

MODULE 45 – Developmental Issues, Prenatal Development, and the Newborn

Developmental Psychology's Major Issues	<ul style="list-style-type: none"> - Developmental psychology examines physical/cognitive/social development, focusing on three major issues: <ul style="list-style-type: none"> - <i>Nature and nurture</i> - <i>Continuity and stages</i> (which parts of development are gradual, which change abruptly) - <i>Stability and change</i> (which of our traits change as we age) - Differences initiated by our nature may be amplified by our nurture - We are formed by the interaction of nature and nurture - Compared to the person-to-person differences within groups, the differences between groups are small - Everyone passes through the stages of development in the same order, but chance events influence us in ways we could never have predicted, and adult life does not progress through a fixed, predictable series of steps - Our brain has growth spurts in childhood/puberty which roughly correspond to Piaget's stages - Some characteristics, like temperament, are very stable (personalities tend to persist). As people grow older, personality gradually stabilizes - Some traits are less stable, like social attitudes
Prenatal Development and the Newborn	<ul style="list-style-type: none"> - Conception begins when a woman's ovary releases a mature egg (women are born with all the immature eggs they'll ever have) - Men begin producing sperm cells at puberty, and will produce them for the rest of his life, slowing down with age (they're 1/85000 the size of an egg) - Around 200 million sperm cells are distributed, the ones that reach the egg eat away its protective coating with digestive enzymes. The first to penetrate the coating is welcomed and the rest are blocked out - Less than half of all zygotes (fertilized eggs) live beyond two weeks - After about a week, around 100 identical cells have been produced, which begin to differentiate - After 10 days, the zygote attaches to the uterine wall <ul style="list-style-type: none"> - inner cells become the embryo - outer cells become the <i>placenta</i> - Over 6 weeks, organs begin to form and the heart starts beating - By 9 weeks, the embryo looks human, and is now a fetus (a fetus can survive born prematurely past the sixth month) - By the sixth month, a fetus is responsive to sound, and may exhibit the sound patterns of its native language - Placentas screen out harmful substances, but Teratogens, (agents like viruses or drugs) can damage a fetus <ul style="list-style-type: none"> - even light drinking can affect the fetal brain, and persistent drinking puts a fetus at risk for birth defects and behavior problems - fetal alcohol syndrome is marked by lifelong physical and mental brain abnormalities - alcohol has an epigenetic effect - Newborns have automatic reflex responses <ul style="list-style-type: none"> - <i>rooting effect</i> - if something touches a baby's cheek, they search for a nipple, and will automatically close on a nearby object and suck on it

	<ul style="list-style-type: none"> - Habituation is a decrease in responding with repeated stimulation: boredom with familiar stimuli can show us what infants remember - Even newborns prefer sights and sounds which facilitate social responsiveness <ul style="list-style-type: none"> - we turn our heads to human voices and prefer drawings of face-like images - Babies prefer the smell of their mother, and this preference may persist to later ages
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MODULE 46 – Infancy and Childhood: Physical Development

Brain Development	<ul style="list-style-type: none"> - Maturation is the orderly sequence of biological growth - Developing brains form nerve cells at a rate of ¼ million per minute <ul style="list-style-type: none"> - neurons are overproduced, with the number stabilizing at 28 weeks, and subsiding to 23 billion at birth - When you're born, you have all your brain cells but your nervous system is immature - From ages 3-6, the rapid growth is in your frontal lobes, enabling rational planning - The association areas (thinking, memory, language) are the last cortical areas to develop <ul style="list-style-type: none"> - A use-it-or-lose-it <i>pruning process</i> destroys unused links
Motor Development	<ul style="list-style-type: none"> - Developing brains enable physical coordination - Motor development sequence is basically universal (roll over, then sit, then crawl, then walk) <ul style="list-style-type: none"> - there are individual differences in timing, and these behaviors do <u>not</u> reflect imitation, rather a maturing nervous system - Identical twins walk on nearly the same day, evidencing the fact that our readiness to walk is determined largely by the cerebellum's development, which is determined by our genes
Brain Maturation and Infant Memory	<ul style="list-style-type: none"> - <i>Infantile amnesia</i> means we seldom remember memories before our third birthday <ul style="list-style-type: none"> - the average age of earliest conscious memory is 3 ½ years - the hippocampus and frontal lobes are maturing - We may construct memories from family stories/photos, but we <i>consciously</i> remember very little - Babies are still capable of learning, including traces of forgotten childhood languages which may persist into adulthood

MODULE 47 – Infancy and Childhood: Cognitive Development

Introduction	<ul style="list-style-type: none"> - Jean Piaget studied cognitive development – all the mental activities associated with thinking, knowing, remembering and communicating - He believed that a child's mind develops in stages, and that the force behind this growth is a struggle to make sense of our experiences - The maturing brain builds schemas, concepts into which we pour our experiences <ul style="list-style-type: none"> - we assimilate new experiences, interpreting them in terms of our schema - we accommodate our schemas to incorporate information provided by new experiences
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Piaget's Theory and Current Thinking	<ul style="list-style-type: none"> - Piaget believed that children construct their understanding of the world while interacting with it - Minds experience spurts of change, followed by stability as they move between cognitive plateaus - Four major stages: <i>sensorimotor</i>, <i>preoperational</i>, <i>concrete operational</i>, and <i>formal operational</i> - In the sensorimotor stage (0-2) babies take in the world through senses and actions <ul style="list-style-type: none"> - they lack object permanence - researchers believe Piagets underestimated young children's competence, and that object permanence unfolds gradually - In the preoperational stage (2-6/7) children are too young to perform <i>mental operations</i> <ul style="list-style-type: none"> - they lack conservation, the principle that quantity remains the same despite changes in shape - <i>symbolic thinking</i> (representing things with words and images) appears at an earlier age than he supposed - Piaget thought preschool children are egocentric, having difficulty perceiving things from another's point of view - Although preschoolers are egocentric, they begin to form theory of mind, the ability to infer others' mental states <ul style="list-style-type: none"> - children with <i>autism spectrum disorder</i> have trouble developing theory of mind, as do deaf children with minimal communication opportunities - Around age 6/7, children enter the concrete operational stage <ul style="list-style-type: none"> - they understand that change in form doesn't mean change in quantity - children begin to enjoy more complex jokes - able to comprehend mathematical transformations and conversation - By age 12, our reasoning expands to encompass abstract thinking <ul style="list-style-type: none"> - we can ponder hypothetical propositions and deduce consequences (systematic reasoning) - the rudiments of formal operational thinking begin earlier than Piaget realized
An Alternative Viewpoint: Lev Vygotsky's Scaffolding	<ul style="list-style-type: none"> - Vygotsky noted that by age 7, children think increasingly in words to solve problems <ul style="list-style-type: none"> - talking to themselves helps them control their behavior and emotions, and master new skills - Child's mind grows through interaction with the social environment - By mentoring children, parents and others provide a temporary <i>scaffold</i> from which children can step to higher levels of thinking - A child's <i>zone of proximal development</i> is the zone between what a child can and can't do (what they can do with help)
Reflecting on Piaget's Theory	<ul style="list-style-type: none"> - Today, researchers see development as more continuous than did Piaget - It's better to build on what children know, engaging them in concrete demonstrations and stimulating them to think for themselves

MODULE 48 – Infancy and Childhood: Social Development

Origins of	<ul style="list-style-type: none"> - As soon as object permanence emerges, babies develop stranger anxiety
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Attachment	<ul style="list-style-type: none"> - the attachment bond is a powerful survival impulse that keeps infants close to their caregivers <ul style="list-style-type: none"> - infants become attached to those who are comfortable and familiar - The Harlow monkey experiment demonstrated that monkeys overwhelmingly preferred the comfy cloth mother to a nourishing mother <ul style="list-style-type: none"> - when exploring new environments, they used her as a <i>secure base</i> - as we mature, our secure base shifts from parents to peers and partners - Contact is a key to attachment - In many animals, attachments based on familiarity form during a critical period when certain events must take place to facilitate proper development - This rigid attachment process is called imprinting - Children don't imprint, but they do become attached during a <i>sensitive period</i>
Attachment Differences: Temperament and Parenting	<ul style="list-style-type: none"> - Mary Ainsworth's <i>strange situation experiment</i> shows that about 60% of infants display <i>secure attachment</i>, becoming distressed when their mother leaves, and seeking contact with her when she returns, then exploring - Other infants show <i>insecure attachment</i>, less likely to explore their surroundings and distressed when she leaves. When she returns, they may seem indifferent to her departure, or return. - Sensitive, responsive mothers had infants who exhibited secure attachment - However, temperament differences between babies typically persist - Anxious infants have high and variable heart rates and a reactive nervous system <ul style="list-style-type: none"> - we should vary parenting while controlling temperament - Anxiety over separation from parents peaks at around 13 months, then gradually declines - Children with involved fathers tended to better in school - Erik and Joan Erikson believed that securely attached children approached life with basic trust, a sense that the world is predictable and reliable <ul style="list-style-type: none"> - many researchers believe that early attachments form the foundation for adult relationship and comfort with affection and intimacy
Deprivation of Attachment	<ul style="list-style-type: none"> - Most children growing up under adversity are <i>resilient</i>, withstanding trauma and becoming normal adults, as are most victims of childhood sexual abuse <ul style="list-style-type: none"> - some don't bounce back so readily, and may become abusive, neglectful or murderous - extreme early trauma may nevertheless leave footprints on the brain (abused children are more sensitive to angry faces) - Sluggish serotonin responses have been found in abused children who become aggressive teens and adults <ul style="list-style-type: none"> - these children are at increased risk for health problems, substance abused and criminality
Day Care	<ul style="list-style-type: none"> - Children can thrive under varied types of responsive caregiving should not surprise us, given cultural variations in attachment patterns <ul style="list-style-type: none"> - even orphanages can produce healthy, thriving children - From age 4.5-6, children who'd spent more time in day care had slightly better thinking and language skills - Children need a consistent, warm relationship with people whom they can

	learn to trust - Adult monitoring of children predicts favorable outcomes
Self-Concept	- By age 12, most children have developed a self-concept , an understanding and assessment of who they are <ul style="list-style-type: none"> - <i>self-esteem</i> is how they feel about who they are - By 15-18 months, children know that they're seeing themselves in the mirror - By school age, they are aware of gender, group membership, psychological traits, and how they differ from other children - Children with a positive self concept are more confident, independent, optimistic, assertive and sociable
Parenting Styles	- There are three major parenting styles <ul style="list-style-type: none"> - Authoritarian parents impose rules and expect obedience - Permissive parents submit to their children's desires - Authoritative parents are demanding <i>and</i> responsive, setting rules but explaining the reasons for rules - Children with higher self-esteem, self-reliance and social competence usually have authoritative parents <ul style="list-style-type: none"> - the effects are stronger when children are embedded in <i>authoritative communities</i> - The association between certain parenting styles and certain childhood outcomes is <u>correlational</u> <ul style="list-style-type: none"> - children's traits may influence parenting, evoking greater or lesser trust and warmth from parents - competent parents and their competent children may share genes that predispose social competence - All advice reflects the advice-giver's values
Culture and Child Raising	- Western families place greater priority on obedience, respect and sensitivity to others - Asian and African cultures value emotional closeness and a strong sense of <i>family self</i> (what shames a child shames a family) - Diversity in child raising cautions us against presuming that our culture's way is the only way to raise children successfully

MODULE 49 - Gender Development

How Are We Alike? How Do We Differ?	- Of the 46 chromosomes, 45 are the same for males and females - The average woman enters puberty 2 years sooner and lives 5 years longer <ul style="list-style-type: none"> - she has 70% more fat, 40% less muscle and is 5 inches shorter - she expresses emotions more freely, has a better sense of smell - can become re-aroused after orgasm - she is double as vulnerable to depression and anxiety - she has a 10x greater risk of developing an eating disorder - a man is 4x more likely to kill himself or become an alcoholic - a man is more likely to have autism, color-blindness, ADHD and antisocial personality disorder - Men are more aggressive physically than women <ul style="list-style-type: none"> - women are more likely to commit relational aggression (gossip) - People often perceive men as more powerful and socially dominant, and they tend to become leaders <ul style="list-style-type: none"> - men tend to be more directive or autocratic
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	<ul style="list-style-type: none"> - women tend to be more democratic, and more welcoming of subordinates' input in decision making - Men are more likely to interrupt, initiate touches, and stare - Females are more interdependent than males, and young girls engage in less competitive play which is more imitative of social relationships - Adult women take more pleasure in talking face-to-face - 90% of people say they have a close relationship with their mother, and women turn to others for support more than men do (they <i>tend and befriend</i>) - Gender differences peak in late adolescence and early adulthood and slow down by age 50
The Nurture of Gender: Our Culture	<ul style="list-style-type: none"> - Culture shapes our gender roles - the social expectations that guide men's and women's behavior - Among industrialized countries, gender roles and attitudes vary widely <ul style="list-style-type: none"> - Australia and Scandinavian countries offer the greatest gender equality - Middle Eastern and North African countries offer the greatest gender equity - Gender identity is a person's sense of being male or female - Social learning theory assumes that children acquire this identity by observing and imitating others' gender-linked behaviors, and by being rewarded or punished for acting in certain ways themselves - Critics say that that isn't enough to explain gender typing, the way some children seem more attuned than others to traditional male or female roles - Your <i>gender schema</i> is your framework for organizing boy-girl characteristics <ul style="list-style-type: none"> - forms early in life, helped by social learning - Rigid boy-girl stereotypes peak at about age 5 or 6 - Transgender people's gender identity differs from that typical of their birth sex <ul style="list-style-type: none"> - transsexual people live as members of the gender opposite to their birth sex, often aided by medical treatment that supports gender reassignment - Gender identity is distinct from <i>sexual orientation</i>

MODULE 50 – Parents, Peers and Early Experiences

Experience and Brain Development	<ul style="list-style-type: none"> - Nurture begins at conception, as differing nutrition and exposure to toxic agent affects an embryo - Rats raised in an enriched environment developed a healthier and thicker brain cortex compared to rats raised in an impoverished one - Sights, smells and touches activate and strengthen connections while unused neural pathways weaken - During early childhood, we can master the grammar and accent of another language, but without exposure to language we will never master it - The brain's development, though, does not end with childhood
How Much Credit or Blame do Parents Deserve?	<ul style="list-style-type: none"> - Parents feel satisfaction in their children's successes and feel guilt or shame over their failures - Society reinforces parent-blaming - The power of parenting is clearest at the extremes (abusive children who become abusive, neglected who become neglectful)

	<ul style="list-style-type: none"> - Shared environmental influences typically account for less than 10% of children's differences <ul style="list-style-type: none"> - children are not easily sculpted by parental nurture
Peer Influence	<ul style="list-style-type: none"> - Preschoolers who hate a food are more likely to eat it if put at a table with a group of children who like it - Children adopt the accent of their peers, not their parents - Parents are important with discipline, education, talking to authority figures, and responsibility - Peers are important for cooperation, popularity, and talking to peers - Parents have the power to influence a child's peer group

MODULE 51 - Adolescence: Physical and Cognitive Development

Physical Development	<ul style="list-style-type: none"> - Adolescence is the years spent morphing from child to adult, starting with the beginnings of sexual maturity and ending with the achievement of independent adult status - For many, adolescence is a time of vitality without the cares of adulthood - Puberty follows a surge of hormones which intensify moods and trigger bodily changes - The sequence of puberty is more predictable than its timing <ul style="list-style-type: none"> - first stage is <i>menarche</i> (first period) - breast buds, visible pubic hair - Boys who mature faster tend to be more popular and self-assured, but are also more at risk for delinquency - Girls who mature faster tend to associate with older children and face teasing or sexual harassment - Teens frontal lobes develop as they mature <ul style="list-style-type: none"> - the growth of <i>myelin</i> ensures better communication with other brain regions - Frontal lobe maturation lags behind emotional limbic system maturation <ul style="list-style-type: none"> - young teens aren't fully equipped to make long term plans and curb their impulses - frontal lobes are fully matured at around age 25
Cognitive Development	<ul style="list-style-type: none"> - Young children's reasoning is often self-focused <ul style="list-style-type: none"> - adolescents may think their private experiences are unique, something parents just could not understand - Adolescents may begin to seek a deeper conception of God and existence, and to spot hypocrisy in others' reasoning - Two crucial things in adolescence are telling right from wrong and developing character - Piaget believed that children's moral judgements build on their cognitive development - Lawrence Kohlberg described the development of <i>moral reasoning</i>, the thinking that occurs as we consider right and wrong. Three stages: <ul style="list-style-type: none"> - preconventional, conventional and postconventional

Table 51.1 Kohlberg's Levels of Moral Thinking

Level (approximate age)	Focus	Example
<i>Preconventional morality</i> (before age 9)	Self-interest; obey rules to avoid punishment or gain concrete rewards.	"If you save your wife, you'll be a hero."
<i>Conventional morality</i> (early adolescence)	Uphold laws and rules to gain social approval or maintain social order.	"If you steal the drug, everyone will think you're a criminal."
<i>Postconventional morality</i> (adolescence and beyond)	Actions reflect belief in basic rights and self-defined ethical principles.	"People have a right to live."

- Jonathan Haidt believes that morality is rooted in *moral intuitions*, quick gut feelings which influence our moral feelings
- Sometimes, talk is cheap and emotions are fleeting
 - morality involves doing the right thing, but what we do depends on social influences
- Those who learn to delay gratification become more socially responsible, academically successful, and productive
 - service learning programs are good for teens

MODULE 52 - Adolescence: Social Development and Emerging Adulthood

Forming an Identity

- To refine their sense of identity, children in individualist cultures usually try different selves in different situations
- By uniting these different selves, they form an **identity**, a consistent and comfortable sense of who one is
- Group identities are often formed by how we differ from those around us
 - **Social identity** forms around distinctiveness

Table 52.1 Erikson's Stages of Psychosocial Development

Stage (approximate age)	Issue	Description of Task
<i>Infancy</i> (to 1 year)	Trust vs. mistrust	If needs are dependably met, infants develop a sense of basic trust.
<i>Toddlerhood</i> (1 to 3 years)	Autonomy vs. shame and doubt	Toddlers learn to exercise their will and do things for themselves, or they doubt their abilities.
<i>Preschool</i> (3 to 6 years)	Initiative vs. guilt	Preschoolers learn to initiate tasks and carry out plans, or they feel guilty about their efforts to be independent.
<i>Elementary school</i> (6 years to puberty)	Competence vs. inferiority	Children learn the pleasure of applying themselves to tasks, or they feel inferior.
<i>Adolescence</i> (teen years into 20s)	Identity vs. role confusion	Teenagers work at refining a sense of self by testing roles and then integrating them to form a single identity, or they become confused about who they are.
<i>Young adulthood</i> (20s to early 40s)	Intimacy vs. isolation	Young adults struggle to form close relationships and to gain the capacity for intimate love, or they feel socially isolated.
<i>Middle adulthood</i> (40s to 60s)	Generativity vs. stagnation	In middle age, people discover a sense of contributing to the world, usually through family and work, or they may feel a lack of purpose.
<i>Late adulthood</i> (late 60s and up)	Integrity vs. despair	Reflecting on his or her life, an older adult may feel a sense of satisfaction or failure.

	<ul style="list-style-type: none"> - Some adolescents forge their identity early, by adopting their parents' values and expectations <ul style="list-style-type: none"> - less individualist cultures teach adolescents who they are, rather than encouraging them to decide on their own - Most young people develop a sense of contentment with their lives - Young Americans self-esteem falls during the early to midteen years - Late adolescence and early adulthood are when agreeableness and emotional stability increase - In young adulthood, our capacity for intimacy increases – the ability to form emotionally close relationships <ul style="list-style-type: none"> - those with high-quality relationships in childhood tend to enjoy similarly high-quality romantic relationships in adolescence, and healthy adult relationships
Parent and Peer Relationships	<ul style="list-style-type: none"> - As adolescents form their own identities, they pull away from their parents <ul style="list-style-type: none"> - arguments occur more often, and tend to be more intense with first-born than second-born children, and more intense with mothers - Positive parent and peer relationships are often hand in hand <ul style="list-style-type: none"> - misbehaving teens are more likely to have tense relationships with parents - Adolescence is a time of growing peer influence - Excluded children are vulnerable to loneliness, low self-esteem and depression (peer approval matters)
Emerging Adulthood	<ul style="list-style-type: none"> - In the Western world adolescence roughly corresponds to the teen years (largely because of schooling) <ul style="list-style-type: none"> - later independence and earlier sexual maturity have widened the time of adolescence, a time now called emerging adulthood (late tweens to mid twenties)

MODULE 53 – Sexual Development

Sexual Development	<ul style="list-style-type: none"> - You receive an x chromosome from your mother - If you receive an x from your father, you become a girl. If you receive a y chromosome, you become a boy - The y has a gene which, 7 weeks after conception, triggers the development of the testes and the hormone testosterone, which starts the development of male sex organs - 4–5 months after conception, sex hormones influence the wiring of the fetal brain - Pronounced physical differences emerge during puberty, a two-year period of rapid physical development which begins around 11 in girls, 13 in boys <ul style="list-style-type: none"> - the first physical attraction is felt about a year before puberty - Primary sex characteristics (reproductive organs) develop dramatically, as do secondary sex characteristics (breasts, hips, facial hair, voice tones, pubic/underarm hair) - Girls are reaching puberty earlier in various countries - <i>Spermarche</i> is the first ejaculation in boys, an menarche is the first menstrual period in girls <ul style="list-style-type: none"> - menarche occurs earlier for girls who experienced stress due to father absence, sexual abuse or insecure attachment - first ejaculation usually occurs as a nocturnal emission
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	<ul style="list-style-type: none"> - Atypical hormone exposure/sensitivity may cause atypical fetal development <ul style="list-style-type: none"> - <i>Intersex</i> individuals have intermediate combos of male and female physical features - it used to be recommended that surgery be used to create a female identity for these children (case of David Reimer) - Rates of <i>sexually transmitted infections</i> are rising, with $\frac{1}{3}$ of infections occurring in people under 25 <ul style="list-style-type: none"> - teen girls are vulnerable because of their lower levels of protective antibodies and their not yet fully mature biological development - condoms are 80% effective in preventing transmission of HIV, which causes AIDS - Recent studies show a link between oral sex and STI transmission, like <i>HPV</i> - About half of U.S. high schoolers report having had sexual intercourse <ul style="list-style-type: none"> - environmental factors account for most of this variation, especially family and cultural values - American teens have higher rates of STIs and teen pregnancy than europeans do - Minimal communication about birth control, guilt related to sexual activity, alcohol use and mass media norms of unprotected promiscuity can all contribute to teen pregnancy - Teens who pledge abstinence are just as likely to have premarital sex - Several factors produce sexual restraint <ul style="list-style-type: none"> - high intelligence, religious engagement, father presence and participation in service learning programs
Sexual Orientation	<ul style="list-style-type: none"> - Our sexual orientation is our enduring sexual attraction toward members of our own sex, the other sex, or both sexes - All cultures in all times have been predominantly heterosexual, and some have condemned same-sex relations - About 3% of men and 1-2% of women are exclusively homosexual <ul style="list-style-type: none"> - a larger umber of adults report some same-sex sexual contact or fantasy - Homosexual people often struggle with their sexual orientation, but are incapable of becoming heterosexual <ul style="list-style-type: none"> - sexual orientation is neither willfully chosen nor willfully changed - Women's sexual orientation tends to be less strongly felt and more variable (<i>erotic plasticity</i>) - There appear to be no environmental factors that influence sexual orientation, so far. - A lack of environmental causes has led to the exploration of biological influences <ul style="list-style-type: none"> - homosexual behavior is natural in some animal species - one hypothalamus cell cluster is reliably larger in heterosexual men (it's not an on/off button though), but a part of a brain pathway active during sexual behavior - gay men and straight women show an arousal response to a male hormone sample, while straight men do not - Homosexual men tend to have more homosexual relatives on their mother's side than their father's <ul style="list-style-type: none"> - the genes disposing women to be strongly attracted to men may also dispose some men to be attracted to men - Twin studies indicate that genes have an effect, since identical twins are

	<p>more likely to share a homosexual orientation than fraternal twins</p> <ul style="list-style-type: none"> - Prenatal environment matters <ul style="list-style-type: none"> - exposure to hormones between the 2-5 month may predispose attraction to males - the mother's immune system may be important - men with older brothers are more likely to be gay (<i>fraternal birth-order effect</i>) with each additional older brother - Gay-straight spatial abilities differ - straight men tend to beat straight women, while gay men and lesbian women fall in the middle <ul style="list-style-type: none"> - straight men are the worst at remembering spacial location - Gay people are more likely to be left-handed!
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MODULE 54 - Adulthood: Physical, Cognitive and Social Development

Physical Development	<ul style="list-style-type: none"> - Our physical abilities begin an almost imperceptible decline in our mid-twenties <ul style="list-style-type: none"> - women peak earlier than men - Physical vigor has less to do with age than it has to do with health and exercise habits by early and middle adulthood - Aging brings a gradual decline in fertility, especially in women - Women experience menopause close to age 50 - Men lose sperm count, testosterone, erection speed and ejaculation speed - Sexual activity lessens with age - Muscle strength, reaction time and stamina diminish in late adulthood, but diminished vigor is still sufficient for normal activities <ul style="list-style-type: none"> - visual sharpness diminishes, as do distance perception and adaption to light level changes - much less light enter the retina - sense of smell and hearing also diminish - The body's disease-fighting immune system weakens, but older people get sick less due to a lifetime accumulation of antibodies - Older people take more time to react, solve perceptual puzzles, and remember names <ul style="list-style-type: none"> - complex tasks like video games are also very difficult - Fatal car accidents increase sharply with age - Aging atrophies brain regions important to memory <ul style="list-style-type: none"> - atrophy of the frontal lobes diminishes inhibition, which may lead to blunt questioning and comments - Exercise can counteract the effects of brain aging by stimulating the development of neural connections <ul style="list-style-type: none"> - enhanced memory, sharpened judgement and reduced risk of dementia (<i>neurocognitive disorder</i>) can occur - exercise protects telomeres at the end of chromosomes
Cognitive Development	<ul style="list-style-type: none"> - We tend to remember the one or two most important events that occurred in our teens or twenties - Younger adults are better than older adults at remembering names - Older people can recognize things well, but are worse at recalling them without clues - 70 year olds vary greatly in their abilities to learn and remember - Older people's rich web of existing knowledge enables them to better recall <i>meaningful</i> information as opposed to <i>meaningless</i> information - Cross-sectional studies compare people of different ages, and longitudinal

	<p>studies restudy the same people over time</p> <ul style="list-style-type: none"> - Age is less a predictor of memory and intelligence as is proximity to death <ul style="list-style-type: none"> - the near-death drop in cognitive ability is called the <i>terminal decline</i>
Social Development	<ul style="list-style-type: none"> - Some psychologists argue that the <i>midlife transition</i> is a crisis, and a time of great struggle or regret (midlife crisis) <ul style="list-style-type: none"> - recent studies show that distress doesn't actually peak anywhere in the midlife age range - the trigger isn't usually age, rather a major event like illness, divorce or job loss - The social clock is the definition of the right time to leave home, get a job, marry, retire, etc... <ul style="list-style-type: none"> - it varies from culture to culture and era to era - Erikson said that <i>intimacy</i> and <i>generativity</i> are basic aspects of our adult lives (the ability to love and the ability to work) - Monogamous pairing makes sense: parents who cooperate to raise children are more likely to have their genes passed along to the next generation - Bond of love are satisfying when they include similar interests and values, emotional and material support, and intimate self-disclosure - Divorce rates are about 50% in America, only slightly lower in Europe <ul style="list-style-type: none"> - risk of divorce is prior for those who cohabit prior to engagement - Marriages that last are not always devoid of conflict <ul style="list-style-type: none"> - a 5-1 ratio of positive to negative interactions is an indicator of marital success - Successful couples learn to fight fair and steer conflict away from chaos without insulting each other - Satisfaction with marriage may decline when children absorb time, money and emotional energy - For most people, an empty nest is a happy place (many parents experience a "postlaunch honeymoon") - Happiness is about having work that fits your interests and provides you with a sense of competence and accomplishment - From teens to midlife, people experience a strengthening sense of identity, confidence and self-esteem - In later life, challenges like deteriorating health, memory, energy and loss of relationships can take a toll <ul style="list-style-type: none"> - life satisfaction declines as death approaches - however, those over 65 are not notably unhappy (they have better emotional control and more positive feelings) <ul style="list-style-type: none"> - they have fewer social problems and attend less to negative information, experiencing less intense negative emotions - Aging brains may nurture positive feelings <ul style="list-style-type: none"> - amygdala begins to respond less actively to negative events, as do brain-wave reactions to negative images - bad feelings fade faster than good ones, contributing to a sense that life is mostly good - When death is expected, grieving is less severe and more short-lived - Reactions to a loved one's death vary greatly even within culture <ul style="list-style-type: none"> - terminally ill people don't go through predictable stages - those who experience strong grief don't purge grief quicker