

Psych 1010

Unit 4

Week 11

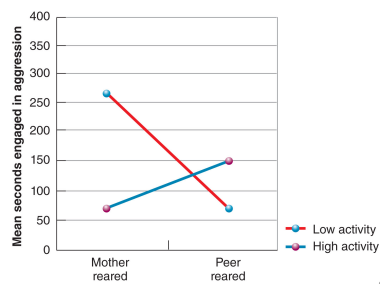
Development

- _____ – the science of how and why people change over time, from conception to death.
- Keep in mind that genes and environment are constantly interacting to produce a final phenotype.
- Epigenetic changes become more common across the lifespan. Identical twins become less similar over time.

Development

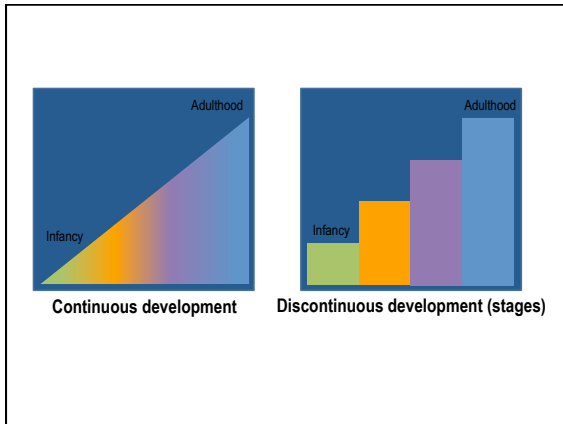
- In a study (Newman et al. 2005), rhesus macaques were either raised by parents, or in a peer group without adults.
- Monkeys with high MAOA activity were:
 - _____ aggressive than low MAOA monkeys when raised by mom.
 - _____ aggressive than low MAOA monkeys when raised with peers and no adults.
- Gene x environment interaction.

MAOA activity and rearing environment in rhesus macaques



Development

- _____ – the idea that development is a gradual process, with one stage gradually leading to another.
- _____ – the idea that development has stages that are clearly demarcated from one another.
- Both appear to happen across a lifespan.

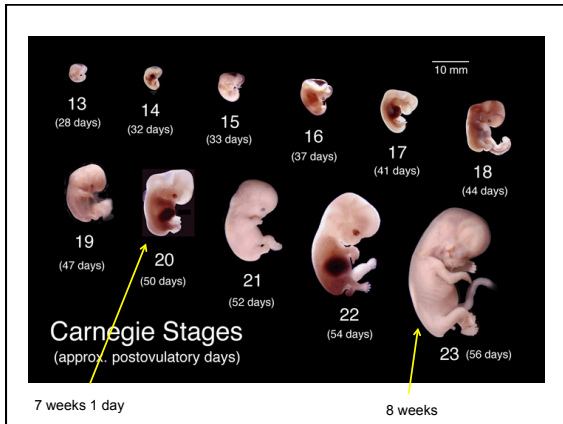


Development

- **Development** – some facets of development seem to be constant across cultures.
- **Development** – environments can affect developmental processes.
- Both approaches help us understand how development proceeds.

Periods of Prenatal Development

- – the cell that results from sperm combining with egg (gametes). First two weeks after conception.
 - – cells that are capable of differentiating into any other cell.
- – 3rd through 8th week. Rudimentary forms of body structures develop.
- – 9th week until birth (38 weeks). Most brain cells are present by 7 months.



Fetal Period

- Myelination of neurons in the nervous system begins at 6 months.
- REM sleep appears at 7 months (dreaming?).
- Full term birth is at 37-42 weeks, average at about ____ weeks.
- Babies born before 37 weeks are termed premature, and can have life-long health detriments.

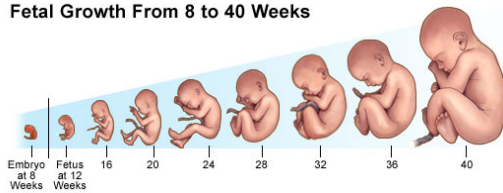
Fetal Period

- Babies can remember nursery rhymes or stories that were read to them every day for the last six weeks of pregnancy after they're born.
- Average weight at birth is 7.5 pounds. (largest to ever survive was 22lb 8oz, 1955, Italy).



Gisela from Brazil weighed 15 pounds, 6 oz at birth

Fetal Growth From 8 to 40 Weeks

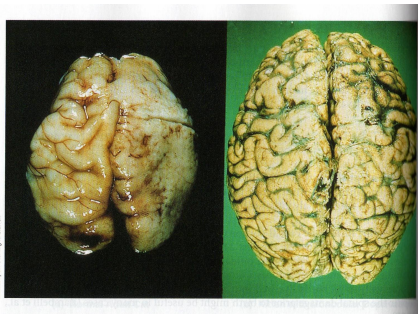


Harmful Substances

- _____ - substance or condition that increases the risk of prenatal abnormalities. Includes drugs, pollutants, radiation, diseases, malnutrition, extreme stress.
- _____ - teratogen that doesn't cause overt physical defects, but harms the brain leading to hyperactivity, antisocial behavior, or learning disabilities.

Harmful Substances

- _____(FAS) - associated with consumption of large amounts of alcohol during pregnancy.
- Symptoms include certain cranial and facial features, intellectual disability, growth deficits, heart defects, hyperactivity, attention deficits, and poor decision making.
- Five states (ND, SD, MN, OK, WI) have instituted "involuntary commitment" (jail or forced residential treatment) for drinking while pregnant.

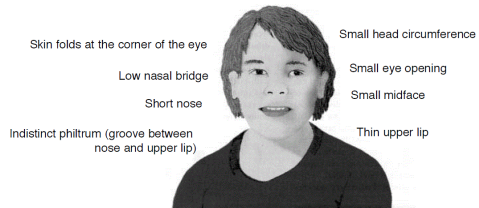


Fetus brain with fetal alcohol syndrome

Normal fetus brain

Craniofacial features associated with fetal alcohol syndrome

Facial features of FAS



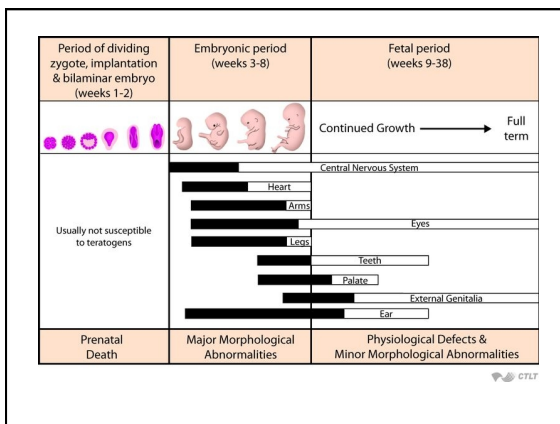
Harmful Substances

- _____ – substance once used to treat morning sickness.
- Consumption of thalidomide while pregnant led to many children being born with malformed arms and legs.



Harmful Substances

- Teratogens increase the risk of harm, but may not necessarily cause damage.
- _____ is important – exposure to a teratogen might cause damage at one point in embryonic/fetal development, but not others (see following slide).
 - Smokers who quit in the first weeks of pregnancy have no higher risks of birth complications than women who never smoked (McCowan et al. 2009).



Harmful Substances

- Brain can be affected by teratogens through entire embryonic and fetal periods.
- Dose and/or frequency of exposure also affect whether teratogens are harmful.
- _____ **effect** – some teratogens are virtually harmless until a particular threshold, when they become damaging.
- Teratogens can also interact, and therefore lower the threshold for each.

Harmful Substances

- Fetal genes also play a role.
- One fraternal twin might have more adverse effects from prenatal alcohol exposure than the other because of a genetic susceptibility.
- Costs vs. benefits – women in the US are advised not to eat fish (mercury, a teratogen), but in the UK are encouraged to eat fish (DHA, a fatty acid needed for brain development).
- Some women need to take drugs for heart problems, epilepsy etc.

Newborns

- People once thought that babies were born without any innate abilities – they were a _____.
- We now know that babies have many inborn abilities, including many reflexes, like:
 - Moro – if head drops, arms flail out, then back in.
 - Rooting – stroking cheek leads to seeking behavior with mouth. Allows for feeding.
 - Stepping – putting a baby's feet on a surface will lead to stepping motions. Allows for eventual walking.

Palmar Reflex



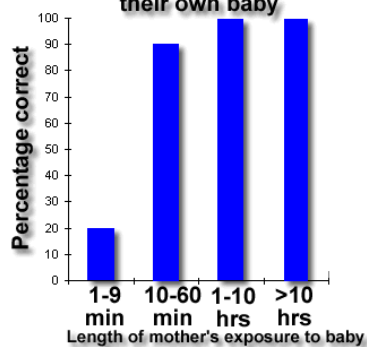
Newborn babies will grasp anything placed in their hand.

Smell

- Babies develop a sense of smell in utero, and mom's odor becomes familiar (mothers can recognize babies by smell soon after birth, too).
- Smells from their own amniotic fluid comfort babies shortly after birth.
- Odors from mother's nipples attracts babies for nursing.

Mothers learn quickly to recognise the odour of their own baby

Kaltz 1987



Smell

- Babies continue to learn mom's smells (including artificial ones) during the first few days of life, and prefer her odors to the odors of others.
- Formula-fed newborns prefer the smell of unfamiliar breast milk to the smell of formula.

Taste

- Food mothers eat affect flavor preferences of babies after birth.
- Newborns tend to nurse longer if their mother has eaten recently eaten sweet food.
- Newborns can recognize all primary tastes (bitter, sweet, salty, sour, umami) except salty, which occurs by 4 months.

Taste

- Babies cry less if given a sweet solution before a painful procedure (e.g. heel prick).
- Newborns don't like most bitter flavors, and will make "_____" when tasting lemons or limes.

Hearing

- Hearing develops during the last trimester of pregnancy and is acute at birth.
- Many countries require hearing checks shortly after birth, since early intervention is key (so connections to the brain don't atrophy).

Hearing

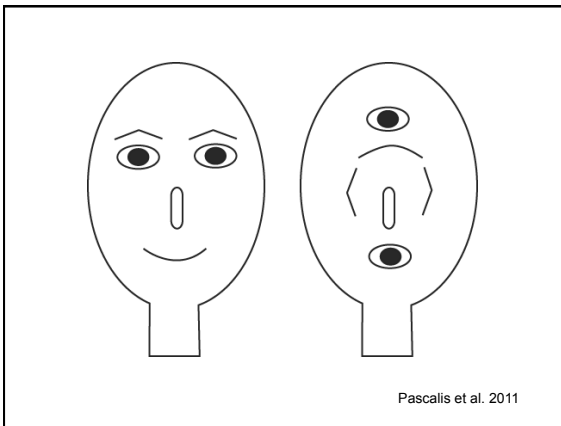
- Babies can recognize the sound of their own mother's voice even before birth!
- Babies don't appear to have a preference for their father's voice (babies tend to prefer _____ voices in general).
- Four day old babies prefer a story told in their own language to a story told in another language, and they cry in the accent of their mother.
- Babies can recognize stories that were read to them before birth.

Vision

- _____ is the least developed sense at birth.
- Newborns can only see things that are between 4 and 30 inches away.
- Vision is blurry, and sharpest at the edges of the visual field (as opposed to the center).
- Newborns are interested in sharp boundaries between light and dark.

Vision

- Infants (even at _____ old!) prefer to stare at face-like stimuli more than non-face-like stimuli, even when they have the same components.



Neurons

- The newborn brain has 100 billion neurons (almost all a person will ever have).
- Newborns have fewer dendrites and synapses compared with adults (i.e. fewer connections between neurons).
- Newborn neurons have less myelin.

Neurons

- From birth to age 2, there is a 5x increase in density of dendrites in the cortex – _____.
- This serves to “prepare” the brain for coming experiences.
- _____ – unused neurons and dendrites die.
- _____ – process in which axons become coated with myelin, which speeds neural impulses. Proceeds quickly from six months after conception to age 4, and continues into adolescence.

Transient Exuberance

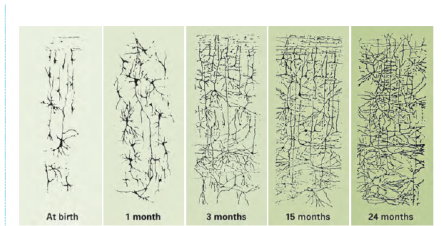


Figure 5-4 The Development of Dendritic Spreading
Note the increase in connectedness between neurons over the course of the first two years of life.

Santrock

Neurons

- As individuals have experiences, some neurons fire.
- Neurons that fire are preserved and strengthened, those that don't are pruned (_____).
- Lack of normal experiences growing up can lead to too much pruning, and also mental difficulties.

Motor Development

- Humans are almost completely helpless at birth, and have an extremely long period of parental dependence.
- On average:
 - Crawling at 6-9 months.
 - Walking unassisted at twelve months.

Motor Development

- Cultural, environmental, and genetic factors influence milestones.
 - If movement is encouraged by a culture, motor milestones will be reached earlier by children than in a culture where movement is discouraged or actively restricted.

Cognitive Theories

- Cognitive theories examine the mental aspects of development, such as memory and logic.
- Jean Piaget – noticed that children made the same discoveries about the world at roughly the same time, making the same mistakes.
 - Seven year olds understand the idea of conservation (the amount of water stays the same in a short, wide glass and a tall, narrow glass), but 3-4 year olds do not.

Cognitive-Developmental Theory

- Piaget defined four states in his Cognitive-Developmental Theory:
 - **Sensorimotor** – birth to 2 years.
 - **Preoperational** – 2 to 6 yrs.
 - **Concrete operational** - 6 yrs. to 12 yrs.
 - **Formal operational** – 12 years and up.

Cognitive-Developmental Theory

- **Sensorimotor** – birth to 2 years. Infants use senses and motor abilities to understand the world. At some point during this stage, infants realize that an object doesn't disappear when removed from view (_____).

Object Permanence

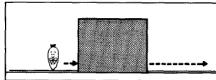
- _____ – when a baby realizes that things still exist when they're out of sight.
- Piaget thought babies achieved object permanence at 8 months. His methods:
 - Show an infant an interesting object.
 - Put the object beneath a cloth.
 - If a child doesn't look for it, s/he must think it no longer exists.
- Piaget found that children younger than 8 months did not remove the cloth.

Object Permanence

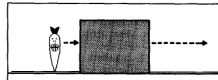
- More recently, scientists wondered if it wasn't that the child thought the object no longer existed, but was too immature in some other way to perform the task.
- Children were first habituated to possible events (shown a stimulus over and over until attention declines) then shown either a possible or impossible event (see next slides).
- Children stared significantly longer at impossible events, suggesting they have object permanence at 4 months or even younger.

Habituation Events

Short Carrot Event

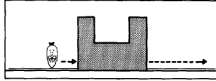


Tall Carrot Event



Test Events

Possible Event



Impossible Event

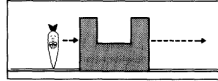


FIG. 1.—Schematic representation of the habituation and test events shown to the infants in the experimental condition in Experiment 1.

HABITUATION EVENT



TEST EVENTS

Possible Event

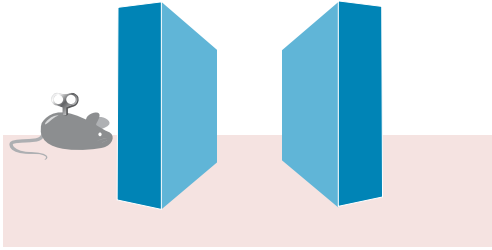


Impossible Event



FIG. 4.—Schematic representation of the habituation and test events shown to the infants in Experiment 3.

An “Impossible Event”



Object Permanence

- These studies in general show that young children have an _____, or an idea of how objects should behave.
- Researchers can use a _____ method to determine if babies understand basic physical properties of objects.

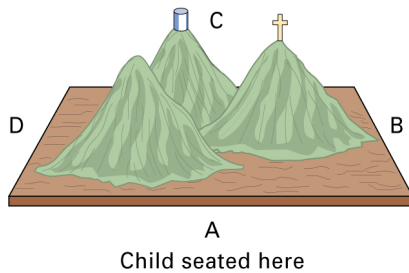
Preoperational

- Children acquire language, and eventually learn to take another's point of view, classify objects into categories, and use simple logic.
- Children from about 18-24 months start to understand that a picture or drawing of a dog represents a real dog or a banana represents a telephone.

Cognition

- Piaget used the three mountains task to test if children are able to understand the viewpoint of someone else (_____).
- Children are seated across from a doll with the “three mountains” in between. They’re then asked what they can see, and what the doll can see.
- Preoperational children have a difficult time taking another’s point of view.

View 1



Cognition

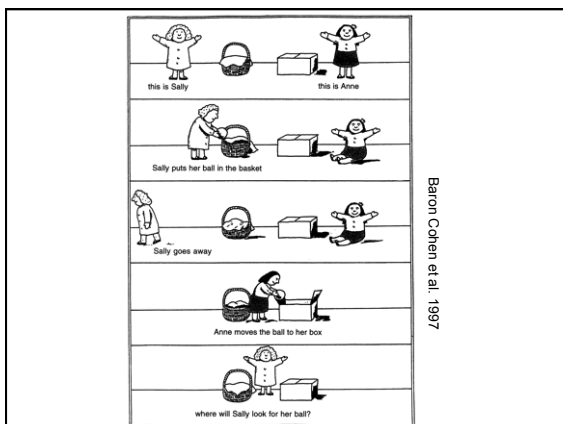
- _____ – the idea that the amount of something (e.g. number, volume) stays constant even if it undergoes a change in appearance.
- Preoperational children are unable to correctly solve problems dealing with _____.

Tests of Various Types of Conservation				
Type of Conservation	Initial Presentation	Transformation	Question	Preoperational Child's Answer
Volume	Two equal glasses of liquid.	Pour one into a taller, narrower glass.	Which glass contains more?	The taller one.
Number	Two equal lines of checkers.	Increase spacing of checkers in one line.	Which line has more checkers?	The longer one.
Matter	Two equal balls of clay.	Squeeze one ball into a long, thin shape.	Which piece has more clay?	The long one.
Length	Two sticks of equal length.	Move one stick.	Which stick is longer?	The one that is farther to the right.

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Cognition

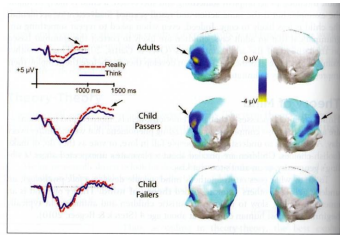
- _____ – the idea that other people might have different thoughts or beliefs.
- Requires the idea that thoughts don't necessarily reflect reality (occurs after age 3).
- _____ – a child has knowledge of something that another observer does not. The child is then asked about the situation from the observer's perspective.
– **Sally/Anne test**



Cognition

- Most ___-year-olds say Sally will look for the ball in the box (where it actually is).
- Most ___-year-olds say Sally will look for the ball in the basket (where Sally last saw it).
- Preoperational children are bad at _____!
- Having _____ correlates with developing theory of mind earlier.
- Development in the prefrontal cortex is correlated with development of theory of mind.

Brains at Work Neuroscience confirms the critical role of the prefrontal cortex for development of theory of mind. Adults and 4- to 6-year-olds were questioned on 40 theory of mind examples. The adults answered correctly, as did some 4- to 6-year-olds (passers), though not all (failers). The leftmost images are brain wave patterns, the middle ones represent brain activity (fMRI), and the far right two contrast mental activity when distinguishing reality and belief. Adult brain waves show quick answers, and the contrast (right) shows that they answered quickly with little effort, but the child passers needed to think longer before they answered. The authors concluded that "social cognition and the brain develop together" (Lu et al., 2009, pp. 318, 329).



Berger

Concrete Operational

- More formal logic develops, but thinking is limited to personal experience.
- Abstract and hypothetical reasoning is still difficult.
- Logic still needs physical aids.

Formal Operational

- Abstract and hypothetical ideas begin to be considered.
- Logic can be applied to situations that have not been experienced.
- Different alternatives can be manipulated mentally, rather than actually having to try out solutions to problems.

Piaget's Theory of Cognitive Development

Stage	Approximate age	Highlights
Sensorimotor stage	Birth to age 2	<ul style="list-style-type: none"> • Exploration through moving and sensing • Object permanence
Preoperational stage	2–6 years	<ul style="list-style-type: none"> • Language acquisition • Egocentrism • Illogical reasoning
Concrete operational stage	6–12 years	<ul style="list-style-type: none"> • Logical reasoning • Mastery of conservation problems • "Learn by doing"
Formal operational stage	12 years and above	<ul style="list-style-type: none"> • Abstract reasoning • Idealism • Improved problem solving

Piaget

- According to Piaget, humans at every stage of development are trying to reach _____, or a state of mental balance where the world makes sense.
- _____ – new experiences are interpreted to fit into old ideas.
- _____ – old ideas (or _____) are restructured to include new experiences.
- _____ – when schemes are wrong much of the time, entirely new ways of thinking must be adopted. For Piaget, this is when children move on to a more advanced stage.

Piaget

- New information has shown that children can perform some tasks earlier than Piaget thought, and can be improved with training.
- Piaget had little to say about social and cultural influences in development.

Sociocultural Theory

- _____ - associated with Lev Vygotsky. Makes comparisons across cultures to see if certain developmental pathways are universal, or if culture has an effect.
- Vygotsky stressed the importance of social interaction with others in the society for learning and the development of culture.

Sociocultural Theory

- Vygotsky thought children were “apprentices in thinking,” since learning is directed by other, often more skilled individuals through _____.
- _____ (ZPD) – Vygotsky’s term for skills a person is not quite able to do on his or her own, but can with assistance.
- _____ – support provided to children while they learn new skills (e.g. pointing things out, explaining, listening).

Temperament

- **Temperament** – inborn predispositions.
- Psychologists disagree about the dimensions of infant temperament, but authors of the New York Longitudinal Study felt that most infants fell into 3 categories:
 - _____ **children** (40%) – enjoy new experiences, predictable sleeping/eating patterns, generally happy.
 - _____ **children** (10%) – irregular sleeping/eating patterns, emotionally negative and irritable, resistant to change.
 - _____ **children** (15%) – few intense reactions (either positive or negative), nonresponsive to new people.

Temperament

- Temperament appears to be heritable.
- Different studies suggest that temperament is _____ across time, even into adulthood.
- Development is a complex give and take interaction between biological dispositions, and environment.
- Disposition affects chosen environment, which affects further development and so on.

Attachment

- **Attachment** – emotional bond between infant and caregiver (associated with John Bowlby).
- Evolutionary value should be evident!
- Leads parents to prevent predation, provide nutrition, transfer immunity, and provide enculturation (among other things).

Attachment

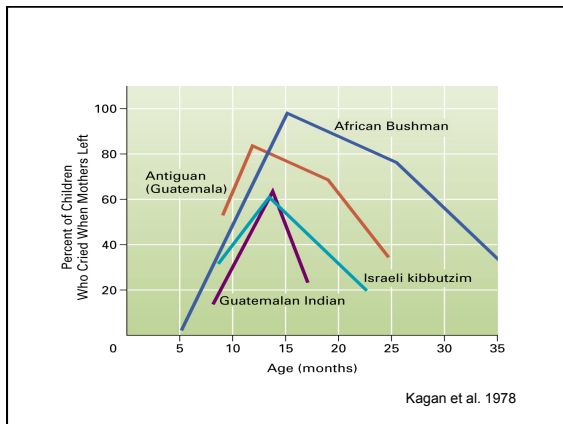
- Birth to 3 months – babies signal needs to anyone they come into contact with.
- No strong emotional bonds yet.

Attachment

- 3 to 6 months – babies become more responsive to familiar people, and less responsive to strangers.
- 6 to 24 months – babies show proximity-seeking behaviors to caregivers, look for comfort when scared/hurt. Start to become scared of strangers.

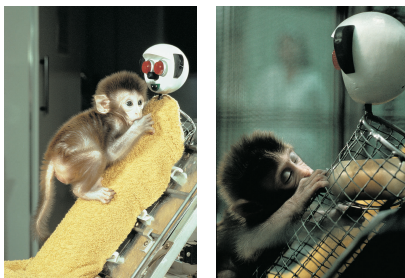
Attachment

- At around 12 months, children exhibit common behaviors as a result of newly formed/forming attachment with parents.
 - – commonly peaks around 12 months (when babies begin to be mobile!). Manifests itself with fussing or crying in presence of strangers, or hiding behind parents.
 - – also peaks around 12 months. Anxiety when primary caregiver leaves, as evidenced by crying or protesting.



Attachment and Primates

- Harry Harlow conducted experiments with rhesus monkeys to see how attachment affected youngsters.
- Baby monkeys were removed from their mothers when they were a few hours old, and raised by a “surrogate” of either:
 - 1) wire mesh
 - 2) mesh covered with terrycloth
- Monkeys spent more time with the terrycloth “mother,” even when the wire mother provided food.



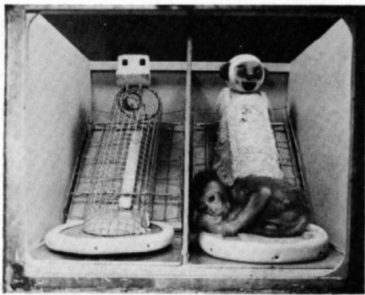


Figure 4. Wire and cloth mother surrogates.

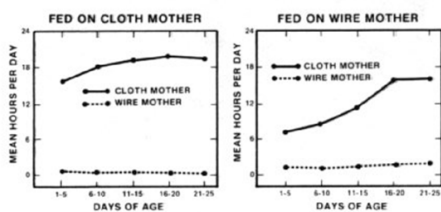


Figure 5. Time spent on cloth and wire mother surrogates.

Attachment and Primates

- In another experiment, monkeys weren't given a choice of wire or terrycloth mother.
- When these monkeys were scared or startled:
 - Those with a terrycloth mother clung to her and calmed down.
 - Those with a wire mother rocked back and forth, screamed, threw themselves on the floor, or clutched at themselves.

Attachment and Primates

- In yet another experiment, monkeys were given a terrycloth mother that occasionally put out a blast of cold air (aversive).
- This _____ the infant's contact time with the "mother."
- Seeking comfort from the source of the punishment also happens in birds and abused children.

Attachment and Primates

- If monkeys were raised in complete isolation for 3 months or more, they were never socially normal.
- If they were isolated for less than 3 months, exposure to peers and adults made up for some of the early social deficits.

Attachment Types

- Mary Ainsworth measured how children did in "The Strange Situation" test, and defined types of attachment based on it.

Attachment Types

- The Strange Situation:
 - Child and mother put in room with toys, and child explores on her own.
 - Stranger enters, talks to mom, talks to infant, mom leaves.
 - Mom comes back, comforts infant (if necessary), then leaves again.
 - Stranger leaves (infant alone).
 - Stranger comes back.
 - Mom comes back.

Attachment Types

- Babies are in the following situations:
 - Mom present alone
 - Mom and stranger present
 - Only stranger present
 - Completely alone

Attachment Types

- Researchers are looking for:
 - How much the child explores the room on his or her own.
 - How the child responds when mother leaves and returns.

Attachment Types

- _____ - most common (50-70%). Baby explores freely when mom is in the room.
- Seeks mom when scared, and does not avoid contact with mom.
- Looks for mom when she leaves, is upset.
- When mom returns, child is consoled, and greets her positively.
- Prefers mother to stranger.

Attachment Types

- **Insecure/_____ attachment** – Child doesn't explore much on his or her own.
- Child does not seek contact with mom, though mom's efforts at contact are not resisted.
- No distress when mom leaves.
- No preference for mother over stranger.
- Avoids contact with mother at reunion.

Attachment Types

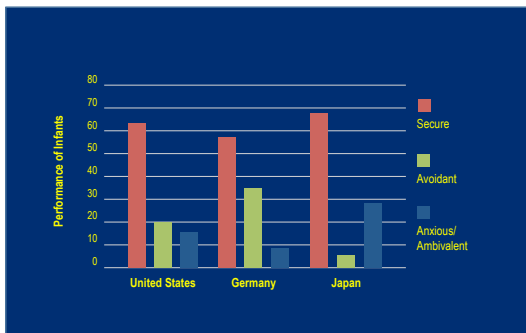
- **Insecure-_____ attachment** – child explores little, and is wary of stranger.
- Distressed when mother leaves, but not comforted by her return.
- May be angry at mother when she returns, and resists attempts by stranger to comfort.
- Anxiety and uncertainty.
- Exaggeration of needs at other times.

Attachment Types

- **Insecure/_____ attachment** – child appears dazed, apprehensive, and confused.
- Inconsistent reactions.

Attachment Types

- “Difficult” children might elicit different patterns of parental care than “easy” children, which might make them more likely to be insecurely attached.
- Interactions between parents and children aren’t one-sided, or occur in a vacuum!
- Culture plays a role as well, and different proportions of attachment types have been found in different cultures.



Parenting Styles

- Diana Baumrind after studying children in 1960s California identified 3 parenting styles.
- _____ – blind obedience to parent with high expectations and stern, often physical punishment.
- _____ – emotional warmth, with few rules and little discipline.
- _____ – has limits and rules, but children are listened to and forgiven for shortcomings.

Style	Communication				
	Warmth	Discipline	Expectations of Maturity	Parent to Child	Child to Parent
Authoritarian	Low	Strict, often physical	High	High	Low
Permissive	High	Rare	Low	Low	High
Authoritative	High	Moderate, with much discussion	Moderate	High	High

Berger

Parenting Styles

- Researchers later added a fourth:
- _____ – parents are not aware (or appear not to care) what children are doing.

Baumrind's Parenting Styles

		How controlling?	
		High	Low
How affectionate/ responsive?	High	Authoritative	Indulgent-permissive
	Low	Authoritarian	Uninvolved

Parenting Styles

- Parenting styles are correlated with certain outcomes:
 - _____ – children tend to be successful at school, well-behaved, socially adept, responsible, self-reliant.
 - _____ – children are obedient, but have relatively poor social skills, and are more likely to be anxious.
 - _____ – children lack self-control, are easily frustrated, have trouble in friendships, but have low levels of anxiety and depression.
 - _____ – children tend to be immature, are impulsive, moody, and can be aggressive.

Parenting Styles

- Notice these are not all possible parenting styles!
- Styles differ across cultures and socioeconomic status.
- The personality of the child also influences parental practices.

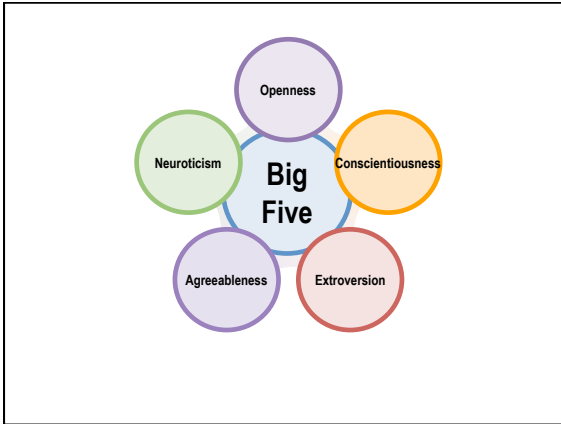
Week 12

Personality

- _____ – characteristic ways of behaving, thinking, and feeling.
- Freud felt that much of personality was due to unconscious desires and conflicts.
- His ideas are for the most part untestable, and so are not taken seriously by most modern psychologists.
- Same is true for humanistic ideas of personality...

Personality

- Several tests of personality or “personality inventories” have proven valid and reliable.
- Most measure the “Big Five” personality characteristics:
 - Openness to experience
 - Conscientiousness
 - Extroversion
 - Agreeableness
 - Neuroticism



Personality

- Openness – people who score high on openness tend to be curious, inventive, and open to _____.
- People who score low on openness prefer things that are familiar, and are reluctant to change.

Personality

- Conscientiousness – people who score high are reliable, orderly, disciplined, and hardworking.
- People who score low tend to be unreliable, disorganized, not very hardworking.

Personality

- Extroversion (_____) – tend to seek out other people, assertive, excitement-seeking, have personal warmth, have positive emotions.
- Introversion – reserved, happy spending time alone, passive, cautious.

Personality

- Agreeableness – people scoring high tend to be trustworthy, altruistic, compassionate, and cooperative.
- People scoring low tend to be untrustworthy, uncooperative, and detached.

Personality

- Neuroticism – people scoring high tend to be anxious, hostile, depressed, and self-conscious.
- People scoring low tend to be relaxed, secure, and confident.

Personality

- Personality tests assessing the “Big Five” have been given across many cultures, and traits appear to be universal, though overall average scores can vary by culture.

Personality

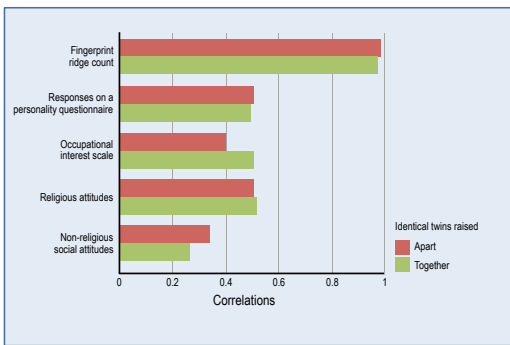
- Though individual predispositions are important in predicting behavior, circumstances are also very important for understanding individual behavior.
- E.g. a person who in general is an extrovert might act introverted around authority figures, but extroverted with peers. This is an “if-then” relationship.

Personality

- _____ – patterns of mood, activity, and emotional responsiveness.
- Temperament can lead to different environmental exposure.
 - Bold children will tend to put themselves in situations more shy children would not.
 - These situations then affect bold and shy children in different ways (gene x environment interaction).

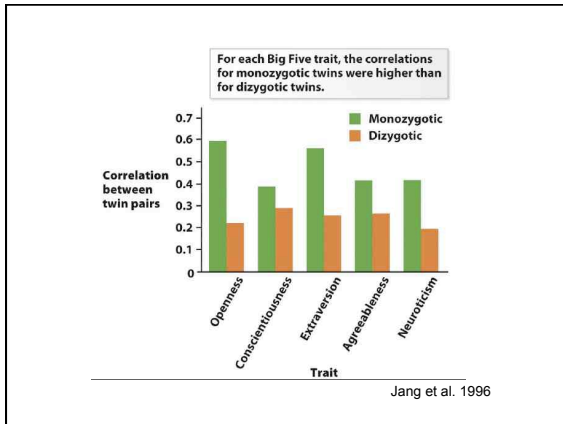
Personality

- The appearance of temperament early on points to a strong genetic influence.
- Characteristics of identical and fraternal twins raised together and apart are measured to determine the effect of genetics on personality.
- Identical twins reared apart still tend to be very similar on many measures.
- Minnesota Study of Twins Reared Apart.



Personality

- Heritability of the Big Five personality traits is approximately ____.
- Which means... roughly fifty percent of the differences we see among people in the Big Five are due to genetic differences in the population.



Personality

- People with different personalities tend to have different volumes of certain brain areas (DeYoung et al. 2010).
 - People with higher conscientiousness have more volume in the _____.
 - People with higher neuroticism have more volume in the _____ cortex.
- All characteristics of the Big Five except openness have known neural correlates.

Personality

- Different personalities have been found in other species.
 - Pavlov noticed dogs tended to react differently in his studies.
 - Aspects of the Big Five have been found in octopuses, hyenas, rats, cats, and primates, among others.

Personality

- How do we measure personality?
- Observation!
 - Pros: most reliable, if given enough time.
 - Cons: time-intensive, observer might be biased. _____.
- Interview.
 - Pros: skilled interviewer can get good information.
 - Cons: people might exaggerate in interviews.

Personality

- How do we measure personality?
- Standardized tests (personality inventories).
 - Pros: can gather data from lots of people relatively quickly.
 - Cons: people might exaggerate or lie (not always on purpose) on the test. People might not even read the test.

Personality

- Potential uses of personality tests:
 - Career counseling
 - Screening of employees
 - Relationship counseling
 - Assist with clinical diagnoses

Social Psych

- We owe much of our success as a species to our social nature.
- Division of labor and cooperation allow us to live in ways that solitary species could not.
- Especially when young, sociality is extremely important to survival in humans.

Social Psych

- Humans express more happiness and less sadness in the presence of another person than when alone.
- Most of us don't like _____, and suffer health consequences from it.
- Individuals show distress at perceived social isolation, even from a game of "cyberball."

Inclusion



Kipling Williams et al.

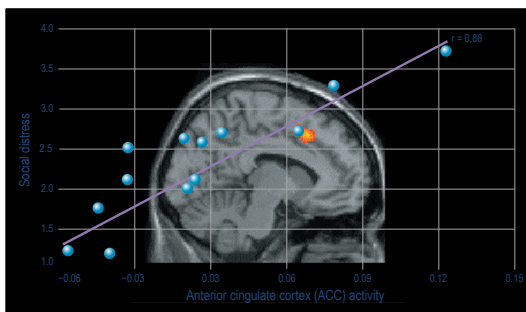
Ostracism



Kipling Williams et al.

Social Psych

- Individuals that were excluded showed activation in the anterior cingulate cortex, which is also activated during _____.
- These areas were still more active than baseline when subjects were told that there was a technical problem with the computer, and would therefore be excluded from the game!



Attributions

- We often come up with reasons why other people behave the way they do (attributions).
- _____ **attribution** – a reason for behavior based on fundamental qualities of a person.
- _____ **attribution** – a reason for behavior based on a person's circumstances.

Attributions

- _____ **(CB) /**
_____ **(FAE)** – people tend to downplay (CB) or completely ignore (FAE) situational variables in others' behavior.
 - If you hear a story about someone not paying their taxes, we might think he or she is a cheater or criminal, without considering situational variables.

Attributions

- _____ **Bias** – we tend to view our own successes as products of our dispositional variables, but view our failures as products of situational variables.
 - “I did well in that class because I’m smart/hardworking etc., but I failed my driver’s exam because it was raining that day.”

Attributions

- Elite athletes are less likely to have a self-serving bias, which allows them to learn from their mistakes.
- People in individualistic societies (many western cultures including the US) tend to be more prone to the Correspondence Bias and Self-Serving Bias than people in collectivist cultures (many Asian nations).

Attributions

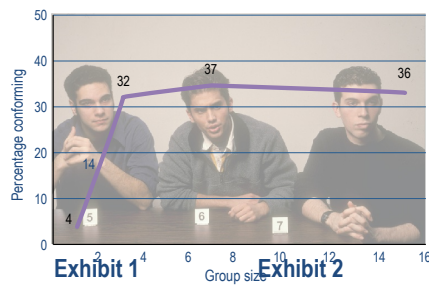
- _____(illusory **superiority**) – people of low ability on a given task often overestimate their competence compared with others. Can lead to inflated confidence.
- _____- people of high ability often underestimate their competence compared with others and attribute successes to luck. Can lead to deflated confidence.

Attributions

- _____– we tend to think that people “get what they deserve” (e.g. people who lose their job or get sick) even if this is not the case.
- The Just-World Belief can lead to people to feel less empathy for and offer less help to others.

Social Psych

- _____ – rules for conduct in social situations. Can vary by culture or group.
- _____ – matching behavior to the social norms of a group. Helps to prevent rejection by the group.
- In a classic study (Asch 1951), subjects conformed to the wrong (simple) judgment of a confederate about 1/3 of the time.



Social Psych

- _____ – undergraduate men were assigned roles as a prisoner or guard.
 - Guards came to treat prisoners so poorly that the experiment had to be terminated early.
 - Illustrates the importance of situation to behavior.

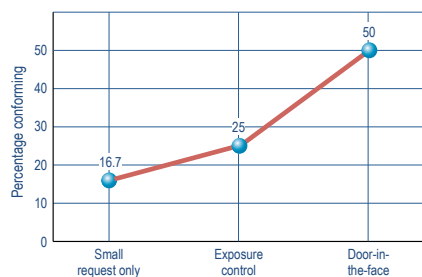


Social Psych

- _____ – obeying the request of another person when they don't have any direct authority over you. Commonly used in sales techniques.
- _____ tends to be higher if we feel we have something in common with the requester, or if the requester is physically attractive.

Social Psych

- _____ **technique** – greater compliance for a small request when it's preceded by a large request.
- Perhaps guilt over not agreeing to the first request makes individuals more likely to agree to a small request.



(Cialdini et al. 1975)

Social Psych

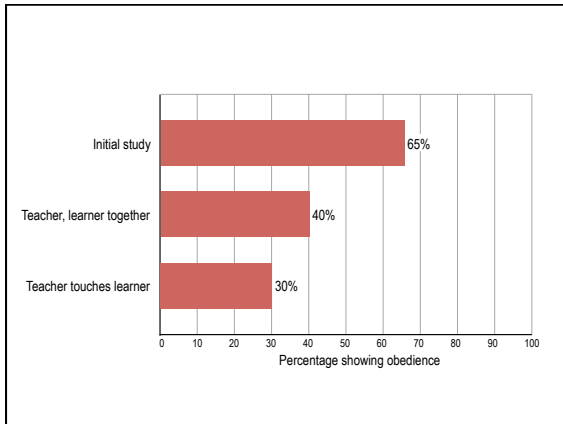
- _____ **technique** – once a person has agreed to a small request, it is easier to get them to agree to a larger request.

Social Psych

- _____ – obeying the request of a person who has authority (e.g. police officer, teacher).
- Stanley Milgram conducted experiments in which a subject thought they were shocking a person in another room to see how punishment affected learning.
- Even when protests from the other room could be heard, all participants were willing to shock another person at 300 volts, and _____% went to the maximum of 450 volts.

Social Psych

- When “teacher” and “learner” were in the same room, obedience dropped.
- Obedience dropped again when the “teacher” had to hold the hand of the “learner” on a shocking device.
- Obedience also dropped if the authority figure (experimenter) became more distant (e.g. talking over the phone).



Prisoner's Dilemma

- When do we choose to cooperate with one another?
- You committed a crime with another person. You're being held separately, and questioned by police.
- What would you do?

Prisoner's Dilemma

- If you both keep quiet, the most the police can do to you is charge you both with a lesser crime, and you'll both serve 2 months.
- If you tell on your partner, the police have agreed to let you go, while your partner serves a full sentence of ten years.
- If you keep quiet, but your partner tells on you, you'll go to jail for ten years, but your partner gets set free.
- If you both tell on each other, you'll both go to jail for 2 years.

Prisoner's Dilemma			
		Prisoner B	
		Cooperate	Defect
Prisoner A	Cooperate	R = _____ Reward for mutual cooperation	S = _____ Sucker's payoff
	Defect	T = _____ Temptation to defect	P = _____ Punishment for mutual defection

Payoffs for prisoner A for each type of behavior are shown in the table above. What option should Prisoner A always choose if interactions are not repeated?
Notice that $T > R > P > S$

Social Psych

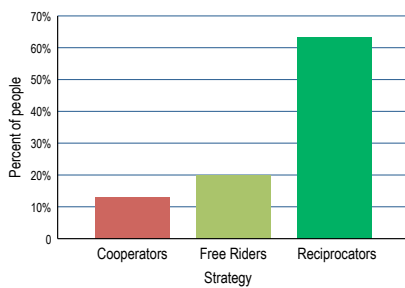
- The best individual strategy in a single round of the prisoner's dilemma is to defect on your partner (i.e. not cooperate).
- However, what happens if this interaction is repeated again and again?

Social Psych

- In a tournament of computer programs playing an iterated (i.e. repeated) prisoner's dilemma game, a strategy called "tit for tat" appears to do the best.
- _____ – in social situations, cooperate on the first move, then mirror the last move of your opponent.
- Tit for tat allows for retaliation, but also forgiveness.

Social Psych

- Most people tend to employ tit for tat-like strategies in social interactions.
 - Cooperating until a person proves themselves untrustworthy
 - Retaliating when appropriate
 - Forgiving when appropriate



Kurzban & Houser 2005

Social Psych

- Some people tend to “always cooperate” or “always defect.”
- “Always defect” or free-riders can take advantage of the kindness of others.
- “Always cooperate” people can have a reputation as a person who can be counted on and trusted.

Social Psych

- Things like culture and group size can influence our likelihood of cooperation.
- People with damage to the amygdala tend to be overly trusting of others.

Social Psych

- _____ – an act that leads to gains to a recipient, and no gain or harm to an actor.
- How could such selfless behavior evolve?
- If an individual helps a relative, then “altruistic genes” could spread, since relatives tend to share genes.

Social Psych

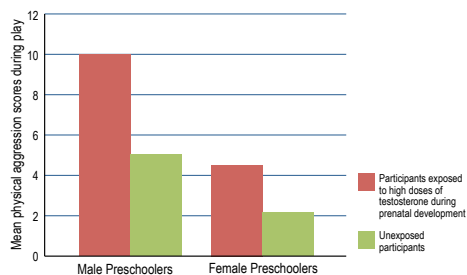
- _____ – individuals who trade favors will be better off than those who don't cooperate with anyone.
- Selfish group members are often punished by the group.
- _____ – the likelihood of a person helping another decreases as the number of bystanders increases.

Social Psych

- _____ – deliberate attempt to harm others.
- Aggression can be physical, or relational, such as with gossip or social exclusion.

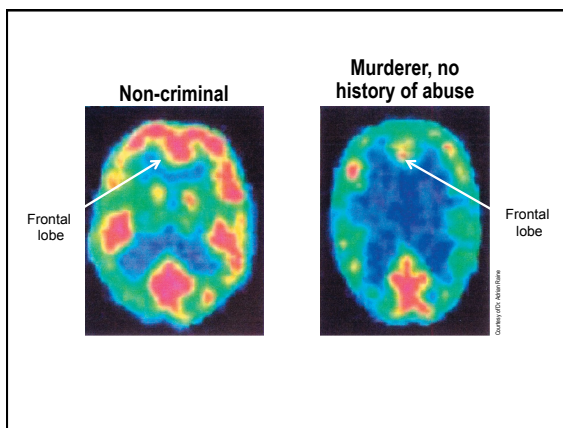
Social Psych

- Aggression is influenced by genes and biology.
 - Aggression can be bred in animals.
 - Higher than normal levels of testosterone predict aggression in teenagers and adult men.
 - Prenatal exposure to androgens (male hormones) leads to higher aggression later in life.



Social Psych

- Testosterone heightens sensitivity of the amygdala to threatening stimuli.
- _____ decreases activity in frontal lobes, which can lead to impulsive behavior including aggression.
- People with naturally lower levels of activity in the frontal lobes are also more likely to be aggressive.



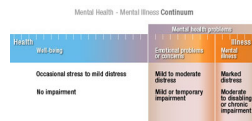
Social Psych

- Aggression is also influenced by environmental factors.
 - Children who see violence often imitate it.

Week 13

Disorders

- Psychological disorders require a disturbance in cognition, emotional regulation, or behavior, that reflects dysfunction in the psychological, biological, or developmental processes underlying mental functioning (DSM V).
- Many disorders represent a continuum, and psychologists need to decide where normal ends, and abnormal begins.



Disorders

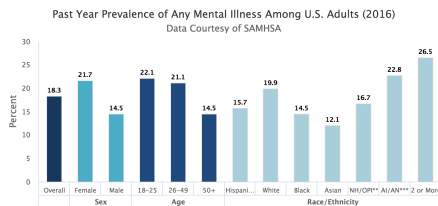
- Diagnosis can be influenced by culture.
 - In some places, hearing voices is considered abnormal.
 - In some cultures and/or times in history, hearing voices was considered a religious privilege.

Disorders

- Normal vs. abnormal behavior is difficult to define, and even varies across individuals.
- Most clinicians use the Diagnostic and Statistical Manual of Mental disorders (the DSM-5, most recent version came out in 2013). Diagnoses have changed across time.
- _____ – many individuals have more than 1 disorder. This makes coming up with an absolute number of people with disorders difficult.

Disorders

- According to the NIH, roughly _____ adults in the US has had a mental illness in the last year.



Disorders

- Only qualified individuals should diagnose mental disorders.
- Even medical doctors without a psychological specialty should not diagnose disorders.
- Experts may disagree with one another as to a proper diagnosis.

Disorders

- What causes psychological disorders?
- Disorders can be traced to many factors, such as genetics, biology, environment (social, prenatal, others), learning history, and many others.
- Disorders should be viewed from multiple perspectives to get a full understanding of how they arise.

Disorders

- _____ **symptoms** – behavior or affect that is present, but is usually absent.
- _____ **symptoms** – behavior or affect that is not present, but usually is.

Types of Disorders

- Anxiety Disorders
- Mood Disorders
- Dissociative Disorders
- Somatic Symptom Disorders
- Psychotic Disorders
- Personality Disorders
- Childhood Disorders

Anxiety Disorders

- People with anxiety disorders exhibit excessive fear due to the anticipation of danger.
- Anxiety in and of itself is usually useful in moderation. People with disorders represent one end of the spectrum.

Anxiety Disorders

- Propensity toward developing an anxiety disorder is heritable, and heightened anxiety appears early in development.
- Most adults with anxiety disorders realize their anxiety is out of proportion, yet feel they can't control it.

Anxiety Disorders

- _____(GAD) – excessive anxiety for at least 6 months that is not related to anything specific.
- Leads to an overall sense of dread, and is associated with headaches, stomachaches, and muscle tension.
- GAD is associated with particular genes, developmental experiences, and low socioeconomic status.

Anxiety Disorders

- _____ – brief (approx. 10 min.) experience of intense fear without actual threat.
- _____ – repeated panic attacks, fear of future attacks.
- Some people can have a panic attack without having it turn into panic disorder.

Anxiety Disorders

- People with panic disorder often interpret physical symptoms to mean they're dying or having a heart attack.
- People with panic disorder have higher levels of orexins, implicated in wakefulness and vigilance, than others.
- Panic disorder can lead to _____, or a fear of open spaces, due to embarrassment of having an attack in public.

Anxiety Disorders

- _____ – excessive fear of a particular thing or situation.
- _____ – fear of open spaces.
- _____ (social anxiety disorder) – fear of scrutiny of others.
- **Specific phobias** – fear of specific things (other than those listed above) such as spiders or heights. These usually develop to things that can actually be dangerous.

Anxiety Disorders

- _____ (OCD) –
Characterized by obsessions (intrusive thoughts) and compulsions (repetitive or ritualistic behaviors).
 - Obsessions might include thoughts about germs, intruders, or social embarrassment.
 - Compulsions might include hand-washing, checking locks on doors and windows, and hair combing.



Anxiety Disorders

- OCD now has its own category in the DSM 5 (no longer considered just an anxiety disorder).
- OCD appears to be highly heritable, and is linked to low serotonin and particular patterns of brain activity.
- Might be another example of an extreme on a continuum (i.e. behaviors common in OCD might be adaptive in moderation).

Anxiety Disorders

- _____ (PTSD) – symptoms such as hypervigilance, intrusive thoughts, and flashbacks following a traumatic event.
- Traumatic events can include abuse, accidents, assault, natural disasters, and experience in combat.



Anxiety Disorders

- People who get PTSD tend to have smaller _____ volume than people who experience the same event, but don't get PTSD (smaller volume appears to lead people to be more vulnerable, *and* stress appears to shrink the _____).
- PTSD has a large learning component, especially classical conditioning.

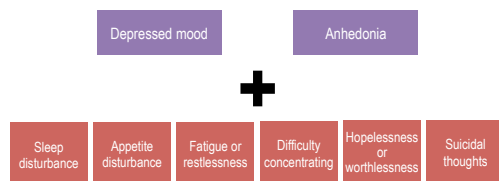
Mood Disorders

- Mood disorders can be unipolar (one direction, i.e. overly positive or overly negative) or bipolar (both directions).
- _____ **disorder** – unipolar.
- _____ **disorder** – bipolar.

Mood Disorders

- Major depressive disorder – must have depressed mood most of the day for at least 2 weeks, or anhedonia, or a loss of pleasure at normally pleasurable things.
- Is the leading cause of disability in the US for ages 15-44 (6.7% of adult population, NIMH).

Major Depressive Disorder



Must have at least 5 symptoms, including depressed mood or anhedonia.

Major Depressive Disorder

- More common among women than men, and decreases with age.
- _____ – when behavior doesn't appear to be linked to consequences. Depression can be a result.
- People with MDD often ruminate, or focus on depression, which interferes with cognitive processing.

Major Depressive Disorder

- Depressed mood is correlated with increased right frontal lobe activity (negative emotions) and decreased left frontal lobe activity (positive emotions).
- Depression is also related to spending more time than usual in _____ sleep.

Suicide

- _____ – intentional taking of one's own life. Not a separate category in the DSM, but is associated with depression and schizophrenia.
- Still, most people with depression and schizophrenia do not attempt suicide. Reasons are very complex.

Suicide

- Women attempt suicide 2-3x more often than men.
- About 4/5 of all completed suicides are by men.

Suicide

- Suicide is associated with low cholesterol (which affects serotonin receptors) and low serotonin.
- Alcohol, which lowers inhibitions, is present in 1/3 of completed suicides.
- People with a high degree of hopelessness are more likely to commit suicide, as well as a recent traumatic event (loss of job, loved one, etc.).

Bipolar Disorder

- _____ – periods of depression alternate with periods of mania.
- _____ - elevated mood, inflated sense of self-importance, less need for sleep, rapid speech.
- Typical bipolar episodes consist of one week of mania, 2 weeks of depression, but lots of variation in timing and intensity occur.

Bipolar Disorder

- Concordance rates of identical twins:
 - 85% for bipolar disorder
 - 35% for major depressive disorder
- Populations of people who are famous for their creativity (authors, artists) have a greater proportion of people with bipolar disorder than the general population.

Dissociative Disorders

- Disruption of a person's memory, consciousness, or identity. Onset tends to coincide with a traumatic event.
- _____ – sudden inability to remember important personal information, beyond normal forgetfulness.
- _____ – assumption of a new identity and travel away from home with inability to remember the past.

Dissociative Disorders

- _____ **disorder** – severe and persistent feelings of being detached from oneself.
- _____ **Disorder** – formerly multiple personality disorder. People have 2 or more distinct “personality states.”
 - DID is controversial (not everyone thinks it's real), and has experienced spikes in frequency after publication of books or movies portraying it (suggestibility).

Somatic Symptom Disorders

- _____ (Somatoform) **Disorders** – physical symptoms that don't appear to have an underlying medical cause.
- Complaints of pain, gastrointestinal upset, breathing and sexual problems are common.
- People honestly believe they are ill (as opposed to malingering).

Malingering

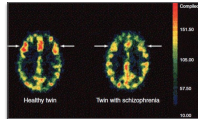
- _____ – faking or exaggeration of symptoms of mental illness for external gain (e.g. financial gain, avoid school/work, drug-seeking).
- Not a category in the DSM.
- Often leads to discrepancies between claims and objective findings.

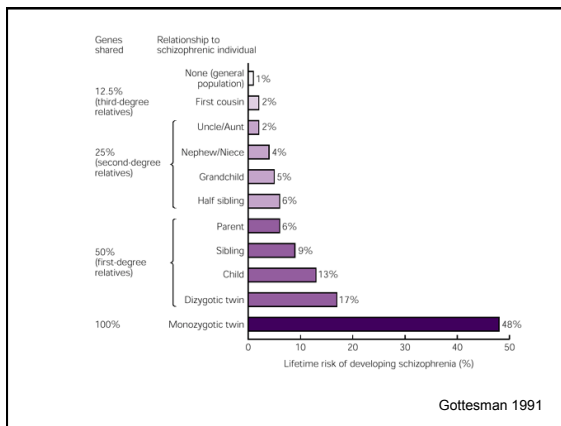
Psychotic Disorders

- _____ - characterized by delusions, hallucinations (usually auditory), and disorganized thinking (e.g. reduced latent inhibition, seeing patterns that aren't there).
- Typical negative symptoms of schizophrenia include lack of emotional expression, lack of social interaction, and lack of volition.
- Abnormal patterns of movement – hyperactivity, or catatonia (maintenance of often awkward body positions for hours at a time).

Psychotic Disorders

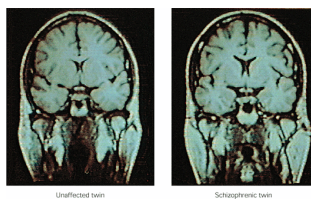
- Causes of schizophrenia:
- Genes play a role. If one identical twin has it, there's a _____% chance the other will too.
- Many genes contribute, and some overlap with bipolar disorder.
- Schizophrenics tend to have decreased frontal lobe activity.





Schizophrenia

- Schizophrenics tend to have enlarged ventricles in their brains.



Suddath et al. 1990

Schizophrenia

- Teenagers diagnosed with schizophrenia show much greater grey matter loss compared with non-schizophrenics.
- Too much dopamine might in part be responsible for schizophrenia, but not everyone responds to drug treatments.

Schizophrenia

- High stress appears to influence whether a person will become schizophrenic if they have particular genes.
- Members of groups with lower socioeconomic status tend to have greater rates of schizophrenia (directionality?).
- Minorities in a given group are more likely to be diagnosed with schizophrenia.
- Marijuana use during adolescence also correlates with schizophrenia (reduced frontal lobe volume).

Personality Disorders

- Maladaptive patterns of behavior that are persistent. Can involve difficulty with social interactions (empathy), identity, and impulse control.
- Only diagnosed in adults.

APD

- _____ (APD) – disregard for rights/emotions of others. Impulsive with lack of empathy. Manipulative, irresponsible.
- Diagnosed in 1% of women, 3% of men.
- APD has a genetic component, and is also correlated with abuse as a child.
- People with APD have less amygdala activation to scary or emotionally charged stimuli.
- Damage to orbitofrontal cortex is correlated with APD.

APD

- Many of the characteristics of APD appear to make some people “successful” in business (lack of empathy, ego-centric, risk-taking).

BPD

- _____ – emotional and relationship instability.
- Can often include fear of abandonment and intense emotions, as well as lack of impulse control.
- BPD is associated with suicide and self-harm.
- More common in women compared to men (ratio of 3:1).

BPD

- BPD is heritable.
- BPD is associated with a history of neglect, abandonment, or abuse.
- People with BPD do not show the same brain activation during a trust task compared with normal controls.
 - Activation in the anterior insula correlated with mistrust in control subjects, but no correlation existed in BPD patients. People with BPD don't tend to trust others.

Childhood Disorders

- Childhood disorders are diagnosed in childhood, but often continue throughout life.
- _____ – characterized by social deficits and repetitive patterns of behavior.

Autism

- “_____ blindness.”
- Temple Grandin said it was like being “an _____.”
- Affects males more often (ratio of 4:1).

Autism

- Varies in severity – autistic spectrum disorders.
- Low-functioning individuals don't speak and will play with 1 object for an extended time.
- High functioning (formerly called _____ Syndrome) have near normal speech, and can be extremely talented.

Childhood Disorders

- Rates of autism appear to be rising, but might be due to more frequent diagnosis, greater awareness of parents, etc.
- Children with autism don't make eye contact, and often fail to develop a theory of mind regarding others.
- Autistic children often have different tolerance for sensory stimulation.

Autism

- Mirror neurons – neurons that fire when an individual performs an action, but also when a person sees another person perform that action.
- The mirror neuron system is often credited with peoples' ability to "read minds," or know what others are thinking by looking at facial expressions and other movements.
- Autism could in part be due to a deficit in the mirror neuron system.

Autism

- Older parental age is correlated with autism.
- Like other disorders, autism is due to an interaction with genes and environment.
- It's NOT due to vaccines!

Childhood Disorders

- Attention deficit and hyperactivity disorder (ADHD):
 - Difficulty paying attention
 - Difficulty sitting still
 - Difficulty controlling impulses
- Diagnosis has increased from 5% in 1980 to 10% more recently.
- 3x more likely to be found in boys than girls.

ADHD

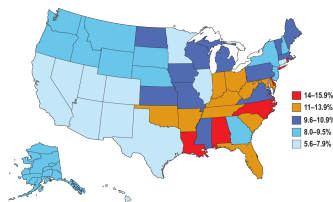
- Causes?
 - Genetics.
 - Neurotransmitters (decreased dopamine and/or serotonin compared to others).
 - Smoking during pregnancy.
 - Children born before the 34th gestational week are 3x more likely to have ADHD.
 - Or...maybe it's a disorder of the modern age?

ADHD

- In the past (10,000-200,000 years ago), children would not have been expected to sit still, be quiet, and do homework, practice piano etc.
- Males in all species of primates are more active than females.
- Maybe ADHD is just an extreme on a continuum, and modern environments make it a problem.

ADHD

- Treatments?
- Ritalin (methylphenidate) – stimulant that helps children concentrate. Some think this might be a placebo effect, and that the drugs might cause other problems (e.g. increased risk of stroke in adulthood).
- Specific training related to working-memory and impulse control seem to help.



Why ADHD increases as we move from west to east across the U.S. is unclear.

ADHD

- Children with ADHD have less-developed frontal lobes compared with other children.
 - The frontal lobes are the last brain area to mature, and so might just be slower in those with ADHD.
- _____ does not appear to play a role in hyperactivity, though food additives like artificial coloring or preservatives might.

Week 14

Treatments

- Unlike in Freud's day, most psychologists today adhere to _____ **Practice**, meaning they use evidence from controlled scientific experiments when treating patients.

Treatments

- _____ – person holding a medical degree who specializes in psychology. Can perform medical procedures and prescribe medications.
- _____ – person holding a doctorate in psychology. Can treat people with disorders, as well as provide family, career, marriage etc. counseling. Can prescribe drugs in some states with additional training.

Treatments

- _____ – patients discuss their issues with a trained professional in an attempt to lessen symptoms of psychological disorders.
- _____ – uses drug therapy or brain manipulations to treat disorders.
- Psychotherapy and drug therapy are often used together for greater impact.

Treatments

- Psychotherapy can include:
 - _____ **therapy** – therapy over a short period (approx 1-10 sessions) focused on finding solutions to problems.
 - _____ **therapy** – groups of people experiencing a problem (not always the same problem) go through therapy together.
 - _____ **therapy** – families participate in treatment together (includes **couples therapy** for romantic partners).

Treatments

- _____ **therapy** – uses classical and operant conditioning to help change behaviors.
- _____ **(ABA)** – examines observable behavior and uses conditioning techniques to change it.

Treatments

- **ABA treatment:**
 - Phobias – a person would be gradually exposed to whatever they fear, maybe getting something they like (candy, praise).
 - Bad habits – therapist would attempt to find ways of reinforcing incompatible behaviors, or decrease reinforcement for bad behaviors.

Treatments

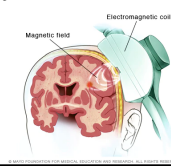
- _____ – combining ABA treatment with cognitive therapies.
 - Helps clients recognize and change destructive thought patterns.
 - Helps clients change unwanted behaviors through behavioral therapy.

Treatments

- _____ – electrodes are implanted into the brain which send electrical impulses to targeted areas.
- Sometimes called a “brain pacemaker.”
- Used to treat Parkinson’s, MDD, OCD (among others).
- Reversible (unlike brain lesions).

Treatments

- _____
(TMS) – a device uses magnets to cause electric current to flow in targeted brain areas.
- Currently used primarily for MDD.



Health Psychology

- _____ – negative emotional state due to events that are perceived as bad or dangerous.
 - How individuals interpret and deal with stress is unique to each person, and can even change across a lifetime.



Health Psychology

- Stress isn't necessarily always bad!
 - Stress can help us avoid danger (adaptive).
 - Some people are more productive under stress.
- However...
 - Long-term or extreme stress can have negative health consequences.

Health Psychology

- _____ – hormone released into the blood by the adrenal glands in response to a threat.
- Cortisol increases blood sugar to allow for more energy to react to a stressor.
- Long-term cortisol exposure can cause neural death, and is associated with Major Depressive Disorder.

Health Psychology

- Cortisol is involved with wakefulness, which is why people under chronic stress have difficulties sleeping.



Health Psychology

- Early stress in humans (first 1,000 days after conception) can lead to permanent dysfunctions in the stress system, leading to difficulties dealing with stress later.
- As with everything, genes interact with a person's environment to lead to a phenotype. Some people can have severe stressors in childhood and have few effects, while other people can have very little stress and still have difficulty coping later in life.

Health Psychology

- Asymmetry in the lower face, including the bite, can be a biological marker of early life stress.

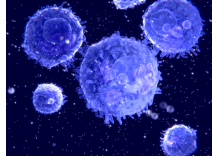


Health Psychology

- Short-term stress improves the action of the immune system.
- Long-term or chronic stress taxes the immune system, leading to greater susceptibility to infections and other disease.
- Chronic stress can also lead to hypertension (high blood pressure) which is a risk factor for heart attacks or strokes.

Health Psychology

- _____ – type of white blood cell involved in the immune system.
- Cortisol suppresses lymphocyte activity, making us more susceptible to bacteria/ viruses when stressed.



Health Psychology

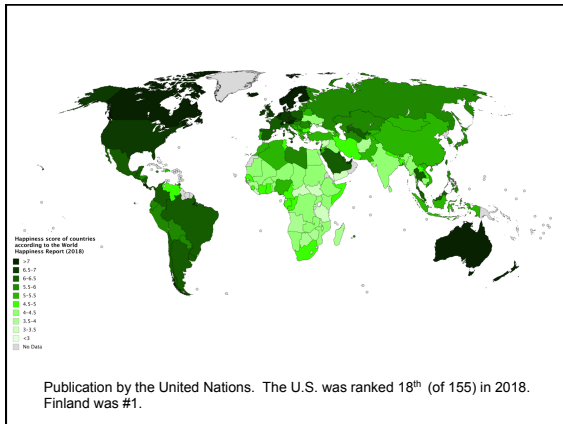
- _____ **Model** – health care providers are increasingly taking the whole person into account when thinking about and treating illness. Body, mind, and social environment all play a role.



Happiness

- What is happiness? Difficult to define (and different for every person), but in general, it relates to experiencing positive emotions.






Happiness

- Things we know about happiness:
 - Happiness is heritable (influenced by genes).
 - Happiness is relative. A new bike/phone/car/ house can make us happy for a little while, but then we get used to it and return to our baseline level of happiness (_____).

Happiness

- As humans, we might be the only species capable of imagining the distant future.
 - _____ – predicting how we will feel in the future.
 - How good are we at this?
 - Not very...
 - _____ – we tend to overestimate the intensity and duration of future emotions.
- 



Happiness

- Do you think winning the lottery would make you more happy than you are?
- Do you think becoming paralyzed after an accident would make you less happy?
- You're probably _____ on both counts!
- A study (Brickman et al. 1978) showed that while these life events affect immediate happiness, most subjects had returned to baseline after 3 months.

Happiness

- Does money make us happy? _____!
- A famous study (Kahneman & Deaton 2010) found that everyday happiness increased with income, but only up to about \$_____ per year.
- The 100 richest people in the U.S. were only slightly happier than average (Diener et al. 1985).

Happiness

- Would you rather have more money, or more time?
- Study participants reported greater satisfaction from spending money on something that would save them time (e.g. a cleaning service) rather than on something material (e.g. a new pair of shoes) (Whillans et al. 2017).

How can we be more happy?

- Take steps to become/stay healthy.
 - Exercise (endorphin release)
 - Have proper nutrition
 - Get enough sleep! (CDC recommends 7-9 hours for adults)
 - Find time to cultivate relationships

How can we be more happy?

- Take time to appreciate/savor experiences.
 - Put down the phone and engage when with friends.
 - Be present in a moment rather than trying to take a selfie/text a friend.
 - Savor meals instead of eating them in front of the television.

How can we be more happy?

- Seek help when you need it.
 - Rates of anxiety and depression have been rising the last few decades.
 - College and all the life changes that go along with it can lead to anxiety/depression.
 - The American College Health Association found that in 2016, _____% of students surveyed felt hopeless.
 - _____% of students were so depressed in the previous year that it interfered with functioning.

How can we be more happy?

- Seek help when you need it.
 - Average age of onset for many mental disorders is late teens/early twenties.
 - UNO has an excellent Counseling and Psychological Services Center.



How can we be more happy?

- Be careful of _____ use.
 - Studies indicate that social media use is negatively correlated with happiness and feeling socially connected.
 - One study (Steers et al. 2014) found that comparing ourselves to others led to greater depressive symptoms (both upward and downward comparisons!).

How can we be more happy?

- Be careful of social media use.
 - Social media comparisons can lead to jealousy.
 - A study found that we think we'll feel better after logging on to Facebook, but we usually feel worse (Sagioglou & Greitemeyer 2014).
 - Another showed that quitting Facebook for a week led to _____ (Tromholt 2016).

How can we be more happy?

- Keep a gratitude journal.
 - Take a few minutes each day to write down or think about things you're grateful for (big and small).
- Discover work or hobbies you enjoy.
 - _____ – when we become absorbed in an activity, and time seems to stand still.
- Take time to help others, or engage in other activities you find meaningful.
