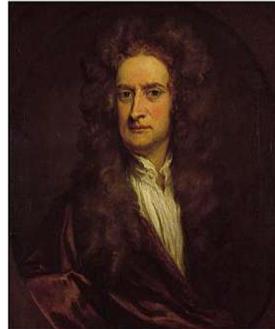


## Behaviorism & Health



*Now he fears even Santa Claus*

## Historical Context



- Empiricism
  - Philosophy
    - Logical Positivism
  - Newtonian Physics
  - Biology
    - Animal Behavior

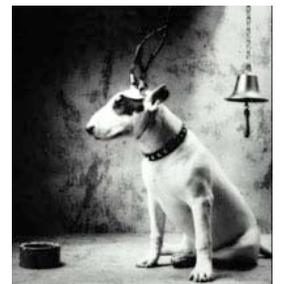
## Ivan Pavlov (1849-1936)

- By offering food with a bell, he *conditioned* dogs to salivate to the sound of the bell
- They also salivated in response to similar sounds (*Generalization*)
- *Extinction* occurred when he stopped feeding the dog and only rang the bell
- After a day or two, the salivation response returned with only the bell as a stimulus (*Spontaneous Recovery*)



## Ivan Pavlov (1849-1936)

- Classical conditioning explains most if not all learning that involves reflexes (autonomously determined behaviors)
- This includes phobias and sexual deviancies - and paves the way for behavioral therapy



## Behavioral Determinism

- “Give me a dozen healthy infants, well-formed, and my own specified world to bring them up and I’ll guarantee to take any one at random and train him to become any type of specialist I might select—doctor, lawyer, merchant-chief, and yes, even beggar man and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors.” (1930 John B. Watson)

## Basic Premises

- Psychology is the science of behavior
  - Not the science of mind
- Behavior can be explained without:
  - Reference to mental events
  - Reference to internal psychological processes
- The sources of behavior lie in the environment
  - Not in the mind

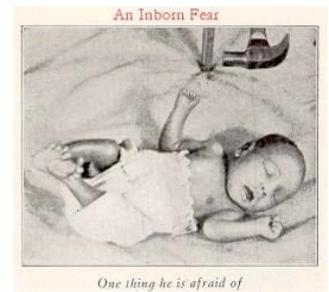
## Basic Premises



- Personality is a set of abilities or skills
- Genetically determined
- Learned through reinforcement

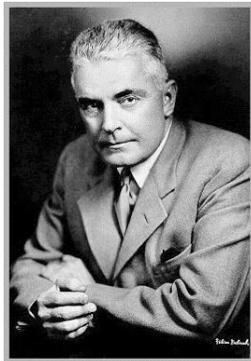
## The Famous Albert Experiment

- Watson and Rayner (1920)
- Create a conditioned fear of an animal by pairing its presence with the striking of a steel bar



## John B. Watson

- Eventually lost his academic position because of a scandalous affair with his assistant
- Went on to become a pioneer in the application of psychology to modern advertising



## B. F. Skinner (1904-1990)

- Went beyond the study of reflexive behavior to the study of voluntary behavior
- Individual acts on the environment and receives a reward - that behavior is now *reinforced* (operantly conditioned)
- Optimum time between response and reinforcement is 0.5 seconds



## Operant Conditioning

- Strongly tied to natural selection
- Behavior is strengthened by consequences (reinforcements)
- Positive Reinforcement
  - Operates through survival value, NOT pleasure
- Negative Reinforcement
- Punishment

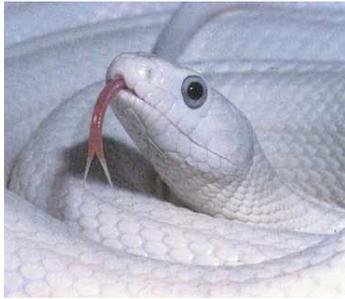
## Reinforcements

- Positive Reinforcement: *Increases* behavior by supplying anything that is pleasant
- Negative Reinforcement: *Increases* behavior by avoiding something that is unpleasant
- Punishment *Decreases* behavior by introducing anything that is unpleasant



## Behavior Therapy

- What a person does is more reliable information than what they say
- Insight, if it occurs, *follows* behavior, not the other way around



## Application of Behaviorism

- Functional Analysis
- Exact observation of stimulus, behavior, and consequences (reinforcement)
- Behavior can be changed by
  - Identifying and changing stimuli
  - Identifying and changing reinforcements



## Behavioral Therapy

- Desensitization: break the bond between stimulus and response by helping the person relax in the presence of the stimulus
- Treatment for phobias
- Wolpe & Lazarus (1950's)



## Behavioral Therapy

- Aversion Therapy
- Used to stop habitual behaviors like alcoholism or smoking
- Example: Using Antabuse to cause flushing and nausea when a person drinks alcohol



## Behaviorism Strengths

- Insight not required for change
- Effective treatments
- Treatments can be time-efficient
- Broad array of techniques: adaptable



## Behaviorism Weaknesses

- Poorly defined constructs
- Dehumanizing in some applications
- Ignores potential for human growth
- Strong focus on genetics
- Doesn't explain common human events
  - Altruism
  - Collective behavior

## The Cognitive Movement

- A reaction to, and expansion of, behavioral psychology
- Cognition is: “the processes by which the sensory input is transformed, reduced, elaborated, stored, recovered, and used...cognition is involved in everything a human being might possibly do.”
  - Ulric Neisser 1967

## Social Learning Theory

- Julian Rotter: Behavior is influenced by consequences *AND* the expectation of consequences
- Albert Bandura: Behavior occurs in the absence of direct reinforcements - it can occur as a result of observing others receive them.

## Rational Restructuring

- Albert Ellis 1962
- Rational-emotive therapy
- Response to behaviorism
- Change behavior by changing thoughts
- Identify irrational beliefs and challenge them



## Ellis' Irrational Thoughts

- You must be loved all the time by everyone
- You must be thoroughly competent
- Anyone who harms you is evil and should be punished
- Life is a catastrophe when you don't get what you want
- Misery is imposed on you by the world
- You must focus on the danger of life

## Ellis' Irrational Thoughts

- It's easier to ignore stress than to deal with it
- Past experience can never be released or forgotten
- Life should be easier than it is
- Happiness is a matter of passive surrender
- Supernatural powers and extreme order make the world livable
- I'm only as good as people think I am and the amount of approval I can gain from others

## Cognitive Model

- Beck, 1964
- Emotions and Behaviors determined by *Perception* of Events
- *Not* by the objective reality of events
- Thoughts lead to emotions
  - Many thoughts are automatic
  - They can lead to powerful emotions



## Cognitive Model

- Core Beliefs
  - Formed in childhood
    - Often unconscious
  - Can be latent or always operating
    - Triggering events
  - Rigid , Global, Overgeneralized
  - Lead to Automatic Thoughts



## Cognitive Model

- Intermediate Beliefs
  - Rules
    - I must work as hard as I can all the time
  - Attitudes
    - It's terrible to be incompetent
  - Assumptions
    - If I work as hard as I can, I may be able to do some things that other people can do easily

## Core Beliefs

Intermediate Beliefs  
Rules, Attitudes, Assumptions

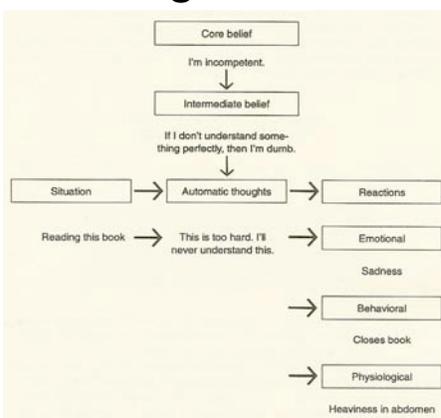
Automatic Thoughts

## Origins of Belief

- Need to organize experience
- Immature understanding of the world
  - Childhood
  - Leads to misinterpretation of events
- Impact of parental reactions



## The Cognitive Model



## Cognitive Therapy

- Recognize links between behavior, emotion, and thoughts
- Expose automatic thoughts
- Uncover beliefs lying beneath automatic thoughts
- Challenge irrational beliefs
  - Longer lasting results if core beliefs are corrected

# Cognitive-Behavioral Psychology

- The basis for most health psychology interventions
- CBT widely recognized as effective approach for a variety of mental problems including PTSD, other anxiety disorders and depression

