

CHAPTER 11: COGNITIVE DEVELOPMENT IN MIDDLE CHILDHOOD

- Piaget saw _____ as a major cognitive turning point from **preoperational** thinking to more advanced _____ *operational* thought.
- Many **contemporary researchers** see a major transition at about _____.

CONCRETE OPERATIONAL STAGE

- Children can now perform _____ (e.g., reversibility)
- Major accomplishment = _____
- Overcome centration:
- Overcome _____.
- Logical thinker of specific _____.
- Increase in _____.
- Increase in information-processing capacity
- Control over attention & memory

Cognitive Limitations That Remain Include:

- limited _____
- difficulty applying recently acquired skills (mnemonic strategies)
- an inability to reason about _____, hypothetical problems – problems must be _____.

PIAGET vs. INFORMATION PROCESSING

- **Piaget** believes that there is a _____ in children's ability to reason logically.
 - **Qualitative change**: a completely new system of logic.

- **Information Processing Theorists** argue that changes are a result of _____
-

- **Quantitative change:**
 - **Implicit unconscious** use of rule.

Information Processing Theory Development of Problem Solving Rules

- Conservation of Number Task:
 - 3 yrs:
 - 6 yrs:
 - 7 yrs:

MEMORY ABILITIES DEVELOPMENT OF BASIC MEMORY PROCESSES

- **Short- term memory improves**
 - Increase in efficiency: mnemonics and automaticity
 - Increases in capacity
 - 5 year olds digit span = 4
 - 7 year olds digit span = 5
 - 9 year olds digit span = 6
 - Adults digit span = 7
 - **Increase in Cognitive** inhibition –
- **Robbie Case**
 - Storage space
 - Operating space

Memory & Growth of General Knowledge

- Domain specific knowledge (expertise):
- Chi (1978): Novice Adults vs. 10 y.o. children experts.
 - Remembering 10-digit lists vs. reproducing chess positions.
 - Random Chess Positions = No meaning for experts
 - Actual Chess Positions = have meaning for expert chess players
- Semantic Memory
- Constructive memory:
 - influence on recall accuracy

MNEMONIC STRATEGIES

Mnemonic strategies	Intentional, goal-directed behaviors designed to improve memory.
Rehearsal	The mnemonic strategy of
Organization	The mnemonic strategy of
Elaboration	The mnemonic strategy of creating a

- Children begin to use these strategies consistently at about _____
- Serial Position Effect - Rundus (1971)
 - Recency Effects
 - Primacy Effects

- **A Developmental Trend:**
- **Ornstein, Naus, & Liberty (1975):**
 - primacy effect
 - recency effect
 - Does training help?
- **Memory Strategies:** Researchers have identified 3 types of deficiencies in children's use of memory strategies.
 - Mediation deficiencies
 - Production deficiencies
 - Utilization deficiencies

MNEMONIC STRATEGIES

- **Children > 7 yrs will initiate some activity to improve recall**
- Why ↑ use of strategies with age?
 - direct teaching in school
 - indirect learning
 - general knowledge of the world
 - metamemory

METACOGNITION:

Metamemory:

- Once children realize mnemonic strategies improve recall, they are more likely to use them.
- Many 5- and 6-year-olds can think of only one strategy; older children think of more.
- **Flavell, Friedrichs, & Hoyt (1970)**

Individual Differences in Intelligence

Intelligence: Psychometrics

- **Reliability**
 - Test-Retest:

- **Validity**
 - Construct Validity:

 - Predictive Validity:

- **Standardization**

- **Intelligence Testing**
 - ○ First intelligence test by Binet.
 - Revised as the Stanford-Binet.
 - **Wechsler scales now more widely used.**
 - Intelligence Quotient:
 - Alternatives to standard IQ tests/definitions

BROADENING THE DEFINITION OF INTELLIGENCE

- **Academic intelligence:**

- **Gardner's Theory of Multiple Intelligences**

- **Sternberg's Triarchic Theory**

Explaining IQ Differences

- There is evidence for both **genetic** and **environmental** influences on IQ.
- The hereditary influence involves **many** genes.
- **Reaction range**

The Stability of IQ

- Stability of IQ increases with age.
- By elementary school years, intelligence tests seem to measure relatively stable aspects of cognitive functioning.
- As children grow older, IQ tests become increasingly good predictors of adult IQ.

How Meaningful Are IQ Scores?

- Ever since IQ scores were introduced, people have debated their value.
- The controversy centers on issues of _____ and the question of just what an IQ score can _____.
- **Cultural bias can affect IQ tests many ways:**
 - language fluency
 - knowledge of cultural references
 - cultural differences in definitions of intelligence
 - setting in which test is given
 - Stereotype Threat
- To overcome problems of culture bias, some psychologists have tried to develop IQ tests that are:
 - **culture-free**
 - **culture-fair**
- Attempts to develop these have not generally succeeded.
- IQ tests offer effective comparisons *within* the same culture or subculture.

What IQ Scores Can Predict

- **Predictive Validity:**
- In general, IQ tests are fairly good predictors of _____
- Childhood IQ may predict long-term success in occupations that require abstract thought.
- Adult IQ scores are good predictors of success in

MORAL DEVELOPMENT

- The process by which an individual comes to understand what society accepts as right and wrong.

THEORIES OF MORAL DEVELOPMENT

- **Cognitive Theories**: emphasis on moral reasoning & related to cognitive development.

- Moral development depends on:

- There are 2 major cognitive theorist:

Piaget's Cognitive Theory of Moral Development

- **Piaget** used 2 methods to study Moral Dev:

- Questions pertaining to rules involved in playing games:

- **Stages of Rule Development**: Children Playing Games

- Preschoolers:

- Age 6:

- Age 10:

- **Moral Dilemmas**

- A: **John** accidentally breaks 15 cups while responding to his mom's call to dinner. 15 cups were on a tray on a chair behind the door.

- B: **Henry** tried to get some jam out of the cupboard while his mom was not home. He climbed on a chair and stretched his arm but could not reach the jam. But while doing this he knocked one cup over and it broke.

**Responses to Moral Dilemmas:
“Which boy is naughtier?”**

- **First stage: Moral Realism** (< 10 yrs) objective visible consequences of an act.

- **Second Stage: Moral Relativism** (10 yrs +) The motives or intentions of the person are considered.

- Decreasing egocentrism

- Interaction with peers

- Parents pointing out consequences of child’s actions

Evaluating Piaget’s Theory

SOCIAL & EMOTIONAL DEVELOPMENT MIDDLE CHILDHOOD

PEER POPULARITY & ACCEPTANCE MEASURING PEER ACCEPTANCE

- **Sociometric Nomination:**

- **Sociometric Rating Scales:**

- **Peer Status:**

- Popular
- Rejected
- Neglected
- Controversial

WHAT CHARACTERISTICS ARE RELATED TO POPULARITY?

Entry Into An Unknown Group: Kenneth Dodge

- **Characteristics of popular children**

- **Characteristics of unpopular children**

- Rejected
- Neglected

BULLIES AND CHILDREN WHO ARE CHRONICALLY VICTIMIZED BY THEIR PEERS

- Approximately _____ of children fall into each of these categories.
- A number of studies have documented _____ among middle-school aged children.
- **Schwartz, Dodge, and Coie (1993)**
 - unacquainted **6- and 8-year-old boys** who interacted on **5 consecutive days**

CAN PEER STATUS BE IMPROVED?

- **SOCIAL SKILLS TRAINING.**
- It is thought that training in social skills leads to **increased peer acceptance in two ways.**
- The **greatest obstacle** to the success of social skills training is often ...?

Kenneth Dodge's Five-Stage Model of Social Competence

- Encoding →
- Interpretation Of Cues
- Response Search Process → generate one or more potential responses
 - nonaggressive rejected children may have problem here
 - Rabiner, Lenhart, & Lochman (1990)
 - invoke automatic problem solving
 - invoke reflective problem solving
- Response Decision Process
- Enactment Process