

# Chapter Seven Functionalism: Development and Founding

PSY 495  
History and Systems  
Dr. Rick Grieve  
Western Kentucky University

---

---

---

---

---

---

---

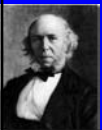
---

## Evolution Comes to America

### ● Background

- 1900: American psychology had taken on a life of its own
  - Functions of the mind
  - Individualism, inventiveness, and ingenuity

### ● Herbert Spencer (1820-1903)



- Kooky, but became a hero in America
- Social Darwinism
  - Evolution and natural selection apply to the social realm

---

---

---

---

---

---

---

---

## Evolution Comes to America

- Spencer argued that the development of all aspects of the universe follows evolutionary principles
  - Including human character and social institution
- “survival of the fittest”
  - Those who are best adapted will be those most likely to survive and pass traits on to future generations
  - Only the best will survive
  - Leave people and organizations alone to develop themselves and society in their own ways
    - Those which cannot adapt are unfit for survival and should be allowed to perish
    - This way, society could eventually achieve perfection

---

---

---

---

---

---

---

---

## Evolution Comes to America

### – Synthetic Philosophy

- Knowledge and experience can be explained in terms of evolutionary principles
- *Principles of Psychology* (1855)
  - Mind exists in its present form because of past and continuing efforts to adapt to various environments

---

---

---

---

---

---

---

---

## The Continuing Evolution of Machines



### • Henry Hollerith and the Punched Cards

- Hollerith was an engineer who developed punched cards
  - Improved the ability of machines to process data
- Radically altered info processing
- Renewed hopes (and fears) that machines in time would duplicate cognitive functioning



---

---

---

---

---

---

---

---

## William James



### • Paradoxical nature of William James

- His work was the major precursor to functionalism
- Pioneer of American psychology
- Also divisive force in psychology
  - Maintained an interest in mental telepathy, clairvoyance, spiritualism, communication with the dead at seances, and other mystical events
- Did not want to be known as a psychologist

---

---

---

---

---

---

---

---

## William James

### ● Principles of Psychology

#### – Methodological Assumptions

##### ● Unsystematic psychologist

- Psychology provisional
- Should not have a rigid methodological position during the infancy of a new science

#### – Subject Matter of Psychology

##### ● Science of the mind

##### ● Preconceptions of the mind

- Fundamental phenomena:
  - Feelings, desires, cognitions, reasoning, and decisions

---

---

---

---

---

---

---

---

## William James

- In observing these activities, psychologists must also identify the conditions under which they occur
- Also need to understand the functional value of mental activities

#### – Consciousness

- Stream of thought, consciousness, or of subjective life

#### – Methods of Investigation

##### ● Introspection

- Observation of one's own consciousness is the basic psychological principle

---

---

---

---

---

---

---

---

## William James

- Observers do not need to be trained to do introspection

##### ● Psychologist's fallacy:

- Confusing the psychologist's own standpoint with that of mental fact

##### ● Experimentation

- James acknowledged this was important
- Defined experimentation more broadly than Wundt
- Encouraged novel experimental methods
  - e.g., Thorndike

##### ● Comparative method

- Designed to supplement introspection by inferring mental activities in the minds of other species

---

---

---

---

---

---

---

---

## William James

- Did acknowledge problems with this method
- Pre-dated **introspection by analogy**
  - Probably is the root of this method

### - Criterion of Truth

- Argued that the same investigator could not observe the same mental event on different occasions
  - Because of stream of consciousness
- Introspective validity cannot be guaranteed
  - The only safeguard against introspective errors is the final consensus of our knowledge about the concept in question

---

---

---

---

---

---

---

---

## William James

- Conflict between admiration of natural science and involvement in philosophical issues
- Prediction and control are hallmarks of natural science
  - Sometimes equal
  - Sometimes not equal
- James emphasized control
- Truth becomes utility

### - Theory of Emotion

- James-Lange
  - Emotional experience depends upon awareness of bodily change

---

---

---

---

---

---

---

---

## William James

### - Habit

- Plays a central role in psychology
- Need to observe public behavior
- Psychology as a biological science
  - Habits are the result of the “plasticity of the organic materials of which their bodies are composed”
    - Neurophysiological mechanisms
    - Paths through the nervous system which become easier to traverse with practice
- Functional value of habits
  - Simplify movements required to reach a given result

---

---

---

---

---

---

---

---

## William James

- Makes movements more accurate
- Diminishes fear
- Decrease the conscious attention necessary to perform the acts
- Undesirable qualities
  - Habitual errors at a task can detract from developing a high level of skill
- Habits keep society stable
- Laws of habit for personal use:
  - "We must make automatic and habitual, as early as possible, as many useful actions as we can, and guard against growing into ways that are likely to be disadvantageous to us, as we should guard against the plague."

---

---

---

---

---

---

---

---

## William James

- "Never suffer an exception to occur till the new habit is securely rooted in your life"
- Seize the very first possible opportunity to act on every resolution you make, and on every emotional prompting you may experience in the direction of habits you aspire to gain."
- "Keep the faculty of effort alive in you by a little gratuitous exercise every day."
- The Self
  - Recognized the psychological importance of our view of ourselves
  - Self is not a single entity

---

---

---

---

---

---

---

---

## William James

- Analysis was directed at identifying the components of the self and specifying their psychological implications
- Major distinction was between *I* and *me*
  - Me = self as known; object of self-observation and self-evaluation; has a number of components
  - I = obscuring agent; self as knower
  - I is conscious of me
  - Me changes when we change roles
  - I is constant throughout life
- Different me's could be the source of conflict
- Feeling of success/failure determined by one's view of oneself

---

---

---

---

---

---

---

---

## William James

- Self-esteem is a function of success and aspirations
  - self-esteem = success/aspirations
- **Attention and Will**
  - **Attention**
    - Narrowness of consciousness
  - **Will**
    - State of mind which includes the determination to act
  - Both work together to guide behavior

---

---

---

---

---

---

---

---

## Functional Inequality of Women

- **Women were not allowed into universities to study**
  - 1830s: women generally admitted into the universities themselves
    - This was because of the natural intellectual superiority of men
      - Or so it was believed at the time

---

---

---

---

---

---

---

---

## Functional Inequality of Women

- **Variability hypothesis**
  - Men show a wider range and variation of physical and mental development than women
    - Women's abilities cluster more around the average
  - Because of this tendency toward average, women would be less likely to benefit from education and to achieve in intellectual or scholarly work
  - Plus, women's brains weren't as well developed as men's

---

---

---

---

---

---

---

---

## Functional Inequality of Women

- If women were exposed to education beyond basic schooling, they would suffer physical and emotional damage
- Also would endanger biological imperative, disrupt menstrual cycle, and weaken mothering instinct

- **Mary Whiton Calkins (1863-1930)**

- Developed the paired-association technique used in the study of memory



---

---

---

---

---

---

---

---

## Functional Inequality of Women

- First woman president of APA

- **Helen Bradford Thompson Woolley (1874-1947)**

- Research on child labor
- Established nursery school program to study children
- Experimentally examined the variability hypothesis



---

---

---

---

---

---

---

---

## Functional Inequality of Women

- **Leta Stetter Hollingsworth (1886-1939)**

- Researched variability hypothesis
  - Refuted it
- Challenged mothering instinct
- Dismissed the idea that it was abnormal for women to try to achieve
- Worked with children
  - Gifted kids



---

---

---

---

---

---

---

---

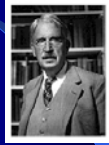
## Founding of Functionalism

- Titchener's influence

- The Chicago School

- John Dewey (1859-1952)

- *Psychology* (1866)
- Established laboratory
- Applied psychology to educational and philosophical problems
- The Reflex Arc
  - *Psychological Review* (1896)
  - First salvo in the functionalist movement



---

---

---

---

---

---

---

---

## Founding of Functionalism

- Attacked psychological molecularism, elementism, and reductionism in the reflex arc
- Argued that neither behavior nor conscious experience could be reduced
- Rather than behavior ending with the completion of the end of the response, that reflex forms more of a circle
- Behavior in a reflexive response cannot be meaningfully reduced to basic sensorimotor elements
- Behavior should be treated in terms of its significance in helping the organism adapt to its environment

---

---

---

---

---

---

---

---

## Founding of Functionalism

- Epistemology

- Goal of psychology is to develop effective methods to solve life's problems
- True statement must be objective and socially determined
  - Concerned with social values
  - Social principles are pragmatically justified when they are valuable and when they serve practical needs of society
- Theories should gradually be developed by careful monitoring of interactions between hypotheses and data

---

---

---

---

---

---

---

---



## Founding of Functionalism

- Methodology

- Investigated psychological phenomena without being concerned about what was “proper”

- James Rowland Angell (1869-1949)



- The Province of Functional Psychology

- Function of consciousness is to improve organism's adaptive abilities
  - Goal of psychology is to study how the mind assists the organism in adjusting to environment

- Ontology

- Mental operations

---

---

---

---

---

---

---

---

## Founding of Functionalism

- Fundamental utilities of consciousness

- Consciousness serves as a mediator between the needs of the organism and the demands of the environment
  - Because consciousness has survived, it must perform some essential service for the organism
  - Utility of consciousness was intimately tied to adjustive behavior

- Psychophysical relations

- Methodology

- introspection

---

---

---

---

---

---

---

---

## Founding of Functionalism

- Harvey A. Carr (1873-1954)



- The final form of functionalism

- Ontology

- Mental activities

- Function of these mental activities is to acquire, fixate, retain, organize, and evaluate experiences and to use these experiences to determine actions
    - Mental act is concerned with the manipulation of experience as a means to adjust to the world
    - Every mental act can be studied from 3 perspectives

---

---

---

---

---

---

---

---

## Founding of Functionalism

- An adaptive act is essentially a successful mental act
  - Those mental acts that lead to adaptive consequences will persist; those that do not will be abandoned
- 6 basic factors of an adaptive act
  - Motive
  - Motivating stimulus
  - Sensory situation
  - Response
  - Incentive
  - association

---

---

---

---

---

---

---

---

## Founding of Functionalism

- Emergency theory of psychology
  - Adaptive acts occur at two levels of consciousness
  - Automatic and unconscious (involuntary)
  - Cognitive and conscious (voluntary)
- Epistemology
  - Theories are instruments of research
  - Perception of meaning is an associative process
    - Meaning depends on “indirect and partial arousal of some previous experiences associated with the event or object”

---

---

---

---

---

---

---

---

## Founding of Functionalism

- Methodology
  - Moved away from introspection
  - Only behavioral data can meet the standards of objective evidence
  - Used both kinds of data
  - Number of research methods
  - Literary and artistic works of a culture could provide information on mental activities that produced them

---

---

---

---

---

---

---

---

## Founding of Functionalism

### ● Functionalism at Columbia

– Robert Sessions Woodworth (1869-1962)



- Didn't consider himself a functionalist
- Dynamic Psychology
  - Psychological knowledge must begin with an investigation of the stimulus and response
  - If psychologists study only stimulus and response they ignore the most important part of the equation—the organism
  - Stimulus is not the total cause of the response

---

---

---

---

---

---

---

---

## Founding of Functionalism

- Organism is interposed between the stimulus and the response
- Stimulus and response can be objectively evaluated
- What occurs inside the organism can be known only through introspection
- Concern of Dynamic Psychology is motivation

---

---

---

---

---

---

---

---

## References

- Kendler, H. H. (1987). *Historical foundations of modern psychology*. Pacific Grove, CA: Brooks/Cole.
- Schultz, D. P., & Schultz, S. E. (1996). *A history of modern psychology* (6<sup>th</sup> edition). Ft. Worth, TX: Harcourt Brace Publishers.
- Schultz, D. P., & Schultz, S. E. (2004). *A history of modern psychology* (8<sup>th</sup> edition). Ft. Worth, TX: Harcourt Brace Publishers.

---

---

---

---

---

---

---

---