



Chapter 1 – Mind, Behavior, and Science

- I. Descartes – Dualism.
 - a. 1700s
 - b. “Critique of Pure Reason”
 - c. Body & Mind can be separated
 - d. Humans unique with soul (entered body through pineal gland in brain)
 - e. Behavior influenced by both soul & physiological reactions
 - f. Animals influenced only by physiology
 - g. Act independently of extraneous actions
- II. Determinism
 - a. Control from outside the organism
 - b. “Everything in the Universe has a cause.”
 - c. Cornerstone of Natural Sciences
- III. Pre-Determinism
 - a. Acting on “free-will,” but fate is already determined
 - b.
- IV. Hermon von Helmloltz / Muller
 - a. Empirical study
 - b. Impulse conduction in nerves
 - c. Beginning of research on reflexes
 - i. Signals to spinal cord bounce back without reaching brain
 - d. Paved path for psychology
- V. Wundt
 - a. First psychology laboratory *1879)
 - b. Germany
 - c. Introspective study (looking “into yourself”)
 - d. *Not Reliable!*
- VI. Tichener
 - a. First US psychology lab
 - b. Former student of Wundt
- VII. Definitions
 - a. Structuralism = First major psychological study. Mental structures determine behavior (late 1800s)
 - b. Empirical = Driven by observation (only awareness of the world is through observation)
 - c. Rationalism = Knowledge based on thought and reason.
 - d. Functionalism = Next major school of thought. William James (1842 – 1910). Rejected search for mental components. Look for *function*, not *structure* of mind.
- VIII. Viewpoints of Psychology
 - a. Psychodynamic
 - i. Sigmund Freud
 - ii. Neurotic Symptoms (famous patient: Anna O)
 - iii. Early childhood experiences affect later life
 - iv. Unconscious mind
 - v. Sexuality
 - vi. Psychoanalysis
 - vii. Non-Testable theories
 - viii. Sexual repression in Victorian era caused problems
 - b. Behaviorism
 - i. John Watson (1878-1958)
 - ii. Dozen healthy infants – will turn out any way they’re raised
 - iii. Opposed introspection
 - iv. Influenced by Pavlov (1849-1936) and Edward Thorndike (1874-1949)
 - v. Simple learning associations discovered
 - vi. Skinner – 1938. The Behavior of Organisms

- vii. Focus on behavior, not mind
 - viii. Classical conditioning / Pavlovian conditioning (dog with metronome)
 - ix. Determinist!
 - x. "Situations followed by satisfying consequences are more likely to occur." – Thorndike.
- c. Gestalt Psychology
 - i. Wolfgang Kohler (1887-1967)
 - ii. Perception (example of triangles perceived when three dots are drawn)
 - iii. Whole is more than sum of parts
- d. Humanist Psychology
 - i. Abram Maslow (1908-1970). Carl Rogers
 - ii. Free will
 - iii. De-emphasized environment and unconscious
 - iv. Self actualization
 - v. Cannot always study humans scientifically
- e. Sociocultural
 - i. Cross-Cultural
 - ii. Social learning
 - iii. Learn through observation
- f. Biological
 - i. Genes
 - ii. Neuroscience
 - iii. Evolutionary
- g. Cognitive
 - i. Mental analysis
 - ii. Analogy of human mind to computers
 - iii. Input, Storage, Retrieval
 - iv. Cognitive Neuroscience
- IX. Scientific Method
 - a. Develop Hypothesis
 - b. Controlled test
 - i. Independent Variable
 - ii. Dependant Variable
 - iii. Random Assignment
 - iv. Experimental and Control groups
 - c. Gather objective data
 - d. Analysis
 - e. Publishing, criticizing, replicating
- X. Limitations of Hypothesis Testing (Murray Sidman)
 - a. Curiosity (What will happen if...)
 - b. Trying out a new method/technique
 - c. Establishing the existence of a phenomenon (ex: Learned Helplessness)
 - d. Explore conditions under which a phenomenon occurs
 - e. Not being tied to the hypothesis
- XI. Types of Research
 - a. Experiments
 - b. Correlational Studies
 - i. Naturalistic observation
 - ii. Survey
 - iii. Not Casual
 - c. Case Studies
- XII. Bias
 - a. External
 - b. Personal
 - c. Observer
 - d. Expectancy

- e. Placebo
- XIII. Ethics
- a. Deception
 - i. Only way to address a research question
 - b. Debriefing (confess afterward)
 - c. Milgram obedience studies (1963)
 - i. Electrical shocks delivered by test subject to confederate for wrong answers.
 - ii. How much voltage would test subjects deliver under the direction of experimenters?
 - d. Stanford Prison Study (Philip Zimbardo – 1975)
 - i. People got too thoroughly into their roles.
 - ii. Shutdown after only six days.
 - e. Animal Research
 - i. Simple model of humans
 - ii. Greater control over variables
 - iii. Can do things to animals that you can't to humans.
 - iv. Cheap.
 - v. Ethical guidelines for testing in existence now.