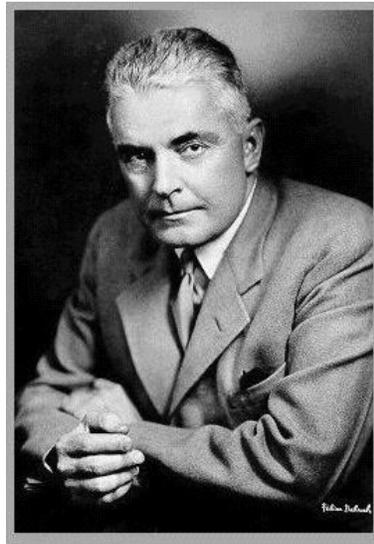


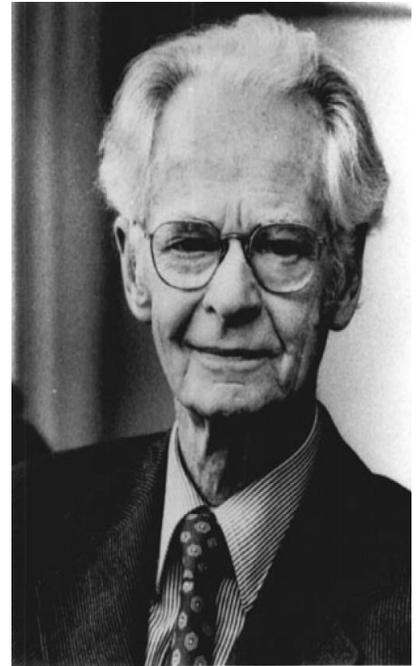
Unit 4- Learning



Ivan Pavlov



John B. Watson



B. F. Skinner



CRAIG SWANSON © WWW.PERSPICUITY.COM



Learning Unit Guide

Essential Questions

- What is learning, and what are some basic forms of learning?
- What are the basic components of classical conditioning, and what was behaviorism’s view of learning?
- In classical conditioning, what are the processes of acquisition, extinction, spontaneous recovery, generalization, & discrimination?
- Why does Pavlov’s work remain so important, and how has his work been applied to human health and well-being?
- What is operant conditioning, and how is operant behavior reinforced and shaped?
- How do positive and negative reinforcements differ, and what are the basic types of reinforcers?
- How do different reinforcement schedules affect behavior?
- How does punishment differ from negative reinforcement, and how does punishment affect behavior?
- How might Skinner’s operant conditioning principles be applied to the real world?
- How does operant conditioning differ from classical conditioning?
- How do biological constraints affect classical and operant conditioning?
- How do cognitive processes affect classical and operant conditioning?
- What is observational learning, and how do some scientists believe it is enabled by mirror neurons?
- What is the impact of prosocial modeling and of antisocial modeling?

Key Terms, Concepts and Contributors

<p>MODULE 26: Learning Habituation Associative learning Stimulus Cognitive learning Observational learning Classical conditioning Behaviorism Neutral stimulus (NS) Unconditioned stimulus (US) Unconditioned response (UR) Conditioned stimulus (CS) Conditioned response (CR) Acquisition Higher-order conditioning Extinction Generalization Discrimination</p>	<p>MODULE 27: Operant conditioning Law of effect Operant chamber Reinforcement Shaping Discriminative stimulus Positive reinforcement Negative reinforcement Primary reinforcers Secondary/conditioned reinforcers Reinforcement schedules Continuous reinforcement Partial (intermittent) reinforcement Fixed-ratio schedule Variable-ratio schedule Fixed-interval schedule Variable-interval schedule Positive punishment Negative punishment</p>	<p>MODULE 29: Taste aversion Cognitive map Latent learning Insight Intrinsic motivation Extrinsic motivation Coping Problem-focused coping Emotion-focused coping Learned helplessness External locus of control Internal locus of control Self-control</p>	<p>MODULE 30: Observational learning Modeling Mirror neurons Prosocial behavior Antisocial behavior</p> <p>KEY CONTRIBUTORS: Ivan Pavlov John Watson Edward Thorndike B. F. Skinner John Garcia Edward Tolman Martin Seligman Albert Bandura</p>
---	--	---	---

Name _____

SuperNanny – Part 1

After watching today's clip of SuperNanny, complete the chart below.

Andrew's negative behaviors	What would YOU do as Andrew's parent?

What do YOU think would be the overall MOST EFFECTIVE parenting technique to use with this child?
Why?

What do YOU think would be the LEAST EFFECTIVE parenting technique to use with this child? Why?



Reinforcement vs. Punishment



Keys to Success

Circle the **BEHAVIOR**

If the goal is to strengthen the behavior, put 

If the goal is to weaken the behavior, put 

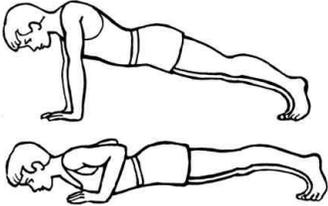
Underline the **CONSEQUENCE**

If something is being added, put +

If something is being removed, put –

Next, identify whether each example is **Positive Reinforcement (PR)**, **Negative Reinforcement (NR)**, **Positive Punishment (PP)**, or **Negative Punishment (NP)**.

1. ____ Police pulling drivers over and giving prizes for buckling up
2. ____ Suspending a basketball player for committing a flagrant foul
3. ____ A soccer player rolls her eyes at a teammate who delivered a bad pass
4. ____ A child snaps her fingers until her teacher calls on her
5. ____ A hospital patient is allowed extra visiting time after eating a complete meal
6. ____ Receiving a city utility discount for participating in a recycling program
7. ____ Grounding a teenager until his or her homework is finished
8. ____ Scolding a child for playing in the street
9. ____ A prisoner loses TV privileges for one week for a rule violation
10. ____ A parent nagging a child to clean up her room
11. ____ A rat presses a lever to terminate a shock or a loud tone
12. ____ A professor give extra credit to student with perfect attendance
13. ____ A dog is banished to his doghouse after soiling the living room carpet
14. ____ A defendant is harassed and tortured until he confessed
15. ____ A young child receives \$5 for earning good grades in school
16. ____ A mother smiles when her child utters “mama”
17. ____ A child is put into “time out” for misbehaving
18. ____ Employee of the month gets a reserved parking space
19. ____ At a party, a husband becomes sullen when his wife flirts with a colleague
20. ____ A women watching a football game offers her child candy to play quietly



Schedules of Reinforcement

Directions: Write the correct answer with VR, VI, FI or FR on the corresponding line.

***Ask yourself if the schedule is:**

Predictable?

Changing?

Based on time?

Based on # of responses?

Use the following codes:

Fixed Ratio (FR)

Variable Ratio (VR)

Fixed Interval (FI)

Variable Interval (VI)

1. _____ Getting a paycheck every other week
2. _____ Fly fishing: casting and reeling back several times before catching a fish
3. _____ Doing 20 pushups to help stay fit
4. _____ Surfer waiting for the perfect wave to ride in
5. _____ Frequent flyer program rewards after flying 100 amount of miles
6. _____ Watching the sky until you see a shooting star
7. _____ Getting clothes out of the dryer once it buzzes
8. _____ Counting how many pink starbursts you get each time you buy a package
9. _____ Child screams and cries in a store to get what he wants- every so often it works
10. _____ A child who waits to hear the theme music to Jeopardy every night at 7pm
11. _____ Waiting for a sunny day to go to the beach
12. _____ Finding worms under some of the rocks you turn over
13. _____ A hotel maid may take a 15- minute break only after having cleaned 3 rooms
14. _____ A teenager receiving an allowance every Saturday
15. _____ Checking the front porch for a newspaper when the delivery person is extremely unpredictable
16. _____ A blueberry picker receives \$1 after filling 3 pint boxes
17. _____ A student's final grade improves one level for every three book reviews submitted
18. _____ Playing golf: the number of strokes it takes to finish a game
19. _____ Receiving a good grade in school for reading 4 chapters of your book that were assigned
20. _____ Checking in the refrigerator every 2 hours to see if the JELL-O is ready
21. _____ Individuals who collect bottles, cans, and other recyclables to get payment for a specific amount of these items
22. _____ Waiting for a taxi and getting one only after 5 pass you by



Is Your Phone Conditioning You?



1. First, choose one smartphone application (app): _____
2. Next, summarize how you use this app, making a list of your behaviors and the responses you receive in the following categories:

	Behavior	Response (consequence)
Positive reinforcement		
Negative reinforcement		
Positive punishment		
Negative punishment		

For example, Snapchat:

- i. Positive Reinforcement: Clicking through a friend's story on Snapchat (emitted behavior) - seeing a funny picture (response)

3. Choose one reinforcing behavior/response and one punishment and its response to observe in your lab.
4. With your partner, take turns using this application for 3 minutes, with your partner observing and recording your behavior.
 - a. Make a tally next to each behavior-response pair when it occurs.
 - b. Keep in mind that--though you are trying to simulate natural, unobserved behavior--it will likely be necessary to communicate with your partner while you are using the app.
For example, you would need to tell them if you find a specific tweet funny (and therefore positive reinforcement), as you are scrolling through your feed.
5. Compile and analyze your data

	Partner 1	Partner 2
Reinforcing behavior:		
Punishment:		

Analysis:

1. How does operant conditioning contribute to making smartphones so addicting?

2. Devise a new system that will reduce use of this app. Your goal is to make the app less addicting by changing its structure or creating a new smartphone program.
 - a. Some things to consider:
 - i. How can you extinguish your trained responses?
 - ii. How can you alter notifications?
 - iii. How can the schedules of reinforcement be altered to decrease responsiveness?

Advertising Slogans Worksheet

STEP ONE: Read the following slogans. Fill in as many of the name of the company or organization to whom the slogan belongs.

1. You're in Good Hands. _____

2. Have it your way: _____

3. Built _____ Tough.

4. The _____ side of Life.

5. Easy, breezy, beautiful, _____.

6. Don't Leave Home Without It. _____

7. The ultimate driving machine. _____

8. M'm M'm Good. _____

9. There are some things money can't buy. For everything else, there's _____.

10. Like a Rock. _____

11. What's in your wallet? _____

12. America Runs on _____.

13. Eat mor chikin. _____

14. Maybe she's born with it, maybe it's _____.

15. Raising the bar. _____

16. Nothing Runs Like a _____.

17. Gotta have my _____!

18. A _____ is Forever

19. It's so easy, even a caveman can do it. _____

20. The Greatest Show on Earth. _____

21. Just Do it. _____





- 22. You can do it. We can help. _____
- 23. Betcha can't eat just one. _____
- 24. Because you're worth it. _____
- 25. The milk chocolate that melts in your mouth-not in your hand. _____
- 26. A nose in need deserves _____ indeed.
- 27. Breakfast of Champions. _____
- 28. _____, the other white meat.
- 29. Once you pop you just can't stop. _____
- 30. Save money, Live Better. _____
- 31. You've got questions, we've got answers. _____



STEP TWO: Create your own. Come up with some slogans that you have been conditioned to remember and think of when you need a certain product. DO NOT WRITE THE ANSWERS.

1.

2.

3.

4.

5.

Name: _____

CLASSICAL CONDITIONING VIDEO

<http://tinyurl.com/kajcgya>

1. Who was Ivan Pavlov? Why is he important to the field of psychology?
2. What was Pavlov initially studying?
3. What reflex did he find in his dogs?
4. What other stimuli did Pavlov use to manipulate his dogs' salivary reactions?
5. What does it mean when we say a stimulus and a response are "unconditioned?"
6. How do we know conditioning has taken place?
7. What happens to the learned response over time if no natural stimulus is present?

Classical Conditioning Practice Worksheet

1. While George was having a cavity filled by his dentist, the drill hit a nerve that had not been dulled by anesthetic, a couple of times. Each time he cringed in pain. George now gets anxious each time he sees the dentist.

What is the:

Unconditioned stimulus: _____

Unconditioned response: _____

Conditioned stimulus: _____

Conditioned response: _____

2. Every time a psychology instructor enters the classroom, she goes straight to the board to write an outline on it. Unfortunately, she has long finger nails and each time she writes the outline, her nails screech on the board, making students cringe. After a few weeks of this, students cringe at the sight of the teacher entering the classroom.

What is the:

Unconditioned stimulus: _____

Unconditioned response: _____

Conditioned stimulus: _____

Conditioned response: _____

3. Charlie has been humiliated in the past for doing poorly on tests. When that has happened, he would get so upset he would shake. Now when presented with a test, he begins to shake.

What is the:

Unconditioned stimulus: _____

Unconditioned response: _____

Conditioned stimulus: _____

Conditioned response: _____

4. At a football game, every time the home team scores a touchdown, the person behind you blasts an air horn near your ears causing you to wince. Unfortunately for you, the home team scores frequently. As the end of the game nears, the home team scores a touchdown, and even though the inconsiderate fan behind you has left, you still wince.

What is the:

Unconditioned stimulus: _____

Unconditioned response: _____

Conditioned stimulus: _____

Conditioned response: _____

5. Fred has a fluffy down pillow with some of the down sticking out of the fabric. When he first tries out the pillow, a piece of down tickles his nose and he sneezes. He now sneezes every time he lays down on any kind of pillow.

What is the:

Unconditioned stimulus: _____

Unconditioned response: _____

Conditioned stimulus: _____

Conditioned response: _____

6. You ride a roller coaster and get sick afterward. Now, whenever you are near a roller coaster you feel queasy.

What is the:

Unconditioned stimulus: _____

Unconditioned response: _____

Conditioned stimulus: _____

Conditioned response: _____

YOUR TURN!

Come up with your own example of classical conditioning as you experience it in your everyday life.

Your example:

Unconditioned stimulus: _____

Unconditioned response: _____

Conditioned stimulus: _____

Conditioned response: _____

Classical Conditioning Worksheet (Advanced)

Below are several scenarios depicting classical conditioning. Read each story and try to determine the appropriate classical conditioning terminology.

Determine if any of the classical conditioning extensions apply (extinction, spontaneous recovery, generalization, taste aversion).

Protect the Sheep!

Farmer Joe is getting continually frustrated by wolves attacking and killing his beautiful sheep. Desperate to save his four remaining livestock (Sheepy, Sheeple, Sheepin, and Sheeptastic), Farmer Joe poisons some leftover sheep meat from the last dead carcass and throws it in the field where the wolves devour it. The wolves get sick from the poison and from that point forward leave the sheep alone. Interestingly, they also avoid all of the other animals on the farm—the pigs, goats, and most importantly, the cats.

1. What is the unconditioned stimulus?
2. What is the unconditioned response?
3. What is the neutral stimulus that becomes the conditioned stimulus?
4. What is the conditioned response?
5. What extension is occurring? Explain.



Don't Study in Bed

Latisha is a dedicated student and as soon as she gets home during the winter she likes to snuggle up in bed and start working on her AP Psychology homework. Because AP Psych is such a stimulating subject, Latisha's mind begins racing with excitement and wonder as soon as she cracks open her textbook. She's been noticing lately, though, that when she gets in bed at night and tries to fall asleep, her mind starts racing and she keeps staying awake. So sometimes she goes and sleeps on the couch instead where her mind settles down.

1. What is the unconditioned stimulus?
2. What is the unconditioned response?
3. What is the neutral stimulus that becomes the conditioned stimulus?
4. What is the conditioned response?
5. What extension is occurring? Explain.



You Smell Hot ;)

Xiong loves his girlfriend, Clarice, dearly. Just seeing her drives Xiong wild with attraction and lust. Sometimes Clarice wears Pure Poison by Dior perfume and Xiong starts becoming attracted to the scent. Unfortunately, Xiong later finds out Clarice cheated on him with several members of the choir club, and they break up. A month later, Xiong passes another girl in the hallway wearing the same perfume and the scent slightly rekindles his old feelings.

1. What is the unconditioned stimulus?
2. What is the unconditioned response?
3. What is the neutral stimulus that becomes the conditioned stimulus?
4. What is the conditioned response?
5. What extension is occurring? Explain.



The Weather Man Is a Jerk

Nobody likes nasty weather; when people have to trudge out in the rain and snow they tend to get grumpy. This makes the career of being a weatherman perilously difficult. Often times the weatherman is the one who has to deliver the bad news to your living room about bad impending weather. The local weatherman, Stan, often gets booed and heckled on the street by people he doesn't even know. Tired of being treated this way, Stan quits his job and people stop harassing him.

1. What is the unconditioned stimulus?
2. What is the unconditioned response?
3. What is the neutral stimulus that becomes the conditioned stimulus?
4. What is the conditioned response?
5. What extension is occurring? Explain.



Fried Chicken

Sally eats fried chicken that has e coli in it and ends up vomiting for hours that night. Luckily she recovers within a day, but now just the thought (or the sight or the smell) of fried chicken makes her nauseous.

1. What is the unconditioned stimulus?
2. What is the unconditioned response?
3. What is the neutral stimulus that becomes the conditioned stimulus?
4. What is the conditioned response?
5. What extension is occurring? Explain.



Classical or Operant Conditioning?

You must decide if the following examples are Classical or Operant conditioning.

If it is Classical you must:

- Identify the UCS, UCR, CS, and CR.

If it is Operant you must:

- Identify the type of reinforcement (positive, negative or punishment)



1. You have a friend who keeps the temperature in her home so high that each occasion you visit her you find yourself perspiring. The last time you visited her you noticed that you began to perspire and become uncomfortable even before entering the house.
2. A high school student has an instructor who, each class period, selected names at random from the roll book to answer questions about the previous assignments. The first few times the student's name was called in this manner, he had completed the assignments and had the correct responses. The instructor enthusiastically commended the student on each occasion. The student found himself studying the assignments for this class more frequently and with more eagerness than he did for other classes.
3. A mother has a child who slams the door every morning and says "bye mom" as he hurries to leave for school, which causes her to flinch. Now the mother flinches every time her child says "bye mom."
4. While you are in school your stomach always begins to growl and you experience pangs of hunger at the sound of the noon bell.

5. In an experiment, rats were trained to select triangles from a set of cards with geometric figures. They were shown rectangles, squares, circles, and triangles. Every time they selected the triangle they were given a pellet of food.

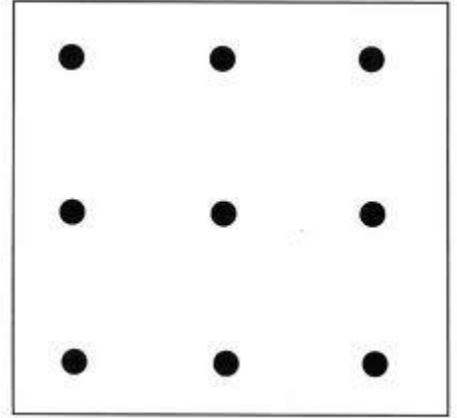
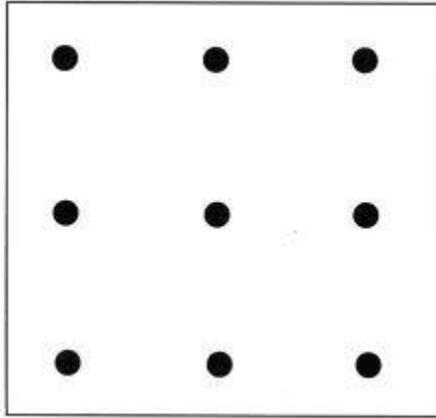
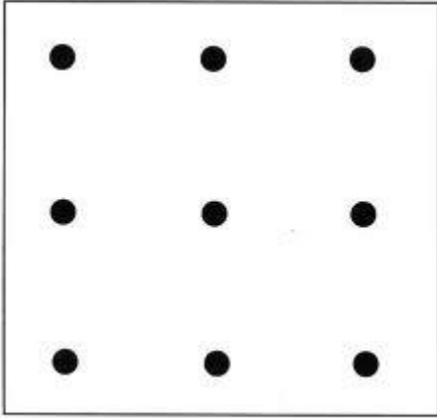
6. A dog is conditioned to bark only when a red light comes on by giving it a piece of food when it barks at the presentation of the red light.

7. At the age of three you had a shocking experience when you pushed a two pronged fork into an electric wall socket. Your mother said that for two years after the incident you would eat only with a spoon. When anyone tried to hand you a fork you became frightened and screamed.

8. To teach a hunting dog to retrieve birds without mangling them in its mouth, it is sent to retrieve a stuff bird that is filled with pins. The dog soon learned that chewing the bird means pain but that carrying it gently means petting and food.

LEARNING STATIONS

Station 1 work:



1. After at least two attempts- What learning style are you performing?
2. Which method of learning does the “Nine dot game” employ?

Station 2 work:

Your group example:

Example 1 diagram:

Example 2 diagram:

Station 3 work:

Your group example:

Example 1 diagram (identify UCS/UCR/CS/CR):

Name _____

SuperNanny – Part 2

While you finish watching the SuperNanny episode you should look for examples to apply to the following terms:

Term	Application (example) in episode
Reinforcement (tell me which kind you are using)	
Reinforcement (tell me which kind you are using)	
Punishment	
Modeling	

What SuperNanny would say about your own original parenting techniques that you wrote down last class (what was good, what was bad and WHY?)?

Terms for Extra Credit Flashcards

Unit 4: Learning

Classical Conditioning	Unconditioned response (UR)	Shaping
Ivan Pavlov	Conditioned response (CR)	Chaining
Unconditioned stimulus (UCS)	Operant Conditioning	Schedules of Reinforcement
Conditioned stimulus (CS)	B.F. Skinner	Continuous Reinforcement
Positive Reinforcement	Behavioral modification	Fixed Interval
Negative Reinforcement	Variable Interval	Fixed Ratio
Punishment	Variable Ratio	Extinction
Spontaneous Recovery	Generalization	Discrimination
Primary Reinforcer	Secondary Reinforcer	Social Learning
Albert Bandura	Latent Learning	John Watson
Law of Effect	Cognitive map	Insight
Intrinsic motivation	Extrinsic motivation	Learned helplessness
Mirror neurons	Internal locus of control	External locus of control
Problem- focused coping	Emotion-focused coping	Self-control

Pick 15 terms from the above list (or from the unit guide on the back of the packet cover) that you are least familiar/comfortable with and construct a flashcard including the following information:

1. On one side, **define** the term IN YOUR OWN WORDS. Try and keep the definition short, meaningful, and something that you can remember.
2. On the other side, **draw** a picture that demonstrates the term OR **describe** a personal example.

You may earn up to 5 points of extra credit for your 15 flashcards!

All flashcards must be turned in by the day of the unit assessment – no late flashcards will be accepted!

