



Cognitive Development in Adolescence

Chapter 16

Slides Presented by: Nicole Porter, Modesto Junior
College



Make it Real: Adolescent Thought

- Think of an argument you had as a teenager, or a time when you heard a teenager argue.
- Contrast the argument styles of 2 teenagers versus 2 adults. (e.g., about politics).



Adolescent Thought

- Adolescents often combine **ego, logic, and emotion** in their thinking, in ways that differ from adults.
- These processes involve egocentrism, formal operational and postformal thought.



Aspects of Cognitive Maturation

- Piaget's Stage of Formal Operations
 - Highest level of cognitive development
 - Capacity for abstract thought
 - Can use X for an unknown numeral– algebra
 - Can think about what might be, not just what is
 - Can image possibilities
 - Can form and test hypotheses



Aspects of Cognitive Maturation

- Piaget's Stage of Formal Operations
 - Hypothetical-deductive reasoning
 - Can develop a hypothesis and design an experiment to test it
 - What brings about shift to formal operations?
 - Brain maturation
 - Expanding environmental opportunities
 - Can be taught and learned



Aspects of Cognitive Maturation

- Piaget's Stage of Formal Operations
 - Evaluating Piaget's Theory
 - Seems to have overestimated some older children's abilities
 - Paid little attention to individual differences
 - Failed to capture role of the situation
 - Does not adequately consider metacognition



Adolescent Egocentrism

- A tendency to focus on oneself:
 - **Personal Fable**
("I'm so unique.")
 - **Invincibility Fable**
("Nothing bad can happen.")
 - **Imaginary audience**
("Everyone is watching.")





Aspects of Cognitive Maturation

■ Language Development

- Knows about 80,000 words by age 16 or 18
- Can discuss abstractions
 - Love, justice, and freedom
- Can express logical relationships
- Social perspective-taking
 - Tailoring one's speech to another's knowledge level or point of view



Aspects of Cognitive Maturation

- Changes in Information Processing in Adolescence
 - Structural change
 - Information-processing capacity
 - Storage capacity of long-term memory
 - Declarative knowledge
 - Procedural knowledge
 - Conceptual knowledge



Aspects of Cognitive Maturation

- Changes in Information Processing in Adolescence
 - Functional change
 - Learning, remembering, and reasoning
 - Increase in processing speed
 - Development of executive function
 - Selective attention, decision making, inhibitory control of impulsive responses, and management of working memory



Aspects of Cognitive Maturation

- Changes in Information Processing in Adolescence
 - Gender differences: boys more likely to take intellectual or behavioral risks; girls more likely to take health risks
 - Ethnic differences: substantially reduced when parental education and student's previous course work are considered



Postformal Thought

- Researchers have proposed a “fifth stage” of thinking: **postformal thought**.
- This combines both intuitive and analytic thought, resulting in more **balanced thought**.
- It develops during early adulthood.



Moral Development

- Kohlberg's Theory of Moral Reasoning
 - Level I: Preconventional morality
 - People act under external controls, obeying rules to avoid punishment or get rewards (ages 4 to 10)
 - Level II: Conventional morality
 - People are concerned about being "good," pleasing others, and maintaining the social order (after age 10)



Moral Development

- Kohlberg's Theory of Moral Reasoning
 - Level III: Postconventional morality
 - People now recognize conflicts between moral standards and make their own judgments based on right, fairness, and justice principles
 - Kohlberg later added a transitional level between levels II and III, when people no longer feel bound by society's moral standards but have not established their own principles of justice



Moral Development

- Evaluating Kohlberg's Theory
 - Instead of viewing morality solely as attaining control over self-gratifying impulses, investigators now look at how children make moral judgments based on their growing understanding of the social world



Moral Development

- Evaluating Kohlberg's Theory
 - Research shows lack of clear relationship between moral reasoning and moral behavior
 - Factors contributing to moral behavior
 - Specific situations
 - Conceptions of virtue
 - Concern for others



Moral Development

- Evaluating Kohlberg's Theory
 - Influence of parents and peers
 - Authoritative parenting allows children to reason at higher levels
 - Cross-cultural validity
 - Older people in countries other than the U.S. tend to score at higher stages than younger people
 - People in nonwestern cultures rarely score above stage 4



Moral Development

- Gilligan's Theory: An Ethic of Care
 - Claimed a male bias in Kohlberg's stages
 - Research has found small gender differences in care-related moral reasoning
 - Girls generally mature earlier
 - Girls have more intimate social relationships



Moral Development

- Prosocial Behavior and Volunteer Activity
 - Enables adolescents to become involved in adult society
 - Enables adolescents to explore their potential roles in the community
 - Links their developing sense of identity to civic involvement
 - Tend to be outgoing and have a high degree of self-understanding and commitment to others



Educational and Vocational Issues

- Influences on School Achievement
 - Student motivation and self-efficacy
 - Those who believe they can master tasks and regulate own learning are likely to do well
 - Many nonwestern cultures have different reasons for motivation
 - Duty (India)
 - Submission to authority (Islamic countries)
 - Meet family and society expectations of perfection (East Asia)



Educational and Vocational Issues

- Importance of SES and Related Family Characteristics
 - Students with at least one postsecondary-educated parent perform better
 - Parents' occupational status
 - Number of books in home
 - Two-parent family



Educational and Vocational Issues

■ Gender

- Internationally
 - Girls tend to be better readers
 - Boys lead in math
- Girls tend to have more confidence in their academic abilities
- Boys are more likely to be encouraged to take honors courses or apply to top colleges



Educational and Vocational Issues

■ Parenting Styles, Ethnicity, and Peer Influence

■ Authoritative parents

- Urge adolescents to look at both sides of an issue
- Welcome input in family decisions
- Strike a balance between making demands and being responsive
- Children receive praise for good grades
- Poor grades bring encouragement to try harder and offers of help





Educational and Vocational Issues

- Parenting Styles, Ethnicity, and Peer Influence
 - Authoritarian parents
 - Tell adolescents not to argue with or question adults; they will “know better when they are grown up”
 - Good grades bring admonitions to do even better
 - Poor grades are punished



Educational and Vocational Issues

- Parenting Styles, Ethnicity, and Peer Influence
 - Permissive parents
 - Indifferent to grades
 - Do not attend school functions
 - Do not help with nor check children's homework
 - May not be neglectful or uncaring— sometimes they are nurturant
 - Feel that teenagers should be responsible for their own lives



Educational and Vocational Issues

- Parenting Styles, Ethnicity, and Peer Influence
 - The school
 - Quality strongly influences student achievement
 - Orderly
 - Safe
 - Adequate material resources
 - Stable teaching staff
 - Positive sense of community



Educational and Vocational Issues

- Dropping Out of High School
 - Dropout rates are affected by
 - Ethnicity: Hispanics have highest rates, African American rates are 2nd highest
 - SES: highest rates among poor and poor minorities
 - Active engagement is an important factor for success
 - Family encouragement, small class size, and a warm, supportive school environment



Educational and Vocational Issues

- Preparing for Higher Education or Vocations
 - Influences on students' aspirations
 - Self-efficacy
 - Parents' academic values
 - Gender and gender stereotyping
 - Types of intelligences
 - Schools are geared toward memorizing and analyzing
 - Creative thinkers often do not get a chance to show what they can do



Educational and Vocational Issues

- Guiding Students Not Bound for College
 - Vocational counseling
 - Apprenticeship systems
 - Demonstration programs for school-to-work transition
 - Alternative schools for at-risk youth programs
 - Some take employment beneath abilities



Educational and Vocational Issues

- Adolescents in the Workplace
 - Developmental effects of young adolescents' employment are mixed
 - Studies show that heavy work schedules interfere with schooling and may lead to dropping out
 - Many high school students hold part-time jobs; usually low-level, repetitive jobs in which skills learned are not useful later in life



Educational and Vocational Issues

- Adolescents in the Workplace
 - Costs and benefits of adolescent employment depends on factors such as
 - Reason for working
 - How many hours per week teen is working
 - Conditions of employment
 - What skills are being acquired