on the basis of physical attractiveness, background music, or other surface-level characteristics rather than the actual content of the message)
- Foot in the Door (ask for small thing, then ask for big) vs. Door in the Face (ask for something big, they say no, ask for something small)
- Normative Social Influence (influence resulting from a person’s desire to gain approval or avoid disappointment) vs. Informational Social Influence (influence resulting from one’s willingness to accept others’ opinions about reality)
- Social Facilitation (when an individual’s skill performance gets better in the presence of others) vs. Social Inhibition (when an individual’s skill performance gets worse in the presence of others)
- Bystander Effect (individuals do not offer any means of help to a victim when other people are present) vs. Diffusion of Responsibility (a person is less likely to take responsibility for action or inaction when others are present)
Important People

- **Alfred Adler**: A Neo-Freudian, focused on parenting styles: also emphasized inferiority. When we are born we start off weak then strive to overcome these deficiencies by becoming superior to those around us - a driving force behind human thoughts, emotions and behaviors- it is possible to develop an inferiority complex.
- **Mary Ainsworth**: Most famous for her work in early emotional attachment with "The Strange Situation." Experiment. The child's reactions are observed while playing for 20 minutes while caregivers and strangers enter and leave the room, recreating the flow of the familiar and unfamiliar presence in most children's lives. The effects vary in stressfulness.
- **Albert Bandura**: Famous for the Bobo doll study- explained the social learning theory. Aggression is learned through observing and imitating others. The experiment is important because it sparked many more studies on the effects of violent media on children.
- **Aaron Beck**: The father of cognitive therapy, specializes in clinical depression. Developed the cognitive triad of depression: people who are depressed have negative thoughts about themselves, their future, and the word in which they live.
- **Alfred Binet**: A French psychologist that came up with the first widely used intelligence test. He was hired by the French public school system to find children that needed special help. First used the IQ formula: MA/CA * 100= IQ. Influenced today’s widely accepted intelligence test, the Stanford-Binet test.
- **Raymond Cattell**: He is best known for his discovery of 16 underlying personality traits and his methods for measuring the traits are known as the 16 personality factor model and the 16 PF questionnaire. Used factor analysis.
- **Noam Chomsky**: One of the fathers of modern linguistics. His theory of generative grammar emphasizes universal grammar. His view was different from B.F. Skinners because he thought that certain aspects of linguistic knowledge were innate.
- **Hermann Ebbinghaus**: Famous for creating the forgetting curve. States that we forget the most information within the first 20 minutes, then an hour, then a day. The forgetting curve is exponential, just like the learning curve.
- **Paul Ekman**: Studied facial expressions and how they reflected emotions. He believed there were six basic emotions that were universal and expressed in the same way in any culture. They are anger, disgust, fear, happiness, sadness, and surprise.
- **Albert Ellis**: Developed the psychotherapeutic approach known as rational emotive behavior therapy (REBT), which aims to help patients overcome irrational beliefs and unrealistic expectations- taught to eliminate self-defeating thoughts while focusing on those that were beneficial.
- **Erik Erikson**: A neo-Freudian; most famous for his stages in psychosocial development, which are based on Freud’s five stages. Each of the eight stages includes a crisis that could go one of two ways. Examples include trust vs. mistrust in babies, autonomy vs. shame and doubt, identity vs. role confusion in adolescents, etc.
- **Hans Eysenck**: He stated that intelligence was largely inherited and believed that all personality traits could be summarized by these two dimensions, which he called super traits. They are extroversion (introversion) and emotional stability or neuroticism (instability).
- **Sigmund Freud**: Often known as the father of modern psychology and psychoanalysis. Believed that the unconscious determines everything we do. His theories include the ideas of the stages of psychosexual development (oral, anal, phallic, latent, genital) and the three parts of the mind- the id, ego, and superego. Believed that dreams, free association, and hypnosis could reveal the unconscious mind.
- **Phineas Gage**: A railroad worker who had a large iron rod go completely through his left frontal lobe while working. He became a very angry person after his accident. His case concluded that specific areas of the brain affect personality.
- **Howard Gardner**: Created the theory of multiple intelligences that opposed Spearman’s idea of one general intelligence. Believed there are eight 'smarts,' which are language smarts, logic smarts, music smarts, spatial smarts, kinesthetic smarts, intrapersonal smarts, interpersonal smarts, and nature smarts.
- **Carol Gilligan**: Believed that Kohlberg’s theory of moral development was male-centered and believed that boys are more likely to apply moral rules to all contexts where girls are more likely to consider relationships when making a decision.
- **Francis Galton**: Developed the idea of "nature vs. nurture". He studied genetics and how they affected people's individualism. Nature means how a person acts because of their genetics and nurture means how a person acts based on their environment. He believed nature is the most important in the debate.
- **Daniel Goleman**: Most famous for his work with Emotional Intelligence, Emotional intelligence is how well you handle your feelings and how well you get along with others. He, a long with other
psychologists, believes that EQ (emotional intelligence) may be more indicative to a person’s success in life than academic IQ.

- Harry Harlow: Raised monkeys with two artificial mothers. One represented nourishment, the other contact/comfort. Discovered monkeys would feed from harsh mom with the food, but quickly return to soft cloth mom for a safe/secure base. Humans act the same way, we are social creatures who need contact to thrive.
- Karen Horney: Neo-Freudian, named parental indifference the true culprit behind neurosis and said the key to understanding this phenomenon is the child’s perception - children can overcome the Oedipus Complex if they have loving parents.
- William James: Wrote the first influential textbook on psychology, called Principles of Psychology (1890), a leading psychologist in the Functionalism movement, which emphasized the function (rather than the structure) of consciousness.
- William James and Carl Lange: Came up with the James-Lange theory of emotion. The theory proposes that emotions occur because of physiological reactions to events. This means that based on how your body physically reacts to an event, your mind will decide the emotion you are feeling.
  (Smiling makes you feel happy)
- Carl Jung: A Neo-Freudian, believed with Freud’s "personal unconscious" but also though humans have a collective unconscious - a shared, inherited reservoir of memory traces from our species' history. Also studied persona- different “masks” we wear in social situations.
- Garcia and Koelling: Discovered taste aversion when looking at effects of radiation on rats. Rats became nauseous from the radiation, but since the taste of water from a plastic bottle was accidentally paired with this radiation, the rats developed an aversion for this water.
- Lawrence Kohlberg: Came up with 3 moral development stages. The first is Pre-conventional (acted whether they would gain rewards or punishment). The second is conventional morality (actions that uphold social rules in intent to be liked by others and gain approval). The third is post-conventional (abstract reasoning for their actions)
- Elizabeth Loftus: Known for her work in the study of false memory formation and the misinformation effect. Famous for her car crash experiment- After viewing a video, those who were asked the question with the smashed wording were much more likely to "remember" seeing broken glass in a later question (in reality, no glass had been broken in the accident). They also remembered the car as driving much faster.
- Abraham Maslow: Founded Humanistic Psychology, which focused on the individual and self directed choices that influenced behavior (humans are basically good). Developed a Hierarchy of Needs that addresses physiological needs, safety needs, love and belonging, esteem, and self-actualization.
- Stanley Milgram: Most famous experiment: The authority figure told the teacher to test the learner word pairs, and if the learner were to answer wrong, the teacher would have to punish the student by electric shocks which got stronger each time. Although no actual shocks were given, more than 60% had 'shocked' the learner up to full voltage. Proved that people will do things mainly because an authority figure had prompted the teacher to do so.
- Ivan Pavlov: His experiments with dogs led him to discover classical conditioning. Discovered that he could condition dogs to salivate at the sound of a tone when the tone was repeatedly presented with food. He also discovered that if he sounded the bell over and over then the reaction would become extinct, but it may reappear the next day when the bell is sounded- spontaneous recovery.
- Jean Piaget: Studied the cognitive development of children. Defined four stages of cognitive development: sensorimotor, in which babies develop object permanence and stranger anxiety; preoperational, in which toddlers are egocentric; concrete operational, in which children develop ideas such as conservation; and formal operational, in which people ages 12+ begin to understand abstract concepts.
- Carl Rogers: Humanistic psychologist who used the theory of self-concept. To help his clients get back on the road to self-actualization, he developed a therapeutic approach called client-centered therapy, in which the therapist offers the client unconditional positive regard by supporting the client regardless of what is said.
- David Rosenhan: His experiment tested the validity of psychiatric diagnosis of insanity. He sent fake patients who pretended to have disorders to mental hospitals and they were still treated for months after reporting feeling fine. It showed that clearly doctors can't distinguish between the sane from the insane in such environments.
- Martin Seligman: He is famous for theorizing about 'learned helplessness'- that one will start to act helpless in a situation if they find that the can't stop the harmful stimulus, even if they actually do have the power to stop it. He found that dogs who had been shocked continuously would not escape even when given the ability to do so.
• Hans Selye: Responsible for the idea of General Adaptation Syndrome (GAS). First is the "alarm reaction" where we prepare for "fight or flight." Second is resistance, where the resistance of stress is built. After a long duration of stress, the body enters the third stage - exhaustion. This last stage is most hazardous to your health and has the long-term effects.
• Stanley Schachter and Jerome Singer: Developed the two-factor theory of emotion which simply states that emotions are comprised of physical arousal and a cognitive label. They also said that emotional experience requires conscious interpretation of the arousal. To test this they experimented this with college students by injecting them with epinephrine before placing them in a room with somebody in either a euphoric or irritated state.
• B.F. Skinner: Associated with operant conditioning and responsible for the Skinner Box, or the operant conditioning chamber. He sought to understand behavior as a function of environmental histories of reinforcing consequences (as all behaviorists do).
• Charles Spearman: Believed that only one type of intelligence- g, or general intelligence exists. This is tested on a standard IQ test.
• George Sperling: Studied iconic sensory memory. He showed people a group of letters quickly, the asking them to repeat the letters immediately afterwards. Participants were generally able to recall 4-5 of the 9 letters, but could remember a whole row when prompted. Sperling believed that all 9 letters were stored immediately (mini photographic memory), then were quickly forgotten.
• Robert Sternberg: Distinguished among three aspects of intelligence: analytical intelligence, creative intelligence, and practical intelligence. He contributed to the idea that there is more to creativity than that which intelligence tests reveal.
• Lewis Terman: He revised Alfred Binet's earlier tests and invented the Stanford-Binet IQ Tests. Believed that children who scored high on his IQ tests were "gifted" and likely to become society's leaders in adulthood. Also, he felt that the tests results proved that black men intelligence was inferior to the intelligence of white men.
• Edward L. Thorndike: Widely known for the law of effect- the principle that rewarded behavior is likely to recur and punished behavior is unlikely to recur. This principle was the basis for BF Skinner’s behavioral technology.
• Edward Tolman: Most famous for his studies on behavioral psychology, studied latent learning. He is known for his study of learning with rats in mazes, rats who run the maze without a reward still learn how to complete the maze
• John Watson: Established the idea of behaviorism. Recommended the study of behavior without reference to unobservable mental process. Also conducted the "Little Albert" experiment where he proved classical conditioning. He presented the child with a white rat and a loud noise and soon enough the child was afraid of the white rat.
• Ernst Weber: Notable for his work in sensation and difference thresholds. His principle that two stimuli, to perceive their difference, much be a constant proportion, not a constant amount, is known as Weber’s law.
• Benjamin Whorf: Proposed that one's language and grammar patterns shape one's view of reality-linguistic relativity. For example, English has many words that have to do with "time." The Hopi however, do not. As a result, time does not play an important role in Hopi society.
• Wilhelm Wundt: Established the first psychology laboratory at the Germany, where introspection was used. He focused on inner sensations, images, and feelings, which is known as structuralism.
• Philip Zimbardo: His experiment assessed how role playing affects attitudes. In the study, male volunteers were randomly assigned to either a "guard" role or "prisoner" role to be carried out in a mock prison. The guards were told only to maintain order, but within two days the guards began to act cruelly without reason and prisoners began to show signs of extreme stress. The experiment had to be cut short. There were no long term, but the experiment changed ethical standards for experimentation.
<table>
<thead>
<tr>
<th><strong>Researcher(s)</strong></th>
<th><strong>Area of Study</strong></th>
<th><strong>Basics of Study</strong></th>
<th><strong>Key Concepts derived from or enhanced from research</strong></th>
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<td>Bio Psych</td>
<td>Key aspects of split brain and how people with this situation will be able to perceive reality and particular sensory stimuli</td>
<td>Split brain</td>
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<tr>
<td>Tolman</td>
<td>Cognition</td>
<td>Studied rats and discovered the cognitive map in rats and humans</td>
<td>Cognitive map</td>
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<td>Loftus</td>
<td>Cognition and memory</td>
<td>Showed how easily memories could be changed and falsely created by techniques such as leading questions and illustrating the poverty of accuracy in eyewitness reports.</td>
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<td>Gibson &amp; Walk</td>
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<tr>
<td>Harlow</td>
<td>Development</td>
<td>Cloth monkey and wire monkey mothers: which would the child monkeys go to when scared?</td>
<td>Love, attachment,</td>
</tr>
<tr>
<td>Piaget</td>
<td>Development</td>
<td>“The development of object concept: The construction of reality in the child.”</td>
<td>Object permanence, perception of reality by children, development of cognition</td>
</tr>
<tr>
<td>Zajonc &amp; Markus</td>
<td>Development</td>
<td>Discovered that first born and only children tend to have higher IQs than latter born children</td>
<td>Birth order, first born, middle child, intelligence</td>
</tr>
<tr>
<td>Kohlberg</td>
<td>Development</td>
<td>Studied boys responses to and processes of reasoning in making moral decisions. Most famous moral dilemma is “Heinz” who has an ill wife and cannot afford the medication. Should be steal the medication and why?</td>
<td>Moral development Preconventional Conventional Postconventional stages of moral development</td>
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<tr>
<td>Gilligan</td>
<td>Development</td>
<td>Did moral development studies to follow up Kohlberg. She studied girls and women and found that they did not score as high on his six stage scale because they focused more on relationships rather than laws and principles. Different reasoning, not better or worse</td>
<td></td>
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<tr>
<td>Ekman &amp; Friesen</td>
<td>Emotion</td>
<td>Constants across culture in the face and emotion</td>
<td>Universal Emotions (based upon facial expressions)</td>
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<tr>
<td>Festinger</td>
<td>Emotion, Social Cognition</td>
<td>Worked and demonstrated cognitive dissonance</td>
<td>Cognitive dissonance</td>
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<tr>
<td>Schacter</td>
<td>Emotions</td>
<td>Worked with emotions and modified theory of emotions to include cognitions and their role in the formation of emotions</td>
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<tr>
<td>Lorenz</td>
<td>Ethology</td>
<td>Did the ducks with imprinting and critical period work</td>
<td>Imprinting Critical periods</td>
</tr>
<tr>
<td>Rosenthal &amp; Jacobson</td>
<td>Intelligence and learning</td>
<td>Researchers misled teachers into believing that certain students had higher IQs. Teachers changed own behaviors and effectively raised the IQ of the randomly chosen students</td>
<td>Self-fulfilling prophecy, Pygmalion Effect</td>
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<tr>
<td>Terman</td>
<td>IQ and development</td>
<td>Tested group of young geniuses and followed in a longitudinal study that lasted beyond his own lifetime to show that high IQ does not necessarily lead to wonderful things in life. Daniel Goleman followed with EQ or Emotional Quotient that learning how to handle people and your own emotions in social situations can be more helpful than IQ.</td>
<td>IQ, longitudinal study, Emotional quotient</td>
</tr>
<tr>
<td>Author</td>
<td>Field</td>
<td>Description</td>
<td>Key Concepts</td>
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<tr>
<td>Pavlov</td>
<td>Learning</td>
<td>Began by measuring the salivary reaction of dogs. Ended with a new understanding of associational learning and the conditioned reflex.</td>
<td>Classical conditioning, unconditioned stimulus, conditioned stimulus, unconditioned response, conditioned response</td>
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<tr>
<td>Watson &amp; Raynor</td>
<td>Learning</td>
<td>Classical conditioning—conditioned fear into infants (including Little Albert) in order to examine how fears are learned and generalized</td>
<td>Classical conditioning terms, behavioral conditioning</td>
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<tr>
<td>Skinner</td>
<td>Learning</td>
<td>Trained animals to do complex behaviors; e.g. making pigeons exhibit superstitious behavior</td>
<td>Operant conditioning, chaining</td>
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<tr>
<td>Wolpe</td>
<td>Learning/Therapy</td>
<td>Systematic desensitization work</td>
<td>Systematic desensitization</td>
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<tr>
<td>Ebbinghaus</td>
<td>Memory</td>
<td>Memory of meaningless words</td>
<td></td>
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<tr>
<td>Masters &amp; Johnson</td>
<td>Motivation</td>
<td>The human sexual response—studied how both men and women respond to and in relation to sexual behavior</td>
<td>Virtually anything sexual was now being talked about publicly</td>
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<tr>
<td>Holmes &amp; Rahe</td>
<td>Motivation</td>
<td>Using a “social readjustment scale” to measure stress</td>
<td>Stress and coping</td>
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<tr>
<td>Seligman</td>
<td>Personality</td>
<td>Learning to be depressed—the learned helplessness studies with dogs and electric shock</td>
<td>Learned helplessness</td>
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<tr>
<td>Freud</td>
<td>Personality</td>
<td>“The ego and the mechanisms of defense.”</td>
<td>Defense mechanisms, ego, displacement, sublimation, projection, repression, regression, etc.</td>
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<tr>
<td>Rorschach</td>
<td>Personality</td>
<td>“Psychodiagnostics: A diagnostic test based on perception.”</td>
<td>Ink-blot, projective test</td>
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<tr>
<td>Rorschach</td>
<td>Testing</td>
<td></td>
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<tr>
<td>Rosenhan</td>
<td>Psychopathology or Social Psych</td>
<td>Rosenhan and colleagues checked selves into mental hospitals with symptoms of hearing voices say “empty, dull and thud.” Diagnosed with schizophrenia. After entered, acted normally. Never “cleared” of diagnosis. Roles and labels in treating people differently.</td>
<td></td>
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<tr>
<td>Hobson &amp; McCarley</td>
<td>Sleep or Consciousness</td>
<td>Sleep studies that indicate the brain creates dream states, not information processing or Freudian interpretations</td>
<td>Activation-Synthesis Theory</td>
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<tr>
<td>Asch</td>
<td>Social Cognition</td>
<td>Asch deceived subjects by telling them it was a study in perception. He was really testing their conformity levels. Also called “the line study.”</td>
<td>Conformity, group influence, factors increasing conformity</td>
</tr>
<tr>
<td>Langer &amp; Rodin</td>
<td>Social Psych</td>
<td>The effects of enhanced personal responsibility and helping behavior</td>
<td>Helping behavior, personal responsibility</td>
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<tr>
<td>Asch</td>
<td>Social Psych</td>
<td>Opinions and social pressure</td>
<td></td>
</tr>
<tr>
<td>Darley &amp; Latane</td>
<td>Social Psych</td>
<td>“Bystander Intervention in emergencies: Diffusion of responsibility”</td>
<td>See title of paper</td>
</tr>
<tr>
<td>Milgram</td>
<td>Social Psych</td>
<td>“Behavioral study of obedience”—wanted to see if Germans were an aberration or if all people were capable of committing evil actions</td>
<td>Shock study, teacher/learner study or obedience study</td>
</tr>
<tr>
<td>Zimbardo</td>
<td>Social Psych</td>
<td>Prison Study that showed the power of roles in people’s behaviors. When one takes on a role, they will often change their behavior in order to fit the perceived set of expectations for that role</td>
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</tbody>
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