

## DEVELOPMENT IN MIDDLE CHILDHOOD

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### PHYSICAL DEVELOPMENT

- Development occurs most in the first three years of life than any other period throughout development
- During middle childhood, it becomes slow and quite irregular
- At age 6, children generally weigh 45 pounds and are 3.5 feet tall
- Children continue to grow about 2 to 3 inches in height and 5 pounds in weight each year

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### PHYSICAL GROWTH

- During infancy and early childhood, children grow from top to bottom (**cephalocaudal**). However, during middle childhood, we reverse in development—we grow from bottom to top
- In the early periods of development, we also grow **proximodistal** (from center outward). This development reverses during middle childhood
- Females accumulate more fat after the age of 8 (note, this accumulation continues throughout adolescence)

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### SKELETAL DEVELOPMENT DURING MIDDLE CHILDHOOD

- Bones grow longer and broader
- Replacement of primary (baby) teeth with permanent teeth
- Between ages 6 and 12, all 20 primary teeth are replaced
- Children lose their 1<sup>st</sup> at the end of early childhood. Girls lose their teeth earlier than boys
- The 1<sup>st</sup> teeth to go are central incisors (lower and upper front teeth)

### BRAIN DEVELOPMENT

- **Brain development**—the frontal lobe increased in size and maturity. Responsible for thought and conscious
- Brain development is highly attributed to neurotransmitters—chemicals that allow communication between neurons through synapses. Over time, they become more selective and efficient
- When neurotransmitters are not balanced, predisposed to epilepsy, ADHD, and emotional disturbances

### HEALTH RELATED PROBLEMS

- Infections/diseases are less prevalent in this period. Except among those in poverty.
- Some 25% are affected with myopia (nearsightedness)
- 27% of children suffer from obesity (leading to HB pressure, cholesterol, diabetes, respiratory abnormalities, heart disease.

## FACTORS ASSOCIATED WITH CHILDHOOD OBESITY

- Heredity
- Social Class
- Early Growth Pattern
- Family Eating Habits
- Physical Activity
- Television Viewing—by the time a child reach high school, he has spent 25,000 hours watching TV
- Traumatic Events
- Type Personality (A or B)

## Cognitive Development

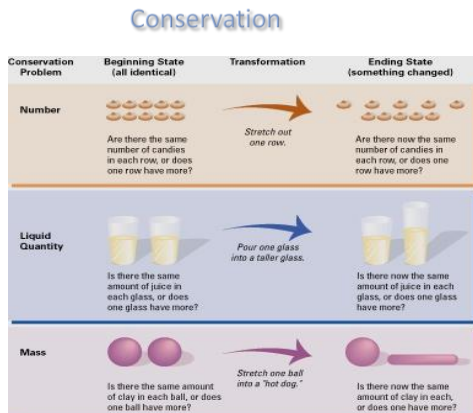
- Piaget
- Intelligence

## Piaget: Concrete Operational

- During this stage thought is logical, flexible, and organized in its application of concrete information.
- The capacity for abstract thinking is not yet present.
- The ability to execute conservation tasks is a clear indicator of this stage: Decentration and Reversibility
  - **Decentration**- ability to focus on several aspects of a problem at once
  - **Reversibility**- ability to mentally go through a series of steps in a problem and then reverse the direction, returning to the starting point.

## INFORMATION PROCESSING THEORY

- Alternative view of cognitive theory
- Proposes that practice creates well organized cognitive schemes. Consequently, they demand less attention, become more automatic, and working memory is freed up (Berk, 1999; Case, 1998).
- This theory focuses on the dimensions of memory, attention, and thinking



## Definitions of Intelligence

### 1-Psychometric Approach

IQ tests – focuses on how people perform on standardized tests which are designed to measure skills and knowledge you have already learned.

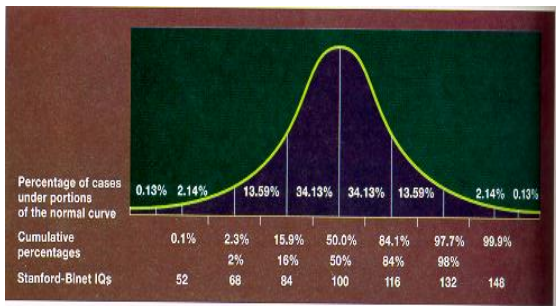
### 2-Cognitive Approach

Intelligence comes in different ways and one test can't measure it all.

## Measuring Intelligence – Psychometric Approach

- Standardized Intelligence Tests
  - Stanford-Binet
  - Wechsler Tests

### Normal Distribution of IQ



### Variations of IQ Scores

Range of Scores	%	Description
130 +	2%	Very superior
120 - 129	7%	Superior
110 - 119	16%	High average
90 - 109	50%	Average
80 - 89	16%	Low average
70 - 79	7%	Borderline
70 & below	2%	Deficient

## Intelligence in Childhood

- Considerable variability in IQ across childhood
- Cumulative-deficit hypothesis
- IQ stabilizes during adolescence

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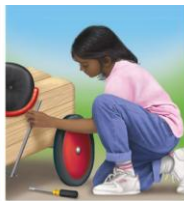
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## The Cognitive Approach Robert Sternberg – Triarchic Theory of Intelligence



**Analytical intelligence**  
(academic ability)  
Abilities to solve problems, compare and contrast, judge, evaluate, and criticize



**Creative intelligence**  
(creativity and insight)  
Abilities to invent, discover, suppose, or theorize



**Practical intelligence**  
("street smarts")  
Abilities to adapt to the demands of one's environment, apply knowledge in practical situations

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## Gardner's Theory of Multiple Intelligence



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## ADHD

- 5% of school age children are diagnosed with ADHD.
- Boys tend to be diagnosed with ADHD than girls.
- Children who are ADHD tend to be cognitively delayed on measures. Their ease of distractibility results in
  - Forgetfulness
  - Poor Planning, reasoning, and problem-solving
  - Poor impulse control

## Social/Emotional Development

- Peer Relations
- Family Relations

## FRIENDSHIPS AND PEER RELATIONS: The Childhood Years

- Social contacts increase dramatically as children enter school
- Larger peer group, less adult supervision
- Main ingredients in forming friendships are opportunity and similarity
- Number of “best friends” increases until about age 11 when children become more selective

## FRIENDSHIPS AND PEER RELATIONS: The Preschool and Childhood Years



- Children's close friendships typically progress through three stages:
  1. Play-based friends (ages 3 to 7 years)
  2. Loyal and faithful friends (ages 8 to 11 years)
  3. Intimate friends (adolescence and beyond)

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## SOCIAL STATUS AMONG PEERS: Categories of Popular/Unpopular Children

- **Peer nomination technique** frequently used to measure social status in childhood
- Five categories typically result from peer nominations: *popular*, *rejected*, *average*, *controversial*, and *neglected*

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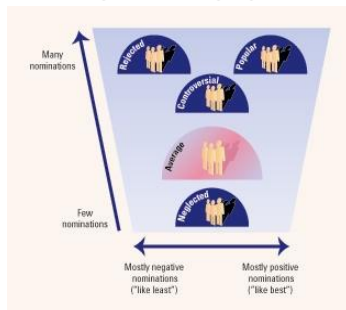
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## SOCIAL STATUS AMONG PEERS: Categories of Popular/Unpopular




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## SOCIAL STATUS AMONG PEERS: Categories of Popular/Unpopular Children

- Category of rejected children includes two very different subtypes
- About 50% are considered rejected-aggressive, 20% rejected-withdrawn
- Controversial children receive large number of both positive and negative nominations
- Associations between category and characteristics only correlational; don't know cause and effect

## SOCIAL STATUS AMONG PEERS: Consequences of Peer Rejection

- Early negative social experiences may cause continuing problems in later years
- Peer rejection associated with academic difficulties, higher rates of delinquency, arrest, violence, and substance abuse
- Often implicated in school violence
- Withdrawn children are at greater risk for depression, loneliness, negative self-worth
- Intervention programs helpful

## Parent/Child Relationships

- Children spend about 50% less time with their parents than their preschool years
  - Family support remains important as children practice their developing skills in society
  - Optimal development occurs when parents employ structured autonomy. Quality relationship (Authoritative) is correlated with
    - academic performance (positive)
    - peer relationships (positive)
    - befriending of delinquent peers (lower)
    - Aggression (lower)
    - conflict in the classroom (lower)
- Because children model, parents teach competence through their actions

### Family Constellations

- Over 50% of children born in 1990s experienced divorcing parents.
  - African-American children are at a higher risk (*Why?*)
  - African-American children are at greater risk to becoming single parents (*Why?*)
  - Both African-American and Hispanic families are less likely to remarry after divorce
- 50% of children of divorce can expect to have stepparents within 4 years.

### Family Constellations

- Most single parent families lack fathers
- Some studies show:
  - Greater atmosphere of warmth
  - Increased mother interaction with children
  - More secure mother/child attachments
- On the other hand:
  - These children tend to grow up feeling less cognitively and physically competent

### Factors Associated With Divorce and Child Outcomes

- Quality of Interactions
  - A vast majority of children of divorce adjust well to the changing family arrangement
  - Quality of parenting is more important than family arrangement
- Developmental Stage
  - Preschoolers tend to display greater adjustment problems than middle schoolers (*Why?*)
  - Remarriage is more likely to have a lasting psychological impact on pre-adolescents (*Why?*)
- Gender
  - Boys tend to have a more difficult time adjusting to divorce in middle school (*Why?*)
  - Boys are more likely to act out or externalize overtly. Girls are more likely to act out internally (i.e., engaging in self-blame, depression)