

# LEARNING THEORIES APPLICATION IN PSYCHIATRY

BY

## Dr. KARRI RAMA REDDY

*MBBS, MD, PhD, MBA, MCA, MTech, LLM, LLM, LLM, LLM, LLM, MEd, MJ, MA, MA, MS,  
MLISc, MSW, DFE, DCE, DFM, CCY, YIC, FIPS, MAPA, FIASP*

FORMER PROFESSOR OF PSYCHIATRY  
DIRECTOR & PSYCHIATRIST

MANASA HOSPITAL

RAJAMAHENDRAVARAM (A. P.)





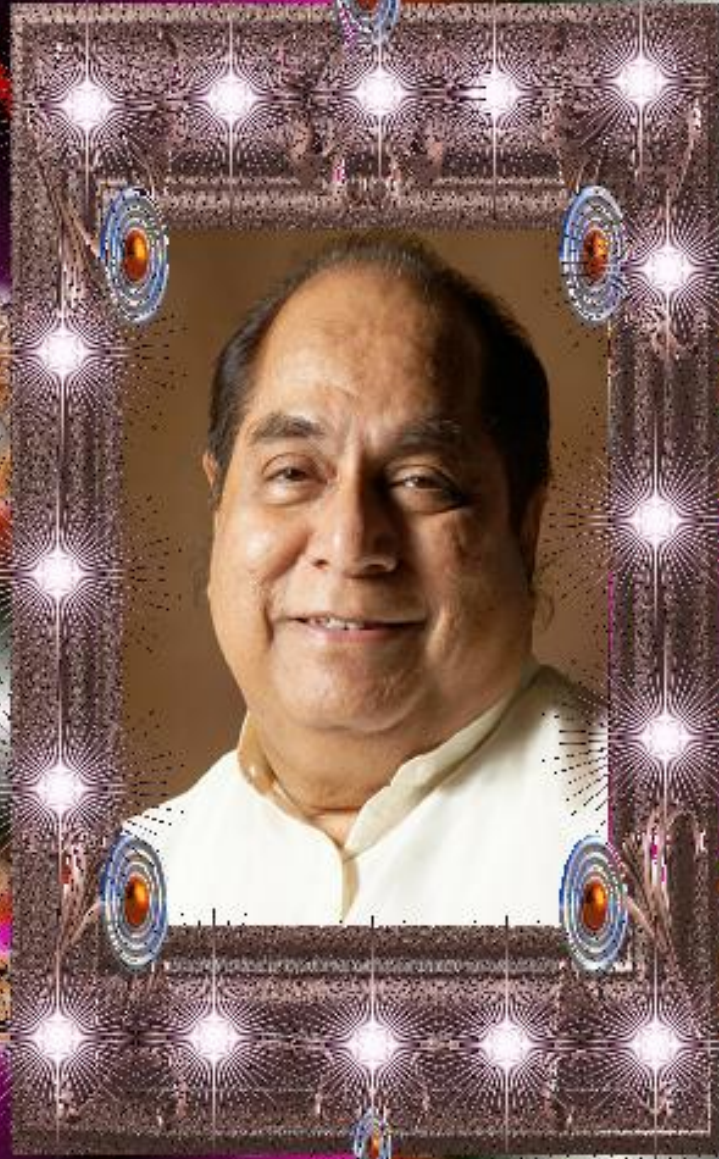
**KARRI RAMA REDDY**



# **Dr. D.Y. PATIL UNIVERSITY**

## **- School of Medicine**





**Dr. D.Y. PATIL**

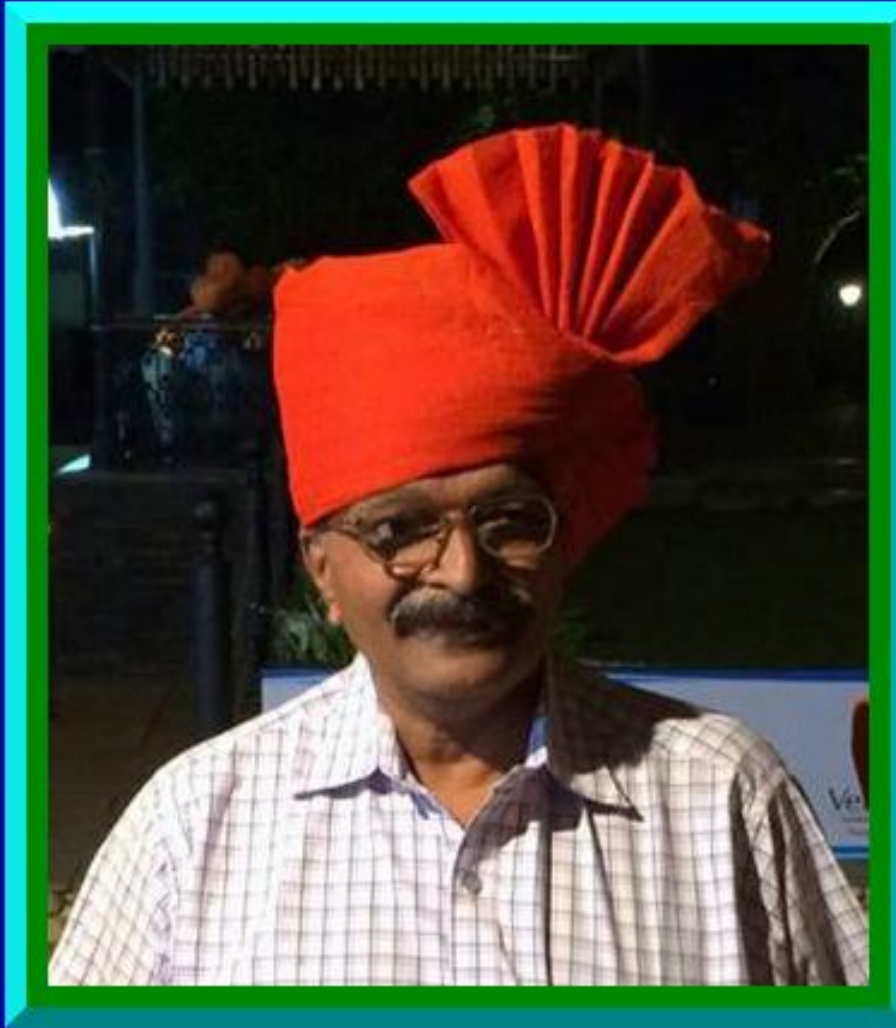




**Dr. NILESH SHAH**



**Dr. RASHMIN CHOLERA**



**Dr. SANJIV KALE**





**PSYCHIATRIC FRATERNITY**

**BUDDING PSYCHIATRISTS**



# LEARNING THEORIES

## APPLICATION IN PSYCHIATRY

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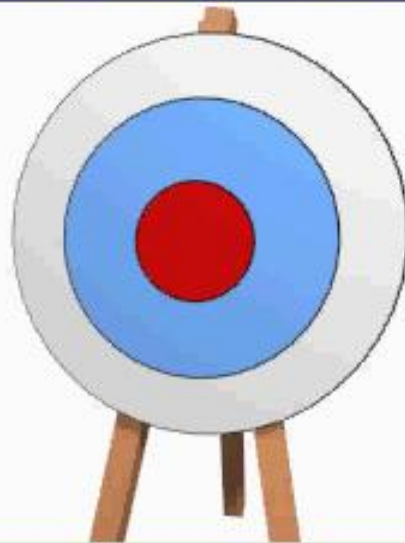


# MENU CARD



# **OBJECTIVE**

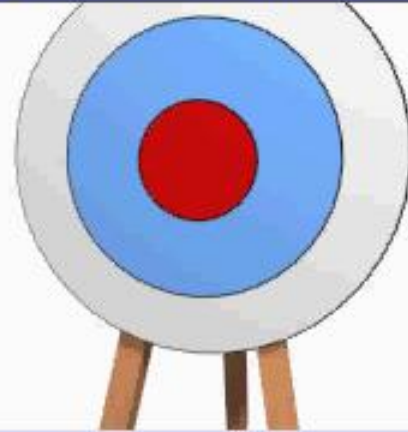
**IN ORDER TO MASTER  
THE LEARNING THEORIES**



**TO HAVE A LEARNING EXPERIENCE FOR  
2Hrs IN THE FORM OF A WORK SHOP OR  
LECTURE DEMONSTRATION**

## **CURRENT OBJECTIVE**

**TO REFRESH THE  
KNOWLEDGE OF THE  
LEARNING THEORIES**



**TO HAVE A LEARNING EXPERIENCE FOR  
ONE and HALF HOUR IN THE FORM OF A  
BRIEF LECTURE DEMONSTRATION**

# WHY ?





**Learning theories  
are worth knowing**



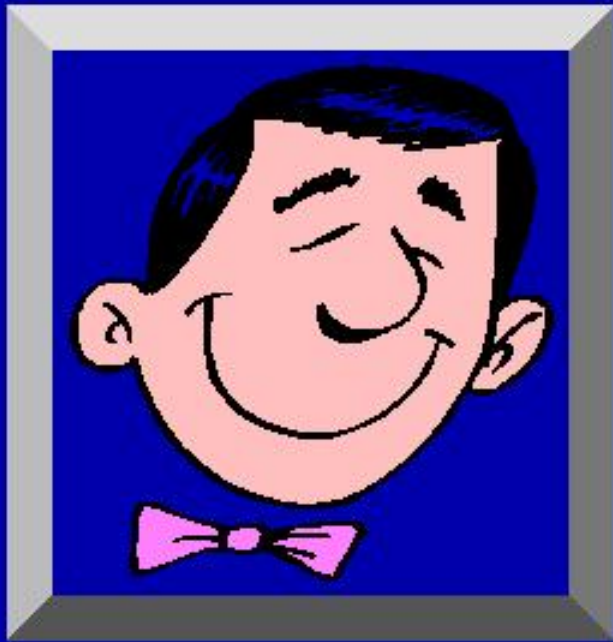
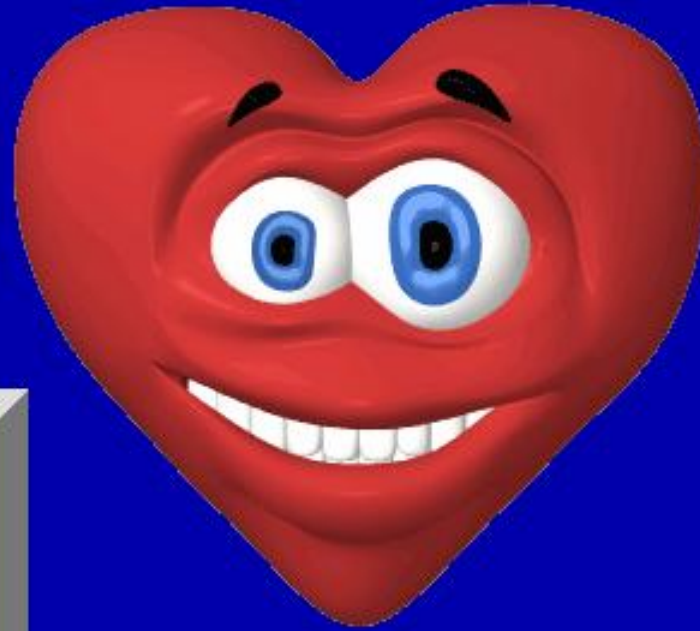
**Much human behavior (including overt behavior, thought patterns, and emotion) is acquired through learning**



# The etiology and maintenance of psychiatric disorders



**Learning principles can influence the effectiveness of a therapy**



A cartoon illustration on a blue background. A large, stylized hand with orange skin and black outlines holds a white rectangular sign. The sign has the text "WHAT IS LEARNING?" written in red, bold, sans-serif capital letters. Behind the hand, a small cartoon man with a red cap, a yellow shirt, a red tie, and purple pants stands with his hands on his hips, looking towards the sign. On the left side of the image, there is a partial view of a whiteboard with a blue border.

**WHAT IS  
LEARNING?**

**MODIFICATION OF BEHAVIOUR  
THROUGH EXPERIENCE**

**ACQUISITION OF NEW BEHAVIOUR  
PATTERNS**

**MODIFICATION AND COORDINATION OF  
THE RESPONSES**

**ANY RELATIVELY PERMANENT  
CHANGE IN BEHAVIOUR WHICH  
OCCURS AS A RESULT OF PRACTICE**

# COMPONENTS

**ACQUIRING KNOWLEDGE**

**BROADENING OF UNDERSTANDING**

**IMPROVEMENT OF SKILLS**

**DEVELOPMENT OF ATTITUDES**

**DEEPENING OF APPRECIATION**

S



R1



S



R2



# **FEATURES OF LEARNING**

**LEARNING IMPLIES CHANGES**

**LEARNING IMPLIES DEVELOPMENT**

**LEARNING IS ADJUSTMENT**

**LEARNING IS UNIVERSAL**

**LEARNING IS A LIFE-LONG PROCESS**



# LEARNING IS NOT.....

**MATURATION**

**MOTIVATION**

**CHANGE IN STIMULUS**

**FATIGUE**

# GOALS OF LEARNING



# **ACQUISITION OF KNOWLEDGE**

**Perceptual learning**

**Conceptual learning**

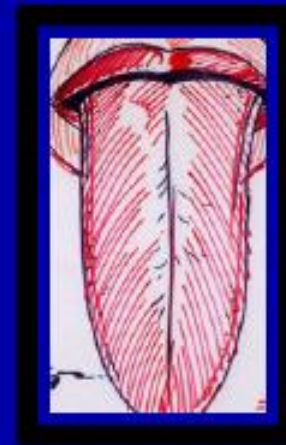
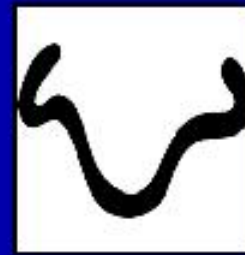
**Associational learning**

**Appreciational learning**

**Attitudinal learning**

# **ACQUISITION OF SKILLS**

# Perceptual learning



# Conceptual learning

**Sensation**

**Perception**

**Mental image**

**Analysis**

**Abstraction**

**Generalization**

**Concept formation**

# Associational learning

Lightning

Sour-smelling milk

Unexpected loud noise

Chopping onions

# Appreciational learning

Attaching a value to the knowledge



# Attitudinal learning

## Developing an inclination







**REFLEXES**

**FIXED ACTION PATTERNS**

**ELICITED BEHAVIOR**

## **Behaviorism**

**Skinner**

**Bandura**

**Thorndike**

**Pavlov**

**Watson**

**Guthrie**

**Hull**

## **Cognitivism**

**Gagne**

**Bruner**

**Anderson**

**Gardner**

**Novak**

**Rummelhart**

**Norman**

**Lewin**

**Kohler**

**Tolman**

## **Constructivism**

**Vygotsky**

**Lave & Wenger**

**Piaget**

**Bransford**

**Hasselbring, etc. (CTGV)**

**Grabinger**

**Spiro and colleagues**

# Representations of the Learning Process

## **Behaviorism**

**Stimulus-Response**

**Reinforced Behavior**

**Antecedent Behavior Consequence**

**Sequenced knowledge and skills presented in logical limited steps**

## **Cognitivism**

**Cognitivist Learning Perspective**

**Information Processing**

**Schema**

**Mental Models**

## **Constructivism**

**Inquiry-based**

**Discovery learning**

**S-R Theories**

**Connectionist  
Theories**



# **Classical (Pavlovian) conditioning**



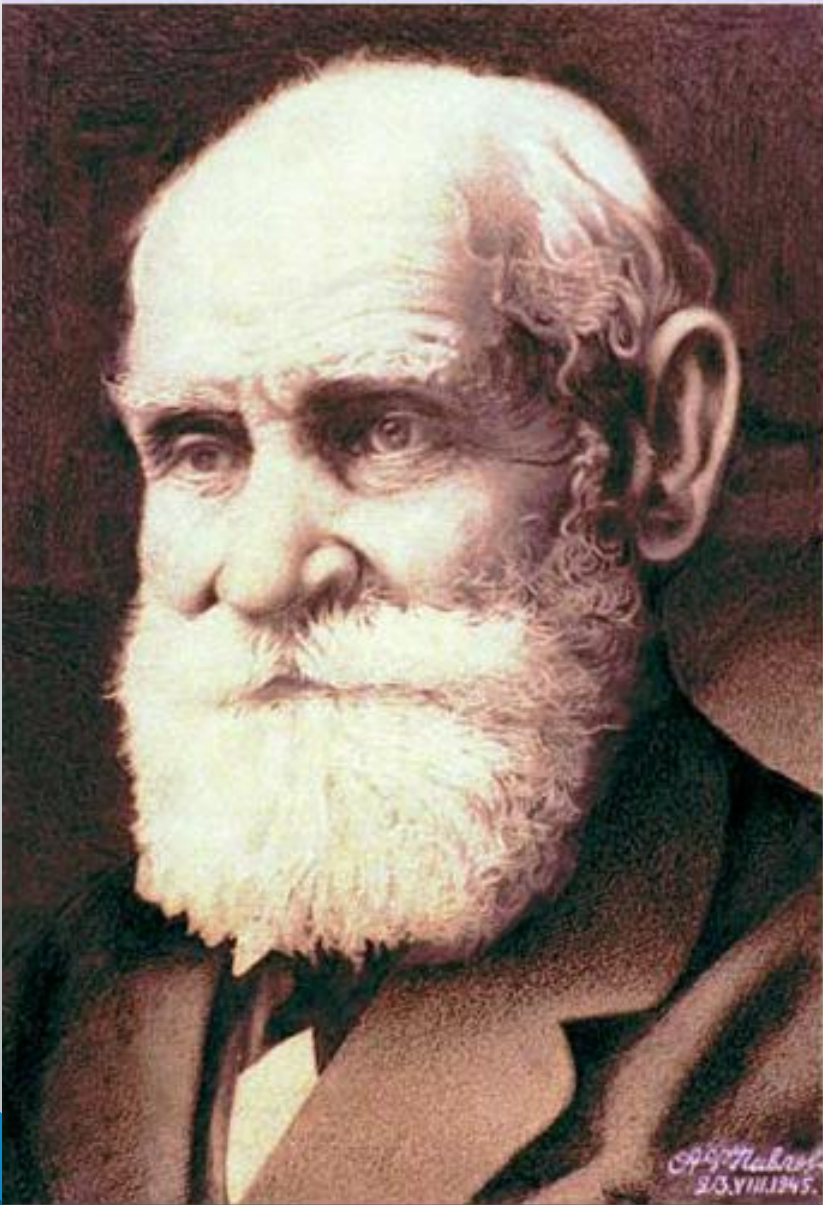
**Classical conditioning**

**Type S conditioning**

**Respondent conditioning**

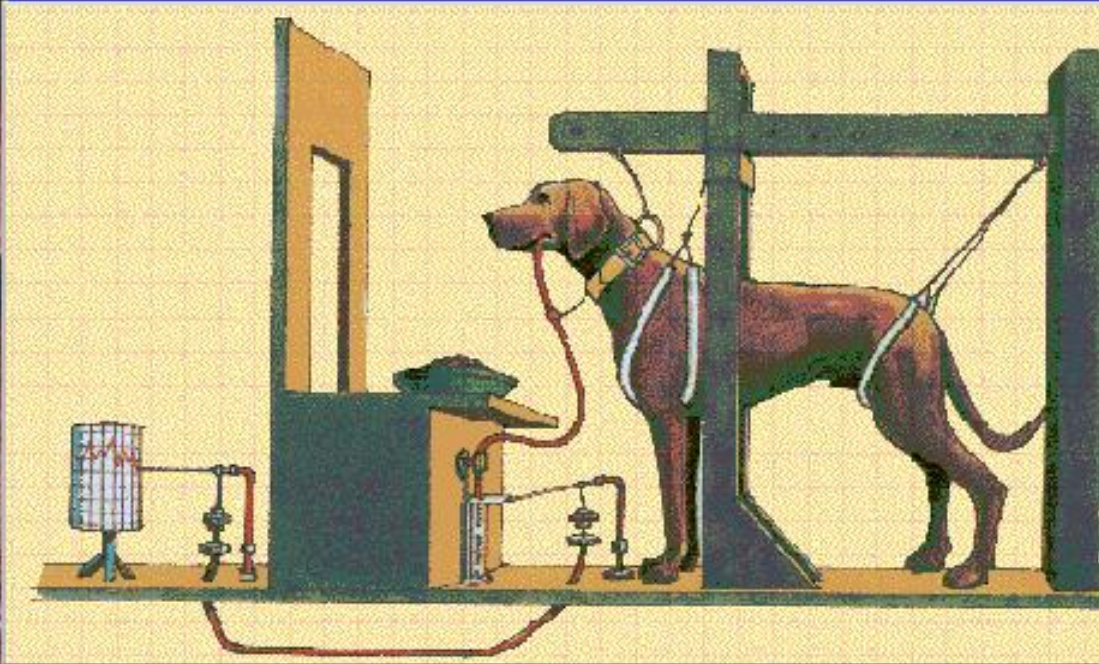
**Substitution learning**

**Signal learning**



**IVAN PAVLOV**

**(1849-1936)**



# PAVLOV AND HIS DOG





**Conditioning occurs when neutral stimuli are associated with a psychologically significant event.**



**Pavlov's Problem:** experienced dogs salivated before the food was presented

**Pavlov's Theory:** Some stimulus that preceded the food presentation had acquired capacity to elicit the response of salivation



# Conditioned Cues

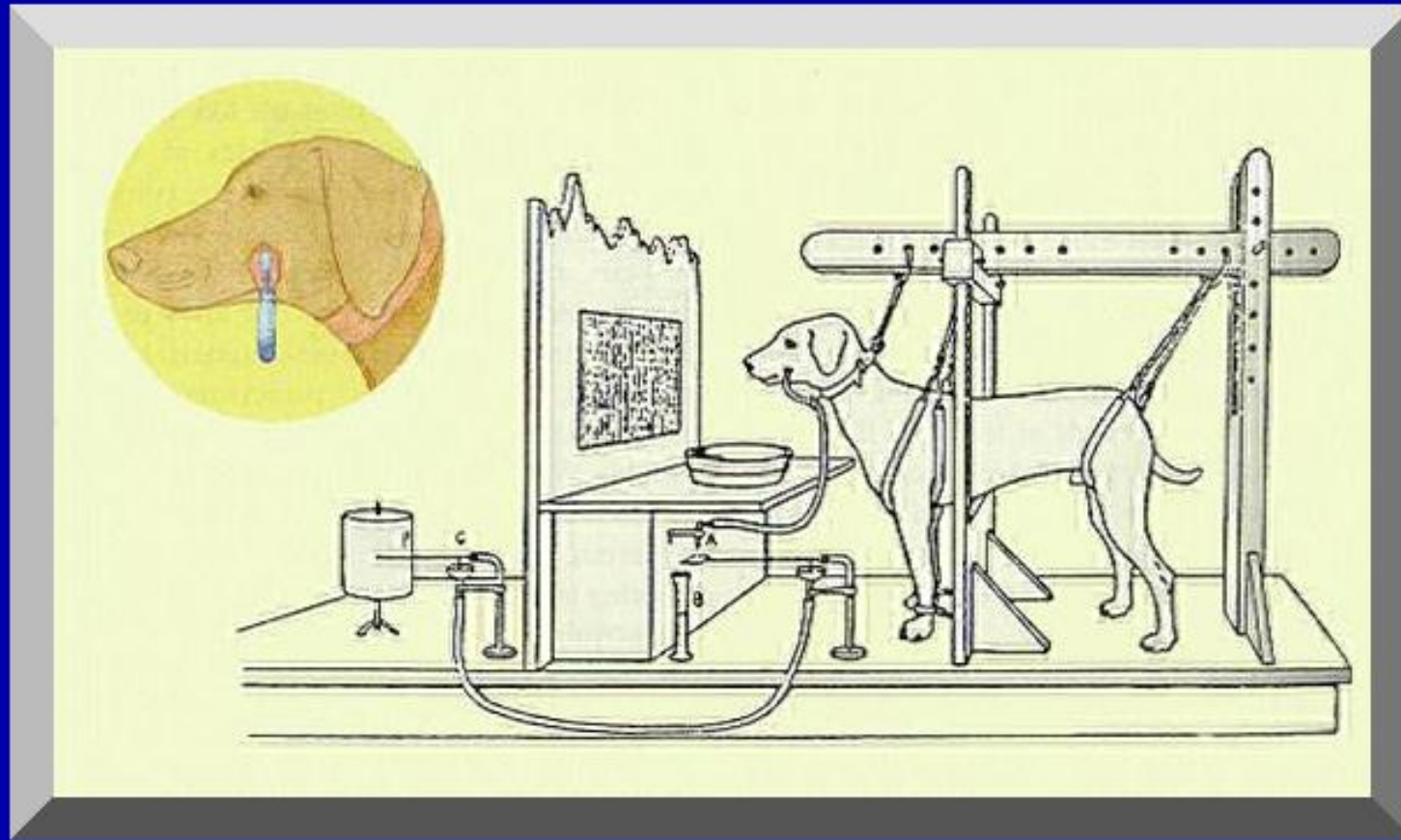
**ANXIETY DISORDERS**

**DEPENDENCE**



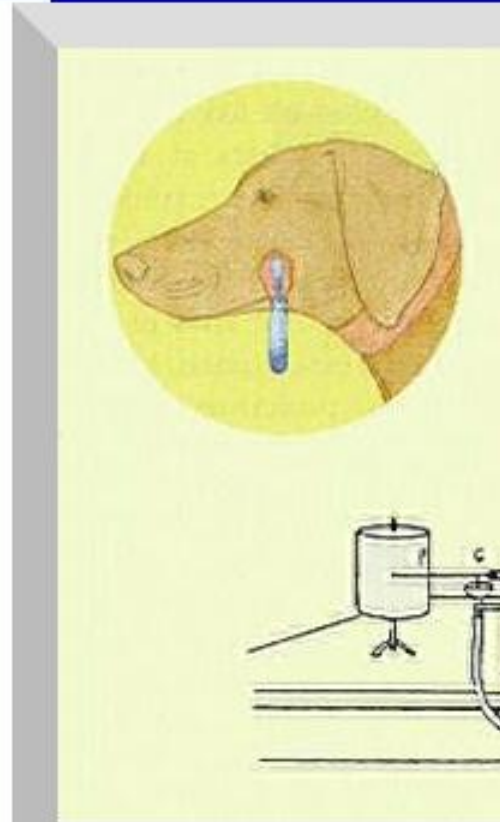
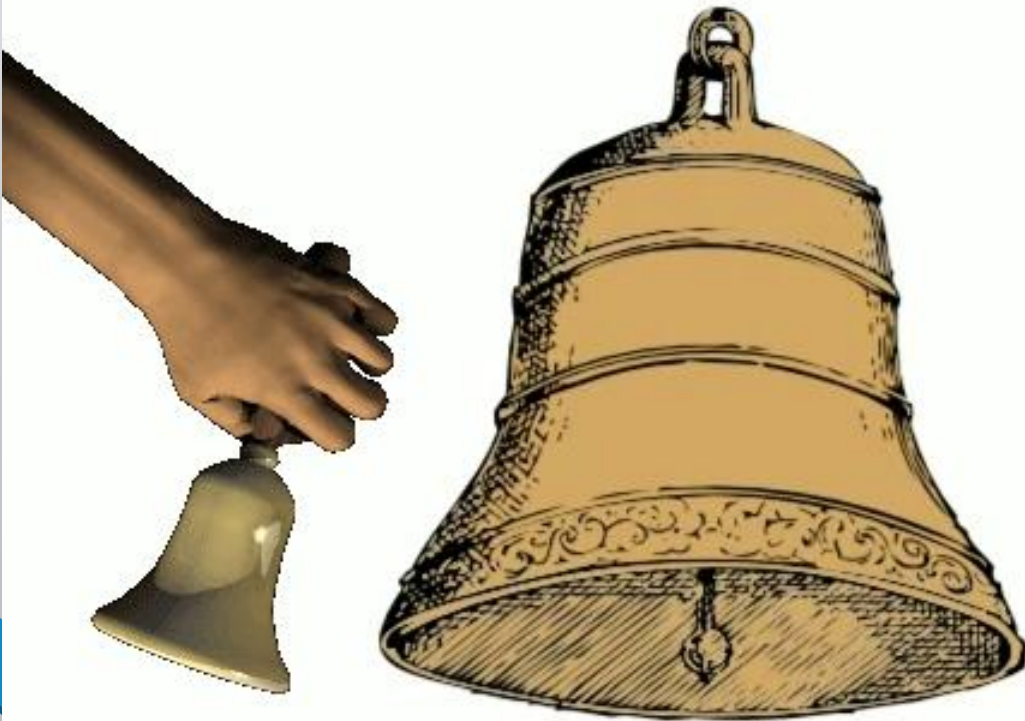
**Unconditional stimulus (US)**

**Unconditional response (UR)**



**Conditional stimulus (CS)**

**Conditional response (CR)**



# Paradigm of Classical Conditioning

**1st: Select a stimulus that automatically elicits a characteristic response**

**Stimulus = Unconditioned stimulus (US)**

**Response = Unconditioned response (UR)**

**“Unconditioned” means the stimulus-response connection is innate**

**2nd: Select a Stimulus for Conditioning (CS)**

**Conditioned Stimulus (CS) – Can be any reasonable stimulus that does not initially evoke the UR**

**“Conditioned” means the stimulus-response connection occurs only AFTER the conditioning procedure takes place**

### Before Conditioning

Food  
Unconditioned stimulus (US)



Automatically  
elicits



Salivation  
Unconditioned response (UR)



Bell  
Conditioned stimulus (CS)



No salivation  
No response or irrelevant response



### During Conditioning

Bell  
Conditioned stimulus (CS)



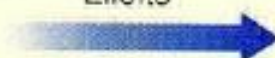
Followed by



Food  
Unconditioned stimulus (US)



Elicits



Salivation  
Unconditioned response (UR)



### After Conditioning

Bell  
Conditioned stimulus (CS)



Elicits



Salivation  
Conditioned response (CR)



# KEY DEFINITIONS

**Unconditioned Stimulus (US)** - stimulus which naturally triggers a response [food]

**Unconditioned Response (UR)** - unlearned, natural response to the US [salivating]

**Conditioned Stimulus (CS)** - previously neutral stimulus, which eventually triggers a response [bell]

**Conditioned Response (CR)** - learned response to a previously “neutral” stimulus [salivating]





**GENERALIZATION**

**DISCRIMINATION**





Panna Cotta



Choc & Orange



Coconut



Caramelita

# GENERALIZATION



Swis Chocolate



Vanilla Dream



Raspberry



Maple Walnut

# FLAVORS



Strawberry



Rhubarb

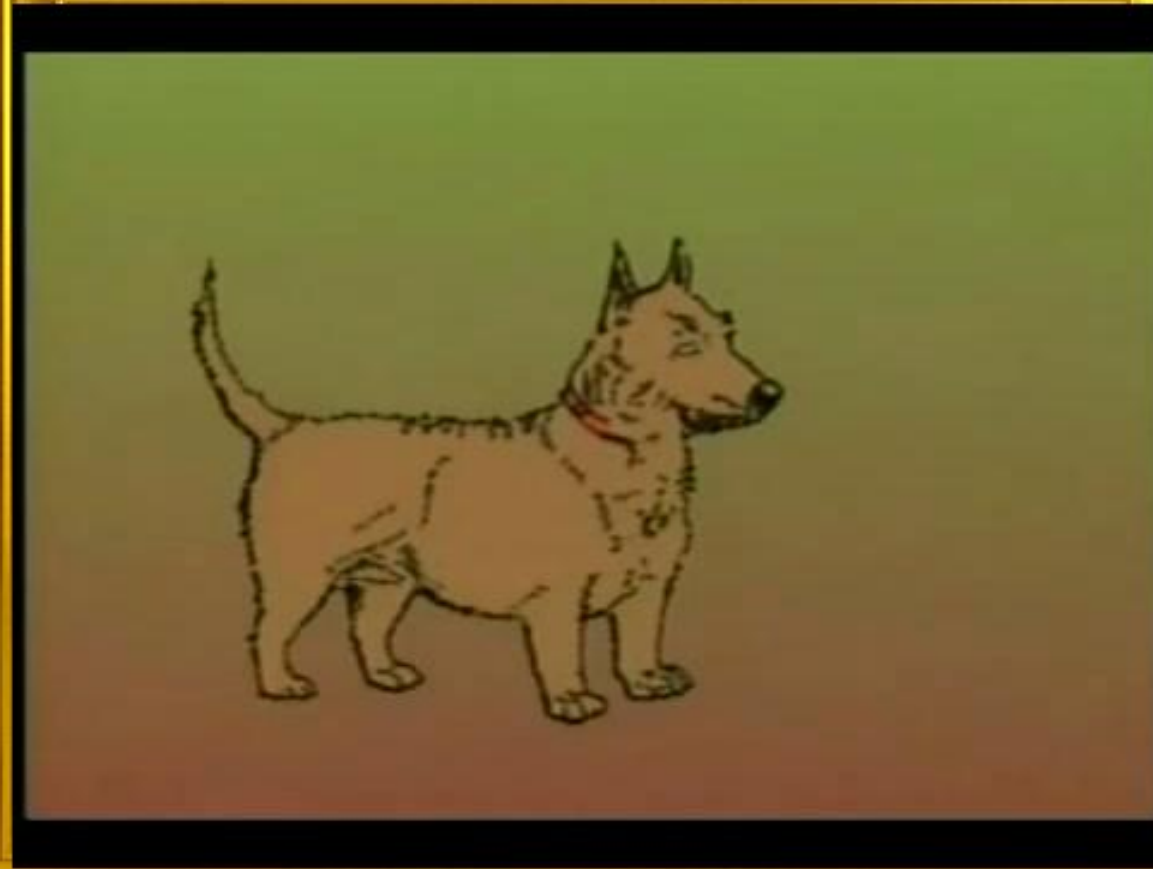


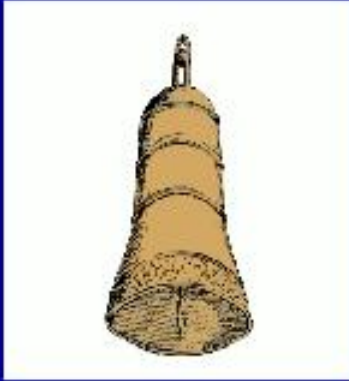
Passion Fruit & Mango



Pistachio

# EXTINCTION





## Extinction



**Conditioning is not necessarily permanent**

**“Extinction” occurs when the CS is presented repeatedly without the US (e.g., bell without food)**

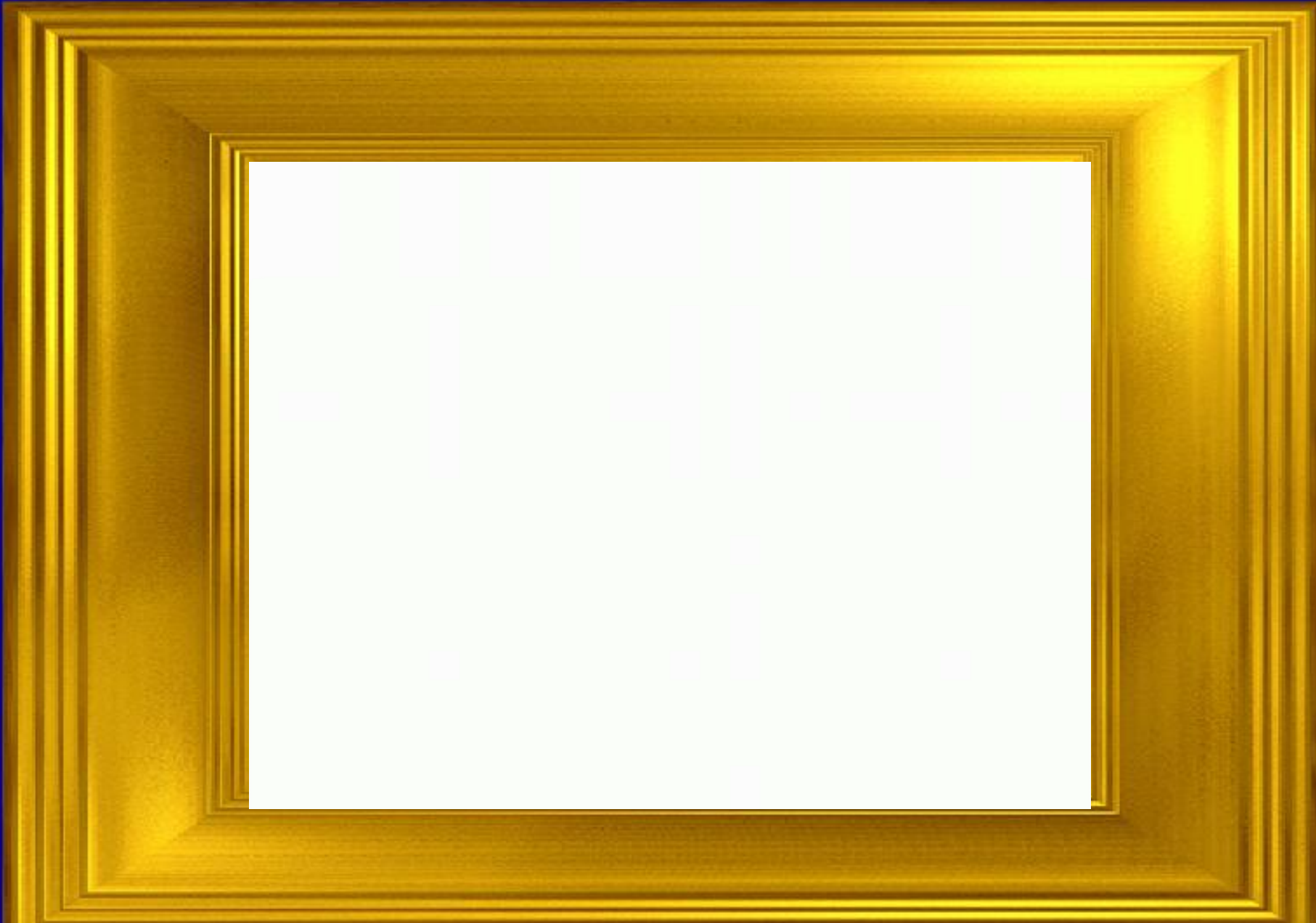
**CS no longer signals the US, so conditioned responding gradually diminishes**

**But CS-US association is not erased completely**

# Blocking



# FRUSTRATION



# RECOVERY



# **Rapid Reacquisition**

**Conditioning phase -> extinction phase  
-> re-conditioning phase (reacquisition phase)**

**Rate of learning is faster the second time**

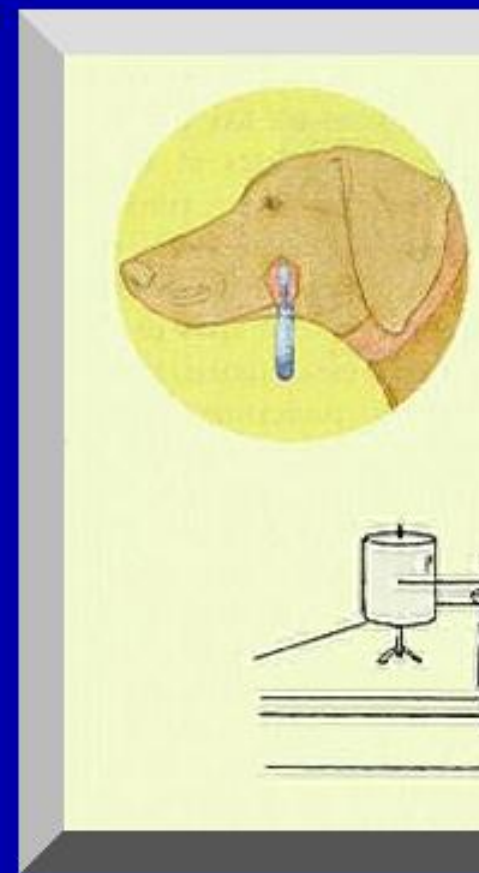
**Continues to get faster with repeated cycles**





## PRESENTATION OF U.S. AND C.S.

Short delay	CS	US		
moderate delay	CS		US	
Long delay	CS			US
Simultaneous	CS	US		
Backward	US	CS		



## **PRESENTATION OF U.S. AND C.S.**

**Short delay = best**

**moderate delay = more difficult to achieve CR**

**Long delay = difficult to achieve CR**

**Simultaneous = much weaker conditioning than short delay**

**Backward (i.e., US then CS) = usually not effective**



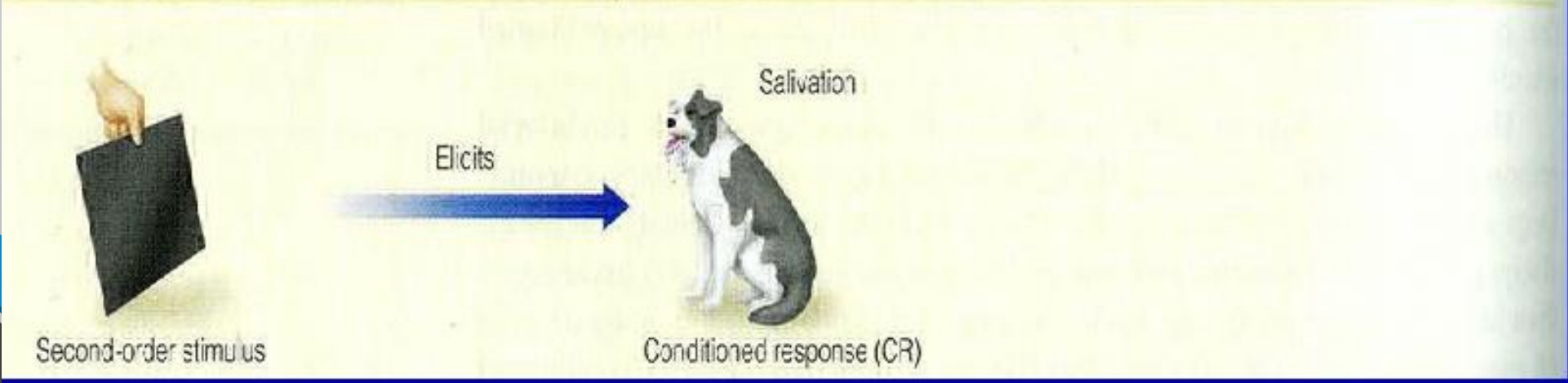
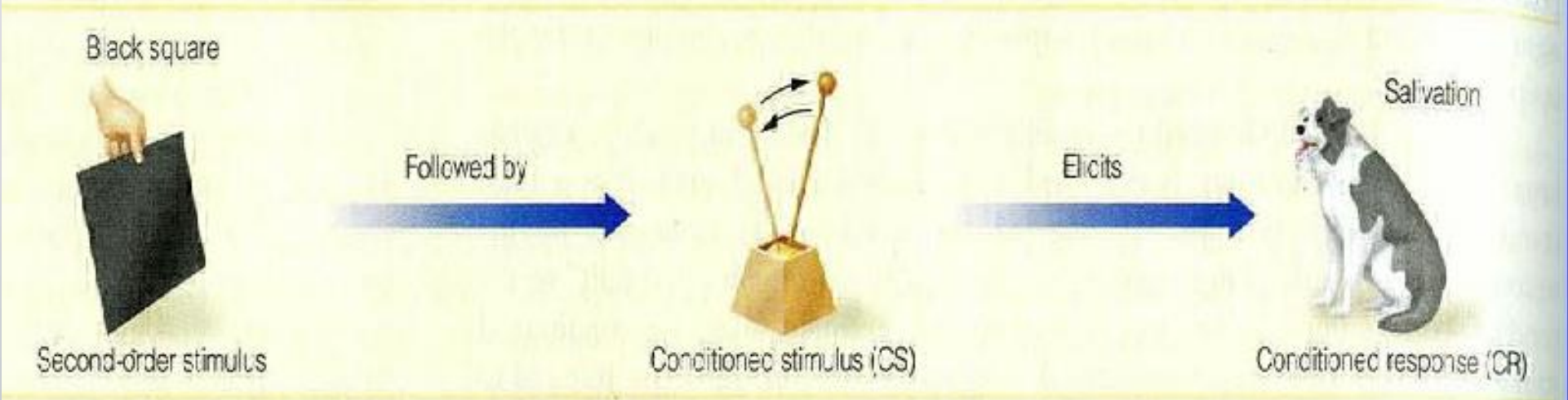
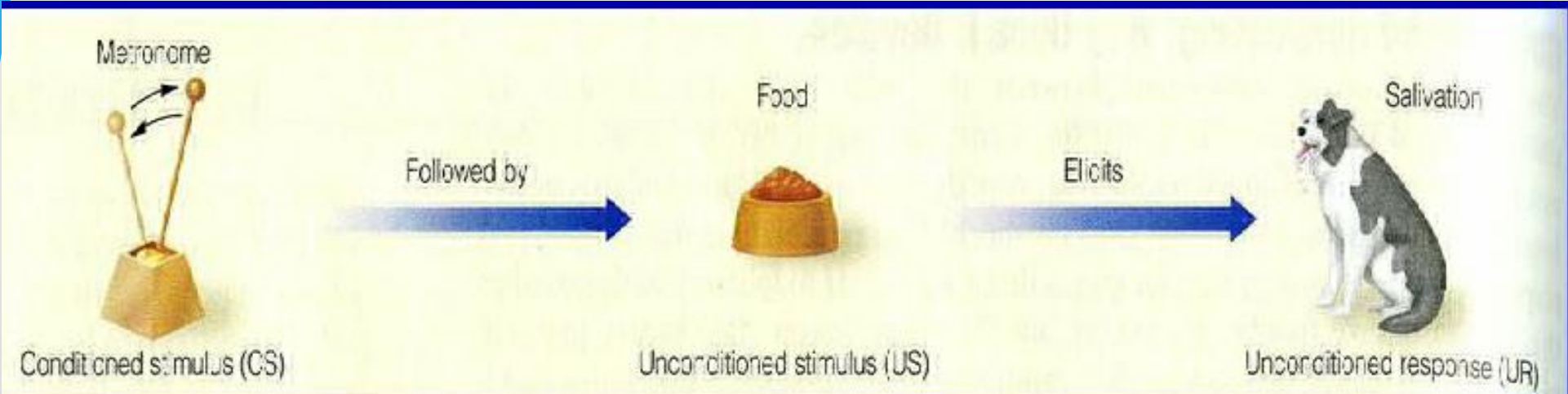
# Higher Ordering Conditioning

Second order conditioning



Third order conditioning





**Classical fear conditioning can contribute to phobias**

**panic disorder and posttraumatic stress disorder (PTSD)**

**external cues**

**interoceptive cues**

**the nightmares and “re-experiencing” phenomena that are characteristic of PTSD.**

**Repeated exposure to the CS  
(exposure therapy) without US**



# Counterconditioning



**systematic desensitization**

**Counterconditioning**

**systematic desensitization**



**Counterconditioning**

**FLOODING**

**CLAUSTROPHOBIA**



**FLOODING**

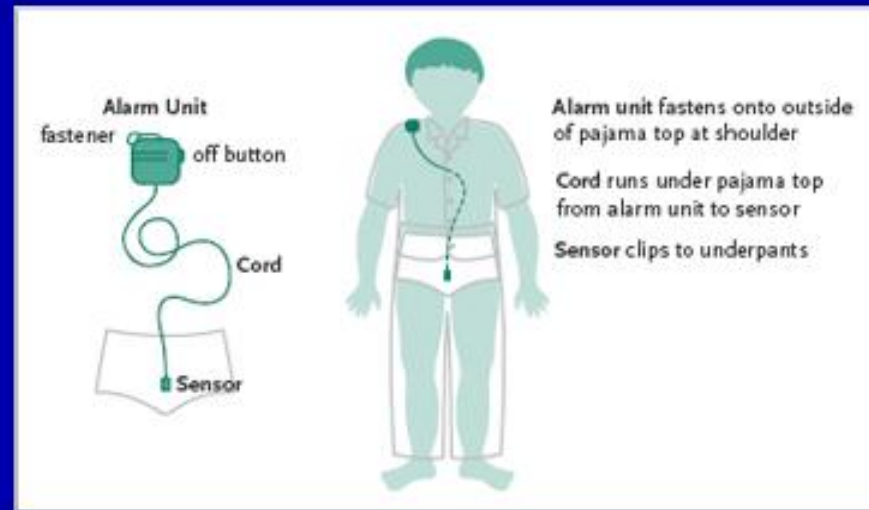
# Ichthyophobia

**Counterconditioning**

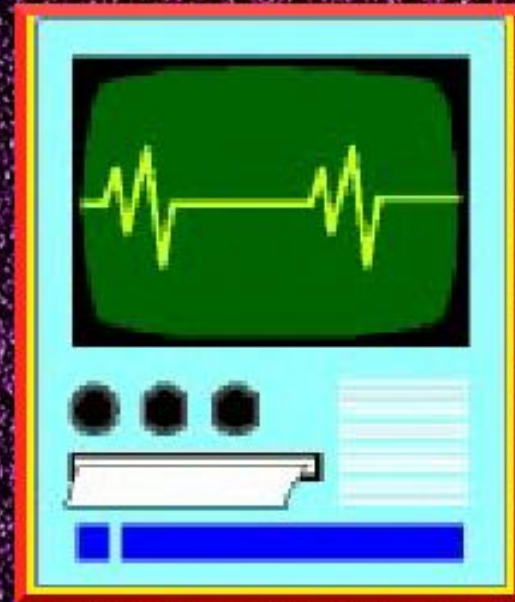


**FLOODING**

# ENURESIS ALARM



# AVERSION THERAPY



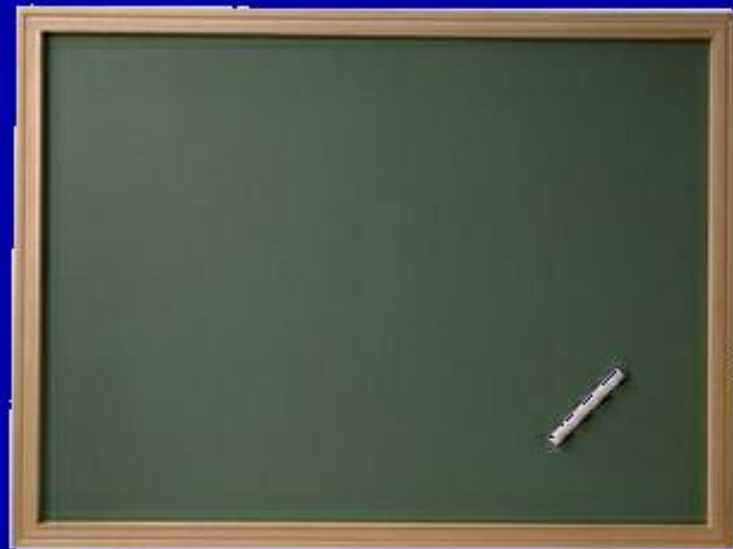
# John B. Watson



**WATSON**

**LITTLE ALBERT EXPERIMENT**

**tabula rasa**





# **Basic associative learning processes**

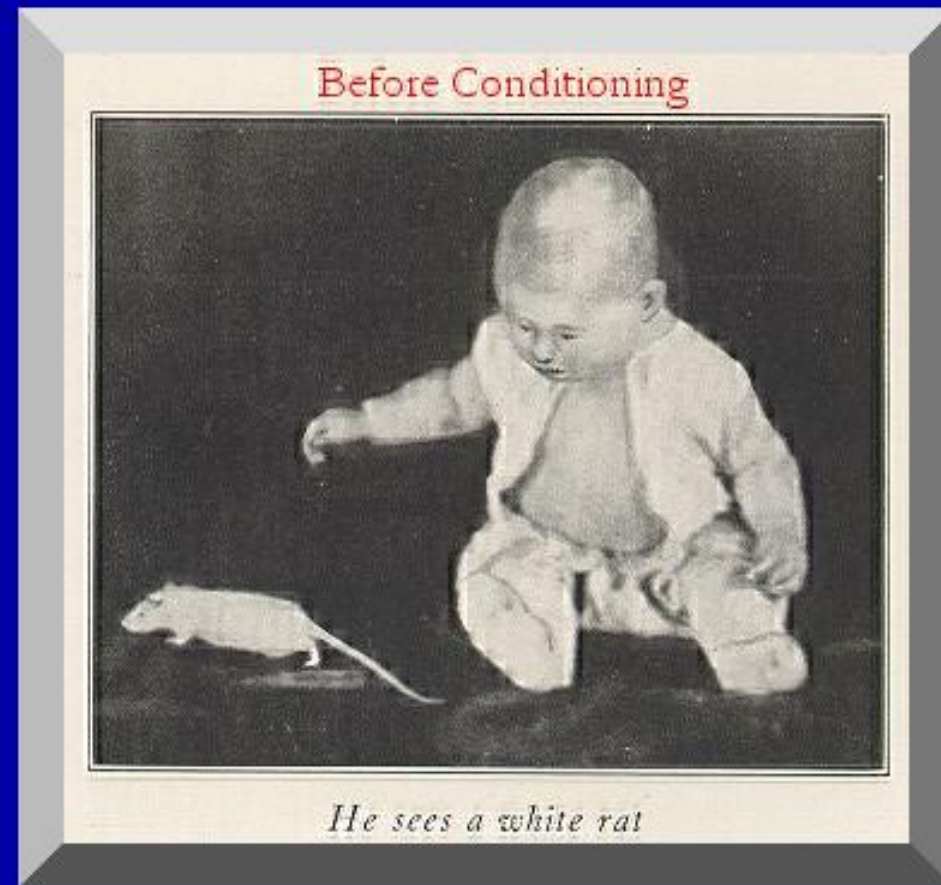
**Human emotions are influenced by classical conditioning**

**Learning is as simple as A-B-C**  
**Antecedent (stimulus)**  
**Behavior (action)**  
**Consequence (re-enforcer)**

## **WATSON - DOZEN INFANTS QUOTE**

**Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select – doctor, lawyer, artist, merchant-chief and, yes, even beggar-man and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors.**

# “Little Albert” & Stimulus Generalization





# Generalization



# Discrimination



# WATSON

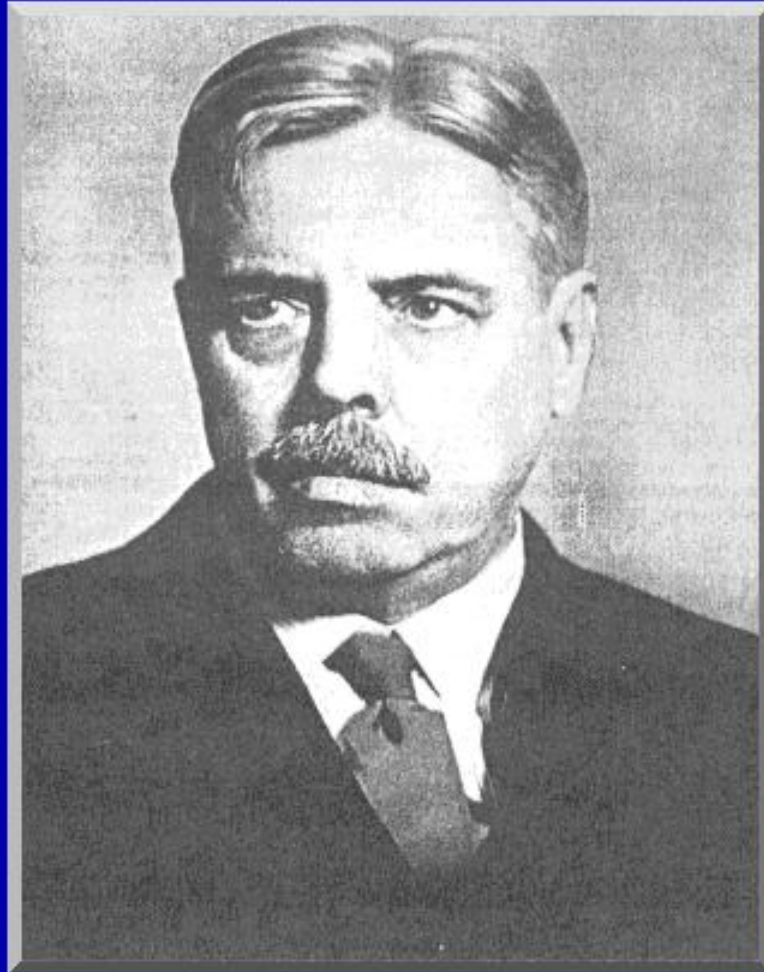
Watson proved his theory  
with his most famous,  
and controversial,  
experiment: The Little  
Albert Experiment

**LITTLE ALBERT EXPERIMENT**



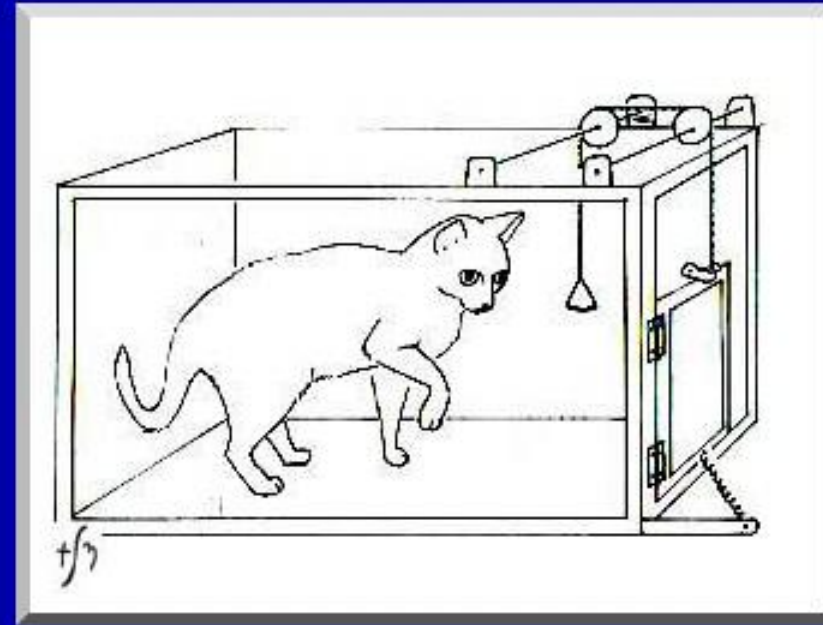
**Edward  
Lee  
Thorndike**

# Edward Lee Thorndike





# Edward Lee Thorndike



**THORNDIKE**



**PUZZLE BOX EXPERIMENTS**

**THORNDIKE**



**PUZZLE BOX EXPERIMENTS**

# Trial and Error



# STAGES IN THE PROCESS OF TRIAL & ERROR LEARNING

**DRIVE**

**GOAL**

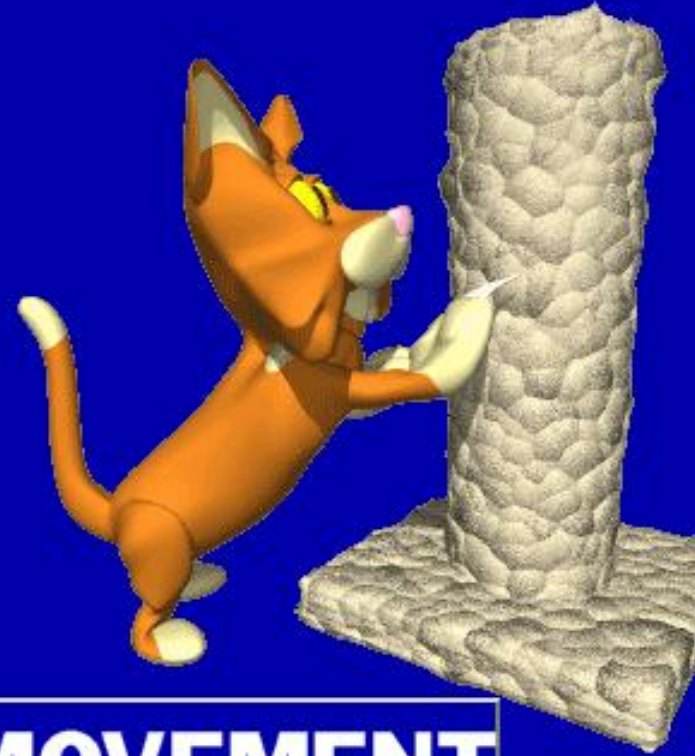
**BLOCK**

**RANDOM MOVEMENTS**

**CHANCE SUCCESS**

**SELECTION OF PROPER MOVEMENT**

**FIXATION**



# **PRIMARY LAWS OF LEARNING**

**LAW OF READINESS**

**LAW OF EFFECT**

**LAW OF EXERCISE**

**LAW OF BELONGINGNESS**

# **LAW OF READINESS**

**When a conduction unit (animal) is ready to conduct (respond), conduction by it is satisfying**

**When a conduction unit (animal) is ready to conduct (respond)... not to conduct is annoying**

**When a conduction unit is NOT ready to conduct and is forced to conduct is annoying.**

# **LAW OF READINESS**

**MATURATION**

**MOTIVATION**

**WANTS, INTERESTS, ATTITUDES**

**DESIRE TO LEARN**

**ACADEMIC READINESS & PREPARATION**



# The law of effect

**If a response to a particular situation is followed by a satisfying or pleasant consequence, it will be strengthened.**

**If a response to a particular situation is followed by an unsatisfying or unpleasant consequence, it will be weakened.**



# Modified law of effect

Effect of reward is far more influential than punishment



# Law of Exercise

**Other things being equal, the oftener or more emphatically a given response is connected with a certain situation, the more likely it is to be made to that situation in the future.... This law may be more briefly stated as: 'Other things being equal, exercise strengthens the bond between situation and response.'**



# Law of Belongingness

**Reward or punishment to be maximally effective must be relevant to the situation. Mere contiguity between the stimulus and the response would not ensure the effectiveness of the reward.**

**Raju spoke loudly. Rani went home**

# **SUBORDINATE LAWS OF THORNDIKE**

**LAW OF MULTIPLE (VARIED) RESPONSE**

**LAW OF ATTITUDE or SET or DISPOSITION**

**LAW OF PARTIAL ACTIVITY**

**LAW OF ASSIMILATION or ANALOGY**

**LAW OF ASSOCIATE SHIFTING**

# B. F. Skinner



# **Operant conditioning**

## **R type conditioning**

### **Learning About the Consequences of Behavior**

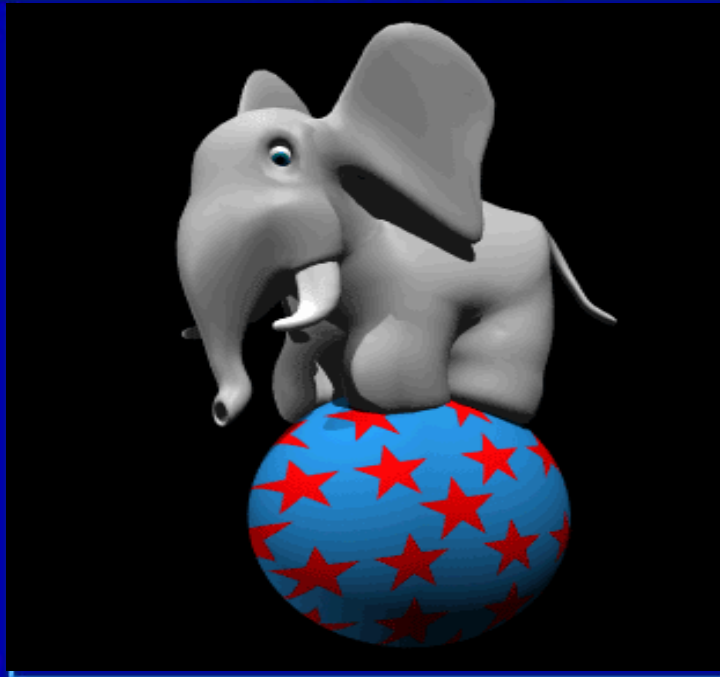
**A procedure for studying how organisms learn about the consequences of their own voluntary behavior**

**Realization that our ACTIONS (rather than conditioned stimuli) lead to outcomes results in operant conditioning**

**By “operating” on your environment, you can produce a positive or negative consequence**

# **BASIC LAW OF OPERANT CONDITIONING**

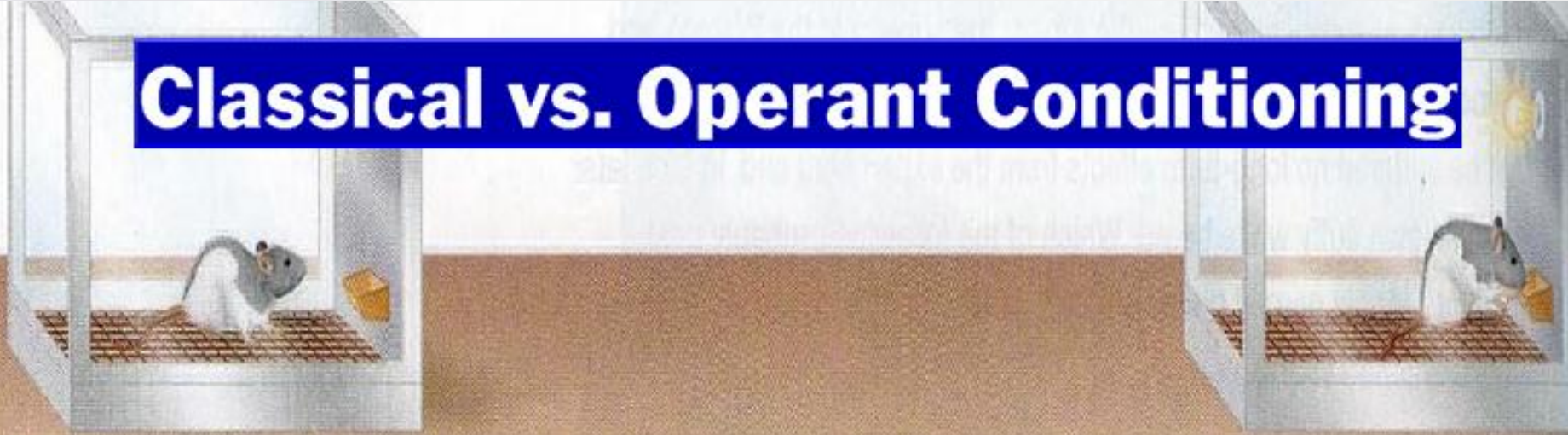
**If the occurrence of an operant is followed by presentation of reinforcing stimulus, the strength is increased.**



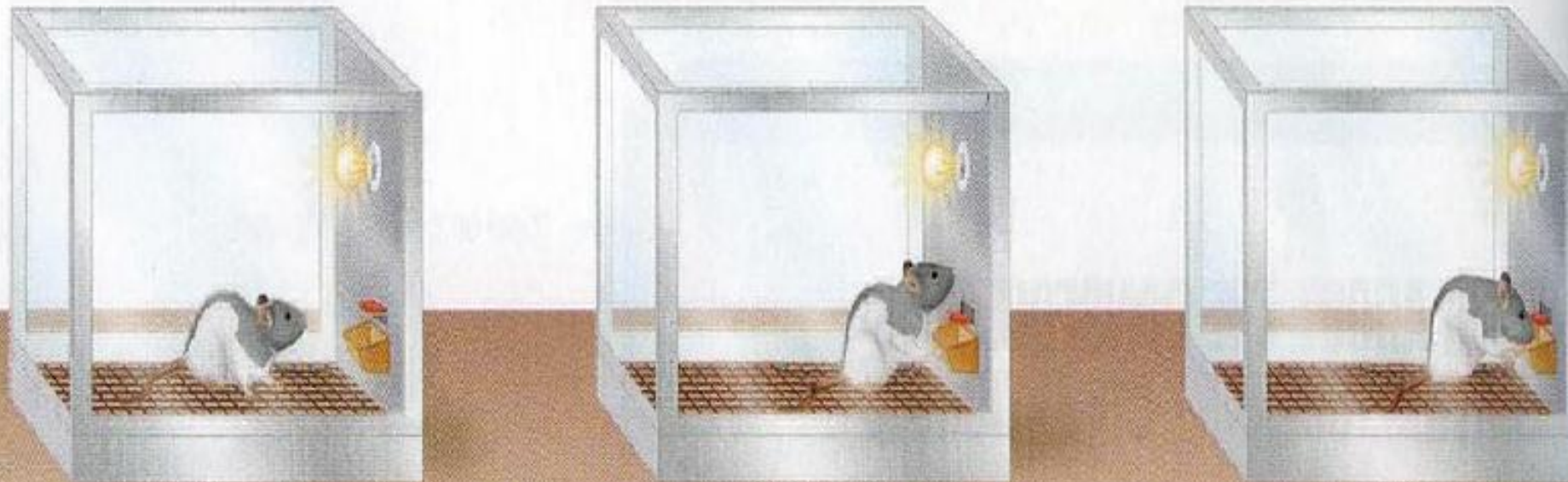
**Somehow get a response to occur,  
then reinforce it**



# Classical vs. Operant Conditioning



a Classical conditioning: Food is delivered independently of rat's behavior



b Operant conditioning: Rat's behavior causes food to appear

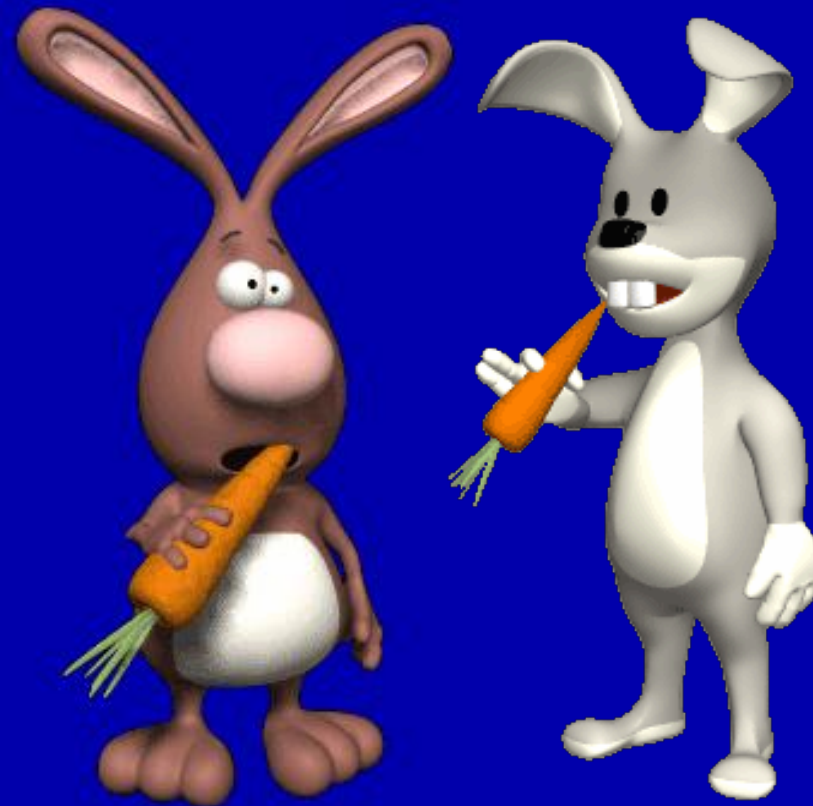
# SKINNER'S RAT



**OPERANT CONDITIONING**

# REINFORCEMENT

Consequences that **INCREASE** the likelihood of the behavior occurring again



# Positive reinforcement



**A consequence that, when presented after a behavior, increases the likelihood of that behavior occurring again (e.g., getting an ice cream cone as a reward for earning an A on a test)**

# Negative reinforcement

**A consequence that, when removed after a behavior, increases the likelihood of that behavior occurring again (e.g., Exemption from fee as a reward for earning an A on a test)**



# Punishment

Consequences that **DECREASE** the likelihood of a behavior occurring again



# Positive Punishment

**A consequence that, when presented after a behavior, decreases the likelihood of that behavior occurring again (e.g., getting a spanking after hitting your little sister)**



# Negative Punishment

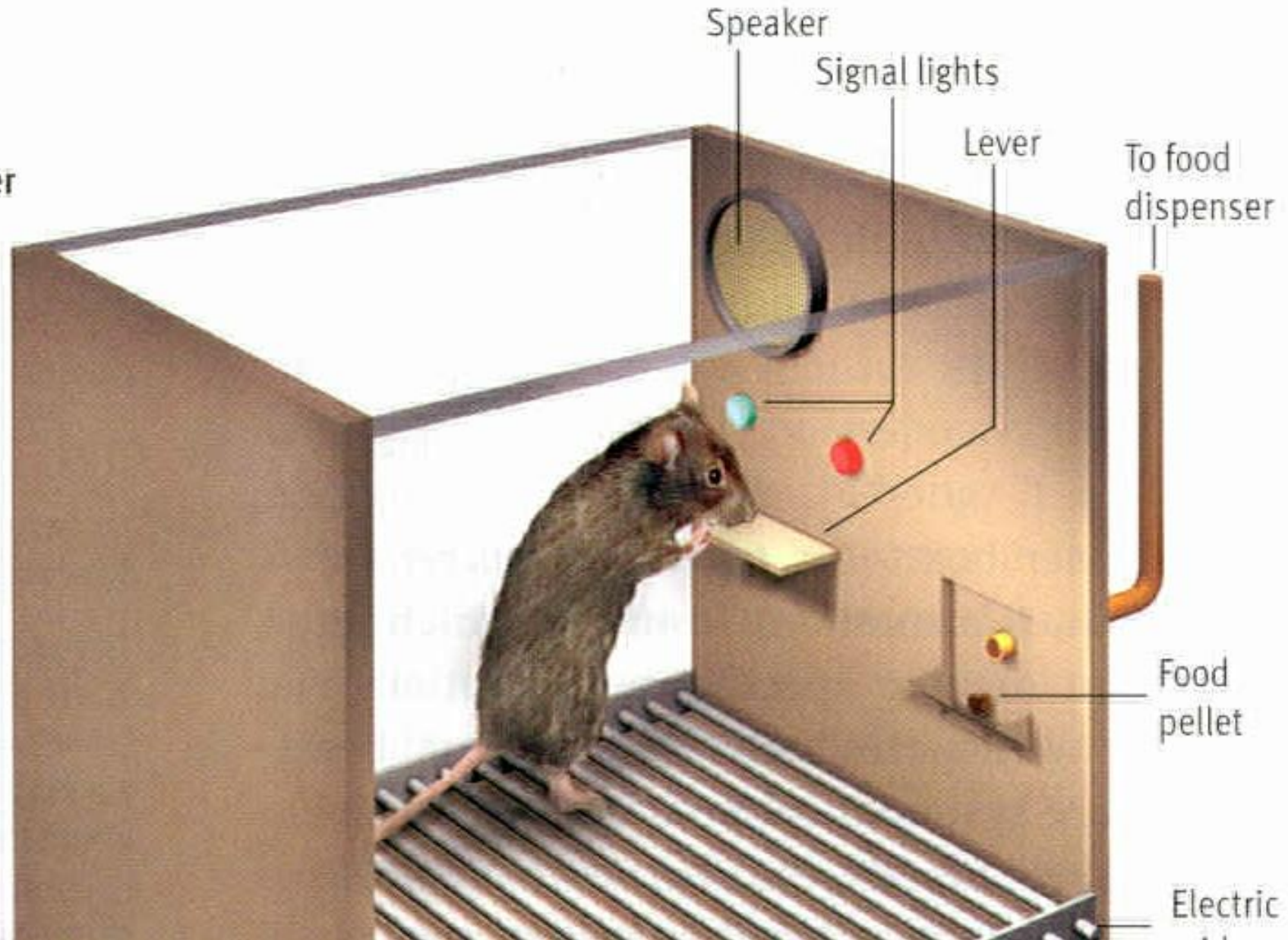
**Consequences that, when removed after a behavior, decreases the likelihood of that behavior occurring again (e.g., getting “time out” from the fun activity after hitting your little sister )**





# Partial Reinforcement Schedules

(a)  
Skinner  
box



**Fixed ratio vs. Variable ratio:** (deals with number of responses before consequence presented)

**Fixed Ratio** = the number of responses required for delivery of the consequence does not change (is fixed) across trials

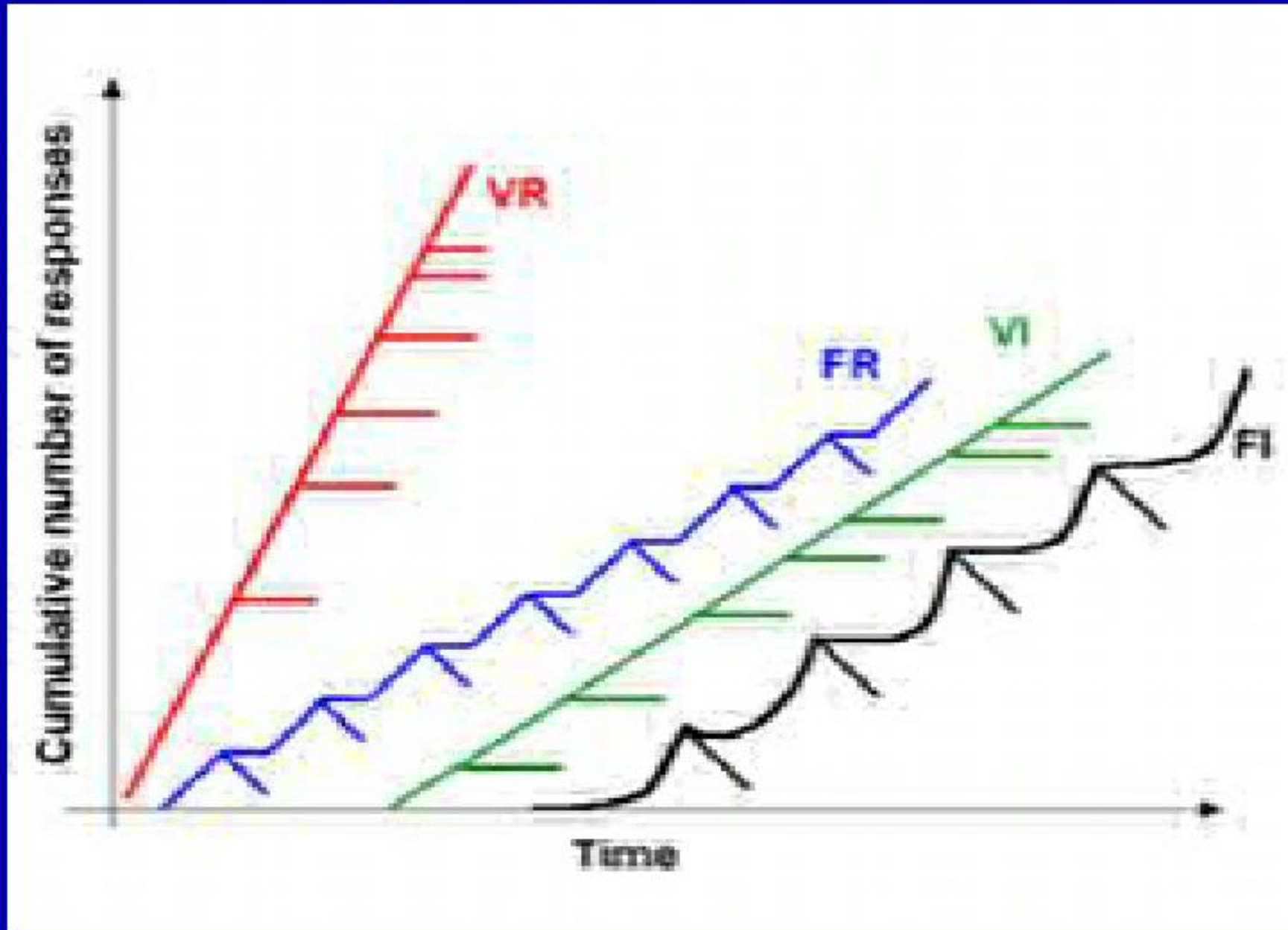
**Variable Ratio** = the number of responses required for delivery of the consequence changes (varies) across trials

**Fixed interval vs. Variable interval:** (deals with amount of time before consequence presented)

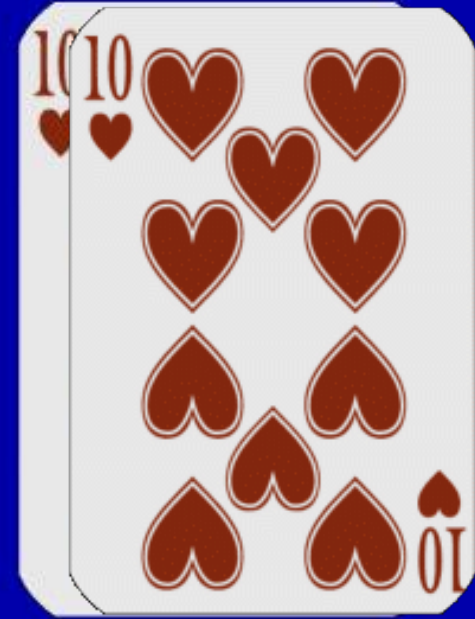
**Fixed interval** = consequence delivered for the first response that occurs following an unchanging (fixed) amount of time

**Variable interval** = the allotted time before a response will yield a consequence changes (varies) across trials

# Comparing Reinforcement



# Variable Ratio Schedule Hardest to Extinguish



## Effects on Behavior

**Continuous reinforcement** : fastest acquisition of response (learning); fastest extinction of response (unlearning)

**Fixed ratio** : fast acquisition; fast extinction

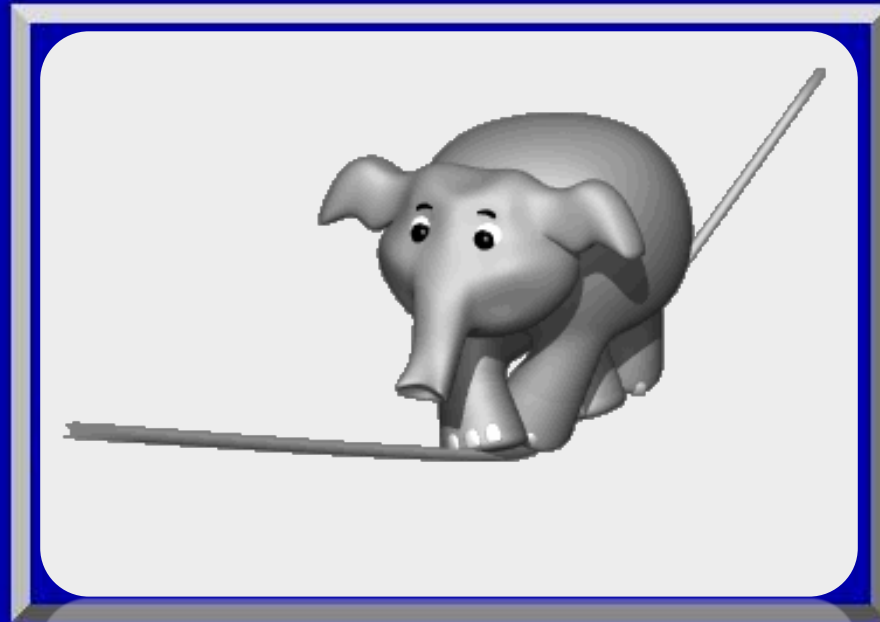
**Variable ratio** : consistent acquisition; slowest extinction

**Fixed interval** : quickly learns to adapt behavior to timing; fast extinction

**Variable interval** : consistent acquisition; slower extinction

# SHAPING

## SUCCESSIVE APPROXIMATIONS AND CHAINING



# **Behaviour Shaping**

**Successive approximations to the goal behaviour**

**Reinforcement**

**Anything which increases desired behaviour**



# SHAPING



# DOG ROLLING

# SHAPING



**PIGEON PING PONG**

**SHAPING**

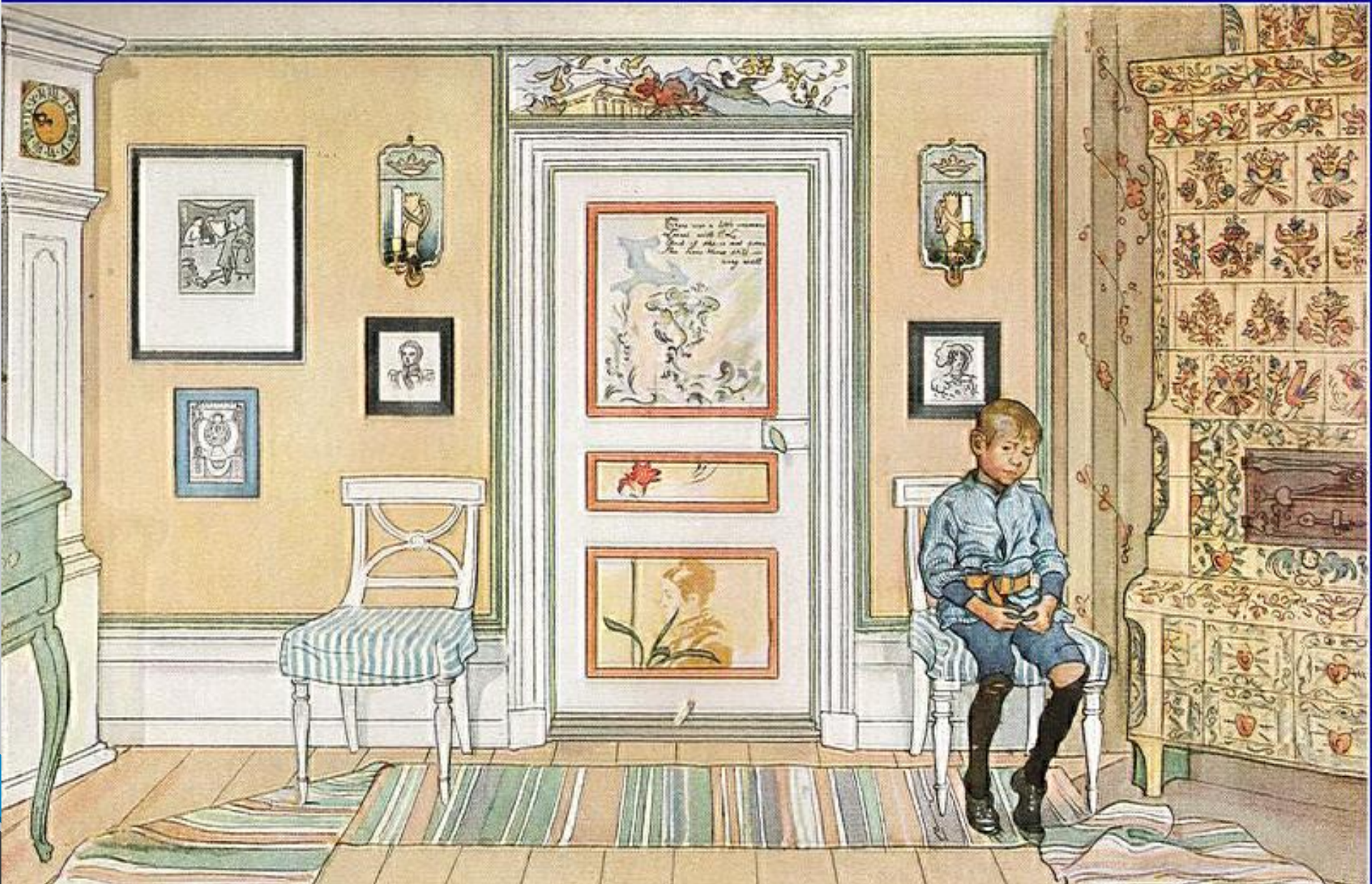


**FISH PLAYING GAMES**

# TIME OUT



# TIME OUT



# TIME OUT



# TOKEN ECONOMY



# RESPONSE PREVENTION



# EXPOSURE & RESPONSE PREVENTION



# CLARK HULL





**NEED REDUCTION THEORY**

**DRIVE REDUCTION THEORY**

**DRIVE STIMULUS REDUCTION THEORY**

# **Drive Reduction Theory**

**This theory states that organism , especially humans , learn to perform behavior that have the effect of reducing their biological drives .**

**Hull's drive reduction theory is based upon his mathematical formulation**

**Known as: Hull's law**

**The equation reads as follows :**

**$E = H \times D$  where**

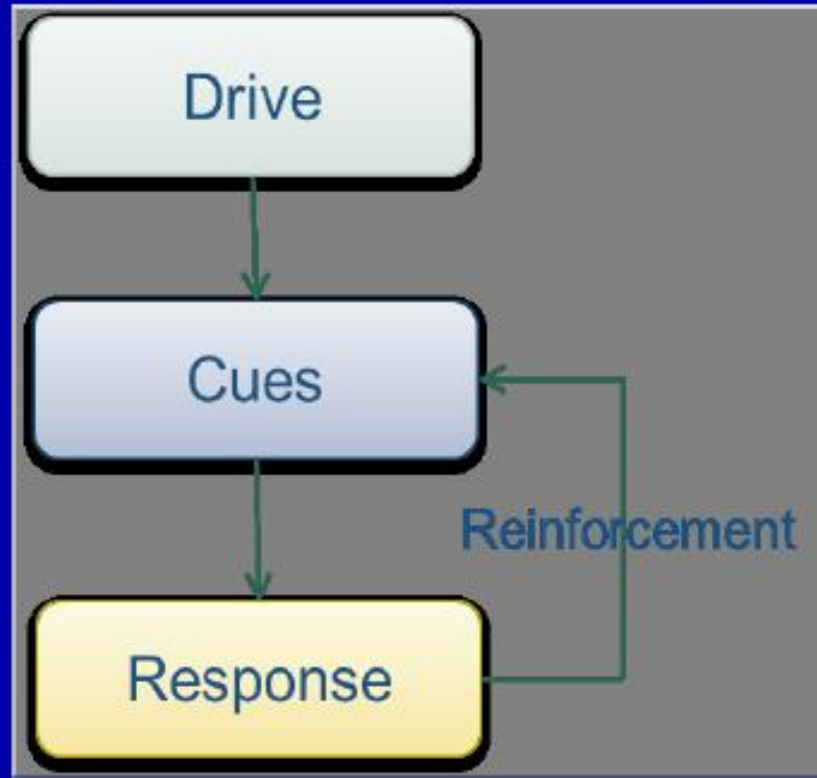
**E = Energy or Response Potential :**

**The energy for performing the behavior , which is directly related to the probability of the behavior being completed .**

**H = Habit : the strength of particular stimulus-response association**

**D = Drive : the strength of biologically – based homeostatic need**

# HULL Theory



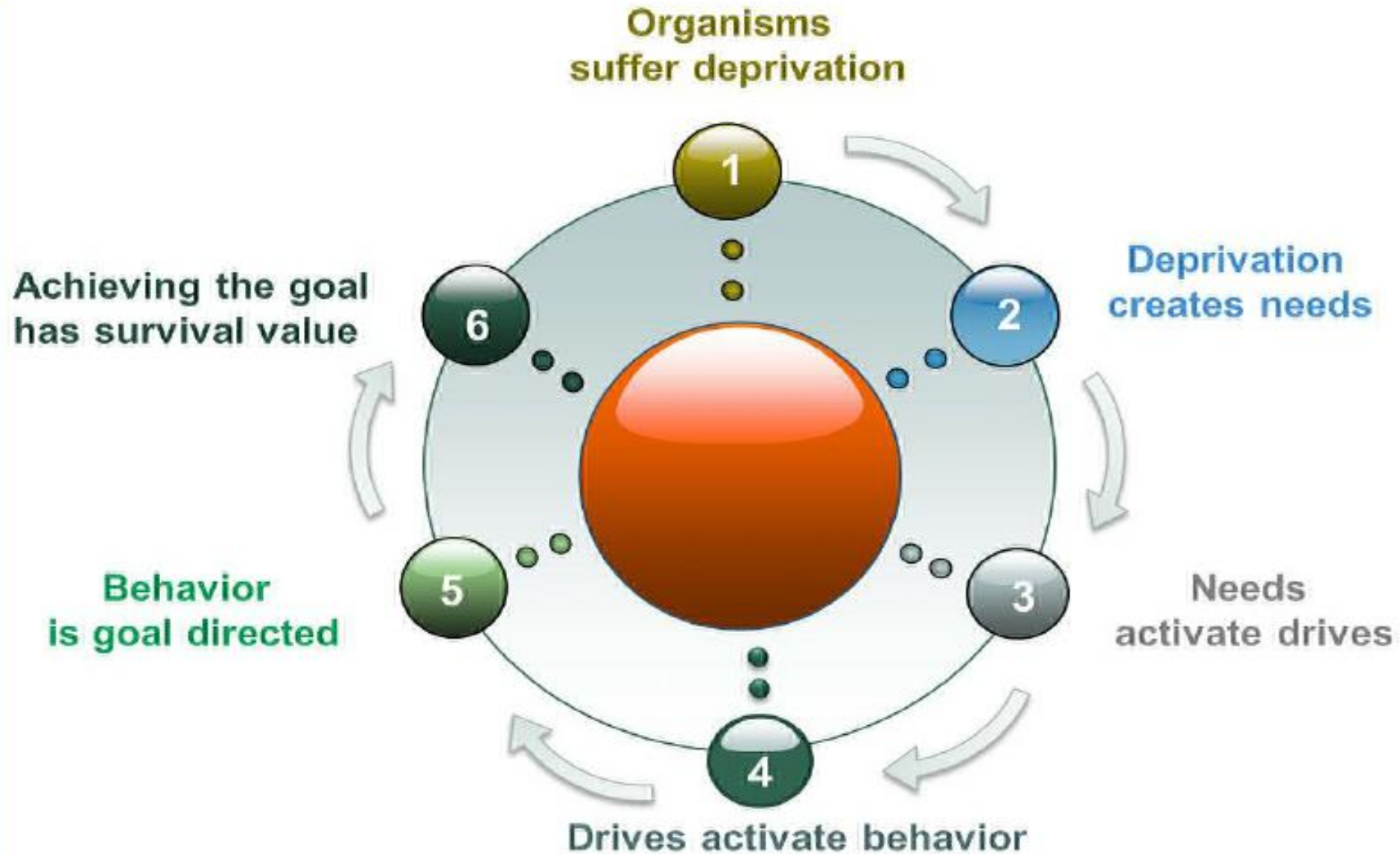
**Drive** : the learner must want something

**Cue** : the learner must attend to something

**Response** : the learner must do something

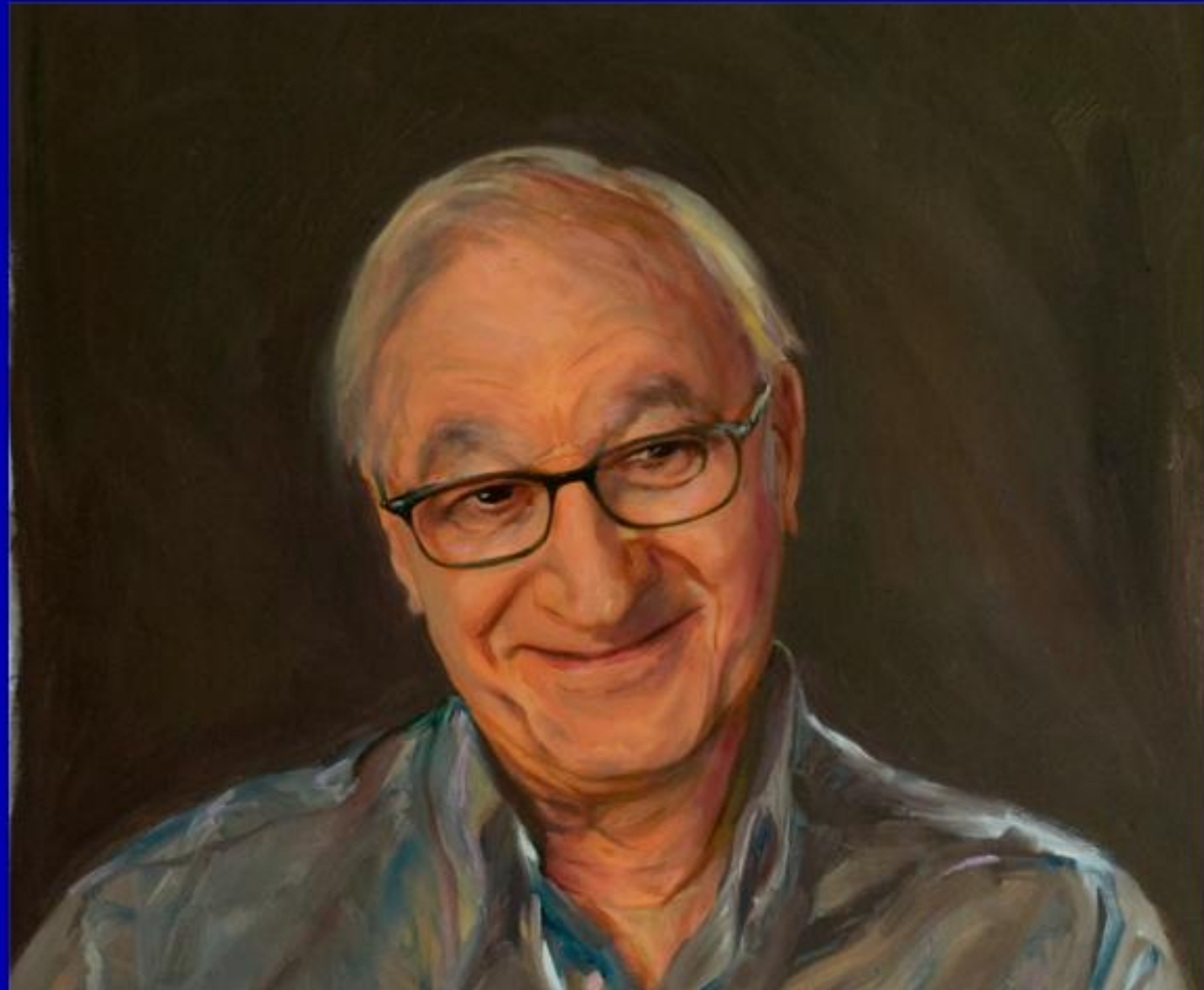
**Reinforcement** : the learner's response must get him/her something that he or she wants.

# Drive Stimulus Reduction Theory





# ALBERT BANDURA



# ALBERT BANDURA

# BOBO DOLL

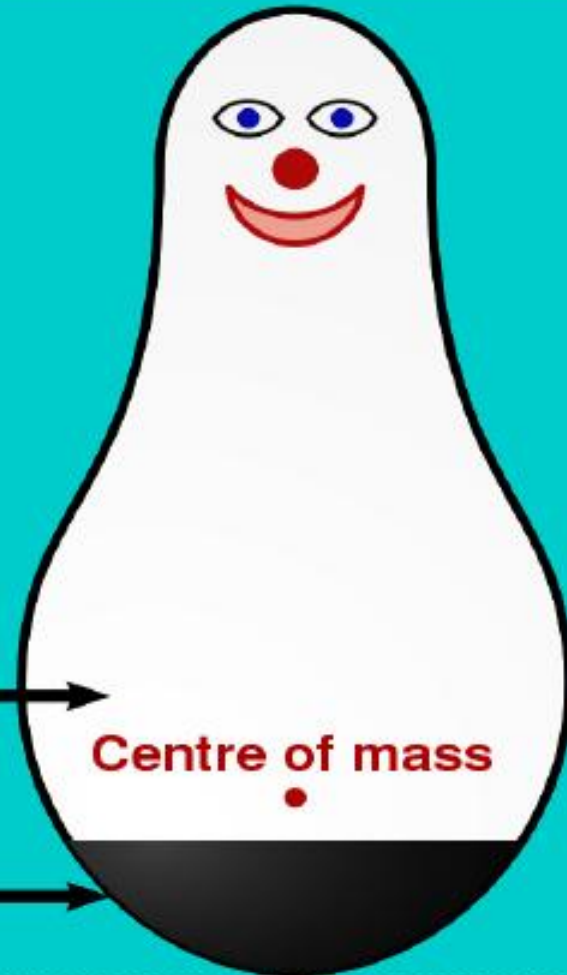


Bobo doll

Low specific weight

High specific weight

Centre of mass





## **Social Learning Theory**

**People are not driven by either inner forces or environmental stimuli in isolation; instead behaviors are learned through continuous interaction of personal and environmental determinants and all learning from direct experience occurs by observing other people's behavior.**

# **Social (Observational) Learning**

**Occurs when an organism's responding (learning) is influenced by the observation of others, who are called models**

**Allows organisms to learn, without requiring their own trial and error experiences**

**"Modeling" occurs when an organism imitates the behavior of others**

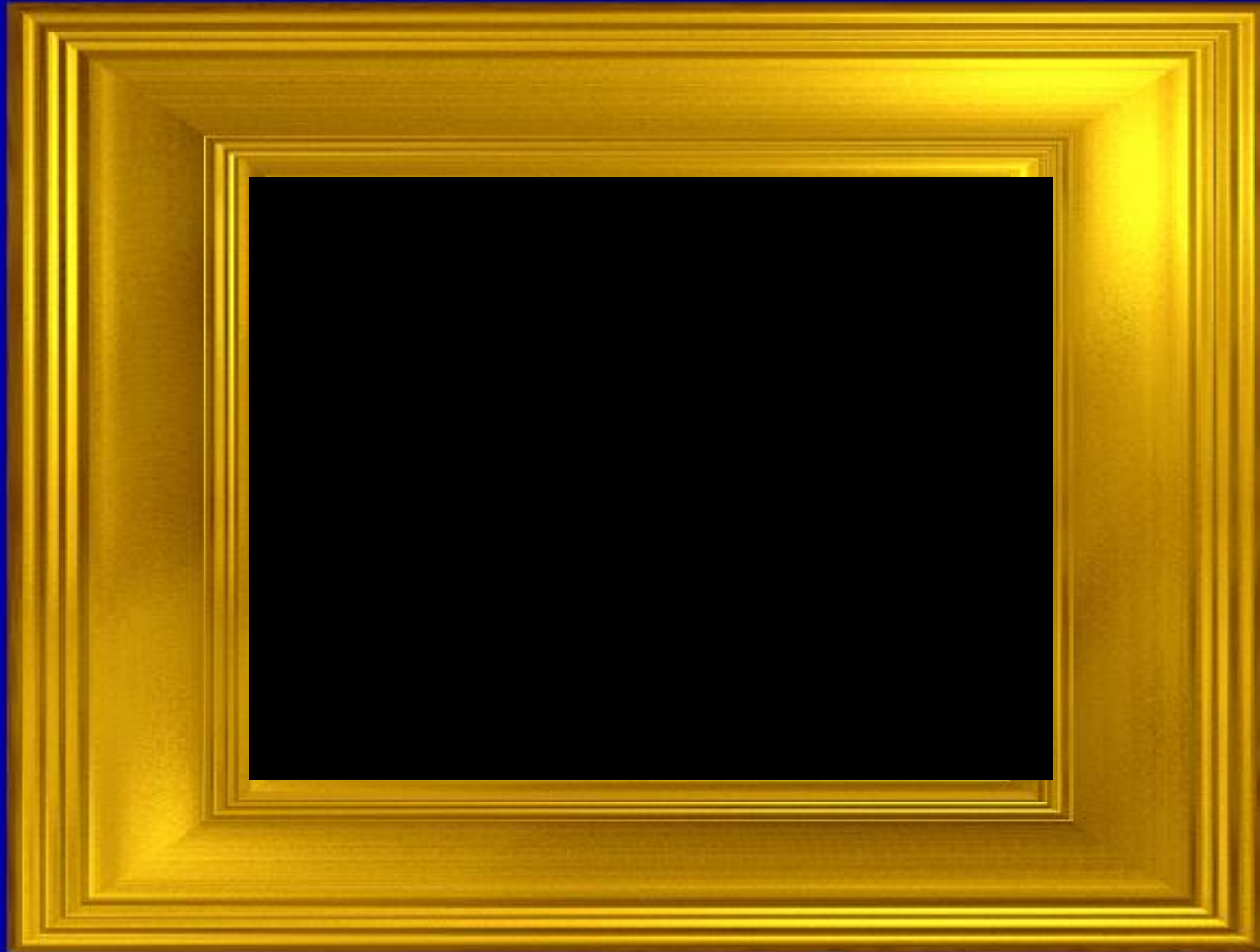
# **Observational learning**

## **MODELING**

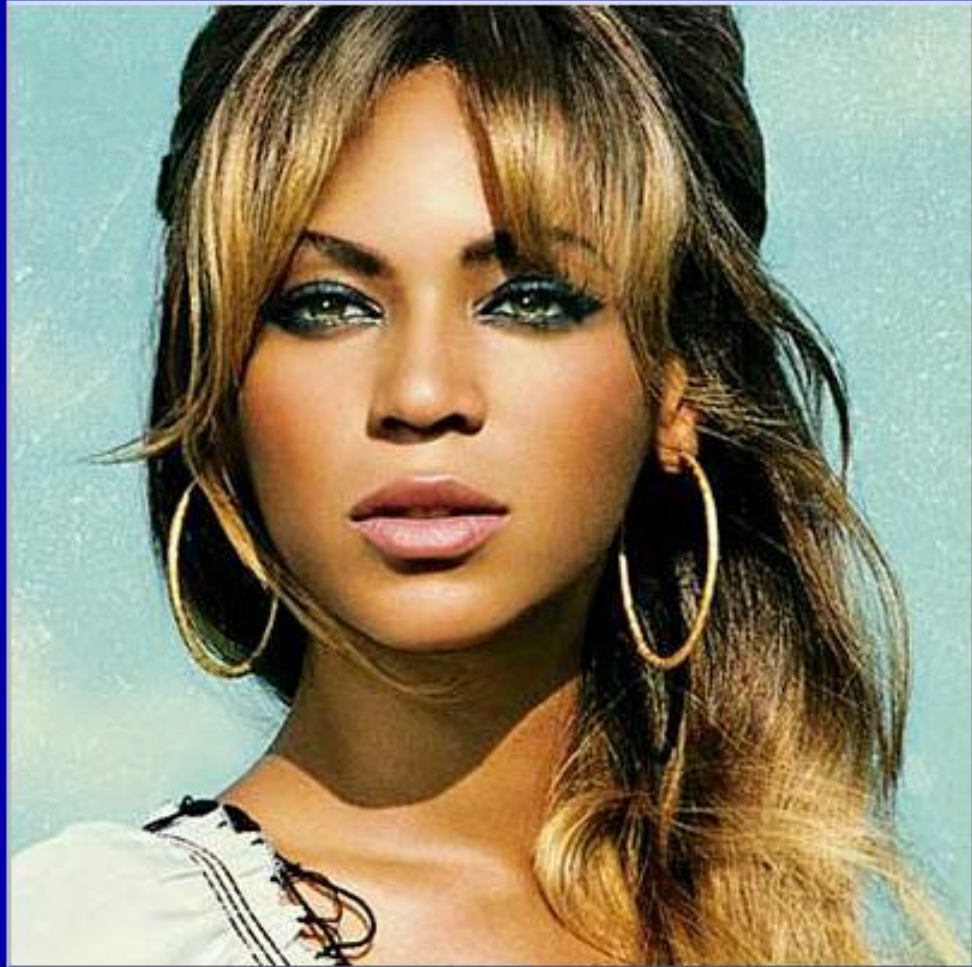
**His findings formed the  
foundation of modern  
Social Learning Theory**

**The following are a few  
clips of the bobo doll  
experiment conducted in  
1961 by Dr. Bandura**

# Observational learning MODELING



# BEONCE





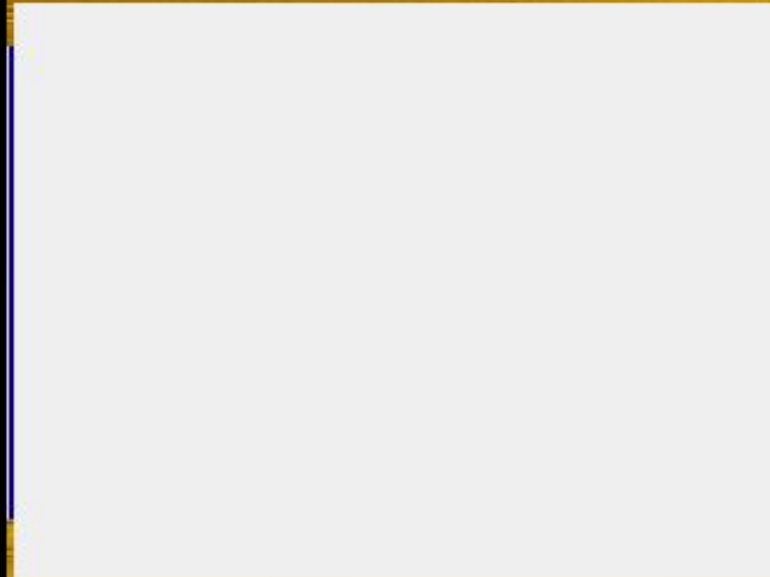
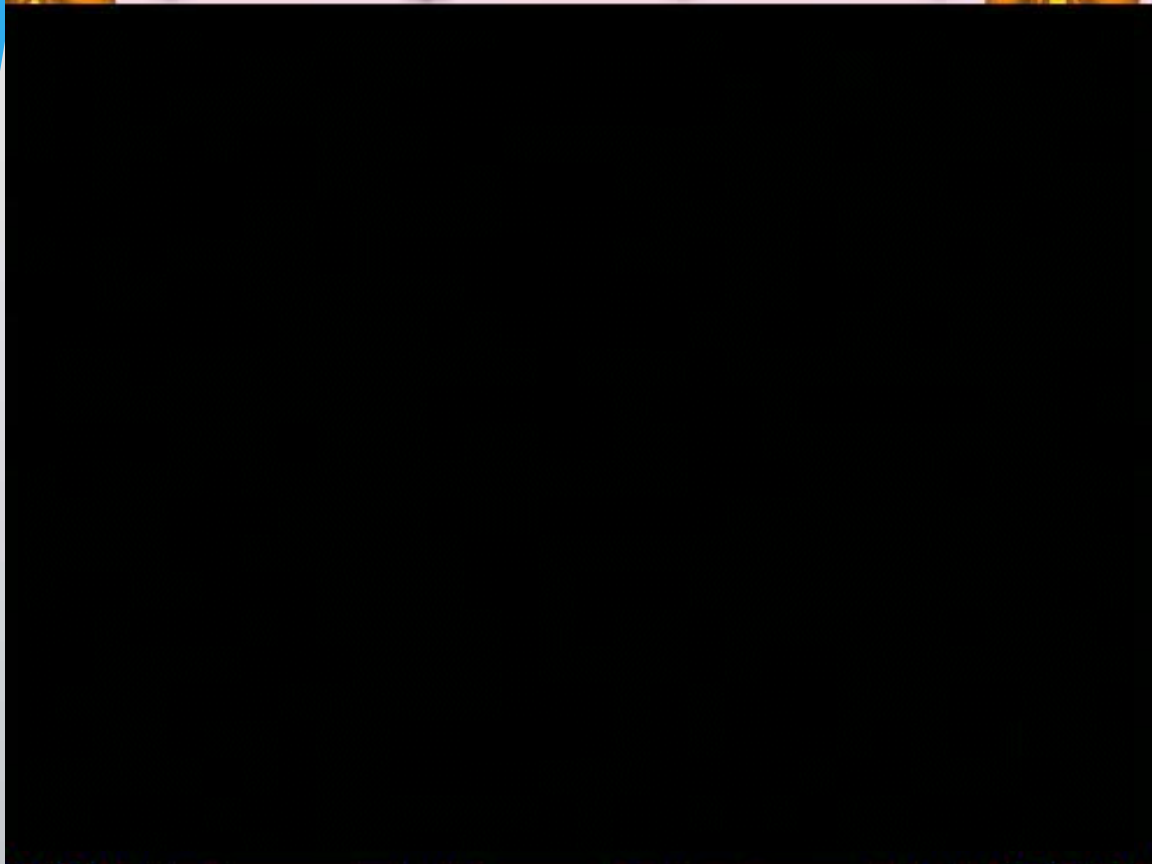
# Observational learning MODELING



# SHAKIRA



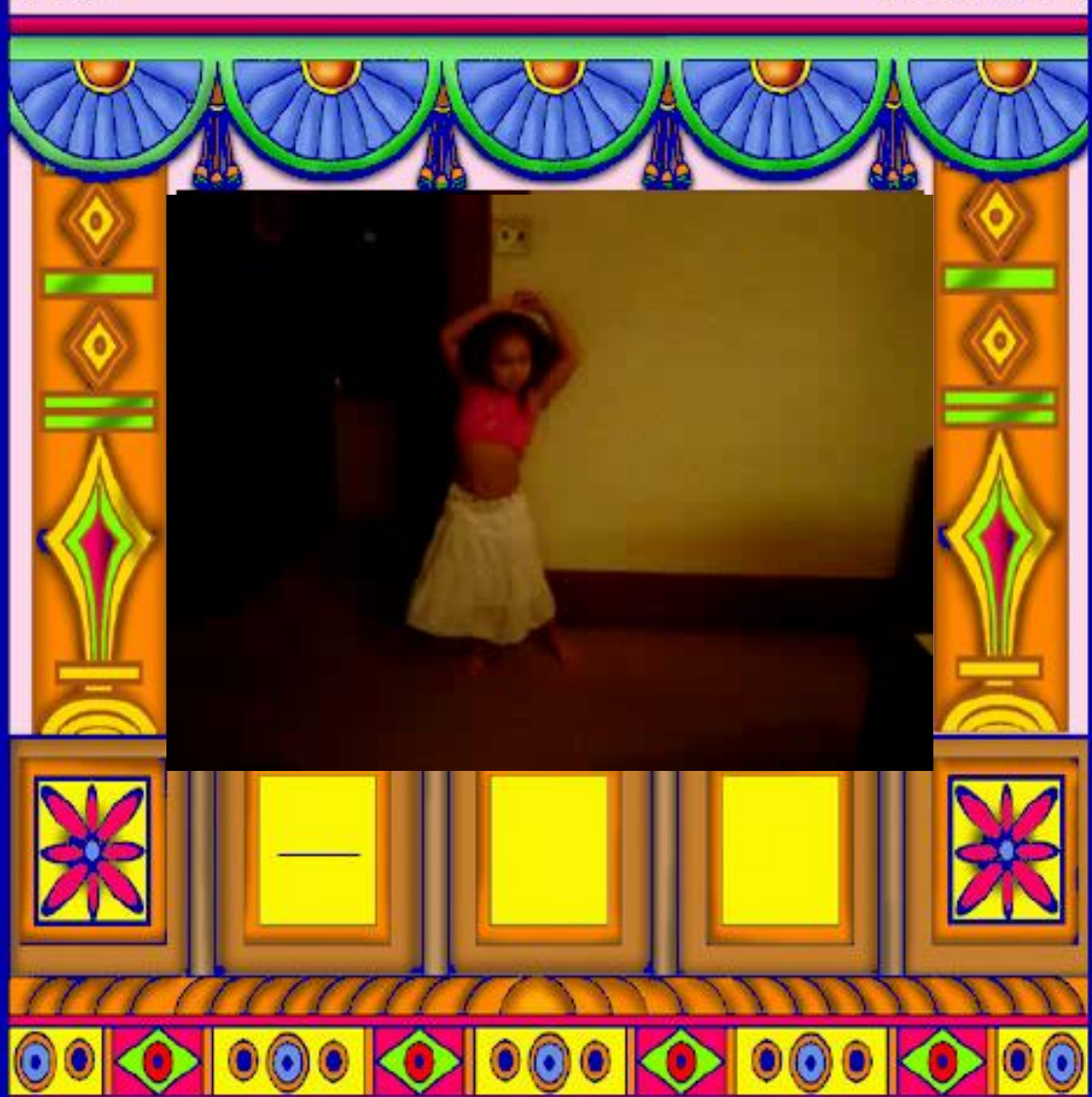




**HIPS DON'T LIE**  
**Shakira**

SRIKRISHNA

A Product of STARDOTSTAR



# Observational learning

## MODELING



# Observational learning

## MODELING



# VALENTINE DAYS

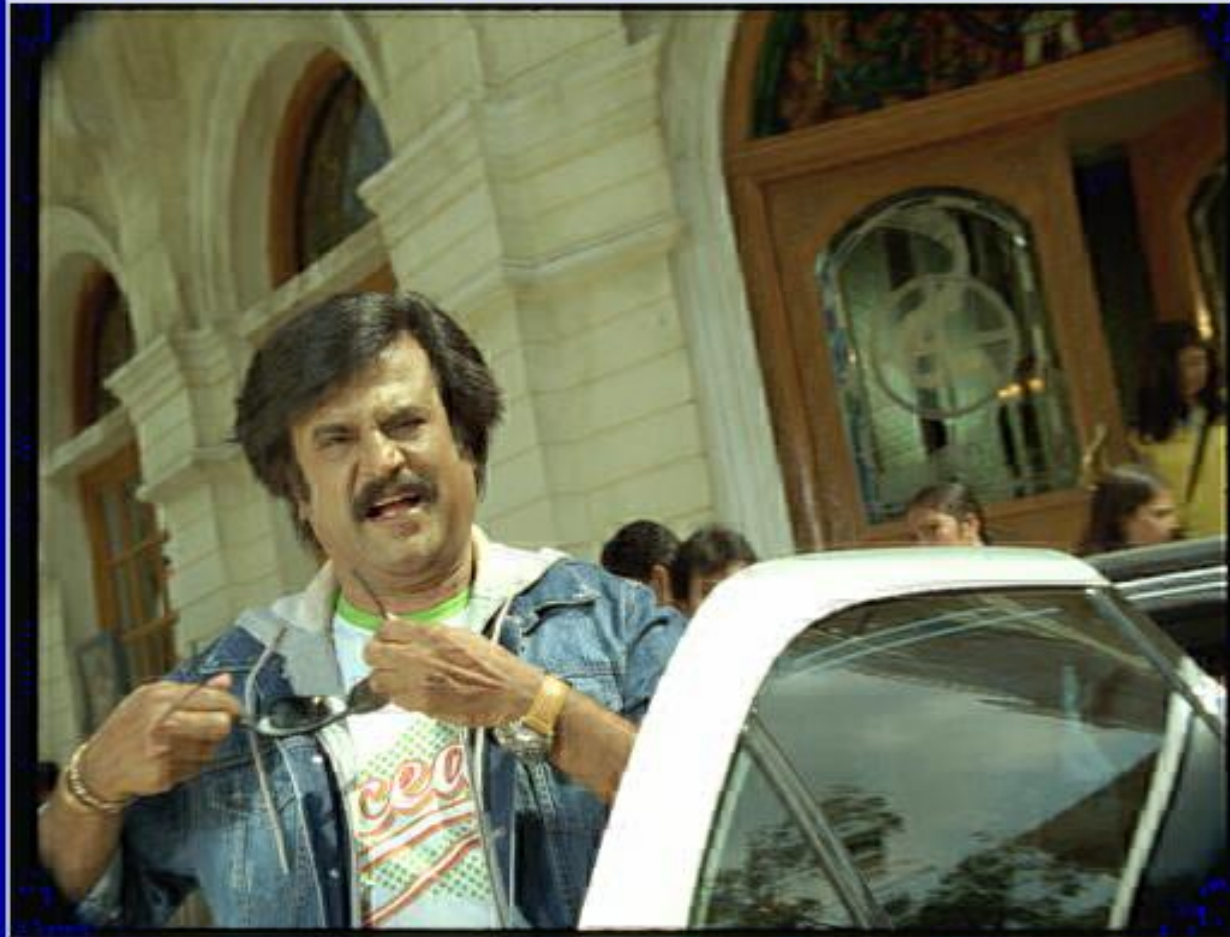


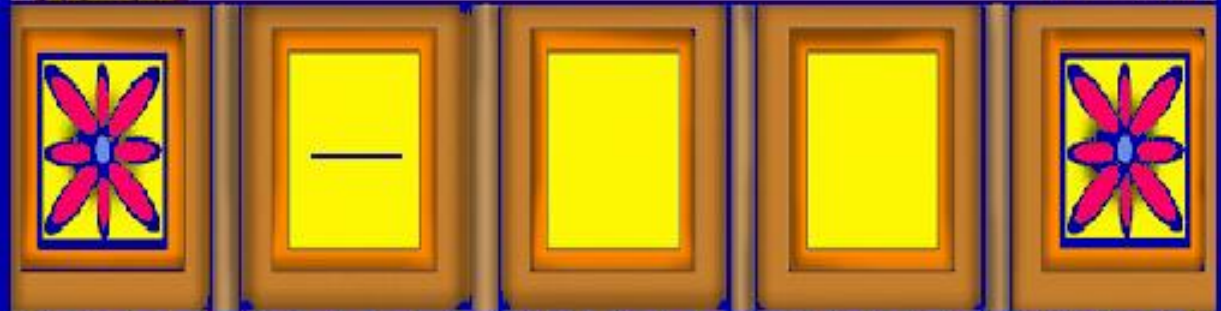
*Sorry I superglued  
your face to my  
cheek.*

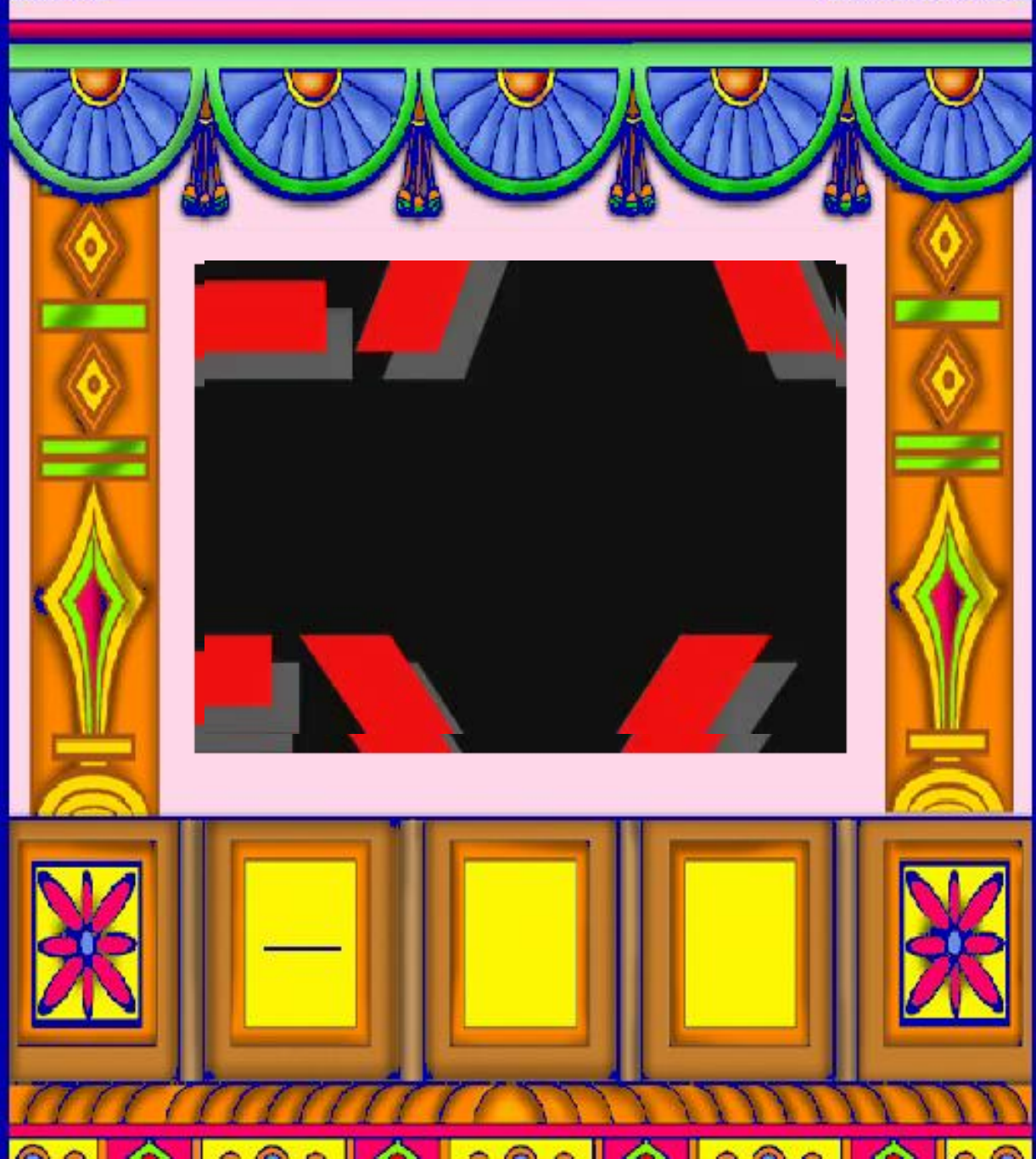


*Be My  
Valentine!*

**Models are more effective when they are:  
Attractive, honest, competent, and have elevated status  
More likely to imitate models who are successful and/or  
rewarded for their behavior**









**“Vicarious reinforcement” and “vicarious punishment”** have effects on behavior that parallel Thorndike’s Law of Effect

**Reinforcement that occurs when you imitate the behavior of someone who has been reinforced for that behavior.**

**Punishment that refers to the tendency not to repeat behaviours that we observe others punished for performing.**

# APPLICATION

## **Skills Training**

**Modeling adaptive behavior as a parent, therapist, etc.  
E.g., teach shy children positive social skills**

## **Vicarious exposure to adaptive behaviors**

**Show videos or models engaging in desired behavior  
E.g., show child with a dog phobia video of similar children playing with dogs and having fun.**

## **Limiting exposure to maladaptive behaviors**

**Prevent children from seeing others engaging in undesired behavior  
E.g., censoring TV shows, movies, video games**



# **COGNITIVE FIELD THEORIES**

# **COGNITIVISM**

**Learning is a change of knowledge state**

**Knowledge acquisition is described as a mental activity that entails internal coding and structuring by the learner.**

**Learner is viewed as an active participant in the learning process**

**Emphasis is on the building blocks of knowledge (e.g. identifying prerequisite relationships of content)**

**Emphasis on structuring, organizing and sequencing information to facilitate optimal processing**

# ROBERT GAGNE



Robert Gagne  
(1916-2002)

**1.Signal learning:** the learner makes a general response to a signal

**2.Stimulus-response learning:** the learner makes a precise response to a signal

**3.Chaining:** the connection of a set of individual stimulus & responses in a sequence.

**4.Verbal association:** the learner makes associations using verbal connections

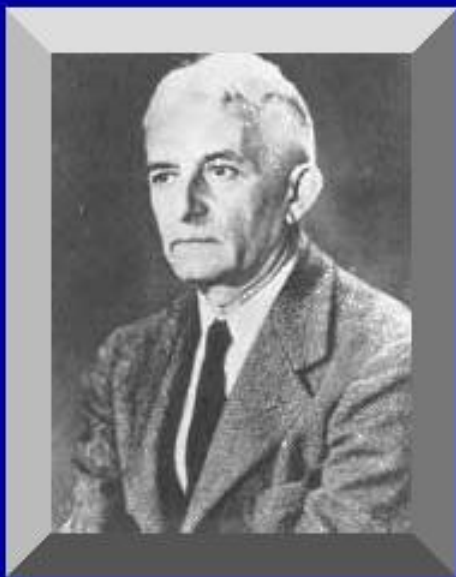
**5.Discrimination learning:** the learner makes different responses to different stimuli that are somewhat alike

**6.Concept learning:** the learner develops the ability to make a generalized response based on a class of stimuli

**7.Rule learning:** a rule is a chain of concepts linked to a demonstrated behavior

**8.Problem solving:** the learner discovers a combination of previously learned rules and applies them to solve a novel situation

# Kohler



# The Insight theory of the Gestalt Psychologists



**SULTAN**



**INSIGHT LEARNING**



**CHIMPANZEES**

# INSIGHT LEARNING



**CHIMPANZEES**

# INSIGHT LEARNING



**PIGEON**

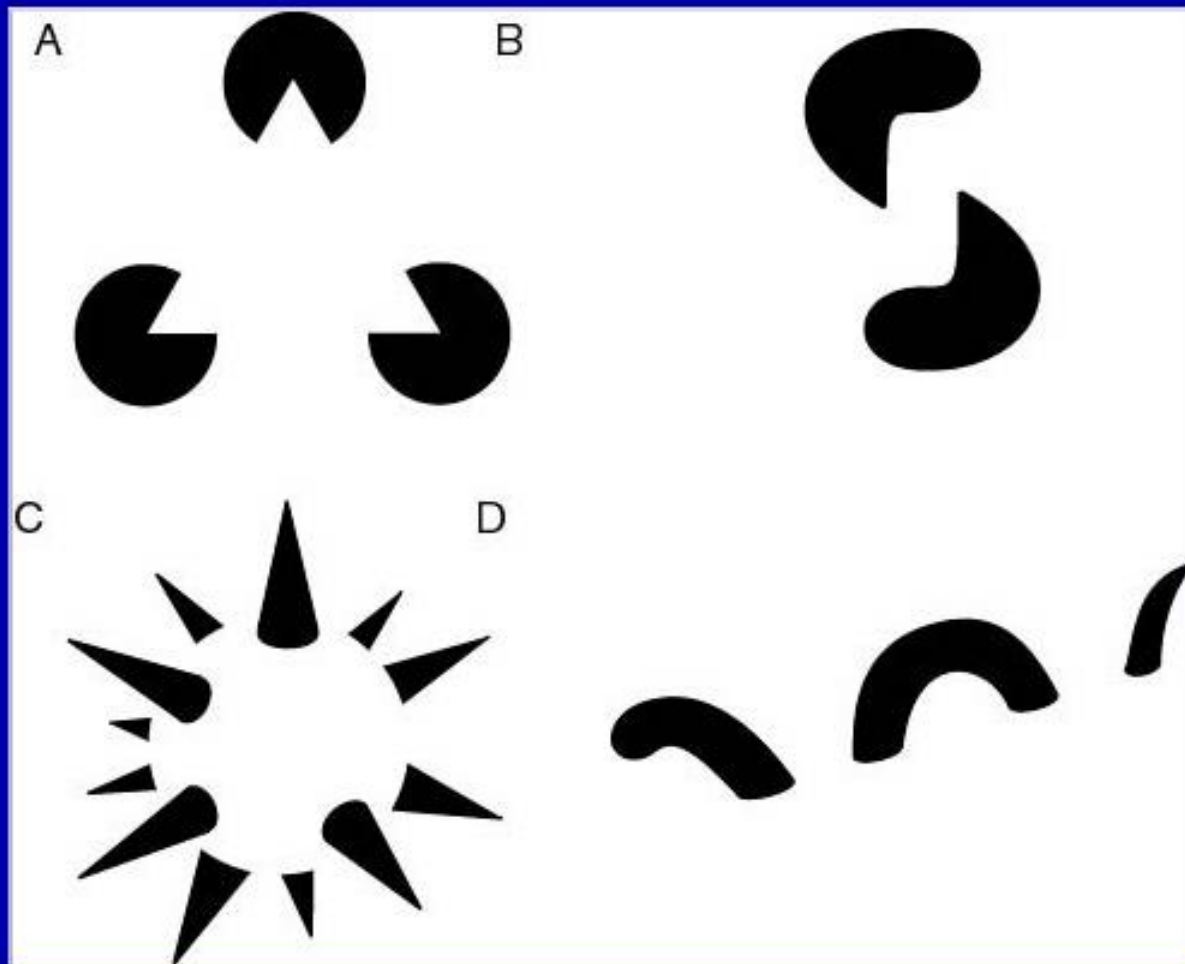
# **GESTALT LAWS**

## **APPLICABLE TO LEARNING**

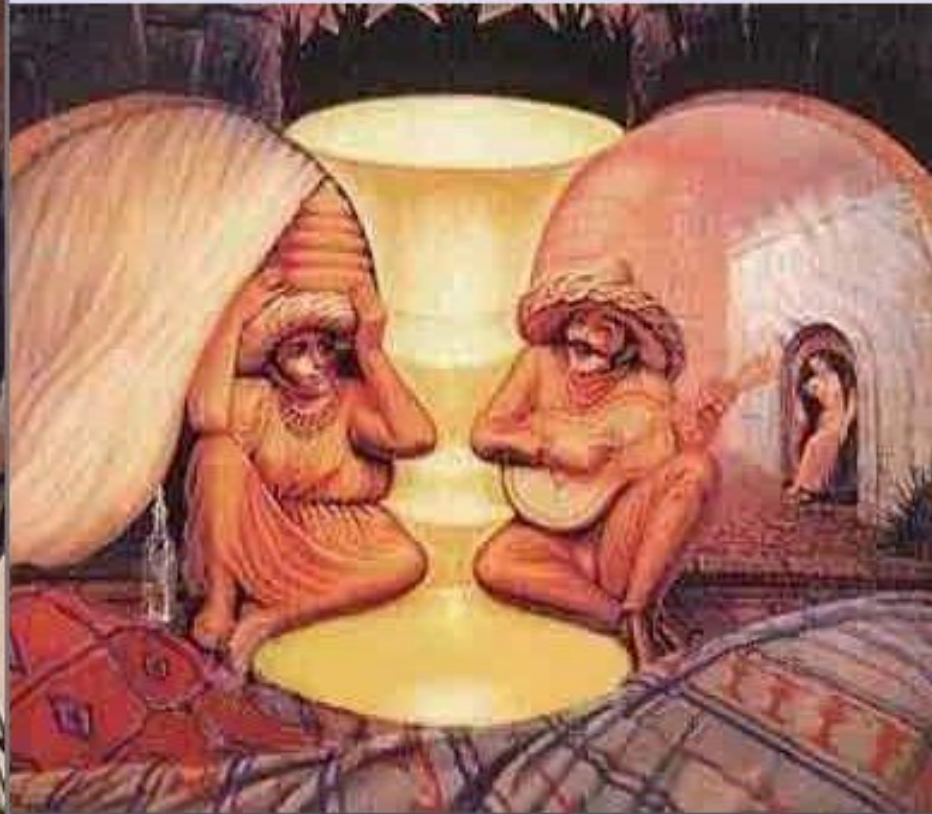
**The fundamental principle of gestalt perception is the law of **prägnanz** (in the German language, pithiness) which says that we tend to order our experience in a manner that is regular, orderly, symmetric, and simple**

# The WHOLE

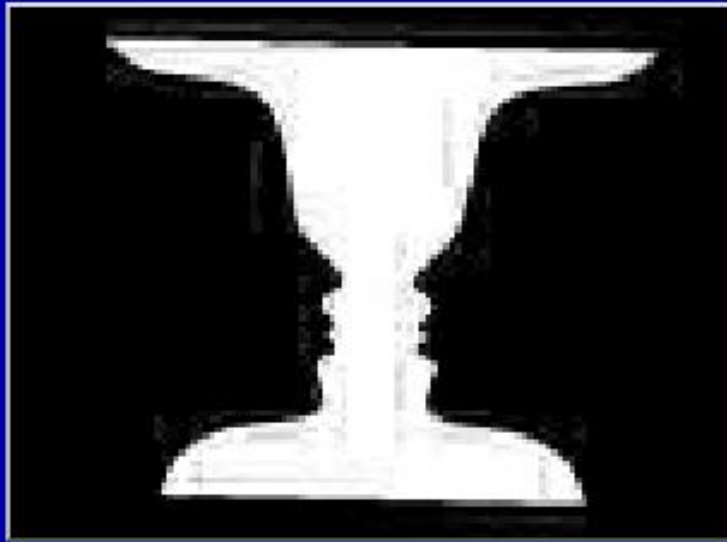
**The whole is greater than the sum of the parts**



# FIGURE BACKGROUND

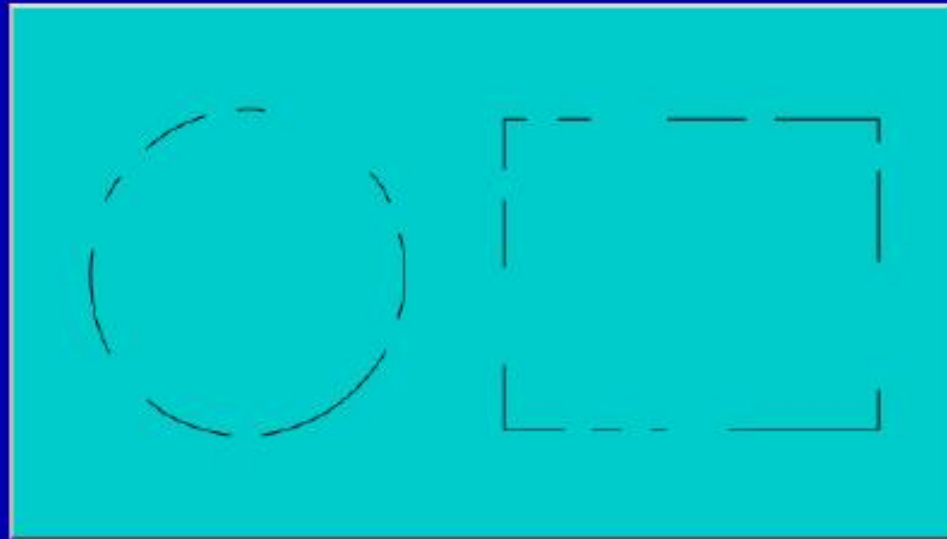


**Adult Learning can be epochal,  
a sudden transformation of the  
learner's perception**



## The law of closure

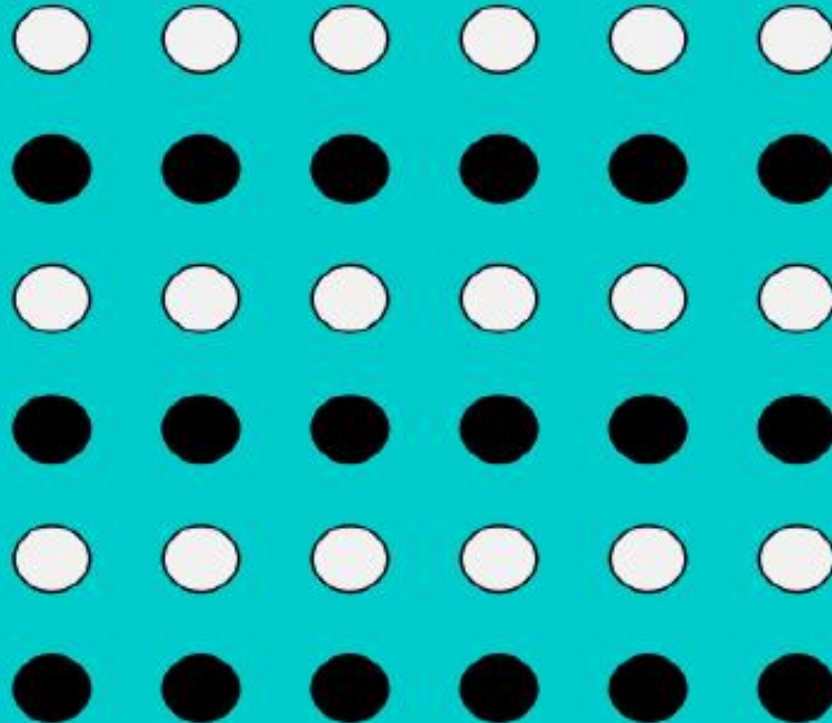
**The mind may experience elements it does not perceive through sensation, in order to complete a regular figure (that is, to increase regularity).**





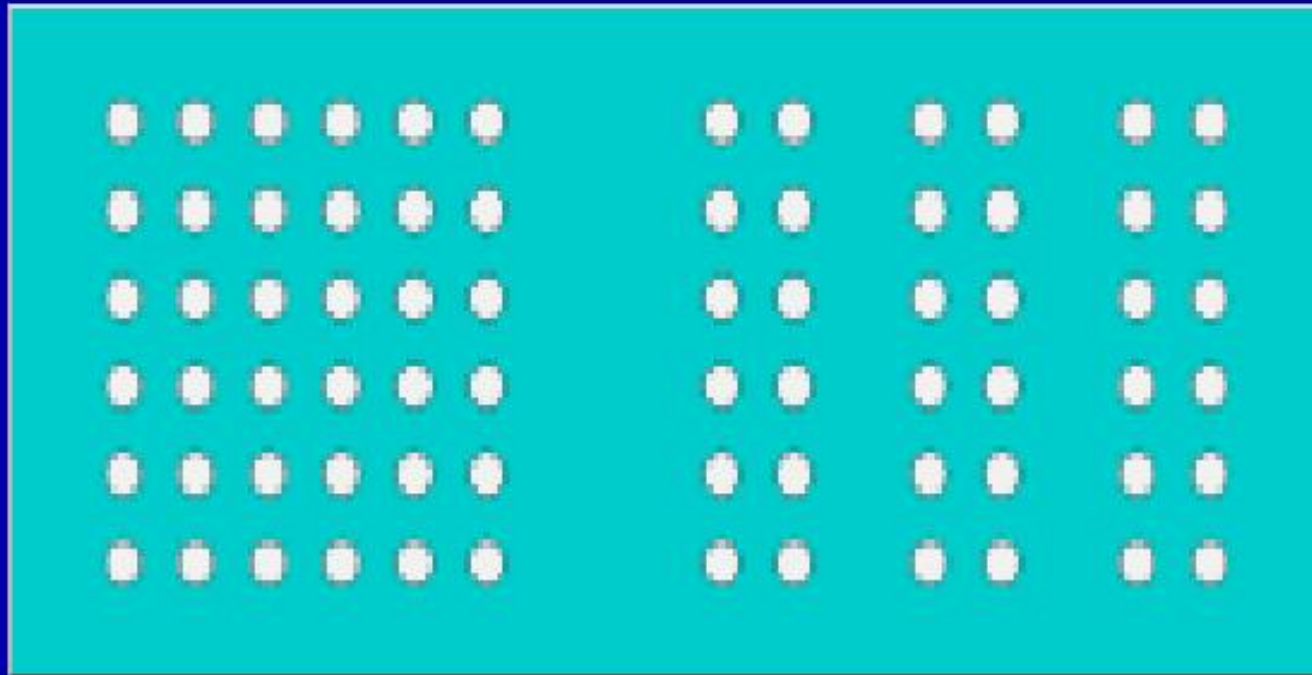
## The law of similarity

The mind groups similar elements into collective entities or totalities. This similarity might depend on relationships of form, color, size, or brightness



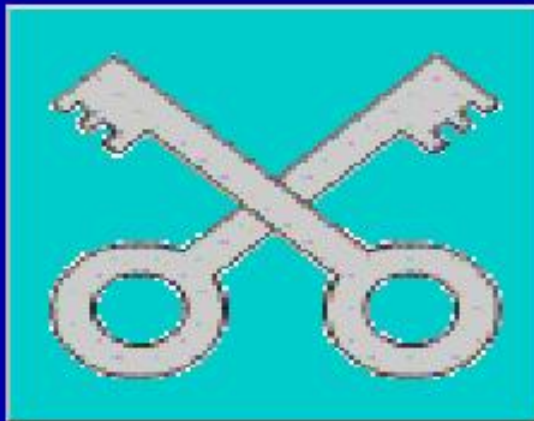
## The law of proximity

**Spatial or temporal proximity of elements may induce the mind to perceive a collective or totality**



## **The law of good continuation**

**When there is an intersection between two or more objects, people tend to perceive each object as a single uninterrupted object. This allows differentiation of stimuli even when they come in visual overlap. We have a tendency to group and organize lines or curves that follow an established direction over those defined by sharp and abrupt changes in direction**

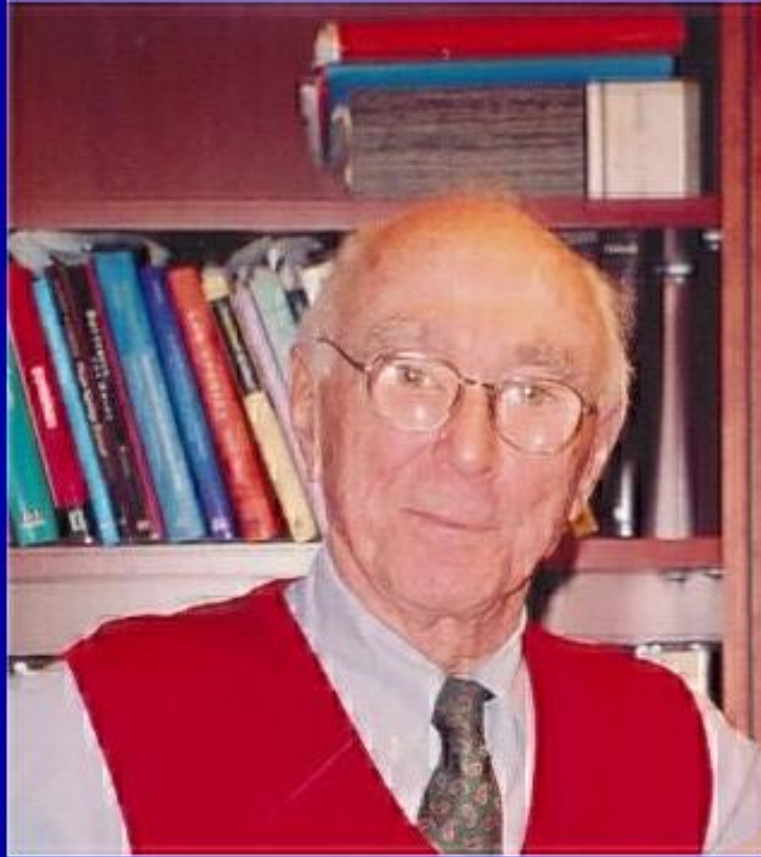


## **The law of common fate**

**When visual elements are seen moving in the same direction at the same rate, perception associates the movement as part of the same stimulus. For example, birds may be distinguished from their background as a single flock because they are moving in the same direction and at the same velocity, even when each bird is seen - from a distance - as little more than a dot. The moving 'dots' appear to be part of a separate and unified whole.**



# GEROME BRUNER



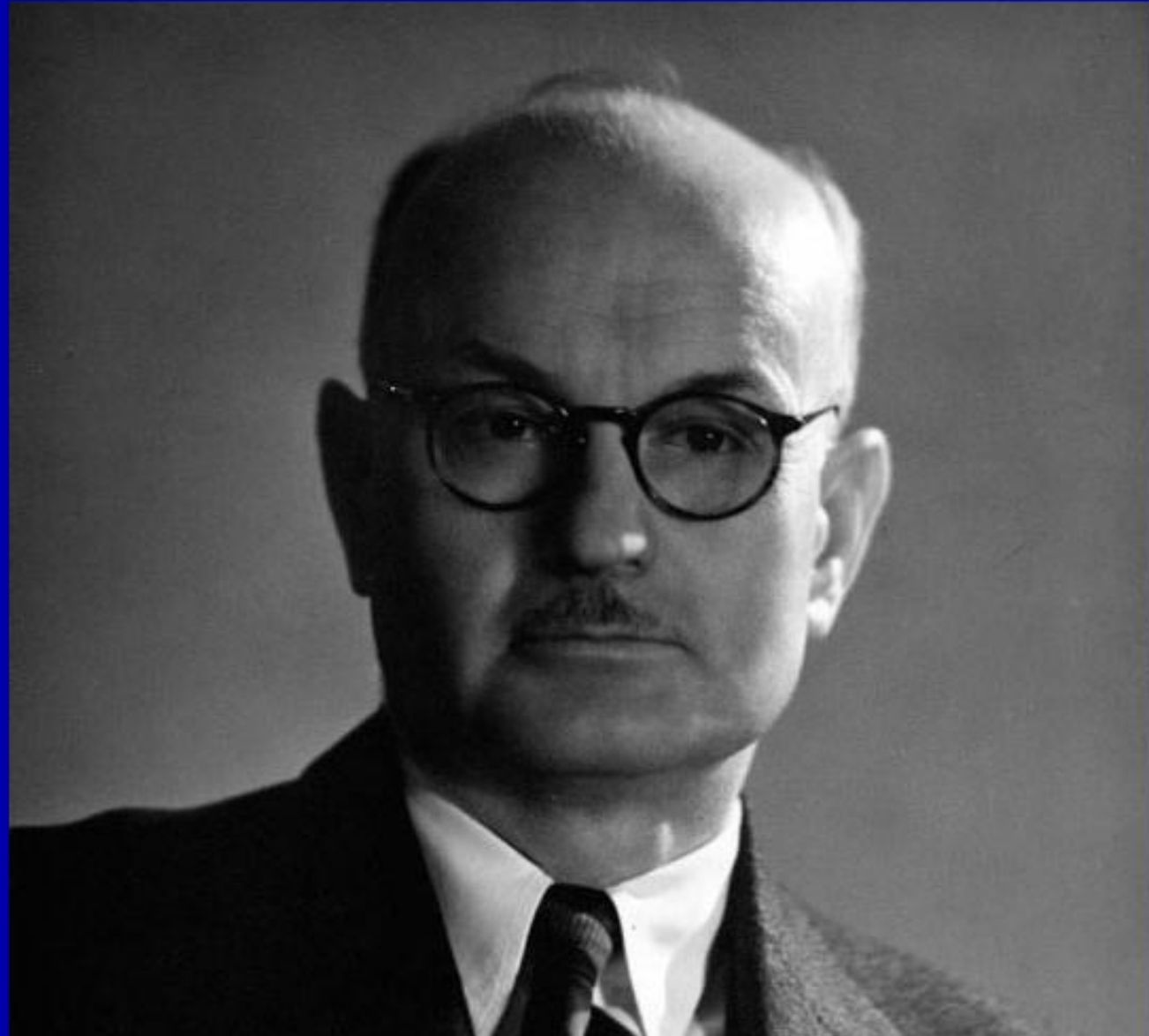
# **Jerome Bruner (1966)**

**from the known to the unknown**

**from the simple to the complex**

**from the concrete to the abstract**

# Edward Chace Tolman



# **Edward Chace Tolman**

**His theory of learning can be looked on as a blend of Gestalt theory and behaviorism**

**He saw little value in the introspective approach**

**He agreed on molar behavior rather than molecular behavior**



# **MOLAR BEHAVIOUR**


**Purposive**

**Purposive Behavior in Animals and Men**

**Related to the Gestalt theory**

**Tolman felt that whole behavior patterns had a meaning that would be lost if studied from an elementistic viewpoint**

**It is in contrast with the idea of molecular behavior**



**According to Tolman, taking his lead from the Gestalt theorists, learning is essentially a process of discovering what leads to what in the environment.**

**Emphasizer** – an organism's drive state determines which aspect of the environment will be emphasized in its perceptual field.

# Principle of Least Effort



**when an organism chooses the one that will require the shortest Route / shortcuts or anything that will only require minimum amount of energy.**

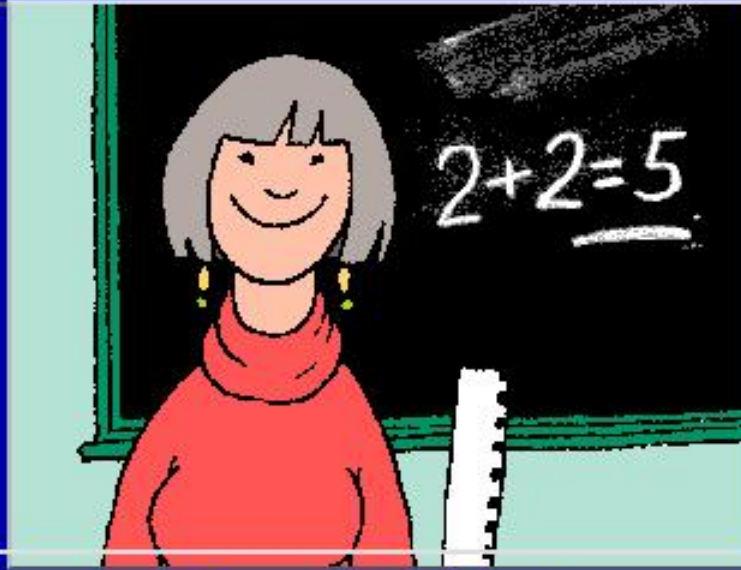
# Cognitive map

**A picture of something that an organism usually is encountering when it do something.**



**Example: when a person walks on the same street everyday, he will know that when he looks/turns to his left, he will see this and when he looks/turns to the right, he will see that.**

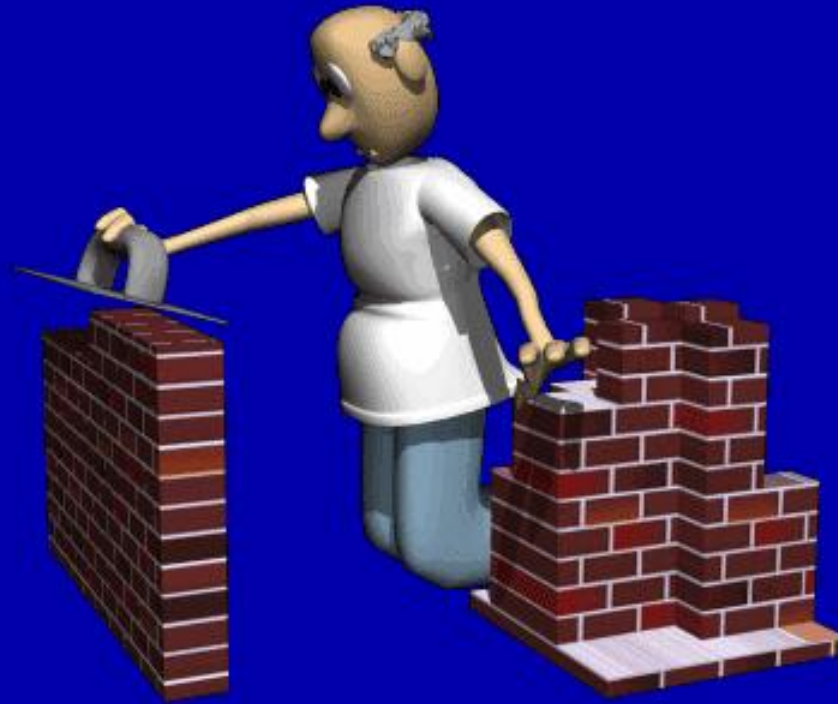
# Confirmation vs. Reinforcement



## Confirmation of Expectancy

when an expectation is consistently confirmed, the organism ends up believing and will think that when it acts in a certain way, a certain result will be obtained.

# CONSTRUCTIVISM




# **CONSTRUCTIVISM**

**Learners build personal interpretation of the world based on experiences and interactions**

**Knowledge is embedded in the context in which it is used (authentic tasks in meaningful realistic settings)**

**Create novel and situation-specific understandings by "assembling" knowledge from diverse sources appropriate to the problem at hand (flexible use of knowledge)**



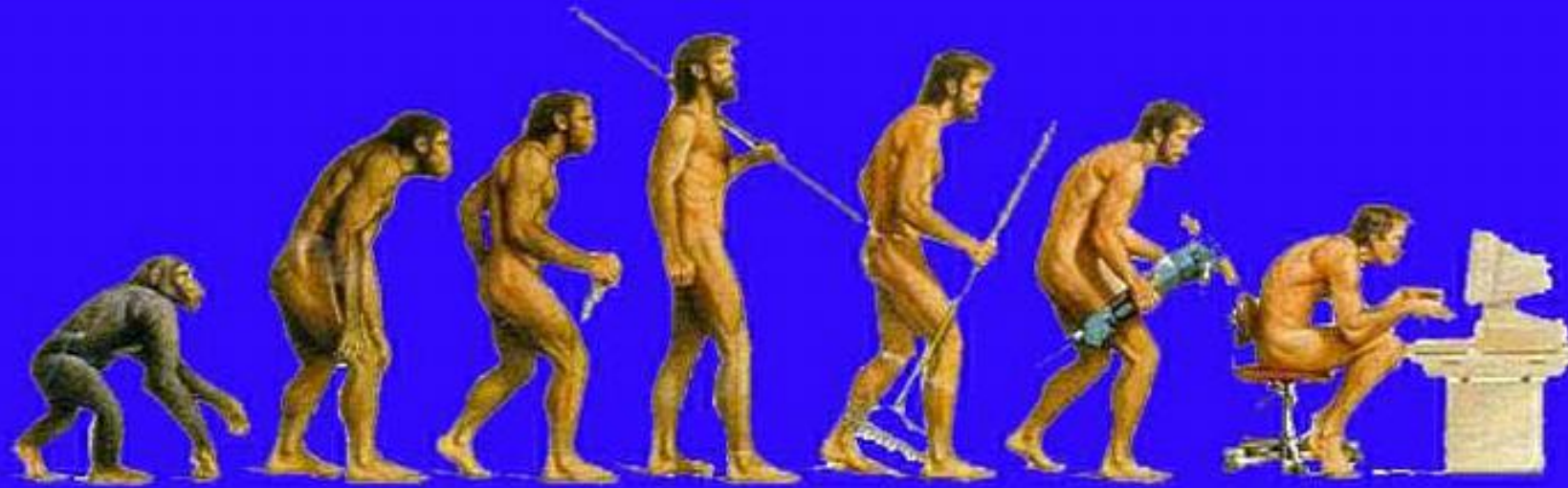
**Learning is an active process in which learners discover and construct new ideas/concepts based on their current/prior knowledge.**

**The issues that guide this process must be personally or societally relevant.**

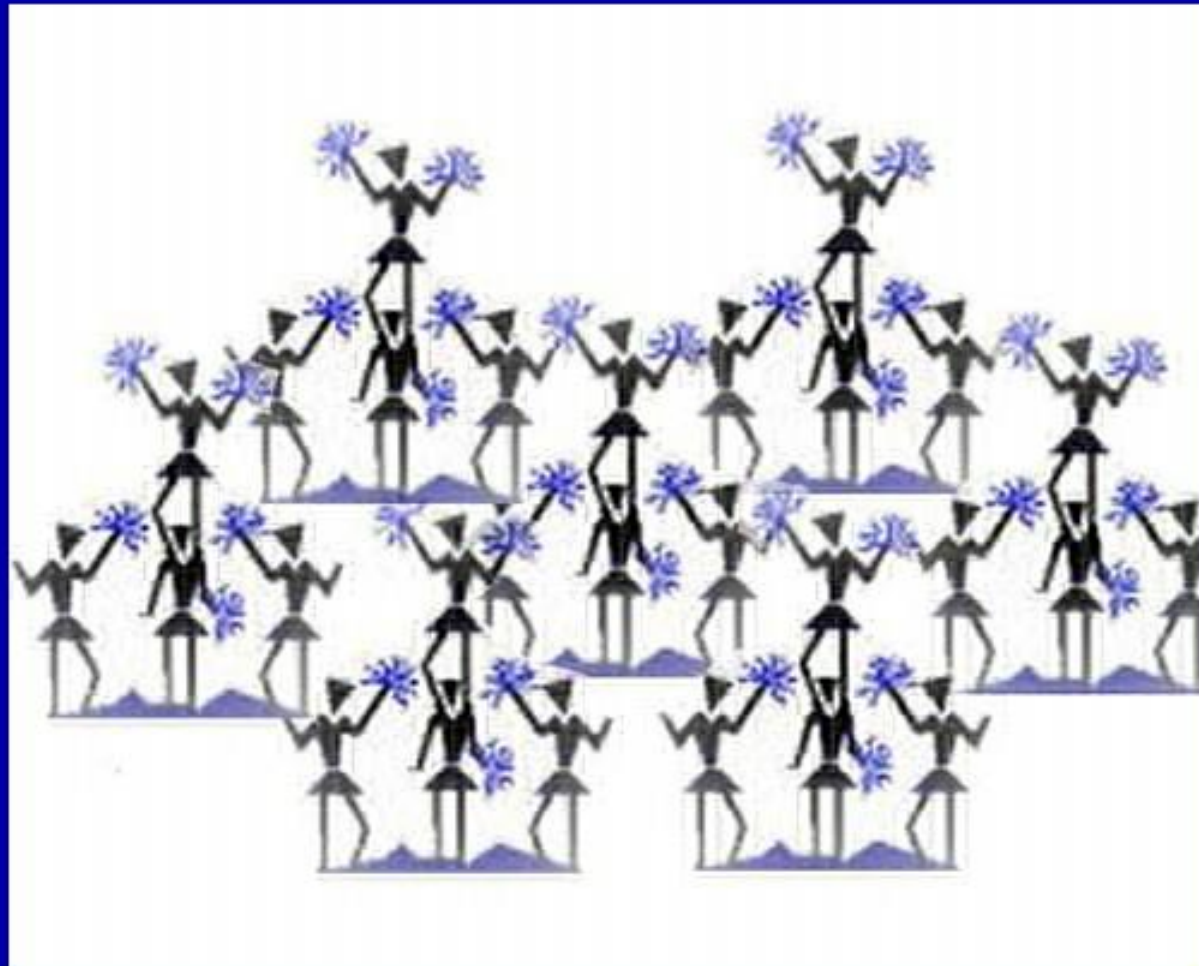
**CONSTRUCTIVISTS** believed that the learner selects information, constructs ideas based on that information and makes decisions by relying on their own cognitive structure of information.



# Is the development of theories a linear process?



**Or is learning a cyclic process where what is learned enables more learning which in turn modifies that which was learned round and round spiraling toward understanding.**



**The learning process is seen as  
cumulative transformations in  
related meaning schemes**



# JEAN PIAGET



# JEAN PIAGET



## **Sensorimotor Stage (birth - 2 yrs):**

actions become more intentional and integrated into patterns, there is an increased awareness of self and surroundings.

## **Preoperational Thought Stage (2 - 7yrs):**

development of language and conceptual thought occurs.

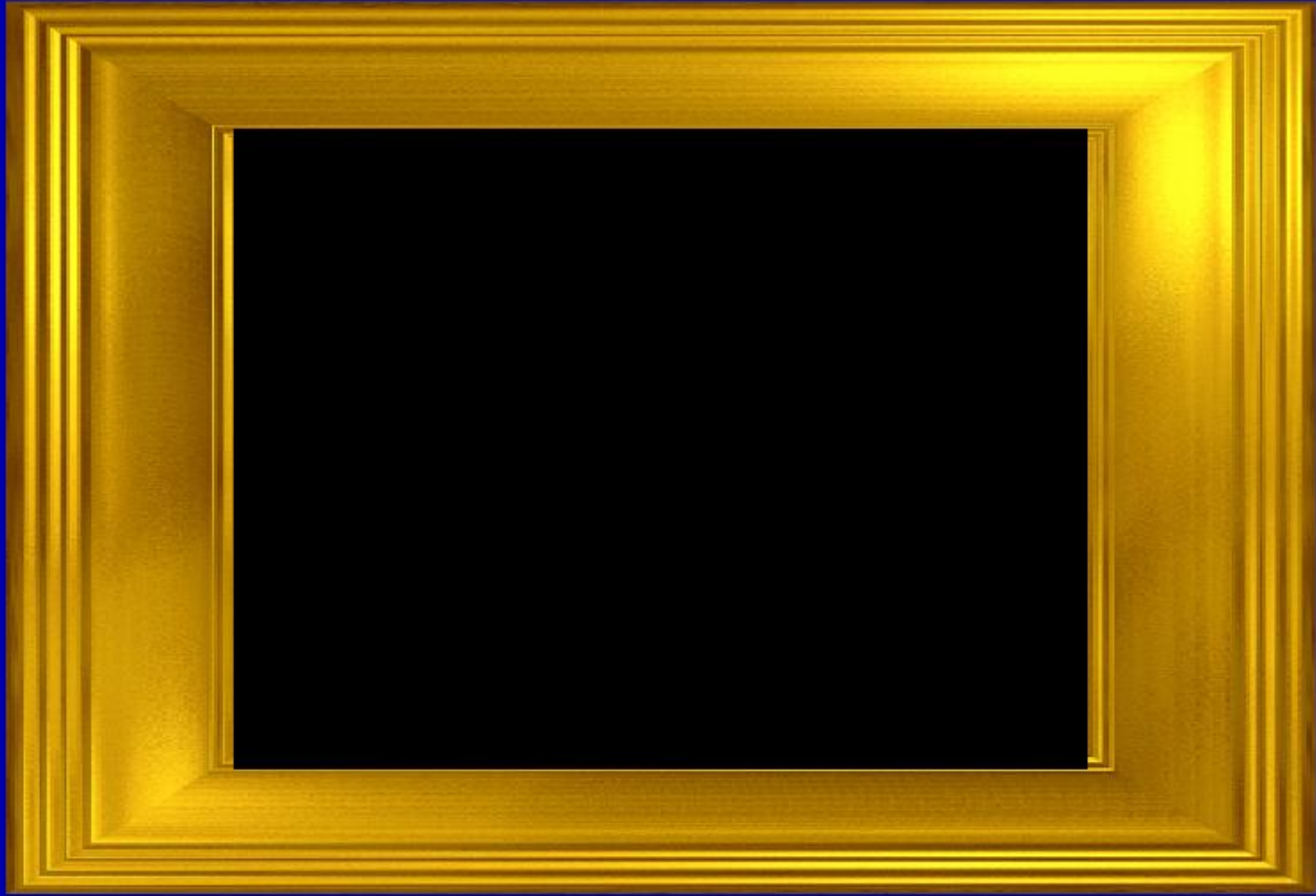
## **Concrete Operations Stage (7-11yrs):**

increased ability to apply logical thought to concrete problems, thinking is still primarily related to immediate experience.

## **Formal Operations Stage (11yrs on):**

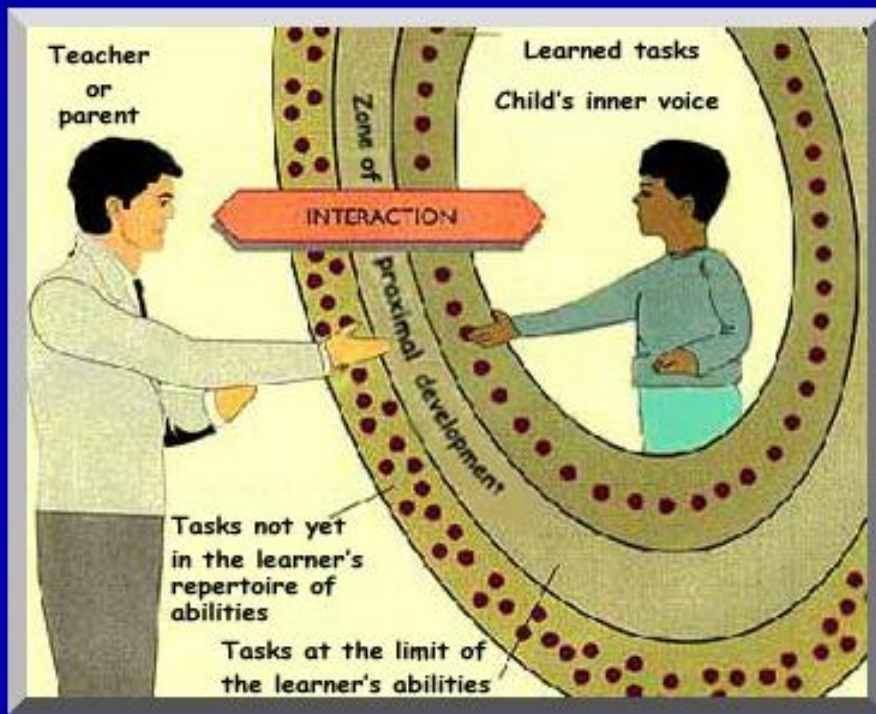
ability to apply logic to a variety of problems; higher order thinking occurs.

# PIAGET - STAGES OF DEVELOPMENT

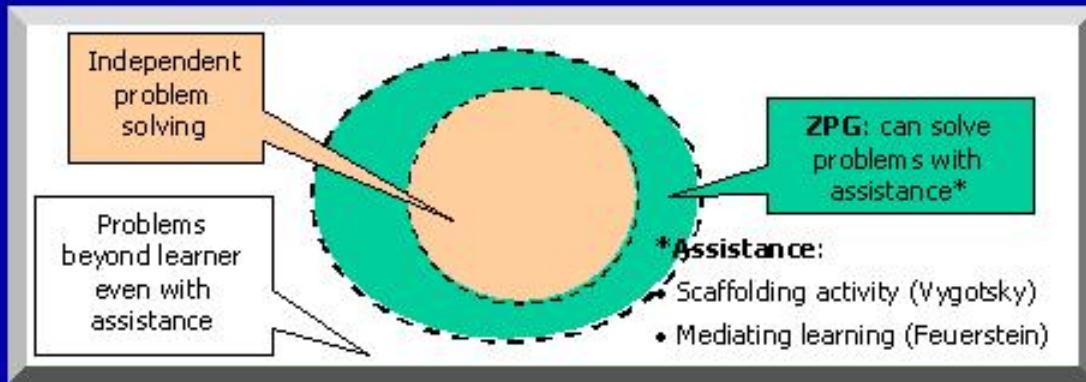


# LEV VYGOTSKY



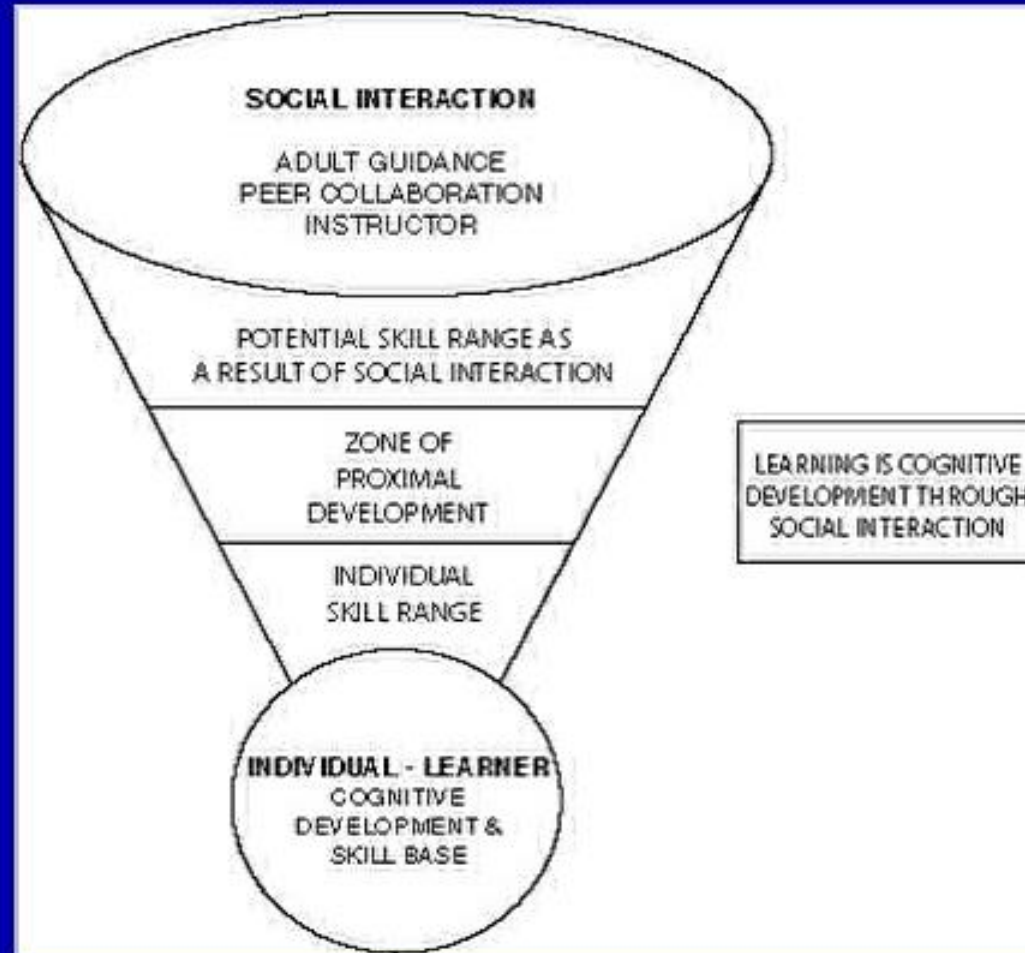


The level of potential development (the “zone of proximal development”)






# SOCIAL INTERACTION / COGNITIVE DEVELOPMENT




# Social Development Theory



**Vygotsky believed that social interaction played a role in the development of cognition – learning could occur through social contact.**



**Vygotsky (1978) states "every function in the child's cultural development appears twice: first, on the social level, and then, later, on the individual level; first, between people, then inside the child."**

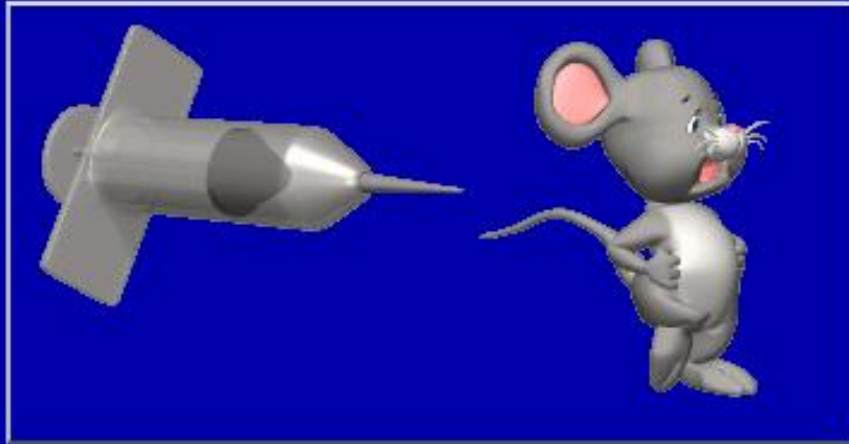


**The basic premise is that the adult provides the support and **scaffolding** for the individual until the individual assimilates the knowledge into their own cognitive structure. The idea behind scaffolding is that the support system is gradually taken away as the learner begins to take over and understand the process.**

# IMPLICATIONS

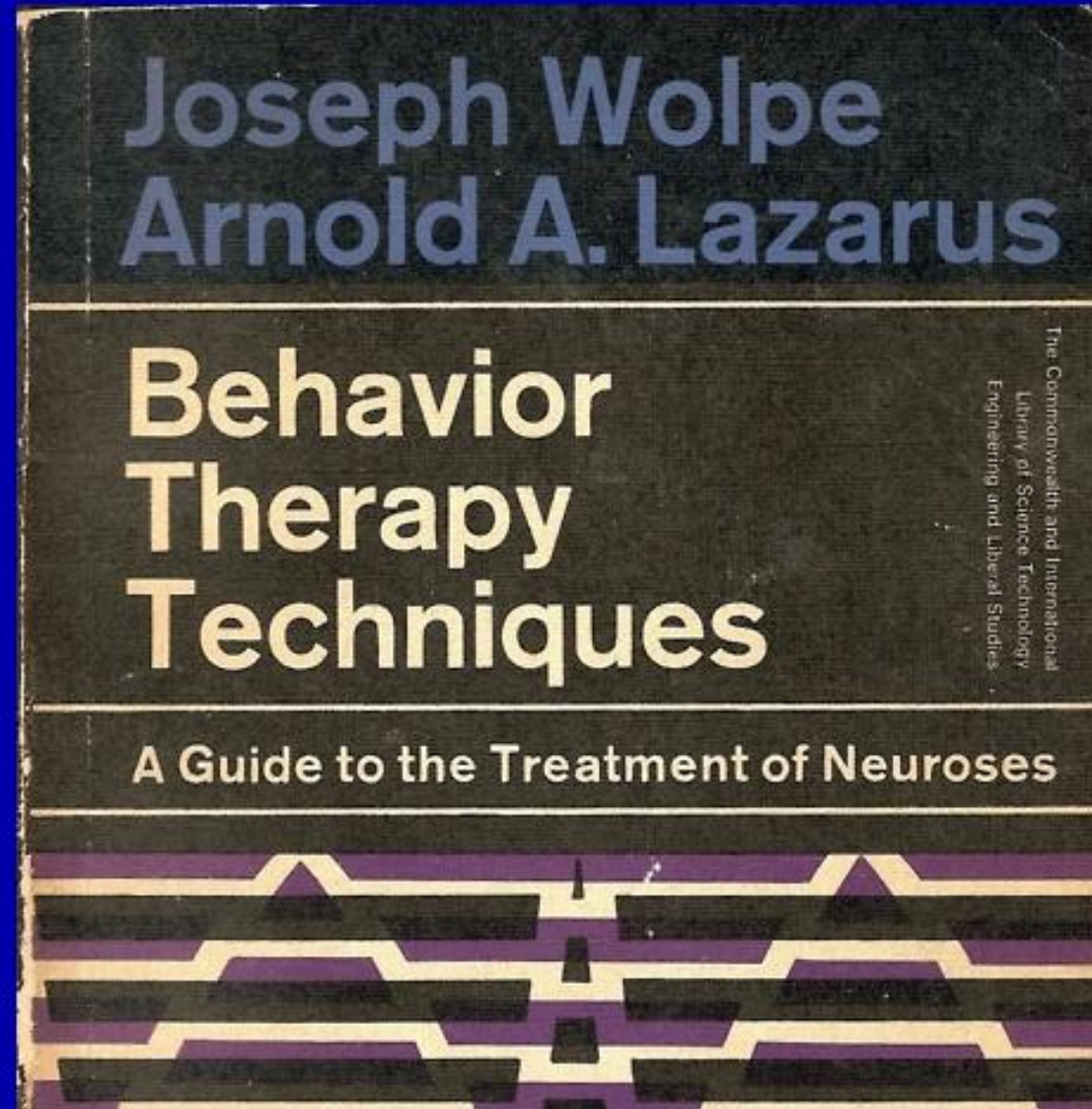


# FROM LABORATORY TO CLINICS

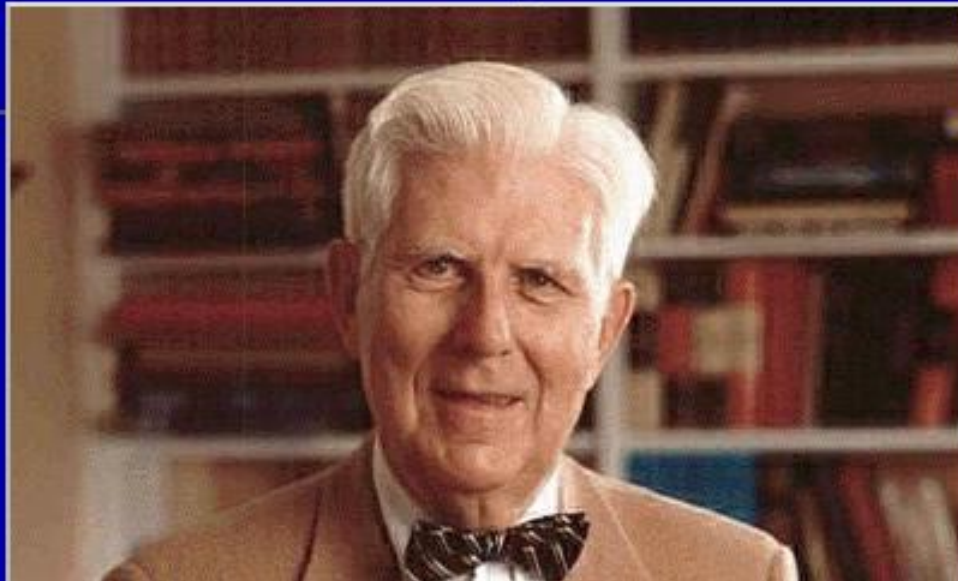


# FROM RATS TO HUMANS

# The behavior therapy movement that began in the 1950s and 1960s



**Since the 1970s, the field of behavior therapy (now called cognitive–behavior therapy) has accepted what seems to be a wider range of explanatory principles, often grounded in social psychology and at least nominally in an information-processing (“cognitive”) perspective**





# LEARNED MALADAPTIVE BEHAVIORS

Escape from fear or anxiety is believed to play a significant role in many human behavior disorders, including the **anxiety disorders**.

The **obsessive-compulsive** patient checks or washes the hands repeatedly to reduce anxiety.

The **agoraphobic** stays home to escape fear of places associated with panic attacks

The **bulimic** learns to vomit after a meal to reduce the learned anxiety evoked by eating the meal.

**whether the behavior is a respondent or an operant, and then the clinician will go about changing either its antecedents or its consequences, respectively, to reduce its probability of occurrence.**

**A**

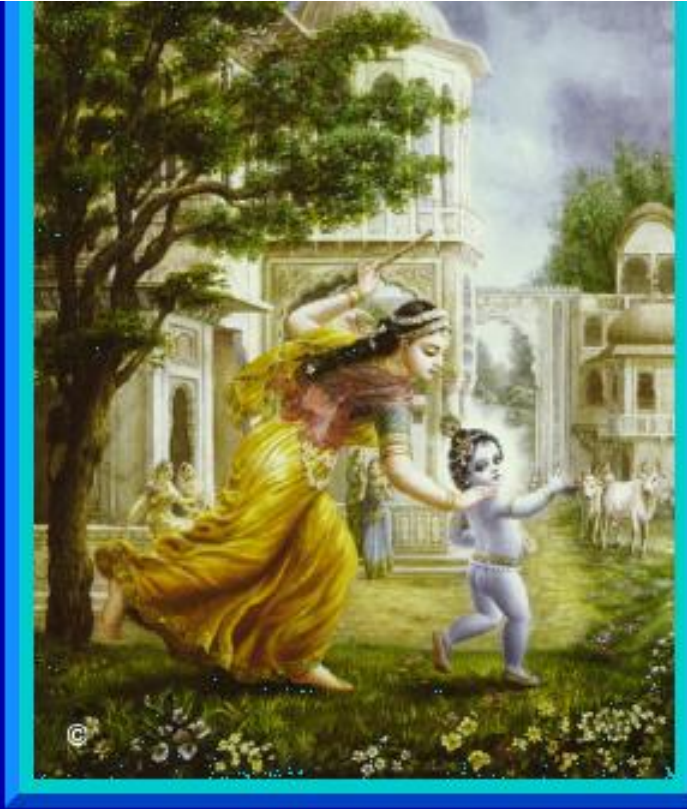
**B**

**C**



# **Pavlovian fear conditioning interacts with reinforcement of an instrumental action for varied results**





**A child might likewise learn to stay away from the parent who delivers punishment rather than refrain from performing the punished behavior.**

**A great deal of behavior in operant learning settings may actually be controlled by Pavlovian learning and sign tracking rather than true operant learning.**





**THANK YOU**

