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:**
  
  o **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**
  
  o Increase in efficiency: mnemonics and automaticity
  
  o 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

  o **Increase in Cognitive** inhibition –

• **Robbie Case**
  
  o Storage space
  
  o 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**

- 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?
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**
  
  o **Test-Retest:**

• **Validity**
  
  o **Construct Validity:**

  o **Predictive Validity:**

• **Standardization**
• **Intelligence Testing**
  o First intelligence test by Binet.
  o Revised as the Stanford-Binet.
  o 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**