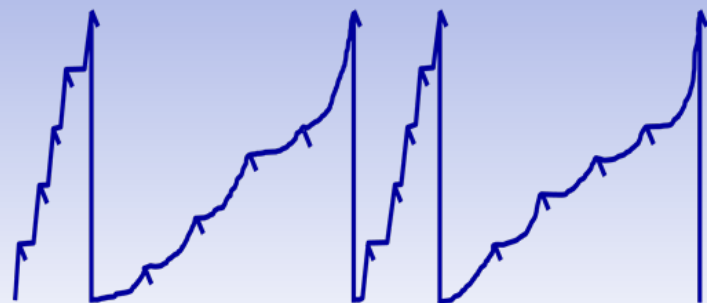


# Behavior Analysis: *A Science of Behavior*

DIVISION **25**

BEHAVIOR ANALYSIS



# Behavior Analysis: A Science of Behavior

- What is *Behavior Analysis*?
  - **Behavior** = Anything you do!
    - Breathing, walking, thinking, drawing, playing sports, texting
  - **Analysis** = Scientific demonstration of cause-effect relationships (IF – THEN)
    - Look for changes in one event resulting from changes in another event
  - **Behavior + Analysis** = The scientific demonstration of events that cause behavior (why you do what you do!)



# The Behavior Analytic Approach

- Behavior Analysis studies the behavior of all animals, from rats to dogs to humans, using the same principles
- The focus is on the interaction between behavior and environment
- Psychology's Question: "Why do people do the things they do?"
  - How Behavior Analysis asks that question
    - "How do our surroundings influence what we do and how does what we do change our surroundings?"
  - How Behavior Analysis answers that question
    - "By measuring what we do (**behavior**) and what is happening when we do it (**environment**)!"



# What Behavior Analysis Studies

- Experimental Analysis of Behavior (EAB)
  - Identifies principles of behavior using highly controlled studies
    - Animal Behavior
    - Human Behavior



- Applied Behavior Analysis (ABA)
  - Applies principles to important areas of society
    - Aging
    - Animal training
    - Autism/Developmental disabilities
    - Business/Organizations
    - Community health and development
    - Counseling/Therapy
    - Drug abuse
    - Education
    - Sports/Fitness



# History

- Ivan Pavlov demonstrated that dogs can be conditioned to salivate at the sound of a bell.
- John B. Watson demonstrated that children's emotions can be conditioned by experiencing aversive consequences. Watson also advocated that a science of behavior should focus on what people DO, *not* what is happening in their minds.
- Edward Thorndike demonstrated that valuable consequences increase the future likelihood of the behavior that resulted in that consequence.



# History



- The work of B. F. Skinner and other basic non-human researchers in the 1940s and 1950s helped scientists understand how consequences (reinforcement) control behavior. This started the field of “behavior analysis.”

- In the 1960s, behavior analysis began to be applied to human problems.



Monkey preparing for space flight.

- From the 1970s to the present day, behavior analysis has become recognized as an empirically supported approach to improving the lives of humans, as well as understanding fundamental principles of both human and nonhuman behavior.



# Main Concepts

- Behavior is lawful
  - When put in the same situation repeatedly, people and animals tend to behave in similar ways to how they behaved before
- Individual differences matter
  - Even though behavior is lawful, people (and animals) tend to be different from each other. It is useful to look at behavior for each individual to help determine why they behave as they do

# A-B-Cs of Behavior Analysis

**A** = Antecedent

- An event that comes before a behavior

**B** = Behavior

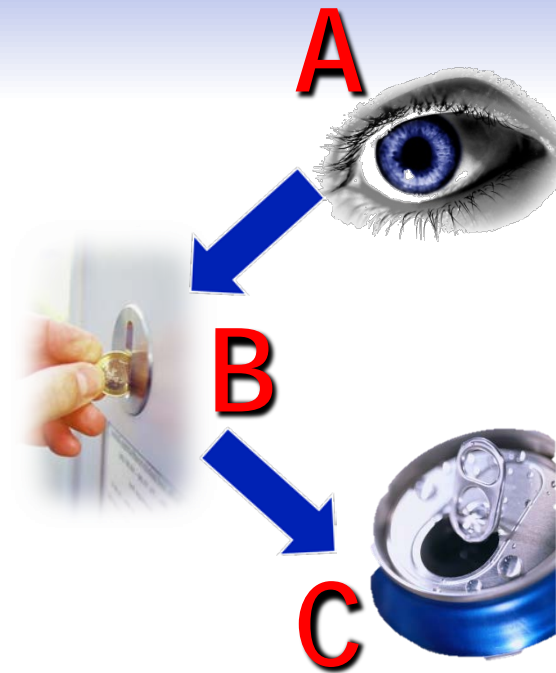
**C** = Consequence

- An event (good or bad) that follows a behavior

The three-term contingency (A-B-C) is a useful way to look at why behavior happens

- Example: When you're thirsty...

You see the vending machine (A), you put your money in and push the button of the drink you like (B), and then the vending machine produces the drink (C)





# Main Theories

- Reinforcement
  - A behavior is more likely to happen when a valued consequence follows that behavior
  - Example: *If using flash cards to study results in you earning a better grade, then you will be more likely to use flash cards again in the future.*
- Stimulus Control
  - A behavior is more likely to happen in situations where it previously resulted in reinforcement
  - Example: *You learn to shop at a particular store because you often find things you like there.*
- Motivating Operations
  - Conditions that make reinforcement more or less valuable and change the likelihood of a behavior happening
  - Example: *When you haven't eaten in a while, you are more likely to go to the refrigerator to look for food*

# Some common misconceptions

- Does Behavior Analysis disregard biology?
  - No! Genetics and biology play a huge role in how we interact with our environment.
- Does Behavior Analysis deny that we have thoughts and feelings?
  - No! Thoughts and feelings are just behaviors that occur within the skin/brain. And because they are behaviors, behavior analysts view them as being influenced by the environment.



# Behavior Analysis: Present & Future

- The U.S. Surgeon General has stated that behavior analysis is the best treatment for autism
- Behavior analysts can become certified and, in some states, licensed professionals
- The number of employment opportunities continue to rise for behavior analysts, despite economic downturns
- Behavior analysis continues to advance in areas related to psychopathology, education, genetics, medicine, and physical and developmental disabilities

# Careers in Behavior Analysis

- *Clients include anyone who engages in behavior!*  
(Kids, adults, athletes, pets, animals, workers, teachers, etc.)
- Private practice consultation
  - To families, school districts, agencies, and Fortune 500 companies
  - Clinical psychology & interventions
  - School psychology and education
- Behavioral safety, health, and nutrition
- Pet therapy and animal training
- Research (basic, translational, and applied)
- Academia (professor)



# Conclusion

- The job market for behavior analysts has never been better
- Students can earn certification at the bachelor's, master's, and doctoral level
- Many exciting training and professional opportunities for behavior analysts exist
- The science of behavior is not only interesting, it also improves the lives of others!



# Resources



Association for Behavior Analysis International<sup>®</sup> (ABAI); Group  
The Journal of Applied Behavior Analysis (JABA); Product/Service  
Journal of the Experimental Analysis of Behavior; Local Business



## On the web...

Journals: [www.jeabjaba.org](http://www.jeabjaba.org)

Division 25 (Behavior Analysis) of the APA: [http://www.auburn.edu/~newlamc/apa\\_div25/](http://www.auburn.edu/~newlamc/apa_div25/)

Behavior Analyst Certification Board: [www.bacb.com](http://www.bacb.com)

Association for Professional Behavior Analyst: [www.apbahome.net](http://www.apbahome.net)