Unit 1. History and Approaches

College Board - “Acorn Book”

Course Description

2-4%
Summary Outline

A. Logic, Philosophy, and History of Science

B. Approaches
  1. Biological
  2. Behavioral
  3. Cognitive
  4. Humanistic
  5. Psychodynamic
  6. Socio-cultural
  7. Evolutionary
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A. Logic, Philosophy, and History of Science

- Precursors
- Nature vs. Nurture (since the Greeks)
- Mind-Body (Descartes)
- Evolutionary Theory (Darwin)
- Empirical Research (Francis Bacon)
Precursors

At least since the time of Socrates, Plato, and Aristotle in ancient Greece, there have been important questions that serve as the foundation of psychology:

- What is the source of human knowledge?
- What is the nature of the mind and soul?
- What is the relationship of the mind to the body?
- Is it possible to scientifically study such things?
Nature vs. Nurture Question

- How much of human behavior and characteristics are innate?
  - The role of inheritance
  - The role of genetics

- How much of human behavior and characteristics are due to experience?
  - Tabula Rasa (Blank state)
  - The role of experience
Nature vs. Nurture

“He was abandoned in the D.C. area as a puppy and raised by a pack of senators.”
Interaction of nature and nurture

- Which contributes more to individual differences in physical and behavioral traits?
- David Hebb is attributed with answering this question by saying "which contributes more to the area of a rectangle, its length or its width?"
Nature vs Nurture - Which is more important?
From: Robert L Windemuth (with a nod to Lenny Bruce)

- The son of two brilliant astrophysicists was lost as a child and raised by a pack of wild dogs.
- When he was 16 he was found. He made a quick adjustment back to civilization and graduated from MIT with highest honors at the age of twenty.
- Unfortunately, he was killed the next year while vacationing in France when he suddenly broke from his tour group to chase a car.
Mind / Body Problem

- What is the relationship between the mind and the body?
- Does the mind control the body or the body control the mind?
- Is the mind nothing more than the body?
- Might the body itself be a product of the mind?
In modern times we still ask “What is the relationship between the mind (one’s thoughts, memories, perceptions) and the brain (the actual bunch of neurons in your head)?”
Dualism vs. Monism

Dualism suggests that the brain is physical and the mind is something else.

- Classical dualism - Descartes - the mind controls the body through the Pineal Gland
- Parallelism - mind and body are isolated and exist in separate worlds
- Epiphenomenalism - The brain causes the mind
Dualism in the modern world

- **Literature**
  - Franz Kafka: *The Metamorphosis*
  - Thorn Smith *Turnabout, All of the Topper books* (and movies)

- **Film**
  - *All of Me*
  - *Peggy Sue Got Married*
  - *Freaky Friday*

How do the above demonstrate a dualistic view?

How many other works can you think of that demonstrate dualism?
Dualism vs. Monism

- Idealism/Solipsism - The mind and body both exist in a mental realm. Solipsism suggests that the whole world/universe exists in the mind.

- Materialism - Mind and body are both physical. There is no non-physical, mental world.
Rene Descartes
- Dualism
- Differentiated between
  - Rational Soul
    - “Residing” in Pineal Gland
  - and Body
- Animals have no soul (mind)

Julien Offray de la Mettrie
- Mental events are dependent on body events
- Led to mind is a function of the brain
Mind-Body / Phrenology

Franz Gall

- Functional localization
- Variations in character correlate with variations in external craniological signs
- Bumps in the cranium relate to areas of the brain

Figure 13
Franz Josef Gall (1758-1828)
Evolution

Dirk brings his family tree to class.
Evolution - Charles Darwin

- Darwin attempted to explain the huge variety of living things:
  - In a scientific way
  - Without drawing on religious ideas
- Evolution is not about progress
- It is about adaptation
Evolution - Charles Darwin

- Natural Selection
  - Promotes the survival of the fittest individuals
  - Favorable heritable traits become more common in successive generations
  - Unfavorable traits become less common
Evolution - Charles Darwin

- Individuals do not evolve, species evolve.
- This happens through natural selection.
- Individuals best suited/adapted to a particular environment will survive and pass on their genes by reproducing more.
- The rest may die or reproduce less.
- Future generations will be better adapted to the environment (i.e. the species has evolved.)
Evolution - Charles Darwin

- Darwin observed the variation of species on the voyage of the *Beagle* and observations continued in England after his return.
- His theories gained greater acceptance with development of genetic theory and research.
Evolution / Innovative Ideas

- All life is related
- The age of the world
- Environments change over time
- Species adapt to changing environments

- These ideas were not necessarily new to Darwin, but were synthesized by him into a unified theory

- American Museum of Natural History
  - Website on Darwin
  - [http://www.amnh.org/exhibitions/darwin/](http://www.amnh.org/exhibitions/darwin/)
Opposition to Darwin’s Ideas

- Challenged long standing beliefs
- Questioned man’s uniqueness
- Randomness of evolution
- Required a new paradigm of understanding the world
Mistaken ideas about Evolutionary theory

- Characteristics acquired during the lifespan can be passed on to offspring
- Humans are descended from monkeys
- Other animals are ‘less evolved’ than us
- Humans are the ‘end product’ of evolution
Evolution and Psychology

- Evolutionary psychology regards humans as subject to the same evolutionary processes as other animals (continuity).
  - Assumes that behavioral characteristics can be inherited just like physical ones.
  - Tries to explain human behavior/psychology in terms of evolutionary processes.
“Understand, Richardson, I don’t believe in evolution, but I do believe in Darwinism.”
Empiricism

- Challenged the view that knowledge is innate
- Knowledge is the result of experience and observation
- Development of rules of science
- Important to the development of scientific psychology

- John Locke
- George Berkeley
- David Hume
- Francis Bacon
History of Psychology

- **Structuralism**
  - Wilhelm Wundt
  - Edward Titchener

- **Functionalism (William James)**

- **Gestalt Psychology (Max Wertheimer)**

- **Unconscious Influences (Sigmund Freud)**

- **Behaviorism (John Watson)**

- **Cognitive Revolution (George Miller)**

- **Social Psychology (Kurt Levin)**
Structuralism

- Influenced by work of
  - Wilhelm Wundt
  - Edward Titchener

- Strengths
  - The first major school of thought in psychology
  - Strong influence on experimental psychology

- Weaknesses
  - Concentration on consciousness
  - Experimental methods were too subjective
  - Concentration on internal behavior (introspection)
Structuralism

Wundt

Titchener
Structuralism

■ Wundt
  ◆ The start of modern psychology - 1879, Wundt established the first formal psychology research laboratory - University of Leipzig, Germany
  ◆ Method of introspection to observe conscious experience

■ Titchener
  ◆ Englishman who studied with Wundt
  ◆ Introduced concept of “structuralism”
  ◆ Created laboratory at Cornell University
Functionalism

- Influenced by work of
  - William James
  - Charles Darwin
- Sought to explain mental processes in a more systematic and accurate manner
- Focused on the purposes of consciousness and behavior

**Major influence on**
- Behaviorism
- Applied Psychology

**Strong influence on**
- The educational system
- The philosophy of John Dewey
  - The belief that children should learn at the level for which they are developmentally prepared
Functionalism

- William James
Gestalt Psychology

- Reaction to the reductivism of Wundt
- The word *Gestalt* means a unified or meaningful whole
- Based on the observation that we often experience things that are not a part of our simple sensations

- Max Wertheimer
- Wolfgang Köhler
- Kurt Koffka
Werthimer noted that we perceive motion where there is nothing more than a rapid sequence of individual sensory events.

Examples:
- Christmas lights that blink off and on
- Neon signs in Las Vegas
- Basic principle of motion pictures – individual still pictures in rapid succession
Unconscious Influences

- Sigmund Freud
- Conscious, subconscious, and unconscious
- Theory that much of our minds thinking and memory are not accessible to our awareness
- And that these unconscious urges, desires, and memories have a direct impact on our emotions and behavior
- Freud placed a great deal of emphasis on the sexual nature of the unconscious
Unit I History and Approaches
Behaviorism

- Theory that all behaviors are learned, or acquired through conditioning
- Behavior can be studied in a systematic and observable manner with no consideration of internal mental states

- Reaction to Freud’s emphasis on the unconscious
- Reaction to much of psychology which was not considered objective or scientific
- Ivan Pavlov, John Watson, Clark Hull, B.F. Skinner
Cognitive Psychology

- Investigates internal mental processes such as problem solving, memory, and language
- Foundations in Gestalt psychology and Jean Piaget
- Ulric Neisser coined the term in 1967
- In part a reaction to behaviorism

- George A Miller
  - "The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information" (1956)
Kurt Lewin was one of the modern pioneers in:
- Social psychology
- Organizational psychology
- Applied psychology

Often seen as the founder of social psychology.

Field Theory:
- Looking at the factors (forces) that influence a situation, originally social situations.

Leadership and management:
- Authoritarian, democratic, and laissez-faire work environments.
Early Contributors

- G. Stanley Hall (1882)
- Mary Whiton Calkins (1891)
- Margaret Floy Washburn (1894)
- Gilbert Haven Jones (1909)
- Leta Stetter Hollingworth (1916)
- Francis Cecil Sumner (1920)
G. Stanley Hall

- Earned his doctorate in psychology with William James in 1878
- Traveled to Leipzig to study with Wundt
- Developed what is considered the first American psychology laboratory (at Johns Hopkins University)
- First President of the APA
  - Instrumental in the founding of the APA
Mary Whiton Calkins

- Harvard refused to grant her a doctoral degree unless she received it through Radcliffe.
- Opened one of the first psychological laboratories in the United States at Wellesley College in 1891.
- Became the first woman president of the American Psychological Association (1905).
Margaret Floy Washburn

- Allowed to audit classes at Columbia and work in James Cattell’s laboratory
- First woman to receive a Ph.D. in psychology (Cornell 1894)
- Studied with Titchener
- Her book *The Animal Mind* (1908) suggested that mental processes of animals are a legitimate area of study
- President of APA (1921)
Gilbert Haven Jones

- One of first African Americans to earn a doctorate in psychology.
- Received his Ph.D. in psychology in Germany 1909
Leta Stetter Hollingworth

- Best known for work with exceptional children
- Wrote the first comprehensive text on the gifted
- Taught the first college course on the gifted
- Commenced one of the first systematic studies of children with intelligence quotients (IQ) above 180
Francis Cecil Sumner

- First black man to receive a Ph.D. in psychology in America
- Established an independent psychology program at Howard University
- One of his students was Kenneth Clark whose studies were important in the Brown v Board of Education
Women's Intellectual Contributions to the Study of Mind and Society

The following link is to the above section.

- http://www.webster.edu/~woolflm/women.html

Which includes links to information about Calkins, Washburn, and other women who made important contributions in anthropology, psychoanalysis, psychology, sociology/social work, and other areas.

- http://www.webster.edu/~woolflm/marycalkins.html
- http://www.webster.edu/~woolflm/washburn.html

In others there is a link to DOROTHEA DIX whose work made significant changes in the treatment in mental institutions.