

Detailed Chapter Outline with Key Terms

Chapter 7: Physical and Cognitive Development in Early Childhood

Focus: Wang Yani, Self-Taught Artist

PHYSICAL DEVELOPMENT

ASPECTS OF PHYSICAL DEVELOPMENT

Bodily Growth and Change

Nutrition: Preventing Obesity/Overweight

Malnutrition

Oral Health

Sleep Patterns and Problems

Sleep Disturbances

- *Sleep terror:* The abrupt awakening of a child or adult from deep sleep in a state of panic, usually about one hour after falling asleep. The person typically remembers nothing about the episode in the morning. Also known as a night terror.

Bed-Wetting

- **Enuresis:** Repeated urination in clothing or in bed.

Motor Skills

- **Gross motor skills:** Physical skills that involve the large muscles.
- **Fine motor skills:** Physical skills that involve the small muscles and eye-hand coordination.
- **Systems of action:** Increasingly complex combinations of skills, which permit a wider or more precise range of movement and more control of the environment.

Handedness

- **Handedness:** Preference for using a particular hand.

Artistic Development

- *Scribble:* In the first stage of children's artistic development, the vertical and zigzag lines drawn in patterns by young children.
- *Shapes:* Circles, squares, triangles, and other figures drawn by young children in the second stage of artistic development.

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- *Designs*: The stage of artistic development in which children combine shapes into more complex designs.
- *Pictorial*: The stage of artistic development in which children draw actual depictions of objects, such as houses and trees.

HEALTH AND SAFETY

Accidental Injuries and Deaths

Health in Context: Environmental Influences

Socioeconomic Status and Race/Ethnicity

Exposure to Smoking, Air Pollution, and Pesticides

Exposure to Lead

COGNITIVE DEVELOPMENT

PIAGETIAN APPROACH: THE PREOPERATIONAL CHILD

- **Preoperational stage**: In Piaget's theory, the second major stage of cognitive development, in which children become more sophisticated in their use of symbolic thought but are not yet able to use logic.

Advances of Preoperational Thought

The Symbolic Function

- **Symbolic function**: Piaget's term for ability to use mental representations (words, numbers, or images) to which a child has attached meaning.
- *Deferred imitation*: Imitation of an action at a later time, based on a mental representation of the observed action.
- **Pretend play**: Play involving imaginary people or situations. Also called fantasy, dramatic, or imaginary play.
- *Language*: The use of a system of symbols (words) to communicate.

Understanding of Objects in Space

Understanding of Causality

- **Transduction**: In Piaget's terminology, a preoperational child's tendency to mentally link particular experiences, whether or not there is logically a causal relationship.

Understanding of Identities and Categorization

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- *Identities*: The concept that people and many things are basically the same even if they change in form, size, or appearance.
- **Animism**: Tendency to attribute life to objects that are not alive.

Understanding of Number

- Five Principles of Counting:
 - The *1-1 principle*: Say only one number-name for each item being counted.
 - The *stable-order principle*: Say number-names in a set order.
 - The *order-irrelevance principle*: Start counting with any item, and the total count will be the same.
 - The *cardinality principle*: The last number-name used is the total number of items being counted.
 - The *abstraction principle*: The principles above apply to any kind of object.
- *Ordinality*: The concept of *more* or *less*, *bigger* or *smaller*.

Immature Aspects of Preoperational Thought

- **Centration**: In Piaget's theory, tendency of preoperational children to focus on one aspect of a situation and ignore others.
- **Decenter**: In Piaget's terminology, to think simultaneously about several aspects of a situation.

Egocentrism

- **Egocentrism**: Piaget's term for inability to consider another person's point of view.
- *Three-mountain task*: Piagetian assessment in which a child sits facing a table that holds three large mounds, with a doll in the opposite chair. The child is asked how the "mountains" would look to the doll.

Conservation

- **Conservation**: Piaget's term for awareness that two objects that are equal according to a certain measure remain equal in the face of perceptual alteration so long as nothing has been added to or taken away from either object.
- **Horizontal décalage**: Piaget's term for inability to transfer learning about one type of conservation to other types, which causes a child to master different types of conservation tasks at different ages.
- **Irreversibility**: Piaget's term for a preoperational child's failure to understand that an operation can go in two or more directions.
- *Focus on successive states*: In Piaget's theory, the tendency for preoperational children to focus on the end states rather than the transformations from one state to another.

Do Young Children Have Theories of Mind?

- **Theory of mind**: Awareness and understanding of mental processes.

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Knowledge about Thinking and Mental States

- **Social cognition:** Ability to understand that others have mental states and to judge their feelings and intentions.

False Beliefs and Deception

Distinguishing Between Appearance and Reality

Distinguishing Between Fantasy and Reality

In What Order Do Theory-of-Mind Abilities Develop?

Influences on Individual Differences in Theory-of-Mind Development

INFORMATION PROCESSING APPROACH: MEMORY DEVELOPMENT

Basic Processes and Capacities

- **Encoding:** Process by which information is prepared for long-term storage and later retrieval.
- **Storage:** Retention of memories for future use.
- **Retrieval:** Process by which information is accessed or recalled from memory storage.
- **Sensory memory:** Initial, brief, temporary storage of sensory information.
- **Working memory:** Short-term storage of information being actively processed.
- **Prefrontal cortex:** Large portion of the frontal lobe directly behind the forehead, where working memory is partly located.
- **Executive function:** The planning and carrying out of goal-directed mental activity.
- **Central executive:** In Baddeley's model, element of working memory that controls the processing of information.
- **Long-term memory:** Storage of virtually unlimited capacity that holds information for very long periods.

Recognition and Recall

- **Recognition:** Ability to identify a previously encountered stimulus.
- **Recall:** Ability to reproduce material from memory.

Forming Childhood Memories

- **Generic memory:** Memory that produces scripts of familiar routines to guide behavior.
- **Script:** General remembered outline of a familiar, repeated event, used to guide behavior.
- **Episodic memory:** Long-term memory of specific experiences or events, linked to time and place.
- **Autobiographical memory:** Memory of specific events in one's own life.

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Social Interaction, Culture, and Memory

- **Social interaction model:** Model, based on Vygotsky's sociocultural theory, which proposes that children construct autobiographical memories through conversation with adults about shared events.

INTELLIGENCE: PSYCHOMETRIC AND VYGOTSKIAN APPROACHES

Traditional Psychometric Measures

- **Stanford-Binet Intelligence Scale:** Individual intelligence test used to measure memory, spatial orientation, and practical judgment.
- **Wechsler Preschool and Primary Scale of Intelligence, Revised (WPPSI-R):** Individual intelligence test for children ages 3 to 7, which yields verbal and performance scores as well as a combined score.

Influences on Measured IQ

Testing and Teaching Based on Vygotsky's Theory

- **Zone of proximal development (ZPD):** Vygotsky's term for the difference between what a child can do alone and what the child can do with help.
- **Scaffolding:** Temporary support to help a child master a task.

LANGUAGE DEVELOPMENT

Vocabulary

- **Fast mapping:** Process by which a child absorbs the meaning of a new word after hearing it once or twice in conversation.

Grammar and Syntax

Pragmatics and Social Speech

- **Pragmatics:** The practical knowledge needed to use language for communicative purposes.
- **Social speech:** Speech intended to be understood by a listener.

Private Speech

- **Private speech:** Talking aloud to oneself with no intent to communicate.
- **Egocentric:** Piaget's term for the young child's inability to recognize the viewpoints of others.

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Delayed Language Development

Social Interaction and Preparation for Literacy

- **Emergent literacy:** Preschoolers' development of skills, knowledge, and attitudes that underlie reading and writing.
- *Phonemic awareness:* The realization that words are composed of distinct sounds.
- *Phonemes:* The basic units of sound that compose words.
- *Phoneme-grapheme correspondence:* The ability to link sounds with the corresponding letters or combinations of letters.

EARLY CHILDHOOD EDUCATION

Goals and Types of Preschools: A Cross-Cultural View

- *Child-initiated:* Type of preschool in which the child actively directs his or her own learning experience.
- *Academically directed:* Type of preschool in which the focus is on the subject matter and teachers direct learning.
- *Middle-of-the-road:* A blend of the child-initiated and academically directed types of preschools.

Compensatory Preschool Programs

The Transition to Kindergarten