

Chapter 7:

1. **Cognition**- thinking, manipulating, and transforming info in memory
 - a. Study all mental activities associated with knowing, remembering, deciding, attending, solving, judging, and communicating
2. Conservation of Resources / Energy (short cuts) is major theme
3.
 - a. **Mental Images**- internal picture-like presentations (things/events)
 - i. **Organization**- speed (often less cumbersome than verbal)
 - ii. **Mental Maps**- help find things
 - b. **Concepts**- ideas that represent a group of similar objects, events, ideas, or people
 - i. Help with new data
 - ii. **Prototype**- typical example
 - iii. **Formal**- by definition
 - iv. **Natural**- by prototype; note important features (use to compare); speeds sorting into categories; speeds up and guides problem solving
4. **Problem Solving**- thinking/behaving in ways to reach goals; identify goal and steps needed to get there
 - a. **Trial and Error**- (mechanical) try different ways until one works
 - b. **Algorithms**- step by step procedures that guarantee a solution; often labor intensive
 - i. Every letter every space formula
 - c. **Heuristics**- speedier but more error prone; educated guess based on past experience
 - d. **Insight**- solution comes suddenly and often out of the blue
 - e. **Creativity**- ability to combine ideas and behaviors in new ways; think outside the box
5.
 - a. **Confirmation Bias**- tendency to search for info that supports what we already think and to ignore or distort info that contradicts our beliefs
 - b. **Fixation**
 - i. **Mental Set**- tendency to approach problems from only one way especially if it worked in the past; failure to see from a different perspective slows down problem solving
 1. Ex) O T T F F
 - ii. **Functional Fixedness**- tendency to think of things only in terms of usual functions
6. **Using and Misusing Heuristics**- two generally helpful shortcuts can lead very smart people to dumb decisions
 - a. **Representative Heuristic**- judging how likely something is by how well it represents (matches) the prototype
 - i. Can help / hurt
 - ii. Can lead us to ignore other relevant info-like base rates
 - b. **Availability Heuristic**- the easier it is to think of an example the more likely we are to think it will happen (yet it may be due to vividness or personal experiences, not reality)
7. **Overconfidence**- we are often more confident that we are correct; we overestimate the accuracy of our beliefs/judgments
8. **Belief Perseverance Phenomenon**- tendency to cling to initial conceptions even after basis they were formed on has been discredited
 - a. Ex) harder to change someone's opinion than establish new ones
9. **Intuition**- an effortless, immediate, automatic feeling or thought, as contrasted with explicit, conscious thinking
10. **Effects of Framing**- how an issue is posed can significantly affect decisions and judgments

11. **Intelligence**- reflects our ability to understand the world; to learn from experience; to acquire knowledge; to use resources effectively in adapting to new situations or problem solving;
 **cannot be measured directly, must infer
- 12.
- Crystallized Intelligence**- accumulated knowledge, verbal skills, strategies; school info, cultural intelligence
 - Fluid Intelligence**- ability to solve problems, see relationships, reason abstractly; believed to be relatively free of cultural influence
- 13.
14. **IQ (Intelligence Quotient)**- a score that indicates how well you did on a particular intelligence test; compared to others your age
- How is it measured? Test answers on 100's of people of different ages, raw scores (# right) converted to IQ scores using formulas, tells you how well you did for your age, mean (average) = 100
- 15.
- Reliable**- does the test give consistent results
 - Valid**- are you measuring what you think you are measuring
 - Need to be reliable to be valid, but not all reliable tests are valid
- 16.
- Average IQ: 100
 - 50% of IQ's are between 90-110
 - Gifted: well above average intelligence (IQ 130+) global giftedness (2%) or superior talent (Garner's or creativity)
 - Mental Retardation:
 - IQ < 70
 - Deficits in adaptive behavior
 - Before age 18
 - Learning Disability**- achievement significantly below expectations (based on IQ); can be gifted and have a learning disability; can be gifted and have learning disability
17. 40-50% if IQ seems to be inherited
- IQ is influenced by heredity and environment of intelligence
 - Generally stable after age 6-7; doesn't change overnight; the older you are the less likely it will change unless you have big environment changes
 - Adoption can make a substantial difference
 - Factors: parental communication/support, income level, quality of neighborhoods/schools, nutrition/healthcare
18. See question 17 answers
- 19.
- Flynn Effect**- increase in average IQ score; about 3 points a decade, biggest jump is problem solving, not general knowledge
 - Why?** Better nutrition, environmental changes, changes in teaching, more time in cognitive based leisure activities
- 20.
- Scholastic achievement (starts age 7)- higher IQ, better grades, more likely to stay in school
 - Vocational outcome (starts age 7)- higher IQ more likely to have prestigious jobs *but*
 - Health, adjustment, life satisfaction (sometimes) kids better liked by peers- higher IQ; juvenile delinquent/aggressive- lower IQ
 - **No relationship**- depression, anxiety, social withdraw
- 21.

- a. **Advantages:** Labeling- opens doors to services; provides ideas for interventions; does predict certain things (and we can impact)
- b. **Disadvantages:** Labeling- limiting expectations; self fulfill prophecy; too narrow, may or may not tap what is culturally relevant

Chapter 9

1. **Human Development-** changes between conception and death
 - a. Developmental psychologists study EVERYTHING
2.
 - a. Variability is the norm, and it is okay!
 - b. Nature vs. Nurture; Genes vs. Environment
3.
 - a. **Longitudinal-** 1 group, many tests; same people at different ages; wait and expensive; see how individuals change- scores/ranking
 - b. **Cross-Sectional-** many groups, 1 time; different people at different ages; simultaneous; faster and cheaper; see age differences
4.
 - a. **Constructivist Theory-** argues that humans generate knowledge and meaning from an interaction between their experiences and their ideas
 - b. **Stage Theory-** distinct pattern of development from Sensorimotor, Preoperational, Concrete Operational, and Formal Operational
5. Vocabulary
 - a. **Adaption-** in-born tendency to take in and make sense of new data/info
 - b. **Assimilation-** (first try) interpret new by incorporating it into existing understanding
 - c. **Accommodation-** change current understanding to fit new data
 - d. **Object Permanence-** know objects continue to exist even when we don't see them/interact with them (implies mental representation of object)
 - e. **Symbolic Function-** using a thing (or symbol) to represent something else (words and pictures) *allows for language development and symbolic play
 - f. **Egocentrism-** only sees world from own perspective; can't take others perspective; everyone knows what I know
 - g. **Centration-** tendency to focus on only one (salient- obvious characteristic) aspect of object or problem at a time
 - h. **Conservation-** understanding that altering appearance does not change basic properties
6. **Stages of Cognitive Development**
 - a. **Sensorimotor-** (birth to 2 years) uses senses and muscles to interact with and learn about the environment; begin to learn cause and effect
 - b. **Preoperational-** (2-6 years) symbolic function; explosion of language; pretend play; egocentrism and centration; lead to errors in problem solving
 - c. **Concrete Operational-** (6-11 years) can reason/problem solve with objects there or easily held in memory; math skills explode; begin to understand rules and strategies; so games with rules of interest; attends >1 feature (helps categorization); reversibility, continue to gain through stage (logic)
 - d. **Formal Operational-** thought more complex and flexible can think abstractly; discuss things like truth and justice; can solve hypothetical problems; not all reach this stage; at least partially culture and training dependent
7. **Vygotsky vs. Piaget**