

# Hergenhahn's An Introduction to the History of Psychology

## Eighth Edition

EIGHTH EDITION

HERGENHAHN'S  
An Introduction to the  
History of Psychology



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## Chapter 12

### Behaviorism

# Learning Objectives (1 of 2)

After reading and discussing Chapter 12, students should:

- Be acquainted with the zeitgeist of views that preceded the advent of behaviorism.
- Be familiar with the objective research developed in Russia.
- Know of Watson's work leading to the development of behavioristic psychology and understand the principles of behaviorism and its implications.

# Learning Objectives (2 of 2)

- Be familiar with McDougall's view of psychology, purposive behavior, and instincts.
- Be familiar with the contrasting views of Watson and McDougall in the battle of behaviorism.

# Russian Objective Psychology (1 of 11)

- Ivan Sechenov
  - Sechenov sought to explain all psychic phenomena on the basis of associationism and materialism
    - Thoughts do not cause behavior.
    - Both internal behavior (mental processes) and external behavior are reflexive in that they are triggered by external stimulation.
  - Inhibition: inhibitory mechanisms in the brain
    - All behavior is reflexive
    - Saw human development as the slow establishment of inhibitory control over reflexive behavior

# Russian Objective Psychology (2 of 11)

- The only valid approach to the study of psychology involved the objective methods of physiology.
- Ivan Pavlov
  - Won the Nobel Prize in 1904 for his work in physiology.
  - During his work on the physiology of the digestive system Pavlov discovered the conditioned reflex.
    - Noted that objects or events associated with presentation of food also produced gastric secretions.
      - Referred to these as “conditional” because they depended on something else.
        - An early translation of his work mistranslated conditional as conditioned.

# Russian Objective Psychology (3 of 11)

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  - Noted that objects or events associated with presentation of food also produced gastric secretions.
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# Russian Objective Psychology (4 of 11)

- Developed classical (Pavlovian) conditioning
  - In classical conditioning:
    - An unconditioned response, (innate unconditioned reflex) is triggered by an unconditioned stimulus (a stimulus which naturally elicits the unconditioned response out of the organism).
      - For example, food elicits salivation out of an organism.
    - The conditioned reflex (conditioned response) is developed by the laws of contiguity and frequency.

# Russian Objective Psychology (5 of 11)

- A biologically neutral stimulus (a stimulus that does not elicit a specific response, a response similar to the unconditioned response, out of the organism) is associated, through contiguity, with the unconditioned stimulus and develops the capacity to elicit some fraction of the unconditioned response
  - At this point, the neutral stimulus has become the conditioned stimulus and the response to the conditioned stimulus is the conditioned response.
- For example, a dog salivating to the sight of person bringing food is an example of classical conditioning and the salivation is the conditioned response.



# Russian Objective Psychology (6 of 11)

- All central nervous system activity can be characterized as either excitation or inhibition. The pattern of excitation and inhibition that characterizes the brain at any given moment is what Pavlov called the cortical mosaic.
- Extinction and Spontaneous Recovery
  - Extinction
    - If a conditioned stimulus is no longer followed by the unconditioned stimulus, then extinction of the response will occur.

# Russian Objective Psychology (7 of 11)

- Spontaneous Recovery
  - If a period of time elapses between extinction and the presentation of the conditioned stimulus again, the conditioned response will be observed
    - This is called spontaneous recovery.
- Experimental neurosis
  - Occurs when excitatory and inhibitory tendencies are brought into conflict.

# Russian Objective Psychology (8 of 11)

## – Signal Systems

- First-signal system or “the first signals of reality.”
  - Stimuli (conditioned stimuli) that come to signal biologically significant events
- Second-signal system or “signals of signals”
  - Humans learn to respond to symbols of physical events (use of language, words are symbols referring to events).
- Pavlov had a low opinion of psychology. He thought the study of consciousness should be studied using scientifically based methods.

# Russian Objective Psychology (9 of 11)

- He believed that by showing the physiological underpinnings of association, he had put associationism on an objective footing and that speculation about how ideas become associated with each other could finally end.
- Vladimir Bechterev
  - Argued for an objective psychology
    - Almost exclusively concentrated on relationships between environmental stimulation and behavior.

# Russian Objective Psychology (10 of 11)

- In later publications he argued for a discipline of reflexology
  - A strictly objective study of human behavior that seeks to understand the relationship between environmental influences and overt behavior.
  - Bechterev's concentration on the overt behavior of organisms was actually more relevant to U.S. behaviorism than was Pavlov's research on secretions.
- What Pavlov called a conditioned reflex, Bechterev called an association reflex.
- Bechterev was actually quite critical of Pavlov.

# Russian Objective Psychology (11 of 11)

- Alexander Romanovich Luria and Lev Semyonovich Vygotsky
  - Luria— traumatic brain injury, and memory.
  - Vygotsky—Child cognitive development and higher mental processes such as thought and language.

# John B. Watson and Behaviorism (1 of 10)

- Influenced by Jacques Loeb
  - Influenced Watson with his work on tropism
    - Shows that the behavior of simple organisms could be explained as being automatically elicited by stimuli
      - There are no mental events involved in tropistic behavior.
- Influenced by his early research with rats running in mazes
  - Early research with rats running in mazes helped him formulate some of his later ideas regarding a purely objective science of psychology.

# John B. Watson and Behaviorism (2 of 10)

- Early in his career (1908) he publicly announced his behavioristic views
  - His behavioristic views were severely criticized
    - He withdrew and fell silent temporarily
  - In 1913, he presented his famous lecture “Psychology as a behaviorist views it,” the “Behaviorist Manifesto,” within which he lays out the basic tenets of behaviorism. They are:
    - Psychology is a purely objective experimental branch of natural science.



# John B. Watson and Behaviorism (3 of 10)

- Its theoretical goal is the prediction and control of behavior.
- Introspection forms no essential part of its method.
- The behaviorist, in his efforts to get a unitary scheme of animal response, recognizes no dividing line between man and brute
- Early in his career (1908) he publicly announced his behavioristic views
  - The reaction was, for the most part, critical and immediate.
    - This served the purpose to just make him more adamant and radical in his views.

# John B. Watson and Behaviorism (4 of 10)

- Watson forced to resign
  - Watson was forced to resign from Johns Hopkins University after a scandal
  - He then entered into advertising where he made a substantial amount of money.

# John B. Watson and Behaviorism (5 of 10)

- Watson's objective psychology
  - Goal was the prediction and control of behavior.
  - Four types of behavior
    - Explicit (overt) learned behavior
      - talking, writing, etc.
    - Implicit (covert) learned behavior
      - increased heart rate caused by a feared stimulus
    - Explicit unlearned behavior
      - grasping, blinking, sneezing, etc.
    - Implicit learned behavior
      - glandular secretions

# John B. Watson and Behaviorism (6 of 10)

- Four methods of research
  - Observation, naturalistic or controlled
  - Conditioned-reflex method, proposed by Pavlov and Bechterev
  - Testing, meant taking samples of behavior and not measurement of “capacity” or “personality”
  - Verbal reports, which were treated as any other type of overt behavior.
- Language and thinking were a form of behavior.
  - Speech was simply a form of overt behavior, while thinking was a form of implicit or subvocal speech.

# John B. Watson and Behaviorism (7 of 10)

- There were a few simple reflexes, but no complex innate behavior patterns in humans
  - Our experience is what makes us who we are—radical environmentalism.
- Proposed that, along with a few basic reflexes, humans inherit the emotions of fear, rage, and love.
  - Through learning, emotions come to be elicited by many stimuli, not just the stimuli that naturally elicit them.
  - In addition, all other emotions are derived from these three.

# John B. Watson and Behaviorism (8 of 10)

- The research with infants (Little Albert) exemplified the conditioning (learning) of emotional responses in humans and the counterconditioning of those emotions.
  - One of the first examples of behavior therapy.
- Proposed that children should be raised in an objective manner
  - Few displays of affection.
  - They are to be treated as adults.
  - Watson also believed that children should receive sex education.

# John B. Watson and Behaviorism (9 of 10)

- Learning was one of contiguity and frequency
  - Events are associated in time, which produces conditioning of behavior to occur.
    - Law of recency
- Adopted a physical monism position
  - Eventually switched to a physical monism position regarding the mind-body problem, rejecting the existence of mental events (consciousness) altogether.

# John B. Watson and Behaviorism (10 of 10)

- Behaviorism had two long-lasting effects
  - Psychology's main goal changed from description and explanation of states of consciousness to the prediction and control of behavior.
  - Overt behavior was the almost-exclusive subject matter of psychology.



# William McDougall: Another Type of Behaviorism (1 of 5)

- Defined psychology as the science of behavior
  - Differed from Watson in that he did not disregard mental events as unimportant
  - Mental events could be studied objectively by observing their influence on behavior.

# William McDougall: Another Type of Behaviorism (2 of 5)

- Behavior is goal-directed and stimulated by some instinctual motive
  - Saw behavior as goal-directed and stimulated by some instinctual motive rather than by environmental events.
    - Ignoring the purposive nature of behavior is missing its most important aspect.

# William McDougall: Another Type of Behaviorism (3 of 5)

- Believed that all behavior is stimulated by instinctual energy
  - All behavior is stimulated by instinctual energy and humans are born with a number of instincts that provides motivation to act in certain ways.
  - Three components to instincts:
    - Perception
    - Behavior
    - Emotion

# William McDougall: Another Type of Behaviorism (4 of 5)

- Single event or thought tends to elicit several instinctual tendencies
  - A single environmental event or a single thought tends to elicit several instinctual tendencies.
  - When two or more instincts become associated with a single object or thought, a sentiment is said to exist.
  - Most human social behavior is governed by sentiments.

# William McDougall: Another Type of Behaviorism (5 of 5)

- Battle of Behaviorism
  - McDougall: instincts are the motivators of all animal (and human) behavior
  - Watson: instincts do not exist on the human level
- Zing Yang Kuo
  - Worked with kittens to show that rat killing was not instinctual, but based on life history