Chapter One:

Introduction

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The Life-Span Perspective

- The Importance of Studying Life-Span Development
- Characteristics of the Life-Span Perspective
- The nature of development
The Life-Span Perspective

• How do we define development?
  o The pattern of movement or change that begins at conception and continues through the human life span.

• Life span

• Life expectancy
Importance of Studying Life-Span Development

- Parenting/educating
- Nursing
- Gain insight about your own developmental history, and know what to expect in the future.
- Developmental myths and misconceptions
Characteristics of the Life-Span Perspective

- Lifelong
- Multidimensional
- Multidirectional
- Plastic
- Multidisciplinary

- Contextual
- Growth, Maintenance, and Regulation of loss
- Co-construction of biology, culture, and the individual
The Nature of Development

Figure 1.5 - Processes in Development

- Biological processes
- Cognitive processes
- Socioemotional processes
Nature of Development

• Periods of development
  o Time frame with certain characteristic features
    - Prenatal Period
    - Infancy
    - Early childhood
    - Middle and late childhood
    - Adolescence
    - Early adulthood
    - Middle adulthood
    - Late adulthood
Nature of Development

• Conceptions of age
  – **Chronological age:** Number of years elapsed since person’s birth
  – **Biological age:** In terms of biological health
  – **Psychological age:** One’s adaptive capacities
  – **Social age:** Social roles and expectations related to one’s age
Nature of Development

• Developmental issues
  – Nature and nurture
    • Inheritance or environment?
  – Stability and change
    • Traits and characteristics; capacity for change?
  – Continuity and discontinuity
    • Gradual or abrupt changes in development?
Theories of Development

• **Theory**: Interrelated set of ideas that helps to explain data, make predictions

• **Hypotheses**: Assertions or predictions, often derived from theories that can be tested
Theories of Development
Overview

- Psychoanalytic theories
- Cognitive theories
- Behavioral and social cognitive theories
- Ethological theory
- Ecological theory
Theories of Development

• Psychoanalytic theories
  o Freud’s theory
    • Development is primarily unconscious, heavy with emotion
    • Behavior is surface characteristic of development
    • Analyze symbolic meanings of behavior and deep inner workings of the mind for true meaning of development
    • Early childhood experiences stressed (ages 1-5)
Figure 1.10 – Freudian Psychosexual Developmental Stages

- **Oral stage**: Infant’s pleasure centers on the mouth. 
  - Birth to 1½ years

- **Anal stage**: Child’s pleasure focuses on the anus. 
  - 1½ to 3 years

- **Phallic stage**: Child’s pleasure focuses on the genitals. 
  - 3 to 6 years

- **Latency stage**: Child represses sexual interest and develops social and intellectual skills. 
  - 6 years to puberty

- **Genital stage**: A time of sexual reawakening; source of sexual pleasure becomes someone outside the family. 
  - Puberty onward

Criticisms: overemphasized sexual instincts, unconscious is more important today
Theories of Development

• Erikson’s psychosocial theory
  – Primary motive for human behavior is social; desire to affiliate with others
  – Developmental changes throughout life span
  – Experiences at all ages are important
Erikson’s Eight Life-Span Stages

<table>
<thead>
<tr>
<th>Erikson’s Stages</th>
<th>Developmental period</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust versus mistrust</td>
<td>Infancy (Birth to 1½ years)</td>
<td>A sense of trust requires a feeling of physical comfort and minimal amount of fear about the future. Infants’ basic needs are met by responsive, sensitive caregivers.</td>
</tr>
<tr>
<td>Autonomy versus shame and doubt</td>
<td>Toddlerhood (1½ to 3 years)</td>
<td>After gaining trust in their caregivers, infants start to discover that they have a will of their own. They assert their sense of autonomy, or independence. They realize their will. If infants are restrained too much or punished too harshly, they are likely to develop a sense of shame and doubt.</td>
</tr>
<tr>
<td>Initiative versus guilt</td>
<td>Early childhood (preschool years, ages 3–5)</td>
<td>As preschool children encounter a widening social world, they are challenged more and need to develop more purposeful behavior to cope with these challenges. Children are now asked to assume more responsibility. Uncomfortable guilt feelings may arise, though, if the children are irresponsible and are made to feel too anxious.</td>
</tr>
<tr>
<td>Industry versus inferiority</td>
<td>Middle and late childhood (elementary school years, 6 years–puberty)</td>
<td>At no other time are children more enthusiastic than at the end of early childhood’s period of expansive imagination. As children move into the elementary school years, they direct their energy toward mastering knowledge and intellectual skills. The danger at this stage involves feeling incompetent and unproductive.</td>
</tr>
<tr>
<td>Identity versus identity confusion</td>
<td>Adolescence (10–20 years)</td>
<td>Individuals are faced with finding out who they are, what they are all about, and where they are going in life. An important dimension is the exploration of alternative solutions to roles. Career exploration is important.</td>
</tr>
<tr>
<td>Intimacy versus isolation</td>
<td>Early adulthood (20s, 30s)</td>
<td>Individuals face the developmental task of forming intimate relationships with others. Erikson described intimacy as finding oneself yet losing oneself in another person.</td>
</tr>
<tr>
<td>Generativity versus stagnation</td>
<td>Middle adulthood (40s, 50s)</td>
<td>A chief concern is to assist the younger generation in developing and leading useful lives.</td>
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<tr>
<td>Integrity versus despair</td>
<td>Late adulthood (60s–)</td>
<td>Individuals look back and evaluate what they have done with their lives. The retrospective glances can either be positive (integrity) or negative (despair).</td>
</tr>
</tbody>
</table>

Criticisms: stages have positive/negative poles, crisis in each stage needs resolution
Theories of Development

• Cognitive theories
  – Emphasize conscious thoughts
  – Three major theories
    • Piaget’s cognitive development
    • Vygotsky’s sociocultural cognitive theory
    • Information processing theory
Theories of Development

• Piaget’s cognitive developmental theory
  – Children actively construct their knowledge
  – Each of the four stages
    • Age-related
    • Has a distinct way of thinking
    • Has different way of understanding the world
    • Child’s cognition is “qualitatively” different
<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensorimotor stage</td>
<td>The infant constructs an understanding of the world by coordinating sensory</td>
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<td></td>
<td>experiences with physical actions. An infant progresses from reflexive,</td>
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<td></td>
<td>instinctual action at birth to the beginning of symbolic thought toward the</td>
</tr>
<tr>
<td></td>
<td>end of the stage.</td>
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<tr>
<td>Birth to 2 years of age</td>
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<tr>
<td>Preoperational stage</td>
<td>The child begins to represent the world with words and images. These</td>
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<td></td>
<td>words and images reflect increased symbolic thinking and go beyond the</td>
</tr>
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<td></td>
<td>connection of sensory information and physical action.</td>
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<tr>
<td>2 to 7 years of age</td>
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<tr>
<td>Concrete operational stage</td>
<td>The child can now reason logically about concrete events and classify</td>
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<td></td>
<td>objects into different sets.</td>
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<tr>
<td>7 to 11 years of age</td>
<td></td>
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<tr>
<td>Formal operational stage</td>
<td>The adolescent reasons in more abstract, idealistic, and logical ways.</td>
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<tr>
<td>11 years of age through adulthood</td>
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</table>
Theories of Development

• Vygotsky’s sociocultural cognitive theory
  – Children actively construct their knowledge
  – Culture and social interaction guide cognitive development
    • Learning to use inventions of society
    • Learning from social interactions with more skilled adults and peers
    • Interaction creates tools to adapt to culture
Theories of Development

• Information-Processing theory
  – Brain is compared to computer’s hardware
  – Cognition is viewed as computer software
  – Individuals acquire increasingly complex information
  – Thinking: perceive, encode, represent, store, and retrieve information
  – Good strategies: important to development
Theories of Development

• Behavioral and social cognitive theories
  – **Behaviorism**: Scientific studies can only be based on direct observations and measures
  – Development is observable behavior
    • Learned from experiences/environment
    • Development does not occur in stages; advocates continuity
Theories of Development

• Skinner’s operant conditioning
  – Consequences, rewards and punishment, shape behavior
    • No emphasis on thoughts, feelings
  – Development is pattern of behavioral changes
    • Modifying environment produces change
    • Changes determined by consistency experiences, rewards or punishments
Theories of Development

• Bandura’s social cognitive theory
  – Behavior, environment, and cognition are key to development
  – Behavior is learned through observation and imitating (modeling)
  – Behavior of others is cognitively evaluated, strategies created for successful learning
Figure 1.13 - Bandura’s Social Cognitive Model
Theories of Development

• Ethological theory
  – Emphasis on biology and sensitive periods of development,
  – Lorenz: **Imprinting**
    • Animals’ rapid, innate learning process involving “attachment”
    • Critical period is early in life
Theories of Development

• Ethological theory
  – Bowlby
    • Used ideas of Lorenz
    • “Attachment” determines development
    • Positive and secure, negative and insecure
    • Sensitive period is in infancy
Theories of Development

• Ecological theory (environmental factors)
  – Bronfenbrenner’s view that development influenced by five environmental system
    • Microsystem
    • Mesosystem
    • Exosystem
    • Macrosystem
    • Chronosystem
Figure 1.14 - Bronfenbrenner’s Ecological Theory
Theories of Development

• Eclectic theoretical approach
  – Life-span development is complex
  – Each theory has contribution to understanding development
    • Selects from best features of each
  – A mistake to rely on only one theory
Research in Life-Span Development

Research Designs/types:
- Correlational research
- Experimental research
- Descriptive research
Correlation

The extent to which two factors vary together, and thus of how well one factor predicts the other.

For example:
Length of marriage correlates with hair loss in Dr. Knighton

The greater the number of Facebook friends, the less time was spent studying.
Correlation Coefficient

- The **correlation coefficient** is a number representing how closely and in what way two variables correlate (change together).
- The **direction** of the correlation can be **positive** (both variables increase together) or **negative** (as one increases, the other decreases).
- The **strength** of the relationship, how tightly, predictably they vary together, is measured in a number that varies from 0.00 to +/- 1.00.

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**Guess the Correlation Coefficients**

<table>
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<tr>
<th>Test</th>
<th>Guess</th>
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<tbody>
<tr>
<td>Height vs. shoe size</td>
<td>Close to +1.0</td>
</tr>
<tr>
<td>Years in school vs. years in jail</td>
<td>Close to -1.0</td>
</tr>
<tr>
<td>Height vs. intelligence</td>
<td>Close to 0.0</td>
</tr>
</tbody>
</table>
If we find a correlation, what conclusions can we draw from it?

Let’s say we find the following result:

there is a positive correlation between two variables,

- ice cream sales, and
- rates of violent crime

How do we explain this?
Correlation is not Causation!

(1) Low self-esteem → could cause → Depression

(2) Depression → could cause → Low self-esteem

(3) Distressing events or biological predisposition → could cause → Low self-esteem and → Depression
So how do we find out about causation? By experimentation.

A research method in which the investigator manipulates one variable under carefully controlled conditions, and observes whether any changes occur in a second variable as a result.

- The depression/self-esteem example: trying interventions that improve self-esteem to see if they cause a reduction in depression.
Naming the variables

The variable we are able to manipulate independently of what the other variables are doing is called the independent variable (IV).

The variable we expect to experience a change which depends on the manipulation we're doing is called the dependent variable (DV).

- If pregnant women could change the sleeping patterns of their newborn babies by meditating during pregnancy:
  - Meditation = Cause = Independent Variable
  - Sleeping patterns = Effect = Dependent Variable
Two Groups

• If we manipulate a variable in an experimental group of people, and then we see an effect, how do we know the change would have happened anyway?
• We solve this problem by comparing this group to a control group, a group that is the same in every way except the one variable we are changing.

How to make sure the control group is really identical in every way to the experimental group?

By using random assignment: randomly selecting some study participants to be assigned to the control group or the experimental group.
Figure 1.18 - Principles of Experimental Research

- Participants randomly assigned to experimental and control groups
- Independent variable
  - Experimental group (aerobic exercise)
  - Control group (no aerobic exercise)
- Dependent variable
  - Newborns' breathing and sleeping patterns
Descriptive research

- Survey/interview
- Naturalistic and Laboratory observations
- Standardized test
- Case study
  - Focus on aspects of individual’s life
  - Unique, cannot be duplicated
- Physiological measures
  - Blood tests, MRI
Research in Life-Span Development

- **Time Span of Research**
  - Cross-sectional approach
    - Compares different age groups at the same time on a variety of dependent variables
  - Longitudinal approach
    - Studies same group over long period of time
      - Anger and heart disease
• https://www.eztestonline.com/868274/index1.tpx