Review of Key Concepts and Terms (Unit 3A)

Developmental Psych

Important but NOT TESTABLE vs. New this year (24-25), TESTABLE; add to your notes

Developmental psychology encompasses the study of the behavior of organisms from conception to death. In this unit, students will learn to examine the processes that contribute to behavioral change throughout a person's life. The major areas of emphasis in the course include prenatal development, motor development, socialization, cognitive development, adolescence, and adulthood. Developmental psychologists seek to understand how changes in our biology and social situations over a lifespan influence our behaviors and mental processes. Development can be studied from several different perspectives, including biological or cognitive perspectives. Developmental psychologists may focus on one or more developmental periods or the entire course of a lifespan, using cross-sectional and longitudinal research methods.

STUDYING DEVELOPMENT

Nature vs. Nurture

- Developmental psychology is the study of age-related changes in behavior and mental processes from conception to death.
- Led by John Locke (1632-1704), early philosophers argued that at birth our minds were a tabula rasa or blank slate. Proponents of the nurture position continue to argue that development occurs through learning and personal experience.
- Proponents of the modern nature position emphasize the role of **maturation**, a sequence of genetically programmed processes of growth and development that occur over time. They also point to the importance of critical periods in maturation. A critical period is a specific time of great sensitivity to age-related learning that shapes the capacity for future cognitive developments.
- **Imprinting:** recognition of and attraction to members of one's own species or to surrogates.

Continuity vs. Discontinuity (Stability vs. Change)

- Psychologists who take the continuity approach argue that development is a continuous process as new abilities, skills, and knowledge are added at a gradual pace.
- In contrast, many psychologists argue that development occurs through a series of distinct stages. Stage theorists devote particular attention to critical periods.
- **Critical Period:** the period of time when an organism has heightened sensitivity for the development of a particular skill.
- Stage theories have played an influential role in development psychology (Piaget, Erickson, Kohlberg)

Research Methods

- **Longitudinal study:** studies a person or group of people over an extended period of time; provides in –depth information about age changes; however, it is time-consuming, expensive, and typically uses smaller samples
- **Cross-sectional study:** compares individuals of various ages at one point in time; measures age differences in a large sample of subjects; however, results can be influenced by the fact that the different age groups (known as cohorts) grew up in distinctive historical periods so it is difficult to separate age effects from cohort effects

Topic 6.1: The Lifespan and Physical Development in Childhood

Learning Target 6A

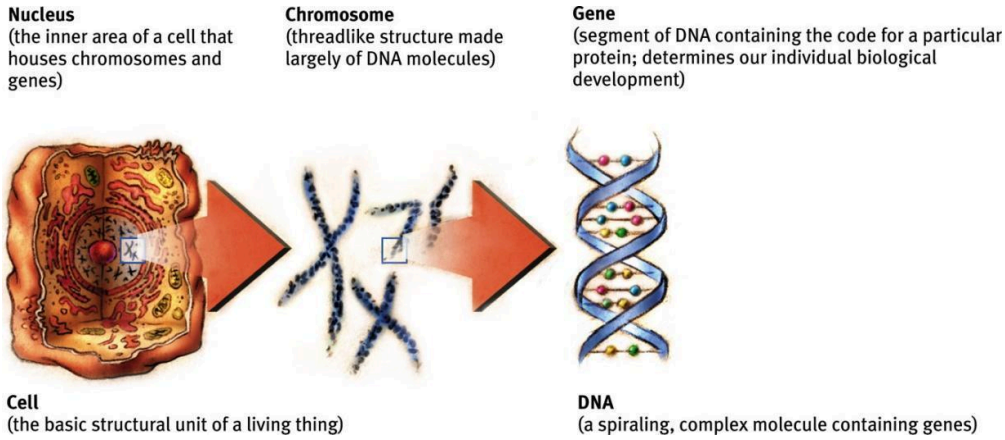
Explain the process of conception and gestation, including factors that influence successful prenatal development.

PRENATAL AND INFANCY

Genome: the set of complete instructions for making an organism.

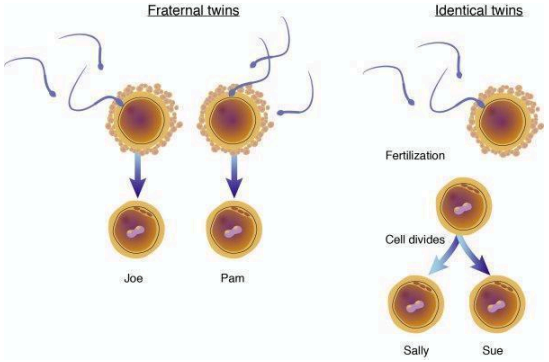
Chromosome: the genetic master code for the body. It is made up of DNA. There are 46 chromosomes (23 from each parent) in the nucleus. Males have both an X and Y chromosome. Females have 2 X chromosomes. ***The father genetically determines the sex of the baby.***

DNA: a complex molecule containing the genetic information that makes up the chromosomes.



Identical twins: twins who develop from a single fertilized egg that splits in two, creating two genetically identical organisms.

Fraternal twins: twins who develop from separate fertilized eggs. They are genetically no closer than brothers or sisters, but they share a fetal environment.

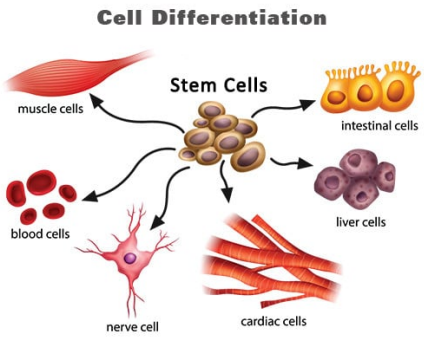


Prenatal period: the period of pregnancy that begins with conception and ends 9 months later with birth.

Conception: the fertilization of the egg.

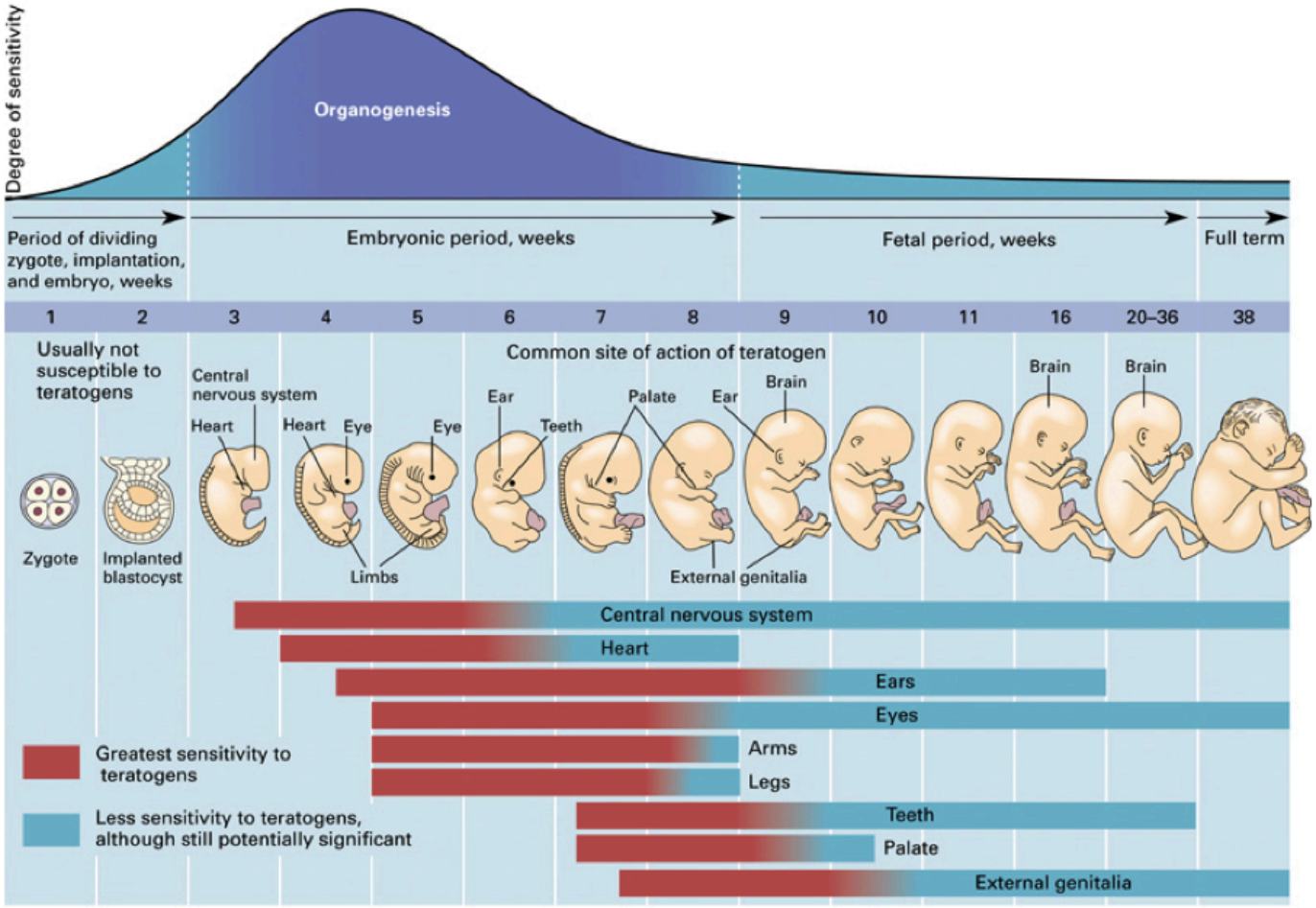
Zygote: the fertilized egg. The zygote stage **lasts 2 weeks** in which there is a period of rapid cell division. About day 10, the zygote attaches to the mother's uterine wall.

Differentiation: cells choosing their specialization, such as a stomach or a brain cell.



Embryo: the developing human organism from **2 – 8 weeks** (2nd month). At this time organs begin to form and function (the heart beats, liver produces red cells, etc.), the umbilical cord forms, and arms and legs are beginning to form.

Fetus: the developing human organism from **9 weeks after conception to birth**. At this time hands and feet are developing, at around the 6th month, organs such as the stomach have developed enough to allow a premature born fetus a chance of survival. The fetus is also responsive to the mother's voice. During this time, neural cells are produced at the astounding rate of 250,000 per minute!

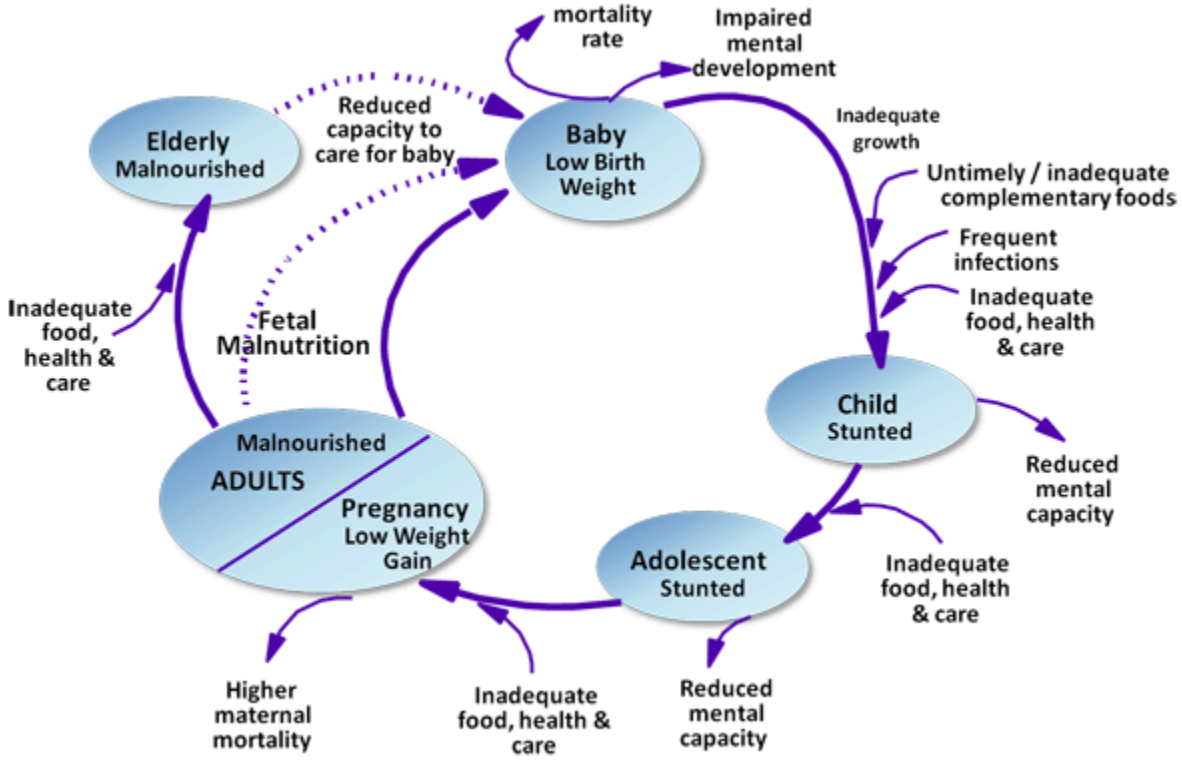


Teratogens: toxic substances that can harm the embryo or fetus if ingested or contracted by the mother. Examples are alcohol, drugs, nicotine, HIV, AIDS, etc. ***(NOTE the chart above that shows the influence of teratogens at different stages)***

Fetal Alcohol Syndrome (FAS): physical and cognitive abnormalities in

children caused by a pregnant woman's heavy drinking. Some characteristics include: disproportioned head, learning disabilities, emotional problems, etc.

Impact of Improper Nutrition on Development



Learning Target 6B

Discuss the interaction of nature and nurture (including cultural variations), specifically physical development, in the determination of behavior.

- **Nature** = Influences on development that are genetic or biological; typically relate to the process of maturation (biological growth processes that enable changes in behavior); growth processes are connected to an individual's genetic blueprint
- **Nurture** = Influences of environmental factors on development, such as family, nutrition, culture, interactions with others, education, wealth, etc.

Physical development involves changes in the body, nervous system, senses, and motivational drives related to growth and aging.

- MATURATION: the orderly, sequential biological growth pattern
    - Primarily determined by genetic makeup (nature), but it can also be influenced by extreme environmental factors (nurture) such as lack of adequate nutrition or exposure to teratogens.

Learning Target 6C

Discuss maturation of motor skills.

Neonate: newborn

Newborn Sensory Abilities: can respond to sweet, salty, and bitter tastes; they can see close objects (about 8 inches) such as their mother's face, but have poor distance vision; attracted to females voices and can recognize their mother's voice

Apgar test: a simple and repeatable method to assess the health of a newborn immediately after birth. It rates 5 categories (skin color, pulse rate, reflexes, muscle tone, and breathing) on a scale from 0 – 2, with the final score ranging from 0 – 10.

PKU (Phenylketonuria): a condition that makes it impossible for babies to metabolize certain proteins.

Reflexes: survival actions with which a baby is born.

Moro or "Startle" reflex	An outstretching of the arms and legs in response to a loud noise or sudden physical change.
Babinski reflex	In response to a touch on the bottom of the foot, the infant's toes will splay outward and arch back. In adults, the toes just curl in.
Sucking reflex	Occurs when an object touches the lips.
Rooting reflex	The turning of an infant's head toward a stimulus such as a breast or hand.
Grasping reflex	In response to a touch on the palm of the hand, an infant will grasp.
Swallowing	An infant can swallow, though this reflex is not yet well coordinated with breathing.
Stepping	If held so that the feet just touch the ground, an infant will show "walking" movements, alternating the feet in steps.

Sudden Infant Death Syndrome (SIDS): the sudden death of an infant under 1 year of age that cannot be explained after a thorough investigation is conducted. Typically the infant is found dead after having been put to bed, and exhibits no signs of having struggled. SIDS is the leading cause of death among infants aged 1–12 months, and is the third leading cause overall of infant mortality in the United States. *However, in the 8 years following the 1994 launch of a U.S. Back to Sleep educational campaign, the number of infants sleeping on their stomach dropped from 70 to 11 percent – and SIDS deaths fell by half.*

Habituation: a decrease in responsiveness with repeated stimulation. Ex. a baby no longer being excited by a toy.

Maturation: orderly, sequential biological growth pattern; primarily determined by genetic makeup, but it can also be influenced by extreme environmental factors such as lack of adequate nutrition or exposure to teratogens

Brain Development: by the age of 2, and infant's brain is about 75% of its adult weight and size; people typically cannot remember events that occurred when they were infants because many brain circuits were not fully connected at this time (***Infantile Amnesia***)

- On the day you were born, you had most of the brain cells you would ever have but your nervous system was immature

- After birth, neural networks grow rapidly
- Ages 3-6, most of the growth is in your frontal lobes which enable rational planning = school age (~5 years old) = ability to control attention and behavior
- Association areas (thinking, memory, and language) are the last cortical areas to develop

Motor Development: infants typically roll overs at 3 months, sit along at 5.5 months, stand alone at 11.5 months, walk alone at 12 months, and walk up steps at 17 months

- Sit, crawl, walk, run - the sequence of these motor development milestones is the same around the world, though babies reach them at varying ages
- The ability to walk (10-15 months) is dependent on the development of the cerebellum that controls balance; experience will have little effect

Language Development: Noam Chomsky and other linguists believe that every child has the innate ability to learn language; parents in every culture use a distinctive style of speech called motherese ("baby talk") to encourage language development; infants in every culture follow a patterned sequence of language development that begins with "cooing" and progresses to babble sounds in their native language at around 9 months of age; after producing their first words by about 12 months, infants soon begin the process of combining them into two-word sentences; by age three, the typical child has a vocabulary of 3,000 words

Topic 6.2: Social Development in Childhood

Learning Target 6D

Describe the influence of temperament and other social factors on attachment and appropriate socialization.

Temperament: an individual's characteristic manner of behavior; researchers believe it has a strong genetic base

- **Jerome Kagan** has identified a number of temperamental patterns; for example, "bold" babies are less easily frightened and more socially responsive than "shy" babies
- **Alexander Thomas and Stella Chess**
    - Longitudinal research that identified three general types of temperament

Table 11.2
Chess and Thomas's Basic Clusters of Temperament

Temperament Dimension	Description	Temperament Cluster		
		Easy Child	Difficult Child	Slow-to-Warm-Up Child
Rhythmicity	Regularity of eating, sleeping, toileting	Regular	Irregular	
Activity level	Degree of energy movement		High	Low
Approach-withdrawal	Ease of approaching people and situations	Positive	Negative	Negative
Adaptability	Ease of tolerating change in routine plan	Positive	Negative	Negative
Sensory threshold	Amount of stimulation required for responding			
Predominant quality of mood	Amount of stimulation required for responding	Positive	Negative	
Intensity of mood expression	Degree of affect when pleased, displeased, happy, sad	Low to moderate	High	Low
Distractibility/attention span/persistence	Ease fo being distracted			

This table identifies those dimensions that were critical in spotting basic cluster of temperament and the level of responsivness for each critical feature. A blank space indicates that the dimension was not strongly related to a basic cluster of temperament.

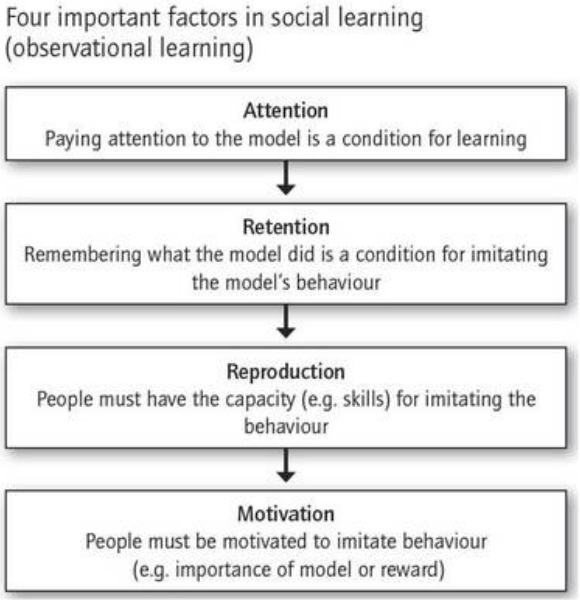
Parenting styles and social interaction can modify a child's temperament.

Learning Target 6E

Identify the contributions of major researchers in developmental psychology in the area of social development in childhood.

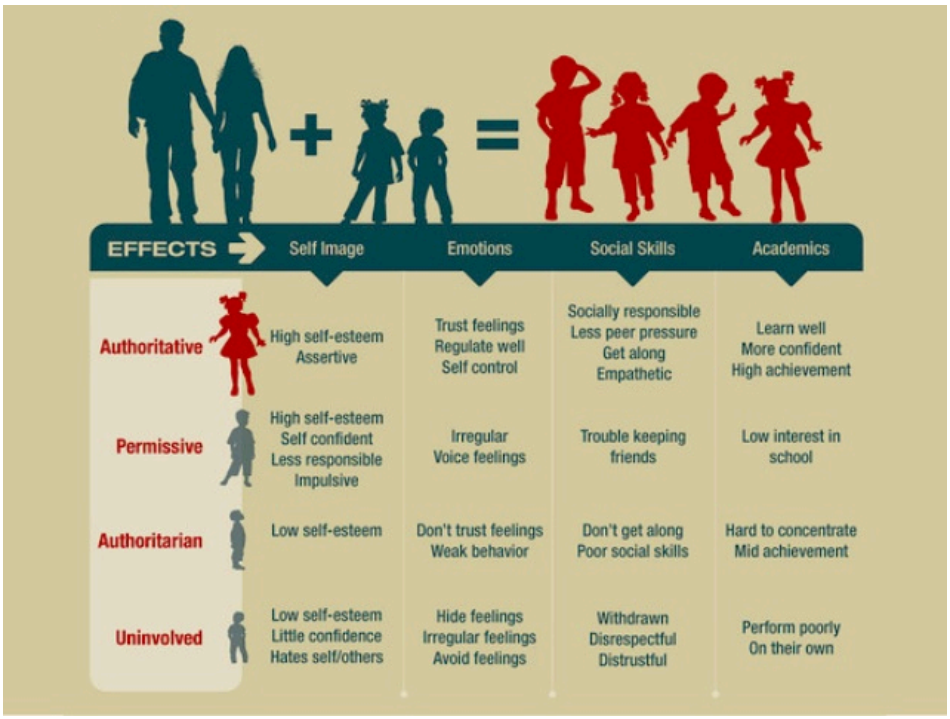
***Albert Bandura*: Social Learning Theory**

- People learn behaviors through observational learning - watching and mimicking others
- Has profound implications in our media-driven world



Parenting Styles *(Diana Baumrind)*:

- **Authoritarian:** a parenting style that has rigid rules, enforces strict punishments, and rarely, listens to the kids' viewpoints. According to Baumrind, kids who grow up under the authoritarian parenting style tend to be moody, aggressive, and often lack good communication skills.



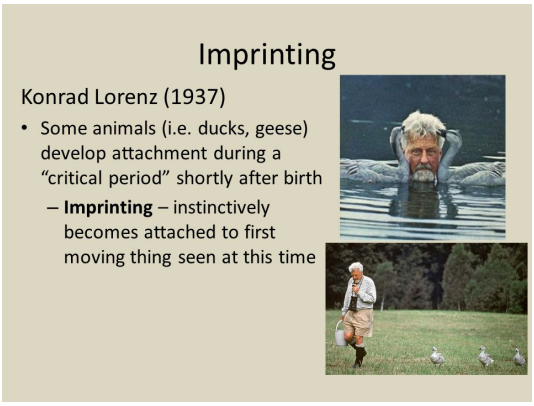
- **Authoritative:** a parenting style that sets firm rules, makes reasonable demands, and listens to the kids' viewpoints while insisting on responsible behavior. According to Baumrind, kids who grow up under the authoritative parenting style tend to be well-adjusted, goal oriented, and socially competent.

- **Permissive:** a parenting style that sets few rules, makes minimal demands, and allows the kids to reach their own decisions. According to Baumrind, kids who grow up under the permissive parenting style tend to be impulsive, immature, and often fail to respect others, especially authority.

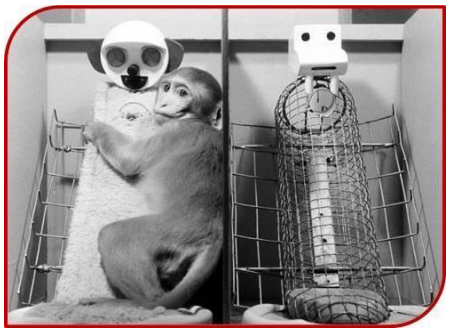
- **Neglectful:** a parenting style in which the parent is non-existent.

***Konrad Lorenz*:**

- Investigated the attachment of baby geese to a mother figure
- **Critical Period**: a specific time in which an emotional or social landmark is developed that will not or cannot occur at a later date.
- **Imprinting**: instinctive bonding to the first moving object seen within hours of birth (or hatching)
- Humans seem to have a longer period - a **sensitive period** - as a opposed to a critical period, during which attachment forms



***HARRY HARLOW*: Contact Comfort**



- In a famous (and controversial) series of experiments, Harry Harlow gave orphaned baby monkeys two artificial surrogate "mothers." A cloth "mother" provided no milk but offered a soft terry-cloth cover. A wire "mother" provided milk, but offered no contact comfort.
- Experimental results documented by particularly poignant pictures showed that in frightening situations the infant monkey clung to the cloth mother even when the wire mother had a nursing bottle.
- Harlow concluded that the *stimulation and reassurance derived from the physical touch of a parent or caregiver play a key role in developing healthy physical growth and normal socialization*. Challenged the traditional belief that infants became attached to those who provided nourishment to them.
- Harlow also conducted isolation experiments (also controversial) - isolated monkeys withdrew, turned inward, and rocked back and forth when frightened; did not seek comfort from either an artificial or real mother;

***MARY AINSWORTH*: Strange Situation Test of Attachment** *(the strong bond of affection that forms between a child and a parent or other caregiver)*

- **Secure attachment:** forms when parents or caregivers consistently meet the infant's needs by being warm and responsive. ***Securely attached infants tend to be well-adjusted, form successful social relationships, and perform better at school.*** During the Strange Situation test, they freely explore the environment, show moderate anxiety in the presence of strangers and some separation anxiety but are easily comforted upon the caregiver's return (the reunion).

EPISODE	EVENTS	ATTACHMENT BEHAVIOR OBSERVED
1	Researcher introduces parent and baby to playroom and then leaves.	
2	Parent is seated while baby plays with toys.	Parent as a secure base
3	Stranger enters, is seated, and talks to parent.	Reaction to unfamiliar adult
4	Parent leaves room. Stranger responds to baby and offers comfort if baby is upset.	Separation anxiety
5	Parent returns, greets baby, and offers comfort if necessary. Stranger leaves room.	Reaction to reunion
6	Parent leaves room.	Separation anxiety
7	Stranger enters room and offers comfort.	Ability to be soothed by stranger
8	Parent returns, greets baby, offers comfort if necessary, and tries to reinterest baby in toys.	Reaction to reunion

Note: Episode 1 lasts about 30 seconds; each of the remaining episodes lasts about 3 minutes. Separation episodes are cut short if the baby becomes very upset. Reunion episodes are extended if the baby needs more time to calm down and return to play.

- **Insecure:** forms when parents or caregivers fail to fully meet the infant's needs by being neglectful and inconsistent. ***Insecure infants tend to form shallow relationships, appear withdrawn and sometimes display an insatiable need for affection*.**
    1. **Insecure-ambivalent:** during the Strange Situation test, the infant shows a great deal of anxiety, engages in little exploration, becomes distressed in the absence of the caregiver and in the presence of a stranger. Upon the return of the caregiver (the reunion), the infant is difficult to console.
    2. **Insecure-avoidant:** during the Strange Situation test, the infant shows little distress in the absence of the caregiver and in the presence of a stranger. Upon the return of the caregiver (the reunion), the infant does not seek contact.

***Sigmund Freud*: Psychosexual Stages**

- Theorized that personality develops during infancy and childhood in a series of five psychosexual stages.
- During each stage, the **id**'s urge to seek pleasure becomes associates with specific parts of the child's body that produce pleasurable sensations (erogenous zones)
- Core personality traits and characteristics form because of events that occur during the first three stages
    - When id-based urges are not satisfied or are overindulged, a person becomes **fixated**, or stuck, in a stage and carries the sexual energy from that stage into adulthood
        - Can also occur if a trauma occurred during that stage

Stage	Ages	Focus of Libido	Major Development	Adult Fixation Example
Oral	0 to 1	Mouth, Tongue, Lips	Weaning off of breast feeding or formula	Smoking, Overeating
Anal	1 to 3	Anus	Toilet Training	Orderliness, Messiness
Phallic	3 to 6	Genitals	Resolving Oedipus/ Electra Complex	Deviancy, Sexual Dysfunction
Latency	6 to 12	None	Developing Defense Mechanisms	None
Genital	12+	Genitals	Reaching Full Sexual Maturity	If all stages were successfully completed then the person should be sexually matured and mentally healthy.

Learning Target 6F

Discuss the interaction of nature and nurture (including cultural variations), specifically social development, in the determination of behavior.

Social development **refers to how people develop social and emotional skills across the lifespan.**

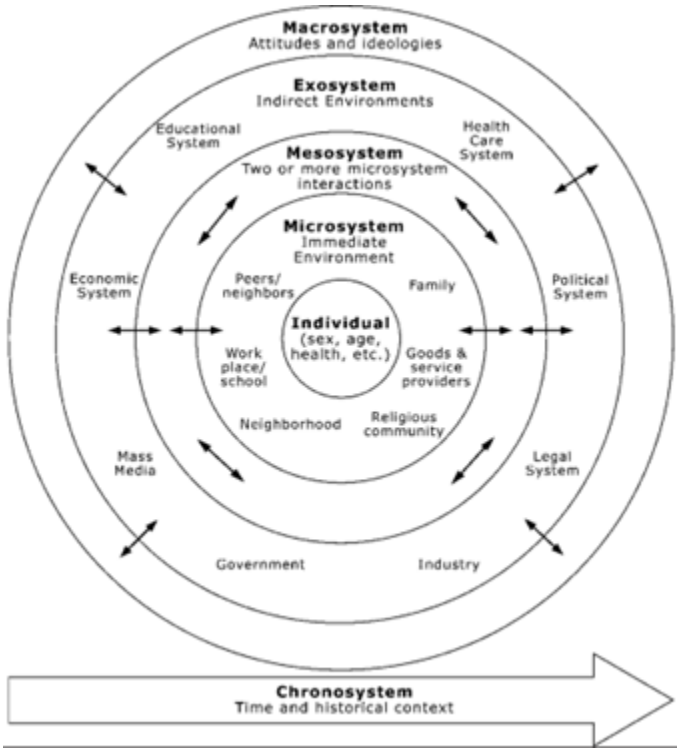
- Healthy social development allows us to form positive relationships with family, friends, teachers, and other people in our lives. As we mature, we learn to better manage our own feelings and needs and to respond appropriately to the feelings and needs of others.
    - **Social development can be affected by a child's personality (nature), the opportunities they have for social interaction (nurture), behaviors learned from parents (nurture), and developmental disorders (nature)**
        - For example, a child who has a short temper and who witnesses violence in the home may have trouble learning how to play well with others.

Learning Target 6G

Explain how parenting styles influence development.

See also: ecological systems theory (microsystem, mesosystem, exosystem, macrosystem, chronosystem)

- **ECOLOGICAL SYSTEMS THEORY:**
- **Microsystem – immediate environment w/ daily interaction (family, friends, teachers)**
- **Mesosystem – relationships bw microsystem (interaction bw parents and teachers / school)**
- **Exosystem – environment you're not directly a part of that still impacts you (government policies, parent's job)**
- **Macrosystem – societal and cultural influences (customs, norms, traditions)**
- **Chronosystem – life stage and historical events (economic recession, environmental changes)**



Parenting Style	Characteristics	Influence on Development
Authoritative *(Most effective and most parents follow this style)*	• High warmth, high control • Set limits but give child autonomy • Demanding, but warm and responsive • Rules and expectations but not as rigid and demanding	Children of authoritative parents are well balanced, exhibiting decision-making abilities and high self-esteem
Authoritarian	• Low warmth, high control • Dictatorial rule enforcer	Children of authoritarian parents often cannot make decisions for

	● Demanding, unresponsive ● Use of threats and punishments	themselves and, when given some independence, may often make poor decisions. May appear immature for their age. Often display lower levels of self-esteem
Rejecting-Neglecting	● Low warmth, low control ● Disengaged and unresponsive ● Not involved in child's life ● Do not set limits ● Do not consider child's needs	Children of rejecting-neglecting parents typically have little self-esteem and often act as adults prematurely because they have had to make decisions for themselves from a young age.
Permissive	● High warmth, low control ● Indulgent ● Lenient and responsive ● Do not set limits ● Lets child act in inappropriate ways	Children of permissive parents typically are impulsive and demanding because they are used to getting their way.

Topic 6.3: Cognitive Development in Childhood

Learning Target 6H

Explain the maturation of cognitive abilities (Piaget's stages, Information process).

PIAGET'S THEORY OF COGNITIVE DEVELOPMENT

"Assessing the impact of Piaget on developmental psychology is like assessing the impact of Shakespeare on English literature…"

Prior to Piaget's research, many assumed that a child's mind was simply a small-scale replica of an adult's mind. Piaget's life-long observations convinced them that children are not less intelligent than adults; they simply think differently.

Schema: a concept or framework that organizes and interprets information; *for example, young children develop a schema for Santa Claus that includes a jolly old man with a white beard who wears distinctive red clothes and rewards good children with gifts and presents on Christmas.*

Assimilation: the process of absorbing new information into an existing schema; *for example, as they become older, children see Santa on television and in the mall; they assimilate these Santas into their existing schema by identifying them as "Santa's helpers."*

Accommodation: the process of adjusting old schemas or developing new ones to incorporate new information; *for example, when children become older, they realize that Santa Claus doesn't really exist; children are forced to develop a new schema that identifies Santa as a fictional character who nonetheless continues to bring them presents on Christmas.*

Object permanence: the understanding that objects and people continue to exist even when they cannot be seen, heard, or touched. Develops in the sensorimotor stage.

Egocentrism: the inability to consider another person's point of view. *Ex. thinking daddy wants a toy truck for his birthday because that is what you would like.* Found in the preoperational stage.

PIAGET'S STAGES OF COGNITIVE DEVELOPMENT

Typical Age Range	Description of Stage	Developmental Phenomena
Birth to nearly 2 years	*Sensorimotor* Experiencing the world through senses and actions (looking, touching, mouthing, and grasping)	• Object permanence • Stranger anxiety
2 to about 6 or 7 years	*Preoperational* Representing things with words and images; use intuitive rather than logical reasoning	• Pretend play • Egocentrism • Language development
About 7 to 11 years	*Concrete operational* Thinking logically about concrete events; grasping concrete analogies and performing arithmetical operations	• Conservation • Mathematical transformations
About 12 through adulthood	*Formal operational* Abstract reasoning	• Abstract logic • Potential for mature moral reasoning

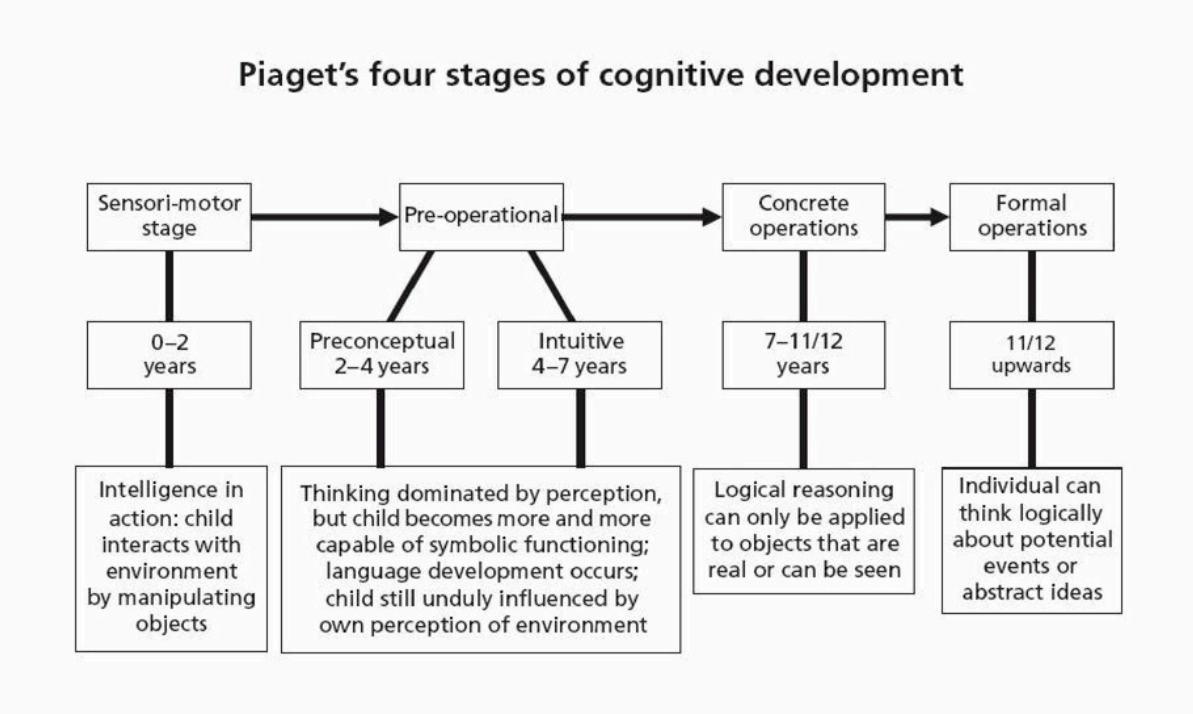
Animistic thinking: believing that inanimate objects have feelings. Found in the preoperational stage.

Conservation: the understanding that two equal quantities remain equal even though their form or appearance is rearranged. *Ex. understanding that your sandwich is the same size if it is cut into halves or quarters.*

Theory of mind: is the ability to attribute mental states (beliefs, intents, desires, pretending, knowledge, etc.) to oneself and others and to understand others have beliefs, desires, and intentions that are different from one's own.

Autism Spectrum Disorder: disorders that are typically characterized by social deficits, communication difficulties, stereotyped or repetitive behaviors and interests, and in some cases, cognitive delays

- Challenged by social interactions because they are unable to read other people's reactions and facial or body movements intuitively
- May also have trouble developing a clear self-concept, an understanding and evaluation of who they are, and a **theory of mind** - the ability to understand the motives, feelings, and desires of oneself and others



Information Process Theory: A cognitive developmental theory offered in contrast to Piaget's theory. As the name implies, this theory proposes that cognition is a process similar to that of a computer (you first learned about this in the cognition unit).

- In terms of infant cognition, this theory asserts that children's cognitive abilities increase as they grow in their ability to obtain information through sensory input.
- In addition, their cognitive abilities improve as they grow in their ability to process it, which depends on motivation, experience, and age.

TABLE 9-2 Comparison of Piaget's Theory, Information-Processing Theories, and Vygotsky's Approach to Cognitive Development

	Piaget	Information Processing	Vygotsky
Key concepts	Stages of cognitive development; qualitative growth from one stage to another	Gradual, quantitative improvements in attention, perception, understanding, and memory	Culture and social context drive cognitive development
Role of stages	Heavy emphasis	No specific stages	No specific stages
Importance of social factors	Low	Low	High
Educational perspective	Children must have reached a given stage of development for specific types of educational interventions to be effective.	Education is reflected in gradual increments in skills.	Education is very influential in promoting cognitive growth; teachers serve as facilitators.

Learning Target 6I

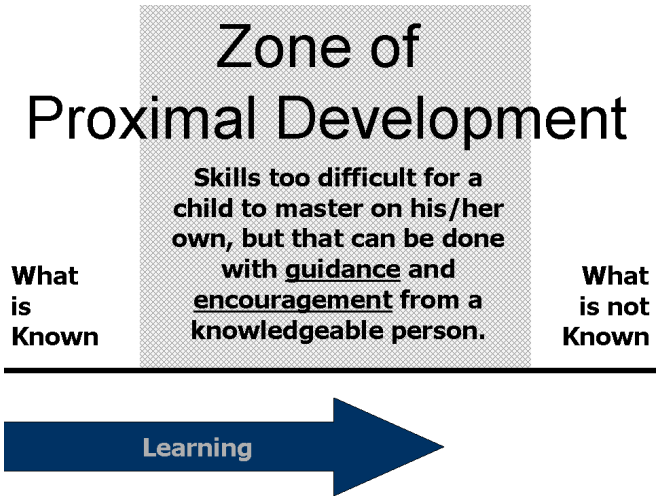
Identify the contributions of major researchers in developmental psychology in the area of cognitive development in childhood.

CRITICISM of Piaget:

- Piaget is considered one of the greatest child psychologists of the 20th century and his theories of cognitive development have had enormous influence in a variety of fields and education in particular.
  - Cross-cultural studies have supported the idea that the four general stages occur in the same order for all children.
- However, modern research finds that the transition between stages is not as distinct as Piaget hypothesized.
  - Improved methods for testing cognitive abilities in very young children revealed that some children achieve specific cognitive milestones much earlier than Piaget anticipated.
- Overall, his broad descriptions have stood the test of time, but the specific onset of various cognitive skills varies across culture.

- **Renée Baillargeon** used visual tasks to demonstrate that infants as young as 2.5 months are capable of displaying object permanence.
- ***Lev Vygotsky*** (1896-1934) placed greater emphasis upon the role of social and cultural factors in influencing cognitive development

Piaget	Vygotsky
Stage theory or discontinuity	Gradual change or continuity
Cognitive development is influenced by the child being an active explorer that investigates the world	Cognitive development is influenced by the social world that interacts with the child
Egocentric speech suggests that the child is self-centered	Private speech suggests that the child is organizing and guiding their actions
Development precedes learning	Learning precedes development



Topic 6.4: Adolescent Development

Learning Target 6J

Discuss maturational challenges in adolescence, including related family conflicts.

Adolescence: the period of time between puberty and adulthood when people experience physical, social, and moral changes.

Puberty: the physical beginnings of sexual maturity.

Primary sex characteristics: the organs needed for reproduction (ovaries in the female, testes in the male, and external genitalia).

Secondary sex characteristics: non-reproductive traits (enlargement of the hips and breasts in females, facial hair and deepening voice in males, the development of pubic and underarm hair in both females and males).

Menarche: a girl's first menstrual period.

Timing of puberty is related to both biological maturation and environmental influences

- Twin and family studies support the biological influences
- Environmental influences include nutrition and access to health care
    - Adolescents from wealthier nations reach puberty earlier

Timing of puberty can have social and emotional effects

- Boys who are stronger and more athletic during their early teen years tend to be more popular, self-assured, and independent, though also more at risk for alcohol use, delinquency, and premature sexual activity.
- For girls, early maturation can be a challenge – does not always match emotional maturity; teasing or sexual harassment

Adolescent Period	Biological Changes	Cognitive Changes	Social Changes
Early	• Growth spurt • Skin, voice, and body- hair changes • Increases in body fat • Development of secondary sex characteristics	• Abstract and logical thinking, hypothesis testing emerge • Firmer grasp on cause-effect relationships	• Increased interest in opposite sex • Adjustment to independence and self-reliance
Middle	• Secondary sex characteristics continue to develop • High levels of androgen secretion increasing, desire for sexual stimulation leading to sexual maturation	• Emotional and intellectual capacity increase • Abstract and logical thinking, hypothesis testing increases • Autonomous functioning	• Seeks distinctiveness and develops preferences • Peer relationships are given greater significance
Late	• Physically mature	• Have established self-identity and bolstered self-esteem • Adult-like cognitions are present	• Plan for future • Establish more intimate relationships

STAGES OF HEALTHY ADOLESCENT DEVELOPMENT			
Stage withAge Range(Approx)	Early Adolescence (ages 10-14 years)	Middle Adolescence (ages 15-17 years)	Late Adolescence (ages 18-21 years)
Characteristic Developmental Milestones and Tasks			
Physical Growth	* Puberty: Rapid growth period * Secondary sexual characteristics appear	* Secondary sexual characteristics advanced * 95% of adult height reached	* Physical maturity and reproductive growth leveling off and ending
Intellectual/ Cognition	* Concrete thought dominates "here and now" * Cause-effect relationships underdeveloped * Stronger "self" than "social awareness:	* Growth in abstract thought; reverts to concrete thought under stress * Cause-effect relationships better understood * Very self-absorbed	* Abstract thought established * Future oriented; able to understand, plan and pursue long range goals * Philosophical and idealistic
Autonomy	* Challenge authority, family; antiparent * Loneliness * Wide mood swings * Things of childhood rejected * Argumentative and disobedient	* Conflict with family predominates due to ambivalence about emerging independence	* Emancipation: -- vocational/technical/college and/or work -- adult lifestyle
Body Image	* Preoccupation with physical changes and critical of appearance * Anxieties about secondary sexual characteristic changes * Peers used as a standard for normal appearance (comparison of self to peers)	* Less concern about physical changes but increased interest in personal attractiveness * Excessive physical activity alternating with lethargy	* Usually comfortable with body image
Peer Group	* Serves a developmental purpose * Intense friendship with same sex * Contact with opposite sex in groups	* Strong peer allegiances – fad behaviors * Sexual drives emerge and teens begin to explore ability to date and attract a partner	* Decisions/values less influenced by peers * Relates to individuals more than to peer group * Selection of partner based on individual preference
Identity Development	* "Am I normal?" * Daydreaming * Vocational goals change frequently * Begin to develop own value system * Emerging sexual feelings and sexual exploration * Imaginary audience * Desire for privacy * Magnify own problems: "no one understands"	* Experimentation – sex, drugs, friends, jobs, risk-taking behavior	* Pursue realistic vocational goals with training or career employment * Relate to family as adult * Realizations of own limitations & mortality * Establishment of sexual identity, sexual activity is more common * Establishment of ethical and moral value system * More capable of intimate, complex relationships

Social and emotional development involves expanding self-concept, building an identity, pursuing autonomy, and developing relationships.

- Adolescents refine their self-concept, making it more accurate through self-evaluation and the incorporation of the opinions of others.

Developmental psychologist and psychoanalyst **Erik Erikson** developed a theory of **eight stages of psychosocial development**.

- A Neo-Freudian who modified and updated Freud's work to make it his own
    - Less emphasis on sex drive and the unconscious
    - More optimistic about human behavior
- Each stage builds on the previous stage and the stages unfold somewhat differently based on an individual's unique environmental and sociocultural experiences.
- An individual may not complete a certain stage, resulting in problems that emerge later in life, but lack of completion does not prevent moving to the next stage.
- Each stage is a "crisis" to be confronted and resolved. The resolution of each stage develops a lasting virtue and allows an individual to face the next crisis.

Stage	Basic Conflict	Important Events	Outcome
Infancy (birth to 18 months)	Trust vs. Mistrust	Feeding	Children develop a sense of trust when caregivers provide reliability, care and affection. A lack of this will lead to mistrust.
Early Childhood (2-3 years)	Autonomy vs. Shame and Doubt	Toilet Training	Children need to develop a sense of personal control over physical skills and a sense of independence. Success leads to feelings of autonomy. Failure results in feelings of shame and doubt.
Preschool (3-5 years)	Initiative vs. Guilt	Exploration	Children need to begin asserting control and power over the environment. Success in this stage leads to a sense of purpose. Children who try to exert too much power experience disapproval, resulting in a sense of guilt.
School Age (6-11 years)	Industry vs. Inferiority	School	Children need to cope with new social and academic demands. Success leads to a sense of competence, while failure results in feelings of inferiority.
Adolescence (12-18 years)	Identity vs. Role Confusion	Social Relationships	Teens need to develop a sense of self and personal identity. Success leads to an ability to an ability to stay true to yourself, while failure leads to role confusion and a weak sense of self.
Young Adulthood (19-40 years)	Intimacy vs. Isolation	Relationships	Young adults need to form intimate, loving relationships with other people. Success leads to strong relationships, while failure results in loneliness and isolation.
Middle Adulthood (40-65 years)	Generativity vs. Stagnation	Work and Parenthood	Adults need to create or nurture things that will outlast them, often by having children or creating a positive change that benefits other people. Success leads to feelings of usefulness and accomplishment, while failure results in shallow involvement in the world.
Maturity (65-Death)	Ego Integrity vs. Despair	Reflection on Life	Older adults need to look back on life and feel a sense of fulfillment. Success at this stage leads to feelings of wisdom, while failure results in regret, bitterness and despair.

James Marcia expanded on Erik Erikson's work of identity development

- An individual's identity is knowing oneself and is actually a collection of many separate components that include career, culture, gender, political, religious, personality, and interests that will shape adult behavior.
    - Each of the four statuses results from a combination of the adolescent's degree of **commitment** and on whether or not exploration of an identity is taking place (**crisis**).

Identity Status	Description	Characteristics
Identity Diffusion	Neither exploring nor committing to an identity	May become socially isolated and withdrawn
Identity Foreclosure	A commitment is made without exploring alternatives.	Based on parental ideas and beliefs that are accepted without question
Identity Moratorium	In the midst of a crisis but has not committed to any identity.	Active exploration of alternatives

Identity Achievement	Experienced a crisis, has undergone identity explorations, and has made commitments.	Positive benefits of high self-esteem, achievement motivation, and emotional stability

*Seeking increased autonomy often results in increased **family conflicts.***

- New studies suggest that relationships with parents continue to be important and provide a source of support during transition into adulthood.
- Most conflict is moderate and serves to assist with the process of preparing for independence.
- Adolescents from families with a high degree of long-lasting and intense conflict have a greater risk for delinquency, failure to graduation, and moving out before they are prepared to support themselves.

*During this period of identity exploration, adolescents **experiment with changes** in their appearance and beliefs by trying different styles and investing possible political, religious, or career paths.*

David Elkind's research (Cognitive Development)

- **Adolescent egocentrism**: the tendency of teenagers to view the world only from their own perspective
- **Imaginary audience**: the belief that other people are watching you every move and talking about you more than is actually happening
  - Causes stress as adolescents cope with what they imagine others are thinking and saying about them.
- **Personal fable**: a sense that you are completely unique and invincible
  - Leads to dangerous behavior because adolescents believe that harmful consequences will not happen to them, only to someone else.

Topic 6.5: Adulthood and Aging

Learning Target 6K

Characterize the development of decisions related to intimacy as people mature..

The desire for intimacy does not decrease with age, and there is no age at which intimacy, including physical intimacy, is inappropriate. However, the disorders and emotional changes that often occur with aging can interfere with developing and maintaining an intimate relationship. Aging can also change the way intimacy is expressed.

Intimacy, particularly physical intimacy, may be lost because of the following:

- **Loss of a partner**
- **Disorders:** Various disorders that become more common with aging can interfere with physical intimacy. For the partner, the stress and demands of caregiving may interfere with intimacy.

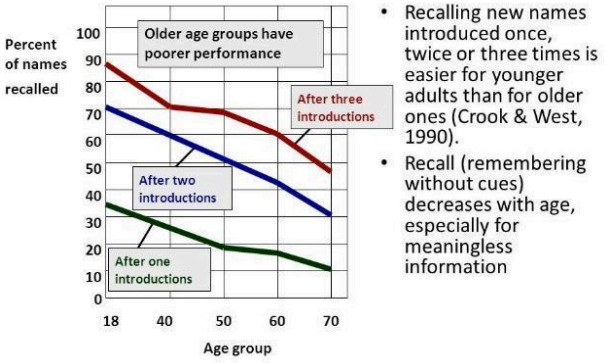
- **Use of drugs:** Older people are more likely to take drugs (such as drugs to treat high blood pressure or drugs that affect brain function) that can cause problems affecting intimacy (for example, erectile dysfunction or reduced sex drive).
- **Age-related changes**
- **Reluctance to discuss the effects of aging.**
- **Discrepancy in expectations of partners.**
- **Lack of privacy:** Older people who live with family members or in a residential care facility have fewer opportunities for privacy, which are necessary for physical intimacy.
- **Shift to other forms of intimacy:** Passions may mellow after years of living together. Sexual intercourse may become less frequent or stop. Many couples—most without paying much attention to it—grow to prefer other forms of intimacy (such as touching, massaging, kissing, or verbal expressions of affection) that express familiarity, caring, or engagement with their partner.

Learning Target 6L

Predict the physical and cognitive changes that emerge through the lifespan, including steps that can be taken to maximize function.

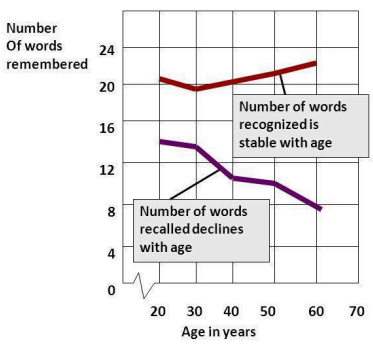
- Muscular strength, reaction time, sensory abilities, and cardiac output begin to decline in the late twenties and continue to decline throughout middle adulthood (roughly 40-65) and late adulthood (the years after 65).
    - Slowing reactions contribute to increased accident risks among those 75 and older, and their greater fragility increases their risk of death when accidents happen
- Women's period of fertility ends with ***menopause*** around age 50; men have no similar age-related sharp drop in hormone levels or fertility
- In late adulthood, the immune system weakens, increasing susceptibility to life-threatening illnesses (but less likely to be affected by common colds due to the build up of antibodies).
- Chromosome tips (**telomeres**) wear down, reducing the chances of normal genetic replication
    - But for some, longevity-supporting genes, low stress, and good health habits enable better health in later life.
- As the years pass, **recall** begins to decline, especially for meaningless information, but **recognition** memory remains strong.

Adulthood--Cognitive Changes



- Recalling new names introduced once, twice or three times is easier for younger adults than for older ones (Crook & West, 1990).
- Recall (remembering without cues) decreases with age, especially for meaningless information

Adulthood--Cognitive Changes



- In a study by Schonfield & Robertson (1966), the ability to recall new information declined during early and middle adulthood, but the ability to recognize new information did not.
- Recognition is remember with cues (ex. multiple choice questions, or picking a word out of a list)

- Adults do not progress through an orderly sequence of age-related social stages
    - The *social clock* is a culture's preferred timing for social events, such as marriage, parenthood, and retirement
- Adulthood's dominant themes are love and work, which Erickson called **intimacy and generativity**
- **Self-confidence** tends to strengthen across the life span.

Fluid vs. Crystallized Intelligence
(Cattell and Horn)

Fluid Intelligence	Crystallized Intelligence
• Inherited ability to reason and think	• Accumulated knowledge and information acquired over a lifetime
• Neurophysiological base: dependent on the state of the brain and nervous system	• Application of skills and knowledge to problem solving
• Minimal dependence on school learning or acculturation	• Education dependent
• Inductive reasoning; problem solving	• Verbal and general knowledge
• Nature	• Nurture

- Surveys show that ***life satisfaction is unrelated to age***. Positive emotions increase after midlife and negative ones decrease.
- **Over time skills decrease** (reaction time, memory)
- A **midlife crisis** is a transition of identity and self-confidence that can occur in **middle**-aged individuals, typically 45–55 years old.
- **Empty nest syndrome** (when children move out of the home) is not a clinical disorder or diagnosis. It is a transitional period in life that highlights loneliness and loss. Parents want to encourage their children to grow into independent adults. However, the experience is often bittersweet or emotionally challenging.
- **"Terminal decline"** describes the cognitive decline in the final few years of life

Erikson's Stages of Psychosocial Development

Approximate age	Stage	Description of Task
Adolescence (teens 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.
Young Adult (20's 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.
Middle Adult (40s to 60s)	Generativity vs. stagnation	The middle-aged discover a sense of contributing to the world, usually through family and work, or they may feel a lack of purpose.
Late Adult (late 60s and up)	Integrity vs. despair	When reflecting on his or her life, the older adult may feel a sense of satisfaction or failure.

Learning Target 6ML

Identify the contributions of key researchers in the area of adulthood and aging.

See also: adverse childhood experiences (ACES)

***Erik Erikson*: Psychosocial Stages**

- Modified and updated Freud's work (**Neo-Freudian**)
  - Less emphasis on the six drive (libido) and less focus on the unconscious
- His theory begins at birth and extends into adulthood and old age
- Each stage of psychosocial development is a "crisis" to be confronted or resolved. The resolution of each stage allows an individual to face the next one.

Stage	Basic Conflict	Important Events	Outcome
Infancy (birth to 18 months)	Trust vs. Mistrust	Feeding	Children develop a sense of trust when caregivers provide reliability, care and affection. A lack of this will lead to mistrust.
Early Childhood (2-3 years)	Autonomy vs. Shame and Doubt	Toilet Training	Children need to develop a sense of personal control over physical skills and a sense of independence. Success leads to feelings of autonomy. Failure results in feelings of shame and doubt.
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Maturity (65-Death)	Ego Integrity vs. Despair	Reflection on Life	Older adults need to look back on life and feel a sense of fulfillment. Success at this stage leads to feelings of wisdom, while failure results in regret, bitterness and despair.

Basic trust: a sense that the world is predictable and reliable. Erikson attributes basic trust to early parenting and says that it gives a life-long attitude of basic trust rather than fear. This can be found in the *Infancy: trust vs. mistrust* stage of Erik Erikson's stages of psychosocial development.

Self-concept: knowing who you are. This can be found in the *Toddlerhood: autonomy vs. shame and doubt* stage of Erik Erikson's stages of psychosocial development.

Topic 6.6: Moral Development

Learning Target 6N

Identify the contributions of major researchers in the area of moral development

Learning Target 6O

Compare and contrast models of moral development

Five Stages of Grief (Elisabeth Kübler-Ross): the stages people go through when facing death or another terrible extreme fate. Her research has not been replicated but was significant in drawing attention to death-related issues.

1. **Denial:** "I feel fine."; "This can't be happening, not to me." Denial is usually only a temporary defense for the individual.
2. **Anger:** "Why me? It's not fair!"; "How can this happen to me?"; "'Who is to blame?" because of anger, the person is very difficult to care for due to misplaced feelings of rage and envy.
3. **Bargaining:** "I'll do anything for a few more years."; "I will give my life savings if...", involves the hope that the individual can somehow postpone or delay death, or the tragedy.
4. **Depression:** "I'm so sad, why bother with anything?"; "I'm going to die soon so what's the point?"; "I miss my loved one, why go on?", the dying person begins to understand the certainty of death. Because of this, the individual may become silent, refuse visitors and spend much of the time crying and grieving.
5. **Acceptance:** "It's going to be okay."; "I can't fight it, I may as well prepare for it.", individuals begin to come to terms with their mortality, or that of a loved one, or other tragic event.

KOHLBERG'S THEORY OF MORAL DEVELOPMENT

Morality: accepted moral standards: standards of conduct that are generally accepted as right or proper.

Research Methodology

- 10 hypothetical moral dilemmas.
  - EXAMPLE: *Heinz's wife was dying from a particular type of cancer. Doctors said a new drug might save her. The drug had been discovered by a local chemist and Heinz tried desperately to buy some, but the chemist was charging ten times the money it cost to make the drug and this was much more than the Heinz could afford. Heinz could only raise half the money, even after help from family and friends. He explained to the chemist that his wife was dying and asked if he could have the drug cheaper or pay the rest of the money later. The chemist refused, saying that he had discovered the drug and was going to make money from it. The husband was desperate to save his wife, so later that night he broke into the chemist's and stole the drug.*
- Interviews
  - In his original study, he presented his moral dilemmas to 72 boys from Chicago-area suburbs. The boys were 10, 13, and 16 years old
  - Kohlberg and his associates ask participants a series of open-ended questions about the dilemmas over the course of 45-minute recorded interviews. Kohlberg focused on the moral reasoning used by each participant.
  - He concluded that his participants' responses could be categorized into three levels of moral development…

Preconventional Morality	Before age 9, children show morality to avoid punishment or gain reward; egocentric moral reasoning limited to how their choice will affect themselves;	*For example, these children typically responded that Heinz should not have stolen the medicine because he would be put in prison and branded a bad person.*
Conventional Morality	By early adolescence, moral judgments are based on compliance with society's rules & values; learned from parents, teachers, peers, and media;	*For example, these respondents typically explained that Heinz should not have taken the medicine because stealing would mean breaking the law.*
Postconventional Morality	People develop personal standards of right & wrong, morality defined in terms of abstract principles of justice	*For example, these respondents argued that Heinz should have stolen the medicine because his wife's right to life superseded the druggist's right to private property.*

CRITICISM of Kohlberg:

- **Carol Gilligan** criticized Kohlberg for failing to include women in his research design; she argued that Kohlberg's theory fails to sufficiently account for differences in experience and outlook between males and females;
  - Suggests that the way boys and girls are raised in our own society leads to differences in moral reasoning
  - Believes Kohlberg's theory is inadequate and places girls' moral reasoning at a lower level than boys'
  - She contends that the moral concerns of men emphasize justice and fairness, while the moral concerns of women focus on responsibility and compassion toward individuals and a willingness to sacrifice for relationships

TABLE 11.2 Gilligan's Three Stages of Moral Development for Women

STAGE	CHARACTERISTICS	EXAMPLE
Stage 1		
Orientation toward individual survival	Initial concentration is on what is practical and best for self. Gradual transition from selfishness to responsibility, which includes thinking about what would be best for others.	A first grader may insist on playing only games of her own choosing when playing with a friend.
Stage 2		
Goodness as self-sacrifice	Initial view is that a woman must sacrifice her own wishes to what other people want. Gradual transition from "goodness" to "truth," which takes into account needs of both self and others.	Now older, the same girl may believe that to be a good friend, she must play the games her friend chooses, even if she herself doesn't like them.
Stage 3		
Morality of nonviolence	A moral equivalence is established between self and others. Hurting anyone—including one's self—is seen as immoral. Most sophisticated form of reasoning, according to Gilligan.	The same girl may realize that both friends must enjoy their time together and look for activities that both she and her friend can enjoy.

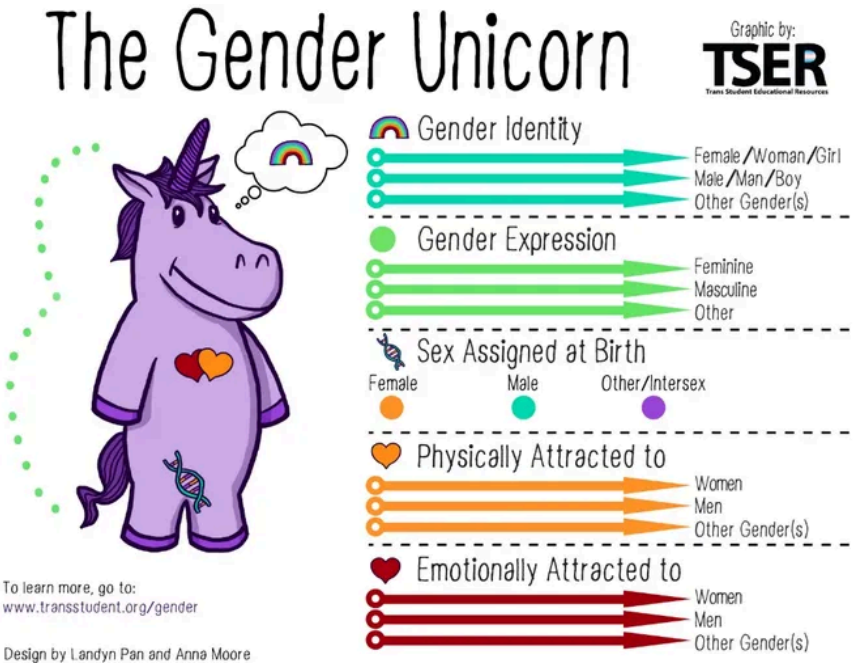
Topic 6.7: Gender and Sexual Orientation

Learning Target 6P

Describe how sex and gender influence socialization and other aspects of development

GENDER DEVELOPMENT

- sex = chromosomes, gender = what you identify yourself as
- **Gender** refers to the socially constructed roles and characteristics by which a culture defines "male" and "female."
- **Gender Identity:** Our innermost concept of being male, female, a blend of both, neither or other - how individuals perceive themselves and what they call themselves. One's gender identity can be the same or different from their sex assigned at birth
- **Gender Expression:** External appearance of one's gender identity, usually expressed through behavior, clothing, haircut or voice, and which may or may not conform to socially defined behaviors and characteristics typically associated with being either masculine or feminine.
- **Transgender**: An umbrella term for people whose gender identity and/or expression is different from cultural expectations based on the sex they were assigned at birth. Being transgender does not imply any specific sexual orientation. Therefore, transgender people may identify as straight, gay, lesbian, bisexual, or other
- **Gender roles**: expected behaviors (norms) for men/women; varies across time and place
    - We are more alike than different, thanks to our similar genetic makeup - we see, hear, learn, and remember similarly
    - Males and females differ in body fat, muscle, height, age of onset of puberty, life expectancy, and vulnerability to disease
    - Men admit to more aggression than women do, and they are more likely to be physically aggressive. Women's aggression is more likely to be relational.
    - In most societies, men have more social power, and their leadership style tends to be directive, whereas women's is more democratic.
    - Women focus more on social connectedness, and they "tend and befriend".
- **Social learning theory:** we learn gender roles and identity from those around us in the same way we learn other things: through reinforcement, punishment, and observation.
    - Critics of Social Learning Theory argue that cognition also plays a role because modeling and rewards cannot explain **gender typing** – the acquisition of a traditional masculine or feminine role.
- The **Gender Unicorn** (created by Trans Student Educational Resources) provides a breakdown of the differences between gender identity, gender expression, sex assigned at birth, and physical & emotional attraction.



SEXUAL DEVELOPMENT

- Sex-related genes and physiology influence behavioral and cognitive gender differences between males and females
- **Intersex** individuals are born with intermediate or unusual combinations of male and female characteristics
    - Research suggests that sex-reassignment surgery can be problematic
- Safe-sex practices help prevent sexually transmitted infections (STIs)
    - Condoms are especially effective in preventing transmission of HIV, the virus that causes AIDS
    - A vaccination administered before sexual contact can prevent more human papillomavirus infections.
- ***Rates of teen intercourse vary from culture to culture and era to era***
    - Factors contributing to teen pregnancy:
        - Minimal communication about birth control with parents, partners, and peers
        - Guilt related to sexual activity
        - Alcohol use
        - Mass media norms of unprotected and impulsive sexuality
    - Predictors of teen sexual restraint
        - High intelligence
        - Religious engagement
        - Father presence
        - Participation in service learning programs

- **Sexual orientation** is a component of identity that includes a person's emotional, romantic, or sexual attraction to other people.
    - Sexuality is an important part of who we are as humans. Beyond the ability to reproduce, sexuality also defines how we see ourselves and how we physically relate to others
    - Sexual orientation is usually divided into these categories:
        - **Heterosexual**: Attracted to people of the opposite sex
        - **Bisexual:** Attracted to people of either sex
        - **Homosexual:** Attracted to people of one's own sex
        - **Pansexual:** Attracted to people of any gender identity
        - **Asexual:** Not sexually attracted to other people
        - *NOTE: There are more labels than just those identified here*
    - Sexual orientation is not an indicator of mental health
    - ***There is NO evidence that environmental influences determine sexual orientation. Most scientists agree that sexual orientation is the result of a combination of environmental, emotional, hormonal, and biological factors and the factors may be different for different people.***

Table 53.1 Biological Correlates of Sexual Orientation

Gay-straight trait differences

Sexual orientation is part of a package of traits. Studies—some in need of replication—indicate that homosexuals and heterosexuals differ in the following biological and behavioral traits:

- spatial abilities
- fingerprint ridge counts
- auditory system development
- handedness
- occupational preferences
- relative finger lengths
- gender nonconformity
- age of onset of puberty in males
- male body size
- sleep length
- physical aggression
- walking style

On average (the evidence is strongest for males), results for gays and lesbians fall between those of straight men and straight women. Three biological influences—brain, genetic, and prenatal—may contribute to these differences.

Brain differences

- One hypothalamic cell cluster is smaller in women and gay men than in straight men.
- Gay men's hypothalamus reacts as do straight women's to the smell of sex-related hormones.

Genetic influences

- Shared sexual orientation is higher among identical twins than among fraternal twins.
- Sexual attraction in fruit flies can be genetically manipulated.
- Male homosexuality often appears to be transmitted from the mother's side of the family.

Prenatal influences

- Altered prenatal hormone exposure may lead to homosexuality in humans and other animals.
- Men with several older biological brothers are more likely to be gay, possibly due to a maternal immune-system reaction.