

### Chapter 3: The Voyage Through the Life Span

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#### Truth or Fiction?

- Your heart started beating when you were only one-fifth of an inch long and weighed a fraction of an ounce.
  
- Prior to 6 months or so of age, "out of sight" is literally "out of mind."

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#### Truth or Fiction?

- Children who attend day-care programs are more aggressive than children who do not.
  
- Child abusers were frequently abused themselves as children.

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**Truth or Fiction?**

- The architect Frank Lloyd Wright designed New York's innovative spiral-shaped Guggenheim Museum when he was 65 years old.
- Alzheimer's disease is a normal part of aging.
- "Successful aging" involves avoiding new challenges.

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**Preview of Chapter Three**

- Prenatal Development
- Childhood
- Adolescence
- Adulthood

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**Prenatal Development:  
The Beginning of Our Life Story**

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### Prenatal Development

- Germinal Stage
  - Conception through implantation
  - Zygote divides and becomes implanted in the uterine wall

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### Prenatal Development

- Embryonic Stage
  - Implantation until about 8<sup>th</sup> week
  - Major organ systems are formed
  - Genetic code (XX or XY) causes sex organs to differentiate
    - Y sex chromosome – testes form and produce androgens

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### Prenatal Development

- Embryonic Stage
  - Embryo is suspended in amniotic sac
    - Nutrients and wastes are exchanged with mother through placenta
    - Embryo is connected to placenta by umbilical cord

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## Prenatal Development

- Fetal Stage
  - Beginning of third month to birth
  - Characterized by maturation and gains in size

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## Embryos and Fetuses at Various Intervals of Prenatal Development



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## Childhood

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## Physical Development

- Reflexes
  - Simple, unlearned, stereotypical responses elicited by specific stimuli
    - Rooting and sucking, withdrawal, startle, grasping
- Motor Development
  - Brain maturation and environmental factors

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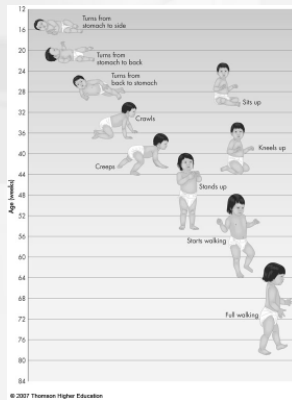
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## Motor Development



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## Physical Development

- Perceptual Development
  - 2-month prefer human face as visual stimuli
    - Fixation time – measure of visual preference
  - Perceive depth about time begin crawling
    - Visual cliff experiments

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### The Classic Visual Cliff Experiment



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### Physical Development

- Perceptual Development
  - Newborns hear normally; prefer mother's voice
  - Within one week, discriminates mother's smell
  - Newborns discriminate tastes; sensitive to touch

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### Is Development Continuous or Discontinuous?

- Continuous – gradual changes
  - Behaviorists and learning theorists
- Discontinuous – changes in stages
  - Freud and Piaget

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### **Cognitive Development**

- The way in which children mentally represent and think about the world
- Jean Piaget
- Lev Vygotsky
- Lawrence Kohlberg

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### **Piaget's Cognitive Development**

- Schema
  - “Mental structure” in organizing knowledge
- Assimilation
  - Respond to new stimuli through existing habit
- Accommodation
  - Create new ways of responding to objects

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### **Piaget's Stages of Cognitive Development**

- Sensorimotor Stage
  - Object Permanence
    - Before 6 months of age does not mentally represent objects

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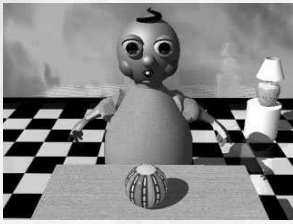
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### Presence Object Permanence



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### Piaget's Stages of Cognitive Development

- Preoperational Stage
  - Use words and symbols to represent objects and relationships among them
  - Egocentrism
  - Animism
  - Artificialism
  - Conservation
- Objective Responsibility

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### Preoperational Conservation



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### Piaget's Stages of Cognitive Development

- Concrete Operational Stage
  - Beginning of capacity for adult logic
  - Decentration
  - Reversibility
- Subjective Moral Judgment

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### Concrete Abstract Reasoning



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### Video Connections: Piaget's Stages of Development

- If you want to encourage a 4-year-old child to take a pill, would it be a better idea to bring it in a tiny cup or on a huge plate? Explain.
- Why do you think Piaget was never particularly concerned about how early children enter a particular stage of development?

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### Piaget's Experiment



PLAY VIDEO

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### Evaluation of Piaget's Theory

- Piaget tended to underestimate children's abilities
- Egocentrism and conservation appear to be more continuous than Piaget thought
- Developmental sequences do not vary

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### Lev Vygotsky's Sociocultural Theory

- Continuous theory focused on influence of culture and children's interactions with elders
- Zone of proximal development (ZPD)
- Scaffolding
- Children internalize explanations that encourage skill development

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**Lawrence Kohlberg's  
Theory of Moral Development**

- Discontinuous theory
- Use of "moral dilemma" story to explore reasoning of right and wrong

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**Lawrence Kohlberg's  
Theory of Moral Development**

- Preconventional Level
  - Base judgment on consequences of behavior
    - Stage 1 – Obedience and punishment
    - Stage 2 – Good behavior allows people to satisfy their needs

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**Lawrence Kohlberg's  
Theory of Moral Development**

- Conventional Level
  - Base judgment on conformity to conventional standards of right and wrong
    - Stage 3 – Good-boy orientation
    - Stage 4 – Judgments are based on rules that maintain social order

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**Lawrence Kohlberg's  
Theory of Moral Development**

- Postconventional Level
  - Base judgment on need to maintain social order and personal conscience

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**Evaluation of Kohlberg's  
Theory of Moral Development**

- Research suggests moral reasoning does follow a sequence
- Most people do not reach postconventional level (consistent with formal operational thought)
- Children do not appear to skip stages

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**Social and Emotional Development**

- Erik Erikson's Psychosocial Development
  - Eight stages that represent life crises
    - Trust versus Mistrust
    - Autonomy versus Shame and Doubt
    - Industry versus Inferiority

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### Attachment

- Emotional tie between one animal/person and another specific individual
  - Mary Salter Ainsworth
- Behavior that defines attachment
  - Attempts to maintain contact
  - Anxiety when separated

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### Attachment

- Strange Situation
  - Method to assess infants' response to separations and reunions with caregivers and a stranger
- Three Types of Attachment
  - Secure attachment
  - Avoidant attachment
  - Ambivalent/resistant attachment

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### Stages of Attachment

- Initially infants show indiscriminate attachment
- Beginning about 4 months of age
  - Initial-preattachment phase
  - Attachment-in-the-making phase
  - Clear-cut-attachment phase
- Fear of strangers – 8 to 10 months

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### Theoretical Views of Attachment

- Behaviorists viewed attachment as learned behavior based on caregiver's attention
- Harry F. Harlow
  - Inborn need for contact comfort

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### Theoretical Views of Attachment

- Konrad Lorenz
  - Ethologist – attachment is an instinct
  - Critical period
  - Imprinting
- Ainsworth and Bowlby
  - Attachment is instinctive in humans

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### Parenting Styles

- Diana Baumrind's styles of parenting
  - Connection between parental behavior and development of instrumental competence

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### Parenting Styles

- Diana Baumrind's styles of parenting
  - Authoritative
  - Authoritarian
  - Permissive
  - Uninvolved

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### Child Abuse

- Factors that contribute to child abuse
  - Stress
  - History of child abuse in at least one of parents' families of origin
  - Acceptance of violence as coping mechanism
  - Failure to attach with children
  - Substance abuse
  - Rigid attitudes toward child raising

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### Adolescence

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### Physical Development

- Growth spurt
- Puberty
  - Begins with appearance of secondary sex characteristics
  - Menarche
    - Usually occurs between 11 and 14

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### Cognitive Development

- Piaget's Formal Operations Stage
  - Classification, logical thought, ability to hypothesis
  - Abstract thinking
  - Able to deal with hypothetical situations
- Adolescent Egocentrism
  - Imaginary Audience
  - Personal Fable

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### Formal Abstract Reasoning



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### **Moral Reasoning**

- Kohlberg's Postconventional Level
  - Many people do not reach this level
  - Judgment is based on person's own moral standards
  - Stage 5 – Laws are made to preserve order but exceptions can occur
  - Stage 6 – Adherence to universal ethical principles

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### **Sex Differences and Moral Reasoning**

- Kohlberg's theory shows higher levels of moral reasoning in boys
- Carol Gilligan argues difference is result of socialization
  - Girls focus on needs of others

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### **Social and Emotional Development**

- Independence as a Challenge of Adolescence
- Erikson's Psychosocial Development
  - Ego Identity versus Role Diffusion
- Adolescent Sexuality
  - About 50% of American teens engage in sexual intercourse

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## Adulthood

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### Physical Development

- Young adulthood
  - Usually height of physical prowess
- Middle adulthood
  - Gradual physical decline
  - Women – menopause
- Late Adulthood
  - Bones become brittle – greater risk for falls
  - Slower response time

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### Cognitive Development

- Creativity can be evidenced throughout lifetime
- Memory functioning declines with age
  - Crystallized intelligence
  - Fluid intelligence
- Tasks that require speed and visual spatial skills decline

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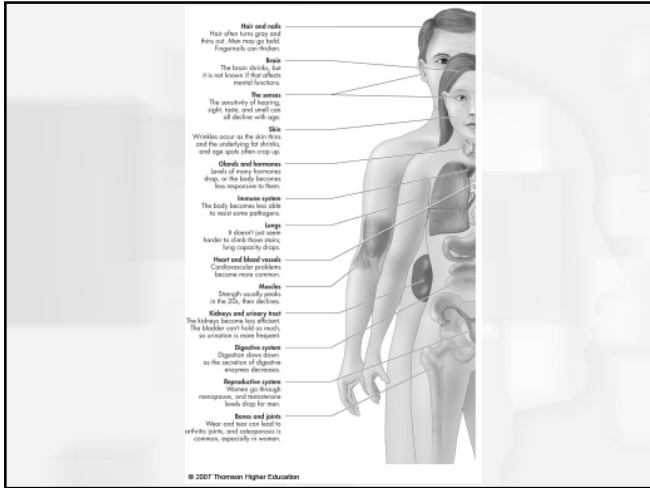
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### Alzheimer's Disease

- Progressive form of mental deterioration
  - Affects 1% of people at age 60; 50% past age 85
  - It is a disease, not a normal progression
- Characterized by reduced levels of Ach and a buildup of plaque that impairs neural functioning

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### Social and Emotional Development

- Great variety based on cultural expectations and individual behavior patterns
- Trends
  - More optimistic than previous generation
  - Grow psychologically healthier as they advance to middle age

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### **Erikson's Psychosocial Development**

- Young adulthood
  - Intimacy versus Isolation
- Middle adulthood
  - Generativity versus Stagnation
  - Midlife transition – Midlife crisis
- Late adulthood
  - Ego integrity versus Despair

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### **Successful Aging**

- Subjective well-being
  - Reshaping one's life to concentrate on what one finds to be important and meaningful
  - A positive outlook
  - Self-challenge

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