Chapter Two:
Philosophical Influences on Psychology

PSY 495
Dr. Rick Grieve
Western Kentucky University

Philosophy from the
Greeks to Descartes

• Plato and Aristotle
  o 400 BC to 300 BC
    ▪ Hellenistic Period
      □ Not much after this until 1200-1300 AD

• Before Plato
  o 6th century BC
    ▪ Critiques of systems of thoughts
    ▪ Beginning of modern Western thought

  Philosophy from the
  Greeks to Descartes

  o The question of Being vs. Becoming
    ▪ Being
      □ Beyond the changing world there are external truths
      □ Ideas have an existence apart from any person
      □ Foundation of Idealism
      □ Some argued that ideas were innate
        ▪ Nativists
    ▪ Becoming
      □ The only constant in the world is change
      □ Constantly changing and becoming something else
      □ Ideas are simply mental constructs

  Philosophy from the
  Greeks to Descartes

  o Rationalism vs. Empiricism
    ▪ Rationalism
      □ Exercise of reason is the only means by which valid knowledge is created
      □ Perform logical deductions from intuitively valid premises
    ▪ Empiricism
      □ Know reality through experience
      □ Valid knowledge results from experience/observation
Philosophy from the Greeks to Descartes

• Plato
  o Idealist and Rationalist
  o Dualist in regards to mind-body problem
  o Objects continually change so we cannot really know them
  o Perception is faulty
    ▪ Can’t use it to determine reality
  o Ideal form for every object
  
  Philosophy from the Greeks to Descartes
  ▪ This form exists in a cave somewhere in the earth
  ▪ We have knowledge of the forms, but only when we are dead
  ▪ 2 ways to get the knowledge w/o dying
    □ Contact with real objects jars our memories
    □ Rational process
      ▪ Socratic Method

• Aristotle
  o On the fence about Being/Becoming and Empiricist
  o Some say he was the first scientist
  o Mind-body problem
    ▪ Noted dual aspect of mind/body
    ▪ Stated there was one material reality with two aspects—the physical and the mental
  
  Philosophy from the Greeks to Descartes
  o 4 types of causes
    ▪ Material causation
    ▪ Formal/essence causation
    ▪ Efficient causation
    ▪ Final cause
- Soul = formal, efficient, and final cause
- Body = material cause
  - Located cognition and motivation in mind rather than the body

**Philosophy from the Greeks to Descartes**

- His idea of empiricism was not complete
  - Did not offer complete confirmation by sensory data
- Universals
  - Appear to be like prototypes
  - “essences”
- Focused on purpose of behavior
  - Touch of Functionalism
  - Touch of Behaviorism

**Philosophy from the Greeks to Descartes**

- Three laws of association
  - Similarity
  - Contiguity
  - Contrast
- Need for repetition in learning
- Aristotle died in 323 BC

**Final comments on Plato/Aristotle**

- Modern-sounding ideas
- Some were off the mark, but give them credit for trying

**Philosophy from the Greeks to Descartes**

**Others in the Hellenistic Period**

- Atomists ruled
  - Emphasize becoming and empiricism
    - With a strong emphasis on materialism, determinism, and reductionism
- Very scientific age
- Ptolemy & Galen
  - Anatomical, botanical, and astronomical work
- Hellenistic Stoicism
  - Materialism and monism
  - Wanted to reduce human psychology to physical matters
Philosophy from the Greeks to Descartes

• As Rome deteriorated, people’s lives got worse
  ▪ Turned to religion to help
  ▪ Christianity comes out on top of the heap and the Age of Faith begins

• Age of Faith
  ▪ Big Question:
  ▪ How to reconcile Christianity with philosophy
  ▪ St. Augustine (345-420)
    ▪ One of first to try to do this

  Philosophy from the Greeks to Descartes
  ▪ Combined Christianity with Platonic ideals
    ▪ Put Plato’s forms in God’s mind
    ▪ Very much a mystic
    ▪ Stated that heaven, God, souls, and angels could only be known through introspection
      ▪ No science is possible in this context
    ▪ He believed that science should not be concerned with things you can see
      ▪ No emphasis on the self
      ▪ Felt science should emphasize the supernatural
    ▪ Each physical object represents something supernatural
      ▪ Therefore, is an imperfect form

  Philosophy from the Greeks to Descartes
  ▪ God is the ultimate truth
    ▪ Mind is concerned with things that are not discernable through observation
    ▪ We can only know truth through rationalism
    ▪ However, faith can elevate the comprehension of the ultimate truth

  • Augustinian thinking dominated for the next few centuries
    ▪ However, by then people were so unknowledgeable that they had machines that they did not know how to use

  Philosophy from the Greeks to Descartes
  ▪ Charlamange (760-800)
    ▪ Attempted to restore knowledge

  • Fall of Constantinople
    ▪ Knowledge reintroduced to Europe
    ▪ When Plato, Aristotle and the boys are reintroduced they are so far advanced that they were taken as authoritative

  • Concept of individual was reintroduced into philosophy
• But not really studied (cf., Augustine)

**Philosophy from the Greeks to Descartes**

- **St. Thomas Aquinas (1225-1274)**
  - Synthesized Aristotle and Christianity
  - Eventually his ideas overtook those of Augustine
  - Emphasized naturalism and empiricism
    - God is indirectly known through his works in the world
      - Thus, philosophy and religion could be separate yet compatible
    - Led to the destruction of theological metaphysics
      - Ideas in the mind of God

- **Philosophy from the Greeks to Descartes**

  • Transition from the Age of Faith to the Renaissance
    - **Ockham (1290-1345)**
      - Revised empiricism
        - Knowledge comes from experiencing and knowing objects in the real world
        - No universals
          - Only exist in the mind
      - Ockham’s Razor
        - Felt that adding religion to philosophy only adds extra baggage

  - All things being equal, the simplest (most parsimonious) explanation is the best

    - **Roger Bacon (1214-1272)**
      - Ideas should be based on experience, not authority
      - Tried to account for all aspects of experience
        - Physiological, mental, etc.
        - Did not isolate crucial aspects of reality

    - **Copernicus (1473-1543)**
      - Besides placing sun at the center of the universe, he philosophically agreed with Aquinas

- **Philosophy from the Greeks to Descartes**

  - Other important scientists involved in the transition
    - **Brahe (546-1601)**
    - **Johannes Koepppler (1571-1630)**
    - **Galileo (1564-1642)**
• Mechanism
  o Mechanical items were becoming commonplace in the 17th century
    ▪ Clocks were the impetus
  o Doctrine that natural processes are mechanically determined and capable of explanation by the laws of physics and chemistry

• The clockwork universe
  o Clock was the metaphor for 17th century spirit of mechanism
  o Began to consider clocks as models for the universe
  o Harmony and order in the universe were related to clocks’ regularity
• Determinism and Reductionism
  o Determinism
    ▪ Acts are determined by past events
  o Reductionism
    ▪ Explains phenomena on one level in terms of phenomena on another level
      □ Clock analogy again

• Automata
  o Toy of the 17th century
  o Used as an analogy for human behaviors

  The Renaissance: Working in the Spirit of Mechanism

• The calculating engine
  o Charles Babbage
  o Rudimentary computer from the 1820’s-1830’s
  o Analytical Engine
    ▪ Tabulate values of math functions
    ▪ Play chess and checkers
    ▪ Memory capacity that held intermediate results until they were needed to complete a calculation
      □ Used punch cards as the memory source

  The Renaissance: Working in the Spirit of Mechanism
  o Working on a Difference Engine but ran out of funding
    ▪ Subtract, multiply and divide
  o British government finished the engine in 1991
    ▪ It worked flawlessly
  o Again, this was used as an example of mechanism

  The Beginnings of Modern Science

• Empiricism and Descartes
  o Empiricism
    ▪ Pursuit of knowledge through the observation of nature and the attribution of all knowledge to experience
      □ Focused on experimentation
    ▪ Strong proponent was Rene Descartes
      □ Symbolized the transition to the modern era of science
Ushered in era of modern psychology
  • If he didn’t create it, he sure set the stage for it to occur

The Beginnings of Modern Science

• Rene Descartes
  o Interested in applying scientific knowledge to practical concerns
  o Mathematical principles can be applied to all of the sciences
    ▪ Wrote extensively on mathematics and philosophy

The Beginnings of Modern Science

• Mind-Body Problem
  o The question of the distinction between mental and physical qualities and how the two types of qualities interact
  o Before Descartes, the accepted theory was that the mind exerted enormous influence on the body, but not vice versa

The Beginnings of Modern Science

o Descartes’ position
  ▪ Mind and body are distinct but each influence the other
    ▪ Body exerts a much greater effect than previously thought
    ▪ Body takes on greater importance
      • Functions such as reproduction, perception and movement were attributed to the body rather than the mind
    ▪ Mind has single function:
      • thought

The Beginnings of Modern Science

• The Nature of the body
  o Because the body is composed of physical matter, it must possess the characteristics of matter
The Beginnings of Modern Science

- Extension in space and capacity of movement
  - Laws of physics and mechanism must apply to the body
- Body is like a machine
  - Explained physiological functioning in terms of physics
    - Compared to automata
    - *undulatio reflexa*
      - Movement not supervised or determined by a conscious will to move
  - Theory of reflex action
    - An external object can bring about an involuntary response

The Beginnings of Modern Science

- The Mind-Body Interaction
  - Mind is nonmaterial
  - Capable of thought and consciousness
  - Provides us with information about our external world
  - Most important quality is its ability to think
  - Mind can be influenced by the body

The Beginnings of Modern Science

- Point of interaction between mind and body
  - Mind is unitary; therefore it must interact with only one part of the body
  - Must be in the brain
  - Only one brain structure that is unitary
    - Pineal body

- Doctrine of Ideas
  - Mind produces two kinds of ideas:
    - Derived ideas
      - Ideas produced by the direct application of an external stimulus
  - Innate ideas
    - Ideas that arise from the mind or consciousness, independent form sensory experiences or external stimuli
    - Led to the idea that perception is innate rather than learned
Empiricism and Associationism: Acquiring Knowledge Through Experience

• Advancing in Psychological Study
  o Positivism
    ▪ The doctrine that recognizes only natural phenomena or facts that are objectively observable
    □ Everything that was speculative, inferential or metaphysical was not science
    □ August Comte (1798-1857)
      ▪ Limited work to those facts which were determined solely through the methods of science

Empiricism and Associationism: Acquiring Knowledge Through Experience

  ▪ 2 kinds of propositions
    □ Sense
    □ Nonsense
  o Materialism
    ▪ Doctrine that considers the facts of the universe to be sufficiently explained by the existence and nature of matter
    □ Even human consciousness
  o Empiricism
    ▪ Pursuit of knowledge through the observation of nature and the attribution of knowledge to human experience

Empiricism and Associationism: Acquiring Knowledge Through Experience

  ▪ All knowledge comes through the senses
  ▪ Operational definition
    □ Centers on the notion that the concept being referred to must be, in principle, observable
  o Positivism, materialism, and empiricism became the philosophical foundations of the new science of psychology

Empiricism and Associationism: Acquiring Knowledge Through Experience

• John Locke (1632-1704)
  o Philosopher
  o Champion of liberalism in government
  o An Essay on Human Understanding (1690)
    ▪ Beginning of British empiricism
  o Concerned with how the mind acquires knowledge
  o Rejected the existence of innate ideas
    ▪ At birth, humans have no knowledge whatsoever
      □ Aristotle—tabula rasa
Empiricism and Associationism:
Acquiring Knowledge Through Experience

- **Sensation and perception**
  - There are two kinds of experience—one from sensation and one from perception
  - Ideas derived from sensations
    - Come from direct sensory input
    - Simple sense impressions
    - These impressions operate on the mind, but the mind also operates on them and forms ideas
    - Reflection is dependant upon sensation

Empiricism and Associationism:
Acquiring Knowledge Through Experience

- **Simple and complex ideas**
  - Simple idea
    - Elemental ideas that arise from sensation and reflection
  - Complex ideas
    - Derived ideas that are compounded simple ideas

- **Theory of Association**
  - Knowledge results from the linking or associating of simple ideas into complex ideas
  - Reduction of mental events into simple ideas or elements formed the core of the new psychology

Empiricism and Associationism:
Acquiring Knowledge Through Experience

- **Primary and secondary qualities**
  - Primary qualities
    - Characteristics such as shape and size that exist in an object whether or not we perceive them
  - Secondary qualities
    - Characteristics such as color and odor that exist in our perceptions of an object
  - Taken from Galileo
  - Agrees with mechanistic position
  - Locke recognized the subjectivity of much of human perception

Empiricism and Associationism:
Acquiring Knowledge Through Experience

- **George Berkeley (1685-1753)**
  - Philosopher
  - *An Essay Towards a New Theory of Vision* (1709)
  - *A Treatise Concerning the Principles of Human Knowledge* (1710)
  - Argued that perception is the only reality
No such thing as primary qualities; only secondary qualities

**Empiricism and Associationism:**

**Acquiring Knowledge Through Experience**

- Mentalism
  - Notion that all knowledge is a function of mental phenomena
- Perception is the only reality of which we can be sure
  - Cannot know with certainty the nature of physical objects in the experiential world
  - Object is the accumulation of sensations experienced concurrently so they become associated in our mind by habit
- No mental quality of which we can be sure
  - Take away the perception, the quality disappears

**Empiricism and Associationism:**

**Acquiring Knowledge Through Experience**

- Because all experience is within ourselves, we can never know precisely the physical nature of objects
- God is the only being with perfect perception

**Association of sensations**

- Knowledge is a construction of simple ideas or mental elements that are bound together by the mortar of association

**Empiricism and Associationism:**

**Acquiring Knowledge Through Experience**

- **David Hume (1711-1776)**
  - *A Treatise on Human Nature* (1739)
  - Supporter of Locke’s notion of compounding simple ideas into complex ideas
  - Agreed with Berkeley that the material world did not exist until it was perceived
  - Went a step further:
    - Argued that there is no way of knowing whether or not there was anything outside of our own minds

**Empiricism and Associationism:**

**Acquiring Knowledge Through Experience**

- **Impressions and ideas**
  - Impressions
    - Basic elements of mental life
  - Ideas
    - Mental experiences we have in the absence of any stimulating object
  - Impressions are strong and vivid while ideas are weak copies of impressions
  - Both may be simple or complex
    - Simple idea will resemble simple impression
    - Complex idea may not resemble any complex, or even simple impression
Empiricism and Associationism: Acquiring Knowledge Through Experience

- Two laws of association
  - Law of Resemblance
    - The more similar two ideas are, the more readily they will be associated
  - Law of Contiguity
    - The more closely linked two ideas are in time or place, the more likely they will be associated

Empiricism and Associationism: Acquiring Knowledge Through Experience

- David Hartley (1705-1757)
  - *Observations on Man, His Frame, His Duty, and His Expectations* (1749)
  - Association is made by contiguity and repetition
    - Ideas or sensations that occur together, either simultaneously or successively, become associated such that the occurrence of one leads to the occurrence of the other
    - Used to explain everything from memory to action

Empiricism and Associationism: Acquiring Knowledge Through Experience

- James Mill (1773-1836)
  - *Analysis of the Phenomena of the Human Mind* (1829)
  - The mind as machine
    - Applied concept of mechanism to the mind
    - Goal was to destroy the idea of subjective or psychic activities

Empiricism and Associationism: Acquiring Knowledge Through Experience

- John Stuart Mill (1806-1873)
  - Mental chemistry
• Argued against the mechanistic position
• Argued that the mind plays an active role in the association of ideas
• Complex ideas are not simply the summation of simple ideas through the process of association
  □ Complex ideas take on new qualities not found in simple elements

**Empiricism and Associationism:**
*Acquiring Knowledge Through Experience*

• Creative synthesis
  □ Notion that complex ideas formed from simple ideas take on new qualities; the combination of mental elements creates something greater than the sum of the original elements

**References**