# THE LEARNING APPROACH

Introduction



#### **Main Assumptions**

Begin life as a blank slate (tabula rasa)

2. Interactions with the environment shape behavior

3. We learn through operant conditioning, classical conditioning, social learning





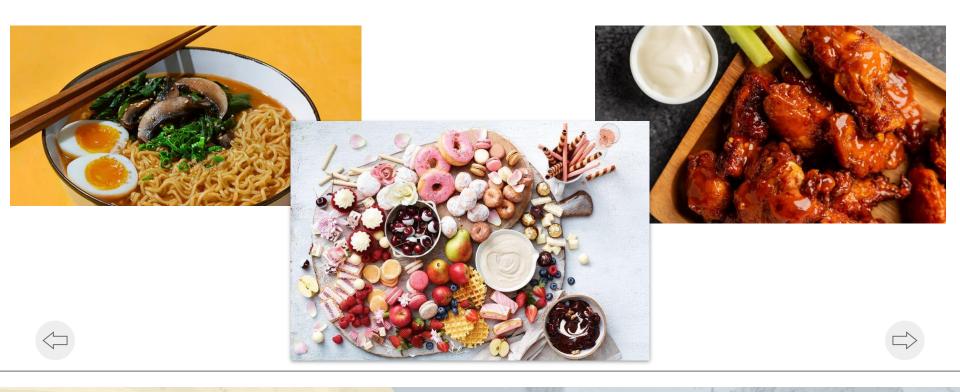
# Learning?

Relatively permanent changes in behavior based on environmental stimuli

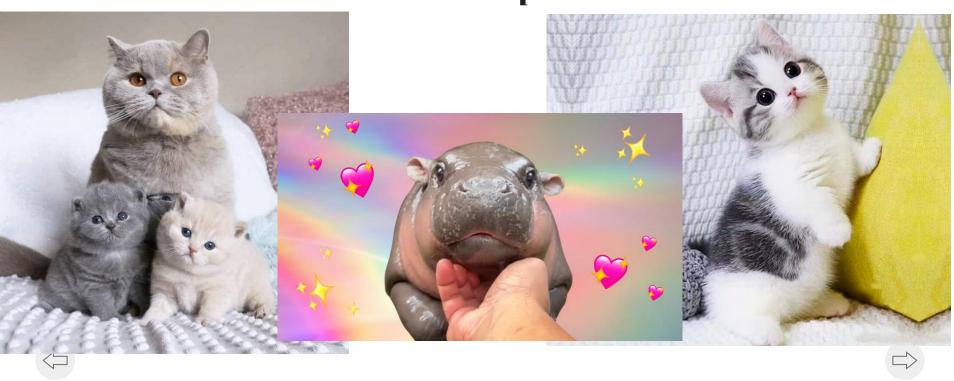




### The Stimulus-Response model



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#### The Stimulus-Response model

• Stimulus: change in environment that is sensed by five senses

Often elicits a behavioral response

Some responses are involuntary responses





## Theories of Learning

Classical
Conditioning
Ivan Pavlov

Operant
Conditioning
B. F. Skinner

Social Learning Albert Bandura



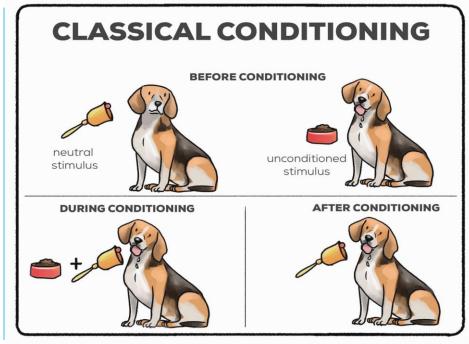


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# Classical Conditioning

Pavlov and his Dog

Biologically potent stimulus (food) is paired with a neutral stimulus (bell) to cause reflexive response (salivate) without the former (food) being present



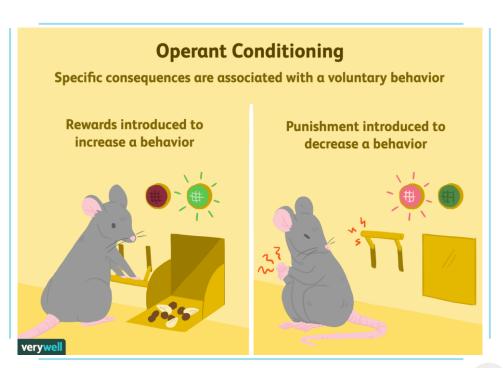




# Operant Conditioning

**B.F. Skinner** 

When organisms perform a certain behavior, it is what happens immediately afterwards that determines whether that behavior becomes more or less likely to occur again in the future







## **Terminology**

Positive reinforcement: addition of positive stimulus to reward a wanted behavior

Negative reinforcement: removal of an aversion or unpleasant stimulus

Primary reinforcer: rewards that meet basic need

Secondary reinforcer\*: something that does not meet a need, but is associated with a need





#### Distinction Between Positive and Negative Reinforcement

- •Positive reinforcement: A stimulus appears after a response, making it more likely to recur (e.g., food, money, praise)
  - •A student studies hard  $\rightarrow$  receives praise or a good grade  $\rightarrow$  more likely to study again.
  - •A child cleans their room  $\rightarrow$  gets a piece of candy  $\rightarrow$  more likely to clean again.
  - •An employee finishes a project early  $\rightarrow$  boss gives a bonus  $\rightarrow$  employee works hard again.





- •Negative reinforcement: A stimulus is removed after a response, also making the response more likely (e.g., escaping shocks, loud noises, or scolding).
  - •You take a painkiller  $\rightarrow$  it removes a headache  $\rightarrow$  you're more likely to take it next time.
  - •A driver fastens their seatbelt  $\rightarrow$  the annoying car beeping stops  $\rightarrow$  they wear the seatbelt regularly.
  - •A student studies in advance  $\rightarrow$  avoids the stress of last-minute cramming  $\rightarrow$  studies early next time too.



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## Social Learning

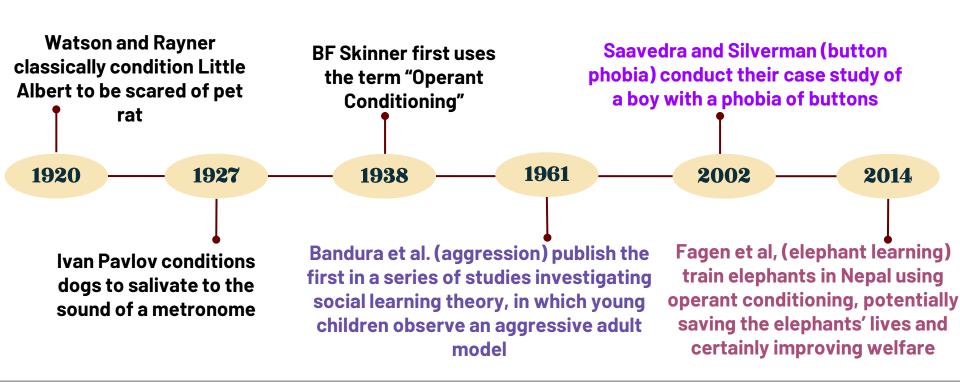
Bandura et al.

Examined how children learn aggressive behavior through the process of social learning. Much of our behavior is learned via observation and the imitation, especially through models children identify with





### Timeline of the Learning Approach



# Methodology in Learning Approach

- Mental events cannot be studied empirically
- Focused entirely on observable behavior
- Most experiments involved animals
  - → Their environment could be strictly controlled
- Qualitative and quantitative data collected in experiments





### Types of Data

#### **QUALITATIVE DATA**

 Interpretation-based, descriptive, and relating to language

Watson and Rayner (1920) collected qualitative data in the form of **observational notes** that were made about how Albert responded to various stimuli, including wooden blocks, a burning newspaper and a fur coat

#### **QUANTITATIVE DATA**

Numbers-based, countable, or measurable

Pavlov (1927) counted the **number of droplets of saliva** produced in
response to the metronome
(measurements were precise as he
collected the saliva in a tube inserted
through the dog's cheek

