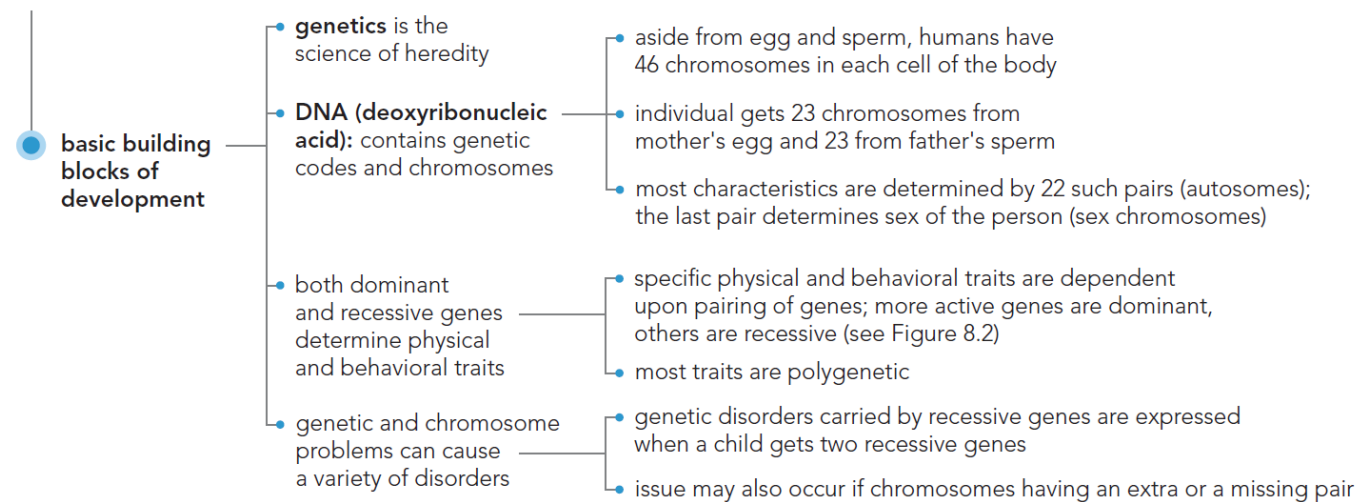
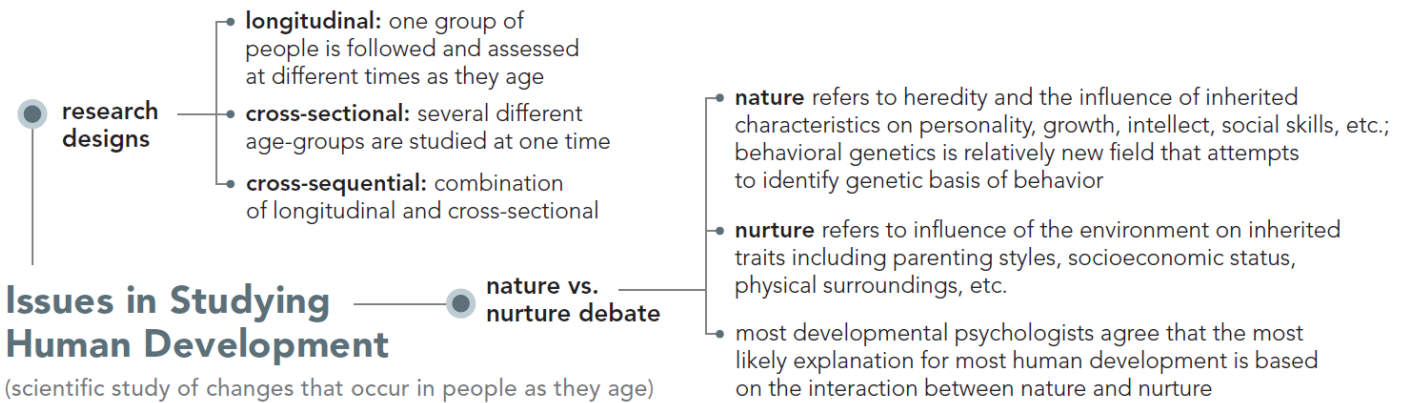


Development



Development

from conception to birth of the baby is approximately 9 months in humans

Prenatal Development

zygote and twinning

- egg and sperm unite through process of fertilization, resulting in a single cell (zygote) that has 46 chromosomes
- through mitosis, zygote begins to divide, into two cells, then four, etc., until baby is formed
- alterations in mitosis can result in twins or multiples

germinal period (2-week period following fertilization)

- zygote continues dividing and moving toward the uterus; the placenta and umbilical cord also develop during this time
- cell differentiation is the process that results in specialized cells for all of the various parts of the body

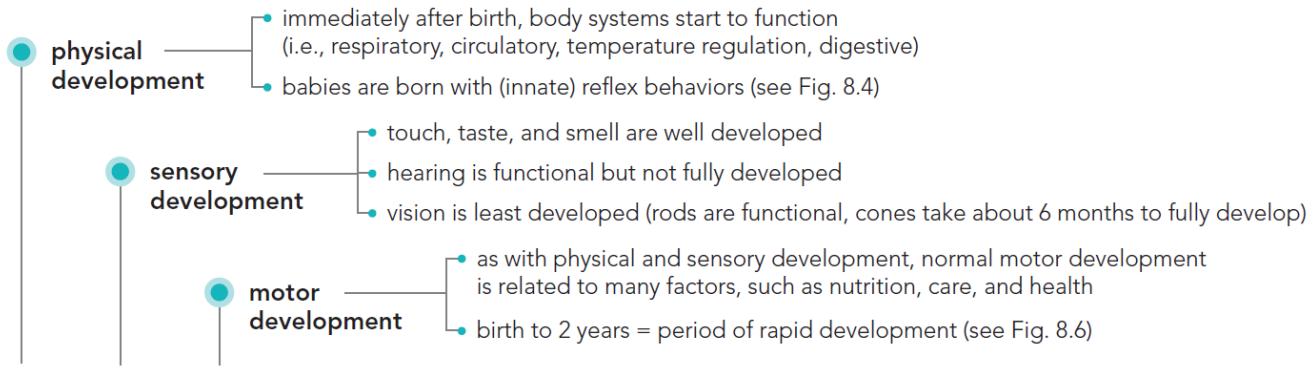
embryonic period (2 weeks after conception to 8 weeks)

- once attached to the uterus, developing organism is called an embryo
- cell specialization continues to occur, resulting in the preliminary versions of various organs
- embryo is vulnerable to hazards such as diseases and substances ingested by the mother as it receives nourishment through the placenta

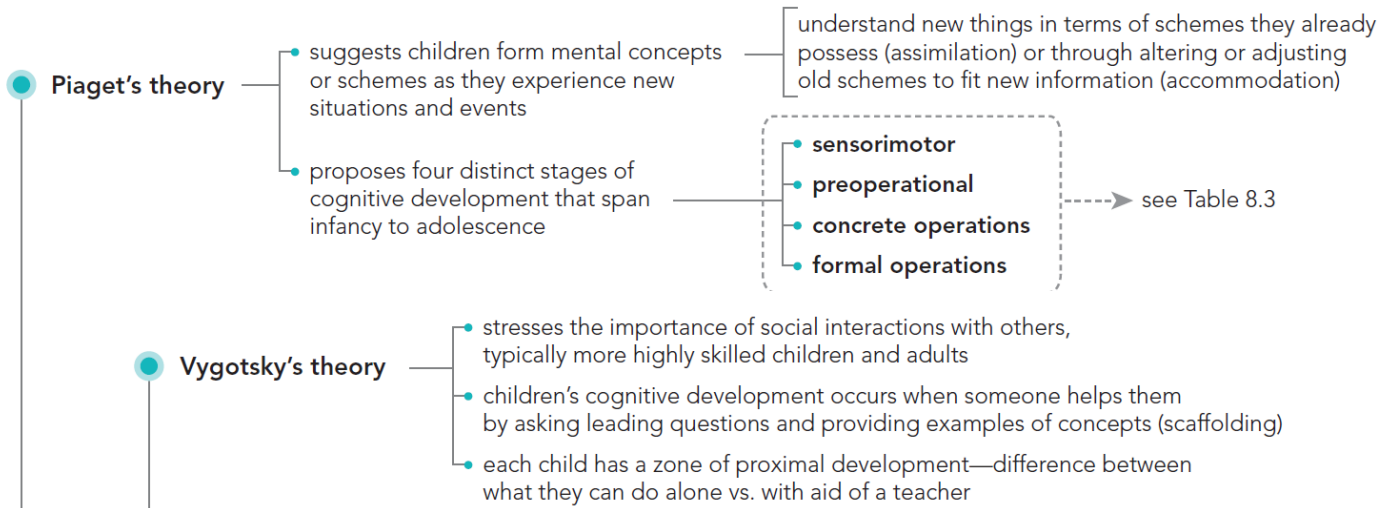
fetal period (from about 8 weeks to birth)

- developing organism now called a fetus; time of tremendous growth and development
- organs continue to develop and become fully functional
- muscles begin to contract during the 3rd month, mother can start to feel "flutters" by 4th month, kicks felt by 5 months
- full-term birth occurs around end of 38th week
- miscarriages (spontaneous abortions) are most likely to occur in the first three months

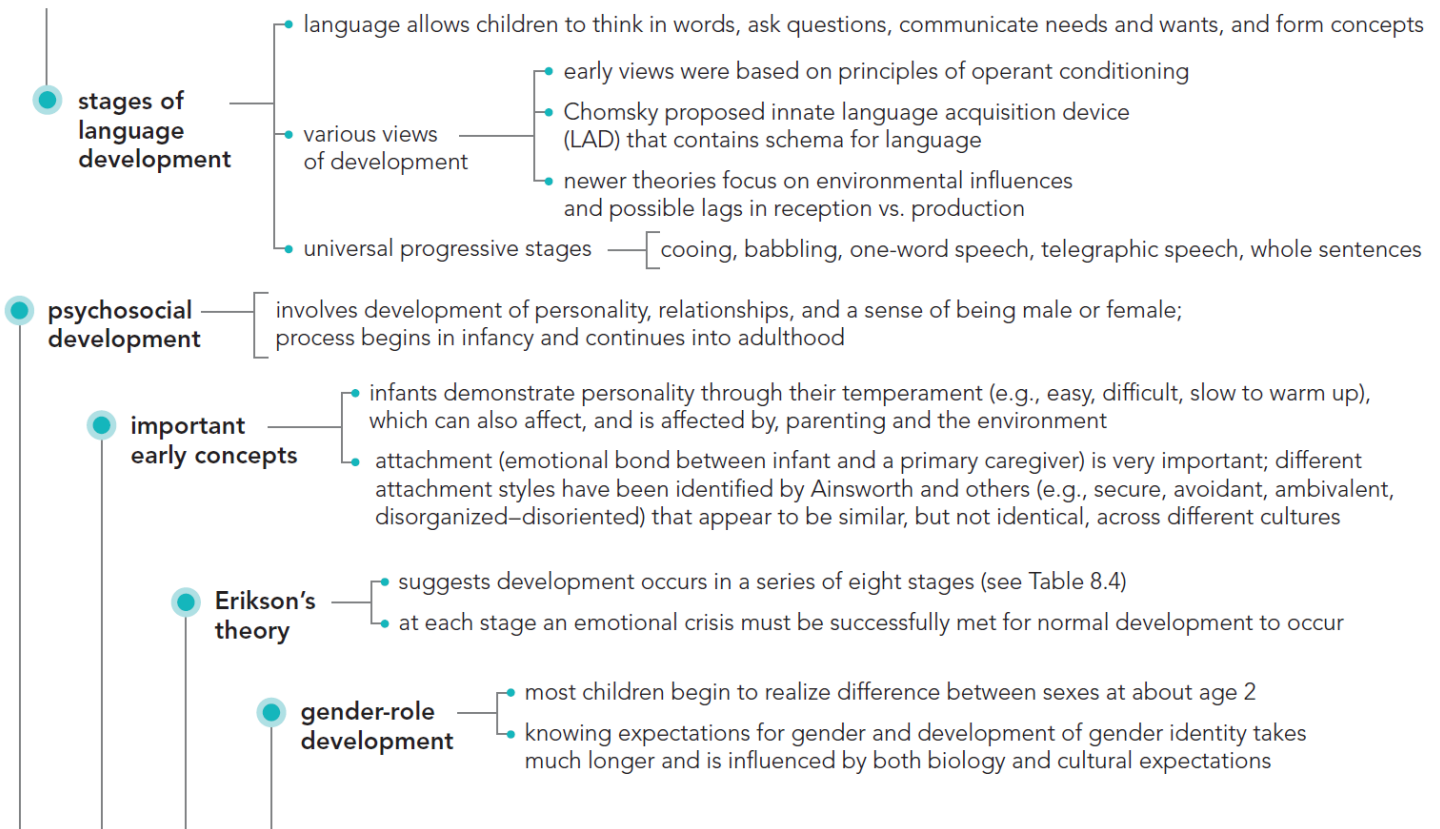
Development



Infancy and Childhood Development

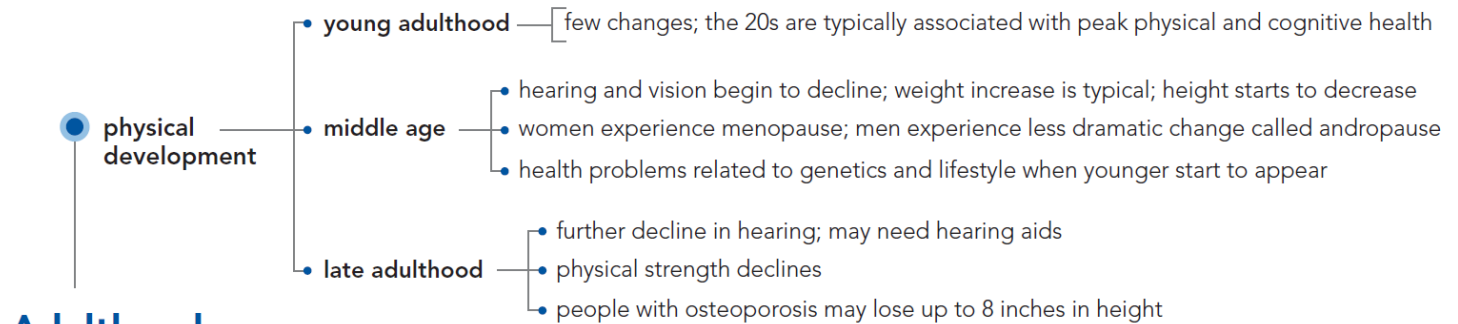
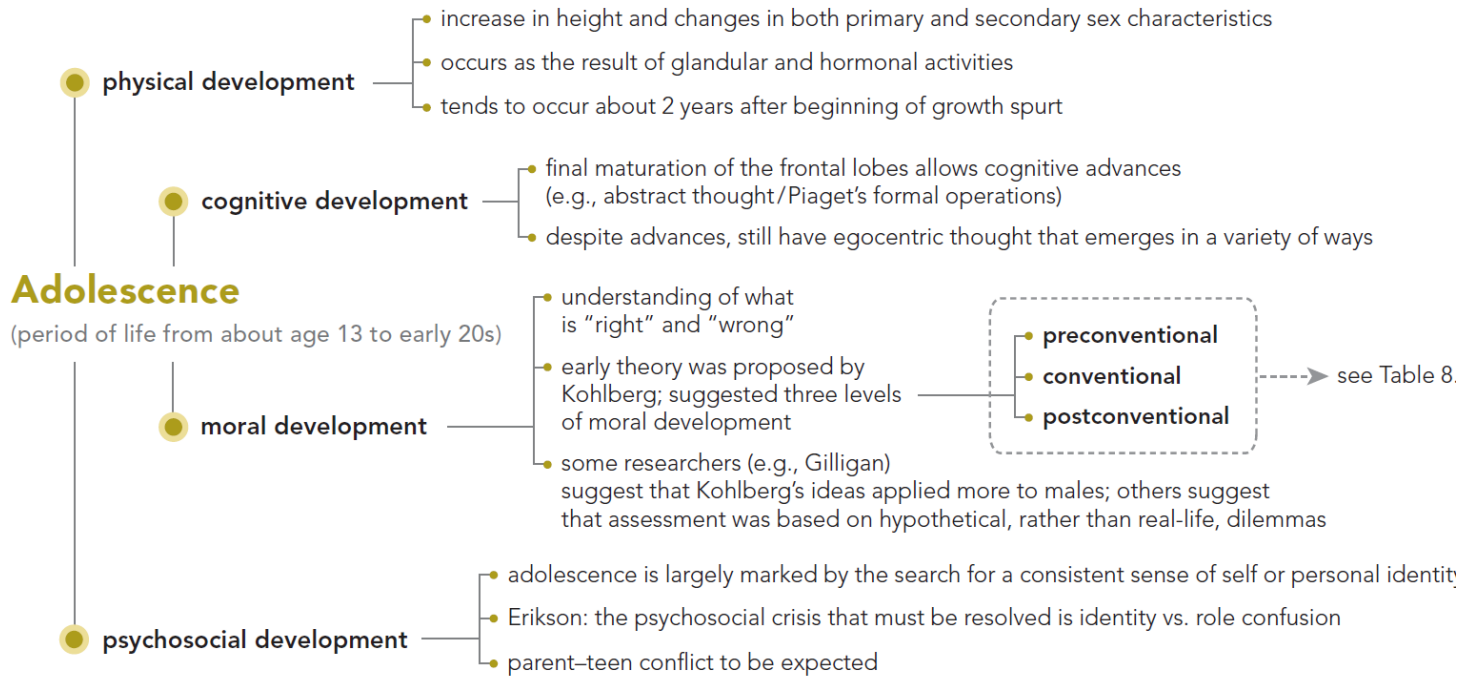


Infancy and Childhood Development: Cognitive Development

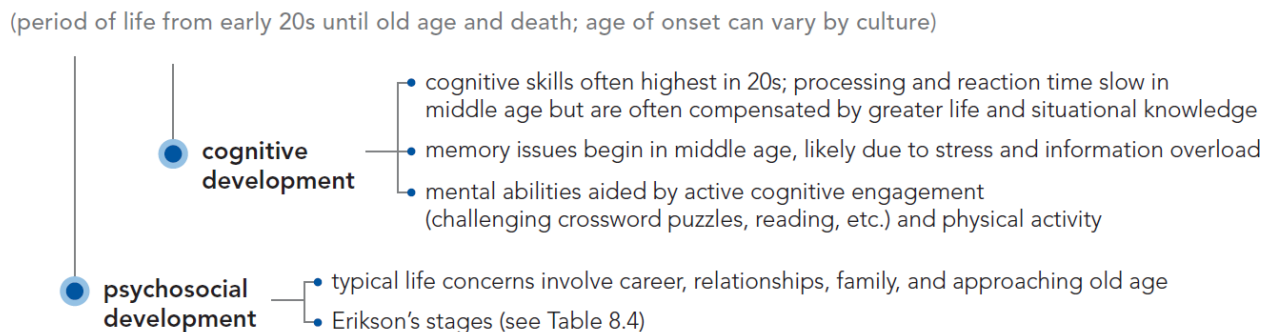


Infancy and Childhood Development: Psychosocial Development

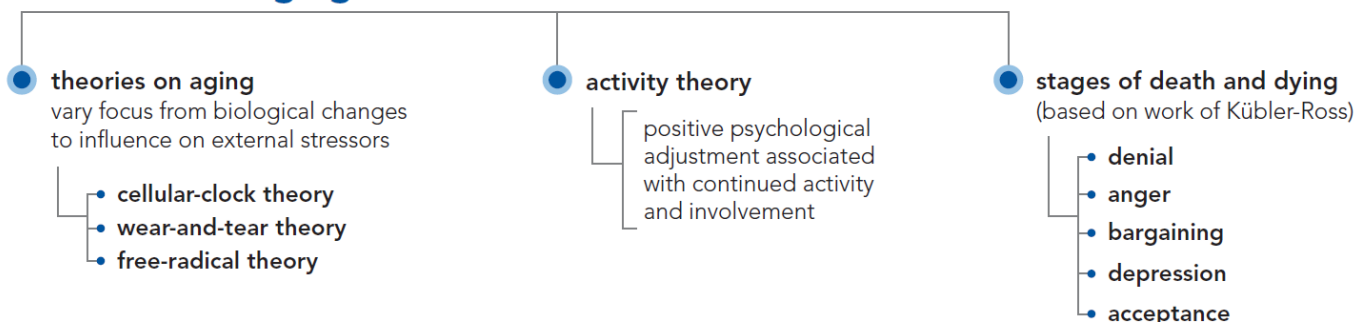
Development



Adulthood



Adulthood: Aging



Erikson's Psychosocial Stages of Development

STAGE	DEVELOPMENTAL CRISIS	SUCCESSFUL DEALING WITH CRISIS	UNSUCCESSFUL DEALING WITH CRISIS
1. Infant Birth to 1 year old	Trust Versus Mistrust Babies learn to trust or mistrust others based on whether or not their needs—such as food and comfort—are met.	If babies' needs are met, they learn to trust people and expect life to be pleasant.	If babies' needs are not met, they learn not to trust.
2. Toddler 1 to 3 years old	Autonomy Versus Shame and Doubt Toddlers realize that they can direct their own behavior.	If toddlers are successful in directing their own behavior, they learn to be independent.	If toddlers' attempts at being independent are blocked, they learn self-doubt and shame for being unsuccessful.
3. Preschool Age 3 to 5 years old	Initiative Versus Guilt Preschoolers are challenged to control their own behavior, such as controlling their exuberance when they are in a restaurant.	If preschoolers succeed in taking responsibility, they feel capable and develop initiative.	If preschoolers fail in taking responsibility, they feel irresponsible, anxious, and guilty.
4. Elementary School Age 5 to 12 years old	Industry Versus Inferiority School-aged children are faced with learning new social and academic skills. Social comparison is a primary source of information.	When children succeed at learning new skills, they develop a sense of industry, a feeling of competence and self-esteem arising from their work and effort.	If children fail to develop new abilities, they feel incompetent, inadequate, and inferior.
5. Adolescence 13 to early 20s	Identity Versus Role Confusion Adolescents are faced with deciding who or what they want to be in terms of occupation, beliefs, attitudes, and behavior patterns.	Adolescents who succeed in defining who they are and finding a role for themselves develop a strong sense of identity.	Adolescents who fail to define their identity become confused and withdraw or want to inconspicuously blend in with the crowd.
6. Early Adulthood 20s and 30s	Intimacy Versus Isolation The task facing those in early adulthood is to be able to share who they are with another person in a close, committed relationship.	People who succeed in this task will have satisfying intimate relationships.	Adults who fail at this task will be isolated from other people and may suffer from loneliness.
7. Middle Adulthood 40s and 50s	Generativity Versus Stagnation The challenge is to be creative, productive, and nurturant of the next generation.	Adults who succeed in this challenge will be creative, productive, and nurturant, thereby benefiting themselves, their family, community, country, and future generations.	Adults who fail will be passive, and self-centered, feel that they have done nothing for the next generation, and feel that the world is no better off for their being alive.
8. Late Adulthood 60s and beyond	Ego Integrity Versus Despair The issue is whether a person will reach wisdom, spiritual tranquility, a sense of wholeness, and acceptance of his or her life.	Elderly people who succeed in addressing this issue will enjoy life and not fear death.	Elderly people who fail will feel that their life is empty and will fear death.

Source: Erikson, 1950.



8 development across the life span

8.1

8.2

8.3

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research designs

- longitudinal
- cross-sectional
- cross-sequential

nature vs. nurture debate

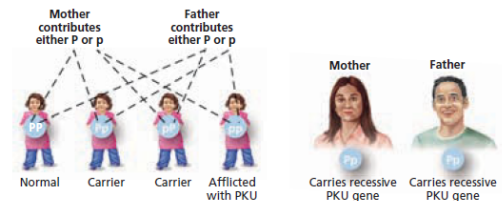
- nature/genetics
- nurture/environment
- most developmental psychologists agree that the most likely explanation for most human development is based on the interaction between nature and nurture

Issues in Studying Human Development

(scientific study of changes that occur in people as they age)

basic building blocks of development

- genetics is the science of heredity
- DNA (deoxyribonucleic acid): contains genetic codes and chromosomes
- dominant and recessive genes
- genetic and chromosome problems



8.4

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zygote and twinning

germinal period (2-week period following fertilization)

zygote continues dividing and moving toward the uterus; cell differentiation is the process that results in specialized cells for all of the various parts of the body

Prenatal Development

embryonic period (2 weeks after conception to 8 weeks)

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fetal period (from about 8 weeks to birth)

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- full-term birth occurs around end of 38th week



8.5

8.6

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physical development

- immediately after birth, body systems start to function (i.e., respiratory, circulatory, temperature regulation, digestive)
- babies are born with (innate) reflex behaviors (see Fig. 8.4)

sensory development

- touch, taste, and smell are well developed
- hearing is functional but not fully developed
- vision is least developed

motor development

- normal motor development is related to many factors, such as nutrition, care, and health
- birth to 2 years = period of rapid development (see Fig. 8.5)

Piaget's theory

- suggests children form mental concepts or schemes
- proposes four distinct stages of cognitive development that span infancy to adolescence

Vygotsky's theory

- stresses the importance of social interactions with others
- cognitive development occurs when others provide scaffolding and each child has a zone of proximal development

stages of language development

- language allows children to think in words, ask questions, communicate needs and wants, and form concepts
- universal progressive stages but various views of development

Infancy and Childhood Development

Cognitive Development

psychosocial development

involves development of personality, relationships, and a sense of being male or female; process begins in infancy and continues into adulthood

Erikson's theory

- suggests development occurs in a series of eight stages (see Table 8.4)
- at each stage an emotional crisis must be successfully met for normal development to occur

important early concepts

- infants demonstrate personality through their temperament (e.g., easy, difficult, slow to warm up), which can also affect, and is affected by, parenting and the environment
- attachment (emotional bond between infant and a primary caregiver) is very important; different attachment styles have been identified by Ainsworth and others (e.g., secure, avoidant, ambivalent, disorganized–disoriented) that appear to be similar, but not identical, across different cultures

gender-role development

- most children begin to realize difference between sexes at about age 2
- knowing expectations for gender and development of gender identity takes much longer and is influenced by both biology and cultural expectations

Infancy and Childhood Development: Psychosocial Development

physical development

- increase in height and changes in both primary and secondary sex characteristics
- occurs as the result of glandular and hormonal activities
- tends to occur about 2 years after beginning of growth spurt

cognitive development

- final maturation of the frontal lobes allows cognitive advances (e.g., abstract thought/Piaget's formal operations)
- despite advances, still have egocentric thought that emerges in a variety of ways



Adolescence

(period of life from about age 13 to early 20s)

psychosocial development

- adolescence is largely marked by the search for a consistent sense of self or personal identity
- Erikson: the psychosocial crisis that must be resolved is identity vs. role confusion
- parent–teen conflict to be expected

moral development

- understanding of what is “right” and “wrong”
- early theory was proposed by Kohlberg; suggested three levels of moral development
- some researchers (e.g., Gilligan) suggest that Kohlberg's ideas applied more to males; others suggest that assessment was based on hypothetical, rather than real-life, dilemmas

Adulthood

(period of life from early 20s until old age and death; age of onset can vary by culture)

physical development

- young adulthood
- middle age
- late adulthood

cognitive development

- cognitive skills often highest in 20s; processing and reaction time slow in middle age but are often compensated by greater life and situational knowledge
- memory issues begin in middle age, likely due to stress and information overload
- mental abilities aided by active cognitive engagement (challenging crossword puzzles, reading, etc.) and physical activity

psychosocial development

- typical life concerns involve career, relationships, family, and approaching old age
- Erikson's stages (see Table 8.4)

theories on aging

vary focus from biological changes to influence on external stressors

- cellular-clock theory
- wear-and-tear theory
- free-radical theory

Adulthood: Aging

activity theory

positive psychological adjustment associated with continued activity and involvement

stages of death and dying
(based on work of Kübler-Ross)

- denial
- anger
- bargaining
- depression
- acceptance