• Diseases, biology
• Fixed variables- things you can't change
  o Problems
• Longitudinal Designs
  o Long period of time (months, years, etc.)
  o Benefits
    • More detailed
    • Could show limitations to a certain treatment
  o Challenges
    • Time
    • Something could go wrong
    • Cost
    • Human attachment
    • Drop-out or death
• Methods and Trade-Offs
  o Experimental is probably the best method but there are still draw backs
  o Depends on what you're studying
  o Start with Correlation if you can to see if they are actually related and you don't just think that they are
  o Ethics plays a part in which type you use
  o Quasi can take the bias out of it, can't decide someone's biology just for the purpose of a study
• Confounds- things that undermine the ability to make causal inferences from an experiment

**The Brain and Nervous System**

• Humans have a much more developed frontal lobe than other animals
• Nervous system- body's network for electrochemical communication
  o Includes all nerve cells in the body
• The Central Nervous System (CNS)- made up of the brain and spinal cord
• Neurons- individual brain cells
• Synapses- Junction between the presynaptic terminal of one neuron and the dendrite, axon, or soma of another postsynaptic neuron
• Dendrite- part of the neuron that extends away from the cell body and receives information
• Soma- the cell body of a neuron, houses the nucleus and genetic information, cytoplasm
• Action Potential- a transient all-or-nothing electrical current that is conducted down the axon when the membrane potential reaches the excitement threshold
• Axon- extends off the Soma, splits several times to connect with other neurons; main output of neuron
• Myelin Sheath- fatty tissue that insulates the axons; is necessary for normal conduction of electrical impulses along the neurons, protective coating on an axon
• Synaptic Gap (cleft)- the small space between the presynaptic nerve and the postsynaptic dendrite spine, axon, or soma
• Neurotransmitters- chemical substance released by the presynaptic terminal that acts on the postsynaptic cell
• Terminal buttons- send info to other neurons
• The Brain
- Cerebellum
  - Balance posture
  - Sequence learning
  - Coordination of voluntary movement

- 4 Lobes
  - Frontal - cognitive abilities, motor control and language, most advanced
  - Temporal - memory, language, hearing, perception, on the sides bottom
  - Occipital - back, vision
  - Parietal - sensory info, association, top of middle and back of brain

- Motor cortex
  - Located in the rear of Frontal lobe, and front of parietal lobe
  - Controls fine and gross motor skills
    - Fine - fingers
    - Gross - running, walking

- Sensory cortex
  - Front of parietal
  - Touch and sensation

- Wernicke's Area - language, left temporal lobe
  - Language comprehension, understanding what someone is saying, not just hearing

- Broca's Area
  - Left frontal lobe
  - Muscle movement, speech production
    - Sally can understand what you are saying but cannot respond

- Thalamus - relaying sensory and motor info (everything but smell), memory, awareness, consciousness, perception and cognition

- Amygdala - fear, emotion processing, learning, fight or flight, reward processing

- Hippocampus - early memory stage, long term memory
  - Spatial navigation

- Hypothalamus
  - Internal temp gage
  - Hunger
  - Sleeping

- Talking and walking - Broca's and frontal lobe

- Early brain study focused on people with partially damaged brain

- Phineas Gage
  - Worked on railroad
  - Rod went through his brain and skull, survived
  - Damage to the prefrontal cortex, that control judgement and decision making

- Lesion method - intentional destruction of small animal brains

- CT (computerized Tomography)
  - X-rays of a particular section of brain or body
    - Detect tumor or brain atrophy

- PET
  - Measure biochemical activity of the brain by being injected with a slightly radioactive tracer

- EEG - electrical activity of the brain, shows overall brain activity
• Sexual orientation- direction of one’s emotional and erotic attraction to opposite, same, or both sexes
• Gender differences due to
  ○ Actual gender differences
  ○ Gender roles
  ○ Gender Stereotypes
• Girls are more likely to:
  ○ Agree with the person they are talking to
  ○ Offer praise
  ○ Elaborate on other's comments
• Boys are more likely to:
  ○ Assert their opinions
  ○ Offer criticism
  ○ Engage in aggression
• Developmental Intergroup Theory- adults' heavy focus on gender leads children to...
  ○ Use gender as a key source of information about themselves and others
  ○ Seek out any possible gender differences
  ○ Form rigid stereotypes based on gender
• Gender Schema Theory- children actively organize others' behavior, activities, and attributes into gender specific categories or schemas
• Social Learning Theory- gender roles are learned through reinforcement, punishment, and modeling
• Gender discrimination- differential treatment based on gender
• Sexual harassment- unwanted treatment related to sexual behaviors or appearance
• Ambivalent Sexism
  ○ Hostile- the men are better than women because they are type of sexism (what we usually think of as sexism)
  ○ Benevolent- refers to the sexism in men that believe they need to protect women because women are fragile and weak

Social Psychology
• Why do people do what they do?
• Social Psychology- the scientific study of how people's thoughts, feelings and behaviors are influenced by other people
• Social Psychology seems to explain...
  ○ How people influence each other (descriptive)
  ○ Why people influence each other (explanatory)
  ○ Describes and explains social theory
• Interdisciplinary Bridge
  ○ Social psychology combines questions and elements from other areas within psychology as well as from outside discipline
  ○ Ex. Evolutionary biologists are interested in similarities and differences between human and other animals
• The Sociocultural Perspective
  ○ A theoretical viewpoint that searches for the causes of social behavior in influences from larger social groups
  ○ What drives social behavior?
What drives social behavior?
• What we pay attention to
• How we interpret and judge social situations
• What we retrieve from memory
  ▪ People notice the behaviors of group members who are in a minority, and exaggerate the significance of the things they do

From chumps to champs
• Research on social cognition suggests that our memory processes are often biased to make ourselves feel good

Basic principles of Social behavior
• Represents a continual interaction between the person and the situation
  ▪ The person- all of the characteristics that the person carries into a social situation. Includes physical attributes, attitudes, beliefs, preferences, and psychological traits
  ▪ The situation- events outside the person, these include both temporary features such as environmental demands and long-lasting influences such as family and culture
  ▪ Person-situation interactions- more accurately capture social psychology, different social situations trigger different goals. If these goals compete, it is extremely complicated to determine which will “float to the top”

Goal oriented
• Day to day
  ▪ Make a good impression
  ▪ Get a date
• Longer-term goals
  ▪ To be seen as likeable
  ▪ Develop a romantic relationship

Fundamental motives
• To establish social ties
• To understand ourselves and others
• To gain and maintain status
• To defend ourselves and those we value
• To attract and retain mates

How psychologists study social behavior
• They use 5 major types of descriptive methods
  ▪ Naturalistic observation
    ▪ Involves observing behavior as it unfolds in its natural setting
  ▪ Case studies
    ▪ Involve intensive examination of a single person or group
  ▪ Archives
    ▪ Involves examination of archives, or public records of social behaviors
  ▪ Surveys
    ▪ Involves asking people questions about their beliefs and behaviors
  ▪ Psychological tests
    ▪ Involve attempts to assess an individual’s abilities, cognitions, motivations, or behaviors
• The descriptive methods are useful in determining correlation
Ex. I am a Jewish family man

- Reactance theory - theory that we react against threats to our freedoms by reasserting those freedoms, often by doing the opposite of what we are being pressured to do
- Resistance to social influence
  - Disrupt-then-reframe technique - tactic that operates to increase compliance by disrupting one's initial, resistance-laden view of a request and quickly reframing the request in more favorable terms

- Managing self-image
  - Personal commitment - anything that connects an individual's identity (or self-image) to a position or course of action, making it more likely that he or she will follow through
  - Commitment-initiating tactics
    - The foot-in-the-door technique (see above)
    - The low-ball technique
      - After making an active choice for something, people take “mental possession” of it, and it becomes a part of their self-concept
      - It is often easier to continue with the commitment than to change the self-concept
    - The bait and switch technique
      - This gets people to accept a deal they would have dismissed if it had been offered first
      - It works by getting people to make a commitment to a general course of action
  - Labeling technique
    - The label (ex. “You are generous”) activates a favorable self-image
    - This motivates the person to act in ways that are consistent with that self-image (to be generous)

Prejudice, Stereotyping, and Discrimination

- Prejudice - a generalized attitude toward members of a social group
  - Can be positive or negative
- Stereotype - a generalized belief about members of a group
- If you were asked your opinions about Irishmen, Californians, or frat guys, that would tap...
  - Explicit prejudice - positive or negative feelings of which you are aware of and are willing to say
  - But NOT implicit prejudice - feelings of which you are not aware or unwilling to say
- Discrimination - behaviors directed toward others because of their group membership
  - Approximately 50% of women have been sexually harassed during their academic or working lives
  - According to the law, sexual harassment takes two forms
    - Quid pro quo harassment - attempts by the perpetrator to exchange something of value for sexual favors (prostitution)
    - Hostile environment harassment - creating a professional setting that is sexually offensive, intimidating, or hostile
  - Institutional discrimination - the discrimination that has been built into the legal, political, economic, and social institutions of a culture
  - Costs to prejudice, stereotyping, and discrimination can be...
- Students who got to affirm their self-worth by writing about things important to them later expressed less stereotypes about a Jewish job candidate
  - Activate goals incompatible with prejudice, stereotyping, and discrimination
    - Students forced to confront the inconsistency between their egalitarian beliefs and their prejudiced attitudes were later more likely to join the NAACP
  - Role-playing interventions- teach people to take the perspective of other groups
    - Ex. Imagining what it would be like to have AIDS

- When contact helps
  - Outgroup members have traits and abilities challenging negative stereotypes
  - Contact is supported by local authorities and norms
  - Groups are of equal status, at least in contact setting
  - Contact is at individual level
  - Contact is rewarding
  - Groups work toward common goals

**Psychological Disorders**

- **Insane vs. Mental Illness**
  - Insanity- a legal term meaning that person does not or did not know the difference between right and wrong
    - Ex. "not guilty by reason of insanity"

- **Psychopathology**
  - Disruptions in emotional, behavioral, or thought processes that lead to personal distress or that blocks one's ability to achieve important goals (the field is also called abnormal psychology)

- **Mental/psychological disorder**- a clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and that is typically associated with either a painful symptom (distress) or impairment in one or more important areas of functioning

- **Identifying disorders/abnormal behavior- 3 standards**
  - Statistical standard- evaluates behavior as abnormal when it deviates from average/normative behavior in that particular culture
    - Frequency, degree, intensity, duration, pattern
  - Subjective discomfort standard- evaluates behavior as abnormal when the individual is discontented with the person's own psychological functioning
    - Distress or discomfort to self and others (anxiety, fears, depression, etc.)
    - Danger to self and others (physical or verbal abuse, suicide, violence)
    - Distortion of reality or perception (hallucinations, delusions)
  - Maladaptive functioning standard- evaluates behavior as abnormal when it interferes with an individual's functioning within his or her own life and within society (activities of daily living, work, relationships)
    - Inappropriate behavior (situation, status, role, gender, age, education)
    - Socially unacceptable behavior (violates folkways, mores, social standards)
    - Self-defeating and maladaptive behavior (chronic alcoholism, drug use, defense mechanisms)
    - Unable to function effectively

- **Etiology- the causes or factors related to the development of a disorder**
  - Biological
    - Brain structure abnormalities
    - Biochemical processes
• Grandiose
  ▪ A person with this type of disorder has an over-inflated sense of worth, power, knowledge, or identity. The person might believe he or she has a great talent or has made an important discovery

• Jealous
  ▪ A person with this type of delusional disorder believes that his or her spouse or sexual partner is unfaithful

• Persecutory
  ▪ People with this type of delusional disorder believe that they (or someone close to them) are being mistreated, or that someone is spying on them or planning to harm them. It is not uncommon for people with this type of delusional disorder to make repeated complaints to legal authorities

• Somatic
  ▪ A person with this type of delusional disorder believes that he or she has a physical defect or medical problem

• Hallucinations- perceptions of things that do not exist
  ○ Examples include hearing voices, seeing things that aren't there and smelling unusual aromas that aren't there

• Dissociative disorders
  ○ In dissociative disorders, critical elements of personality split apart from significant aspects of experience, memory or consciousness
    ▪ Dissociative identity disorder- developing separate personalities
    ▪ Dissociative amnesia- failing to recall or identify past experiences
    ▪ Dissociative fugue- leaving home and wandering off

• Personality disorders
  ○ An enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual's culture, is pervasive and inflexible, has onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment
    ▪ Paranoid personality disorder- a pattern of distrust and suspiciousness such that others' motives are interpreted as malevolent
    ▪ Schizoid personality disorder- a pattern of detachment from social relationships and a restricted range of emotional expression
    ▪ Schizotypal personality disorder- a pattern of acute discomfort in close relationships, cognitive or perceptual distortions, and eccentricities of behavior
    ▪ Antisocial personality disorder- a pattern of disregard for and violation of, the rights of others
    ▪ Borderline personality disorder- a pattern of instability in interpersonal relationships, self-image, and affect, and marked impulsivity
    ▪ Histrionic personality disorder- a pattern of excessive emotionality and attention seeking
    ▪ Narcissistic personality disorder- a pattern of grandiosity, need for admiration, and lack of empathy
    ▪ Avoidant personality disorder- a pattern of social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation
    ▪ Dependent personality disorder- a pattern of submissive and clinging behavior related to an excessive need to be taken care of
    ▪ Obsessive-compulsive personality disorder- a pattern of preoccupation with orderliness, perfectionism, and control