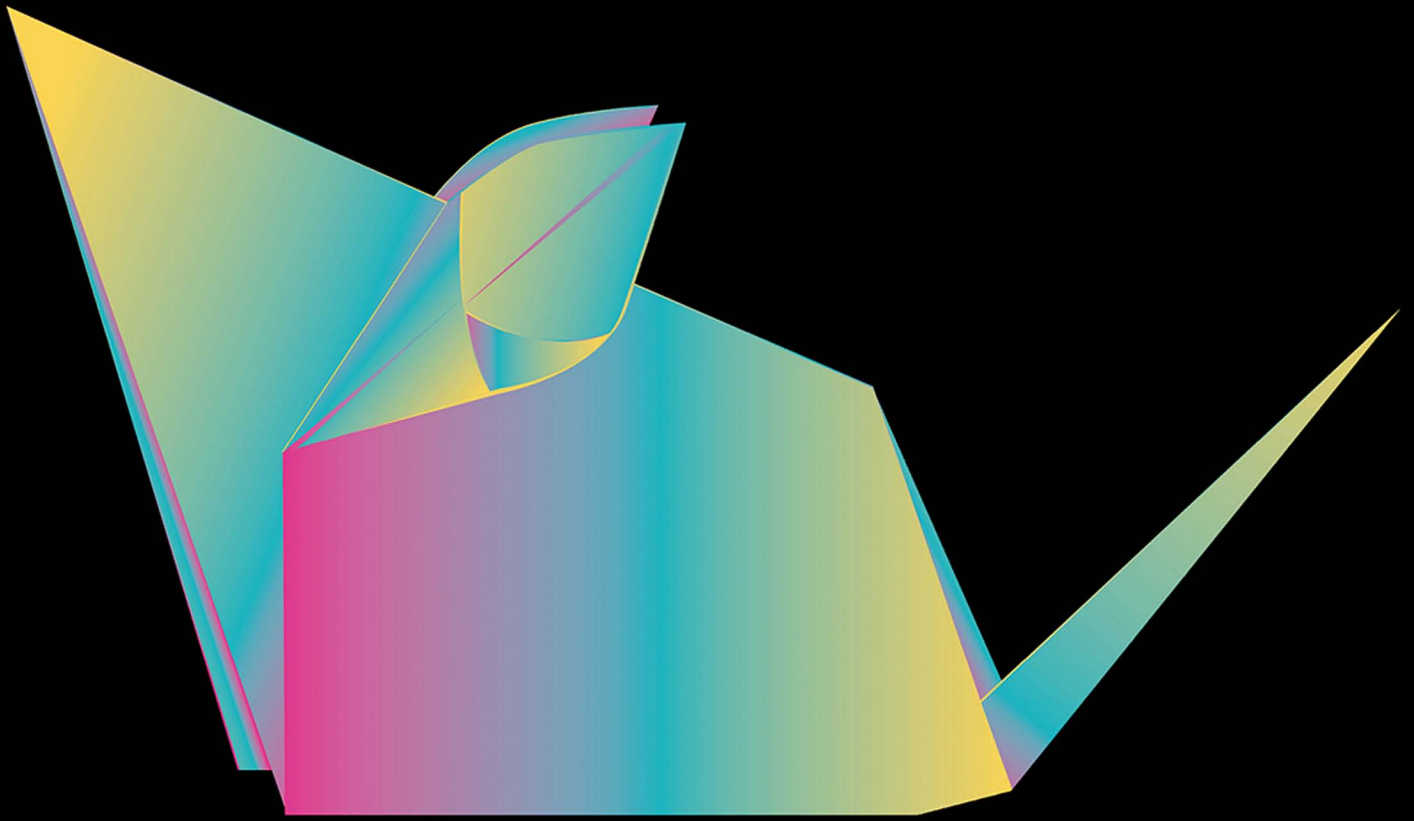


RICHARD W. MALOTT AND KELLY T. KOHLER



PRINCIPLES OF BEHAVIOR

Eighth Edition



Principles of Behavior

Known for both its narrative style and scientific rigor, *Principles of Behavior* is the premier introduction to behavior analysis. Through an exploration of experimental, applied, and theoretical concepts, the authors summarize the key conversations in the field. They bring the content to life using humorous and engaging language and show students how the principles of behavior relate to their everyday lives. The text's tried-and-true pedagogy makes the content as clear as possible without oversimplifying the concepts. Each chapter includes study objectives, key terms, and review questions that encourage students to check their understanding before moving on, and incorporated throughout the text are real-world examples and case studies to illustrate key concepts and principles.

This edition features some significant organizational changes: the respondent conditioning chapter is now Chapter 1, a general introduction to operant conditioning is now covered in Chapters 2 and 3, and the introduction to research methods is now covered in Chapter 4. These changes were made to help instructors prepare students for starting a research project at the beginning of the course. Two new chapters include Chapter 5 on the philosophy supporting behavior analysis, and Chapter 24 on verbal behavior that introduces B. F. Skinner's approach and terminology. This edition also features a new full-color design and over 400 color figures, tables, and graphs.

Principles of Behavior is an essential resource for both introductory and intermediate courses in behavior analysis. It is carefully tailored to the length of a standard academic semester and how behavior analysis courses are taught, with each section corresponding to a week's worth of coursework. The text can also function as the first step in a student's journey into becoming a professional behavior analyst at the BA, MA, or PhD/EdD level. Each chapter of the text is integrated with the Behavior Analyst Certification Board (BACB) task list, serving as an excellent primer to many of the BACB tasks.

Richard W. Malott taught and did research in experimental analysis, higher education, autism, and organizational behavior management. He was a co-founder of the Behavior Analysis program at Western Michigan University (WMU) and a co-founder of Association for Behavior Analysis International (ABAI). He has received two Fulbright Senior Scholar Awards, WMU's Distinguished Teaching Award, and ABAI's Award for Public Service in Behavior Analysis.

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Preface

We designed this book for introductory and intermediate courses in behavior analysis **from the first-year-college to the master's level**. We designed it to be readable, entertaining, engrossing, and highly motivating, as well as intellectually, theoretically, and behavior-analytically rigorous. We designed it to serve as a **general, liberal arts introduction to behavior analysis**, as well as a first step in **becoming a professional behavior analyst at the BA, MA, or PhD/EdD level**. And for the large number of students interested, we've designed this book as an excellent introduction to and a large first step in the training needed to become a **Board Certified Behavior Analyst** and/or a parent or professional who can skillfully help **children with autism**; and we've done so without decreasing the book's value as an introduction to behavior analysis for those interested in heading toward **basic laboratory research** or other areas of **applied behavior analysis**. Furthermore, we wrote the book in a style that's much more readable and accessible and much less pompous than this opening paragraph is. And what's really weird is that we've succeeded in all these semi-conflicting goals, as demonstrated by the large number of students across the generations and across the editions of this book since 1968, students who have gone on to become practitioners, teachers, researchers, presidents of the Association for Behavior Analysis, and authors of competing behavior-analysis texts—students, many of whom would not have been convinced to travel the behavior-analytic path if they had not discovered it in the context of *Principles of Behavior*. Too self-promoting? Naw; just true.

What's New in Our 8th Edition?

As with all our previous editions, we've done considerable continuous quality improvement based on feedback from our students and your students and you, trying to make the writing

more and more clear, relevant, and engaging. But the main change has been in the structure of the book: We've moved the respondent conditioning chapter from Chapter 21 to Chapter 1. Chapters 2 and 3 are then a general introduction to operant conditioning, even including a brief mention of rule-governed behavior. And we introduce research methods in Chapter 4 and the philosophy behind behavior analysis in Chapter 5, still working to make the chapters as clear and engaging as possible.

Why did we make this radical change in the structure of our book? 'Cause you asked us to. And a large part of it was that several of you want to get your students started on a research project early in your course. Makes sense, and we hope these changes help.

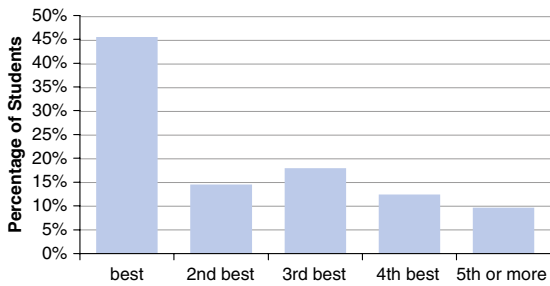
Also, we added a separate chapter dealing with verbal behavior, introducing Skinner's approach and terminology, in a manner we hope is clear and engaging. And finally, we reduced the emphasis, at least the visual emphasis, on autism, as many instructors don't want their students to get the impression that applied behavior analysis is only about autism. Yet, at the same time, we've still included more than enough to boost along those who wish to take their first step, or giant leap, toward becoming BCBA's or BCaBA's.

Anonymous Student Data From Earlier Editions

Some social validity and performance data for students at Western Michigan University: This figure shows that most of our undergrads rate *Principles of Behavior (POB)* as the best textbook they've read while in college. Also most undergrads rate *Principles of Behavior* as very valuable or valuable, compared to other textbooks they've had in college.

Preface

Compared to all the other textbooks you've had in college, where would you rank *Principles of Behavior*?



Instructor Notes

This book covers avoidance in Chapter 17, because we deal with issues such as the difference between a warning stimulus and a discriminative stimulus, which is facilitated by reading Chapter 14 on discrimination. However, those wishing to follow the more traditional approach of combining avoidance and escape in the same chapter can easily assign the first seven sections of Chapter 17 along with Chapter 7, and then deal with the more complex issues when the students have progressed through the rest of the book to Chapter 17.

Special Thanks

Thank you to the many reviewers who helped us improve this edition. Without your advice, *Principles of Behavior* would not be where it is today.

A very special thank you to the grad students in WMU's Behavior Analysis Training System's Behavioral Boot Camp over the years for all of their deep thoughts, spell checks, grammar checks, and opinions on the 7th edition and new content for the 8th edition. And especially for their detailed editing—Clare Christie, Sofia Peters, and Emily Goltz. In our case, it takes a whole lab to raise a book; thanks gang.

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Richard W. Malott and Kelly T. Kohler
Behavior Analysis Program
Western Michigan University

PART I

**Respondent
Conditioning**

CHAPTER 1

Respondent Conditioning

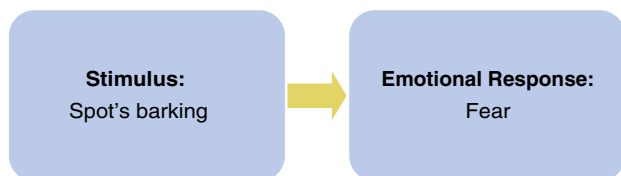
Behavior Analyst Certification Board 5th Edition Task List Items

B-3. Define and provide examples of respondent and operant conditioning. Throughout

Example Behavioral Clinical Psychology/Behavioral Counseling

BATMAN¹

At 3 A.M., Zach awoke to the sound of his 6-year-old son screaming and Spot barking. He ran to Sammy's room. The little boy was crouched by the side of his bed, screaming and crying.



Spot's barking moved closer and closer to Sammy's window. The outside door rattled. Next the bathroom door rattled. Then a shadow fell across the bedroom doorway.

Zach: Sammy, calm down, Son.

Zach (at the doorway): Who's there?

Police sirens whined toward the house. Three police cars screeched to a halt in the driveway, their flashing red lights creating an eerie Halloween effect.

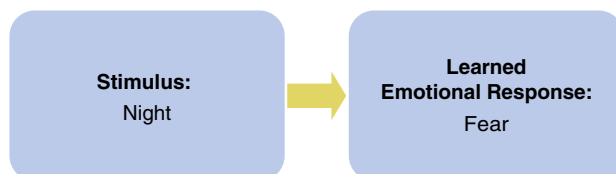
Neighbor (in the driveway shouting): In the house! In the house!

Four police officers ran into the house. And Zach saw the intruder standing at the end of the hallway, paralyzed with their 42" flat screen in his hands.

Officer: Surrender!

They handcuffed the thief and pushed him into the back seat of the nearest police car.

The danger was over, thanks to their neighbor who'd called the police when the thief had tried to enter his own home. And the episode ended, but not for Sammy. Ever since, Sammy was frightened at night.



Sammy didn't want to go to bed, and when he did, it was only because Zach insisted. He wanted the lights on and asked Zach to sleep in his room with him. The boy would do everything possible to stay awake. Often he played Batman until he got on Zach's nerves. They both ended up being awake a good part of every night.

Zach was a widower and raised Sammy with no extra help, and now he was arriving late to work. And Sammy began to bring home bad grades, though he'd been a top student. So for help, Zach went to Dr. Dawn Baker, a behavioral clinical psychologist. (As we follow her throughout this book, we'll see how she uses the principles of behavior to help people with their psychological problems [i.e., behavioral problems].)

Dawn asked Zach to make a note of each night Sammy was frightened. She also asked him to give Sammy a flashlight. But he could only use it briefly, when he was frightened, and couldn't keep it on all night.

Ten days later, Zach brought Sammy to see Dawn.

During the first interview, she found that 6-year-old Sammy loved Batman.

Dawn: Sammy, close your eyes. Imagine you're watching TV with your dad. And the Batman program has just finished. Your dad tells you it's time for bed, and just then Batman appears and sits down next to you.

Sammy: Yes.

Dawn: Great! Now imagine that Batman tells you he needs you on his missions to catch the bad guys. But he wants you to get your sleep in your bedroom, and he'll call on you when he needs help. Isn't that cool!

Sammy: Yes.

Dawn: Now Dad puts you in your bed and leaves both of the lights on and the three blinds up. Batman is also there. Can you see?

Sammy: Yes, I can see Daddy and Batman in my room and all the lights are on.

Dawn: Well, if you're scared, raise your finger.

Dawn repeated this fantasy, but each time she made it a little more frightening—one blind down, two down, three down; one light off, two off; Zach talking, then leaving the room; Spot barking in the distance, then next to the window; the outside door rattling, then the bathroom door; shadows falling across the window, and then across the room. Well, not really more frightening. It might have been, but she only gradually increased the "threat." And Sammy reacted less fearfully with each repeated exposure. And besides, she made sure Batman was there, just in case.

Sammy lifted his finger if he felt afraid. When he raised his finger, Dawn asked if he could see Batman with him, what he was doing, the color of his clothes and so on.

Dawn used this technique for four sessions. In the first three sessions, she covered increasingly frightening situations. And she reviewed all of those situations in the fourth session.

Zach recorded each day that Sammy was frightened. We call this the *baseline*, the period before we try to change things. So during the 10 days before Dawn started helping Sammy, he was frightened every night. But while working with Dawn, the number of nights Sammy was frightened gradually decreased. Between days 36 and 60, Sammy was frightened only on three nights. After that, they recorded no more problems for the 3 months that Dawn followed up with Sammy. Batman's buddy had become fearless at last.

QUESTION

1. Describe an intervention for eliminating the fear of darkness.
 - a. Describe the anxiety-generating situation.
 - b. How did Dawn use fantasies to get rid of the fear of darkness?

Concept

PHOBIAS

Sammy's problem is common among children his age; it is often described as a darkness phobia (fear of darkness). Traditionally, we say that the term *phobia* refers to a long-lasting, intense, irrational fear.*

This fear is produced by what once were neutral stimuli. Those neutral stimuli have acquired aversive properties because they've been associated with other stimuli that already produce fear.

Young children who develop early illness and require a doctor's attention cry or exhibit other emotional behaviors when the doctor approaches them. For these children, seeing the doctor and experiencing aversive events such as getting a hypodermic injection occur at the same time, so the doctor's presence produces fear responses. It is not surprising that these fear responses often generalize to other individuals, particularly to people wearing white coats or, in some instances, to strangers in general.

We want to emphasize the irrational aspect of the phobia because the situation that the individual reacts to normally could do that person no harm. People with phobias often consult clinical psychologists. The reactions to the fear-provoking situations are real, and we can observe them directly. They often involve avoidance and escape responses. Sometimes the escape or avoidance responses are extreme and in themselves may cause harm to the client or to those around the client. Even if an overt, dramatic escape or avoidance response does not occur, the client may react emotionally, by grimacing, becoming rigid, turning pale, or raising the heart rate or blood pressure, for example.

Often, when the phobic client comes to the therapist's office, the client doesn't know or remember what events resulted in the phobia. Some traditional therapists spend session after session trying to uncover the initiating circumstances. But awareness of the conditions that initiated the phobia doesn't seem to reduce the fearful reaction.

* But that may be a misleading way to describe the problem because it suggests there is a *thing* called phobia and there is a *thing* called fear. *Phobia* has no special, fundamental, psychological importance; it just means that the person who uses the word thinks it's irrational for someone to find that stimulus aversive because it will not be paired with other aversive stimuli in the future.

Respondent Conditioning

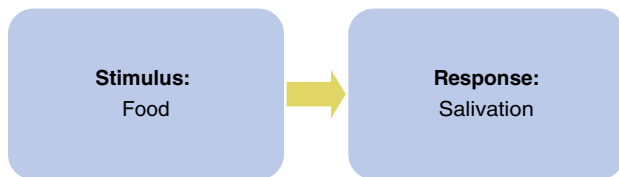
QUESTION

1. *Phobia*—give an example.

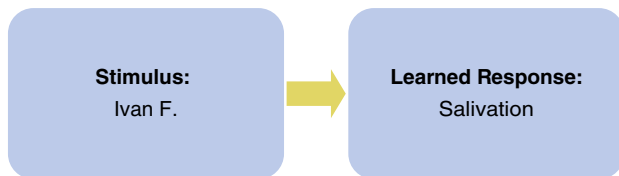
Note: When we ask for examples, we will normally be happy with examples from the text. We won't mean original examples, unless we say so. But your instructor might want original examples; better check.

IVAN PAVLOV*

And finally we get to Pavlov. (Note: In 1904, Russian physiologist Dr. Ivan Pavlov received the Nobel Prize for his work on the physiology of digestion, not for his ringing the bell, which is what you and I know him for.) So Pavlov was already a world-famous physiologist when he discovered respondent conditioning in 1901 (before even your great grandfather was born). In doing his physiological research on glands and the endocrine system, he surgically implanted tubes into dogs' glands to measure their secretion. So he had to keep the dogs restrained in a harness for a long time. This meant his assistant, Ivan Filippovitch Tolochino, had to feed the dogs while they were restrained. Usually when Ivan F. presented food to these dogs, they would salivate and drool. You might observe this in your own pet doggy, Fang, at feeding time.

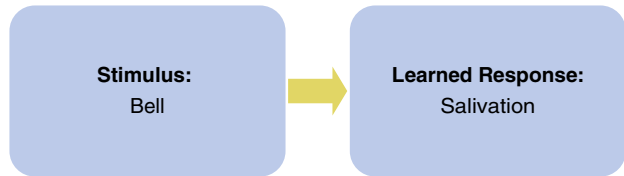


But after some time, Pavlov and Ivan F. noticed a strange thing: The dogs would salivate whenever Ivan F. entered the room, even with no food in hand. They salivated, as if Ivan F. himself were the lunch he'd brought.

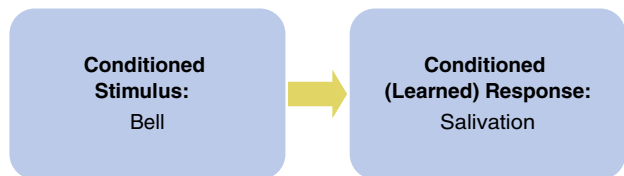
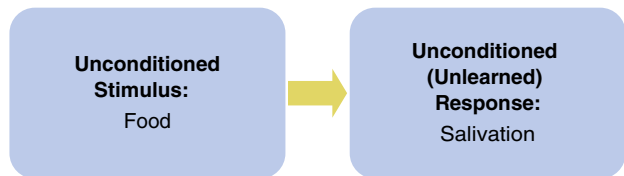


This led Pavlov down the experimental trail to discover respondent conditioning: He placed a dog in restraint as before. He gave the dog meat powder, which immediately produced salivation. But now along with the meat powder, he also rang a bell. Of course, the meat powder paired with the bell always produced salivation. But then he rang the bell without the meat

powder. And the mere sound of the bell produced salivation just as sight of Ivan F., the research assistant, had.

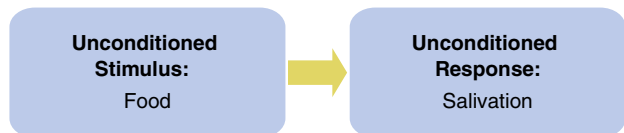


Salivating when the bell rang resulted from the previous pairings of the taste of the meat powder and the sound of the bell. Pavlov had discovered what we call **respondent conditioning**. The response of salivation to the bell was conditional on (dependent on) the bell's previous pairing with the food—a conditioned response.

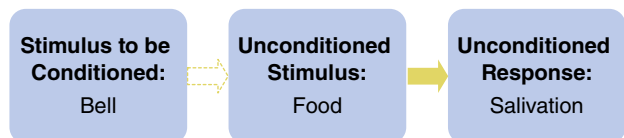


We tie it all together and we get Pavlov's respondent conditioning.

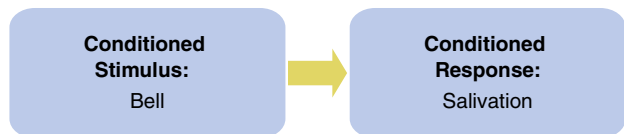
Before Conditioning



Conditioning (Pairing) Procedure



After Conditioning



This historical experiment influenced the development of psychology for decades. And even today, psychologists are still doing research based on Pavlov's ideas.

* This section will be a review for many of you, as there is a good chance you've learned about Pavlov in your other classes. However, most students report that they found it helpful to review it again.

QUESTIONS

1. Who was Ivan Pavlov?
2. What was the great discovery of Ivan Pavlov and Ivan Filippovitch Tolochino? (Don't worry, you won't have to remember the name "Ivan Filippovitch Tolochino" for the quiz; but do make sure "Pavlov" rings a bell.)
3. Diagram Pavlov's respondent conditioning with his dog.

Concept

RESPONDENT CONDITIONING

We have terms to describe Pavlov's procedure:

The sound of the bell is a **conditioned stimulus (CS)**. It will only elicit (cause) salivation if it's been paired with food. Its ability to elicit salivation is conditional (dependent) on its food pairing.

So the salivation to the bell is a **conditioned response (CR)**, because it's elicited (caused) by the conditioned stimulus.

And, of course, the food itself is an **unconditioned stimulus (US)**. Its ability to elicit salivation is not conditional (dependent) on previous pairing.

So, obviously, the salivation to the food is an **unconditioned response (UR)**, because it's elicited by the unconditioned stimulus.

And then we get Pavlovian conditioning or **respondent conditioning**.

The sound of the bell, **conditioned stimulus (CS)**, is paired with the food, **unconditioned stimulus (US)**, and it elicits salivation, the **conditioned response (CR)**.

In other words, here we use the term **conditioning** to describe the procedure of pairing the conditioned stimulus with the unconditioned stimulus.* (Note that Pavlov wasn't doing anything illegal so he didn't "illicit" the response, he "elicited" it, by ringing the bell. And if it helps, you can also think of "elicit" as meaning "produce" as well as "cause.")

Oh yes, **Pavlovian conditioning** is so famous that it's also called **respondent conditioning** and sometimes even called **classical conditioning**.

* Note that, in the diagrams for the conditioning procedure, there's a dashed arrow, rather than a solid one between the stimulus to be conditioned and the following stimulus. It's dashed to indicate that the stimulus to be conditioned precedes but does not cause or produce the following stimulus.

Definition: CONCEPTS AND PRINCIPLES

Unconditioned stimulus (US)

- A stimulus that elicits (causes) a response
- without previous pairing with another stimulus.

Unconditioned response (UR)

- A response elicited (caused) by
- an unconditioned stimulus.

Conditioned stimulus (CS)

- A stimulus that elicits (causes) a response
- because of previous pairing with another stimulus.

Conditioned response (CR)

- A response elicited (caused) by
- a conditioned stimulus.

Respondent conditioning

- Pairing a neutral stimulus
- with an unconditioned stimulus
- causes it to elicit the conditioned response.

Example Experimental Analysis: PAVLOV'S DOG

Unconditioned stimulus (US)

- Food

Unconditioned response (UR)

- Salivation

Conditioned stimulus (CS)

- Bell

Conditioned response (CR)

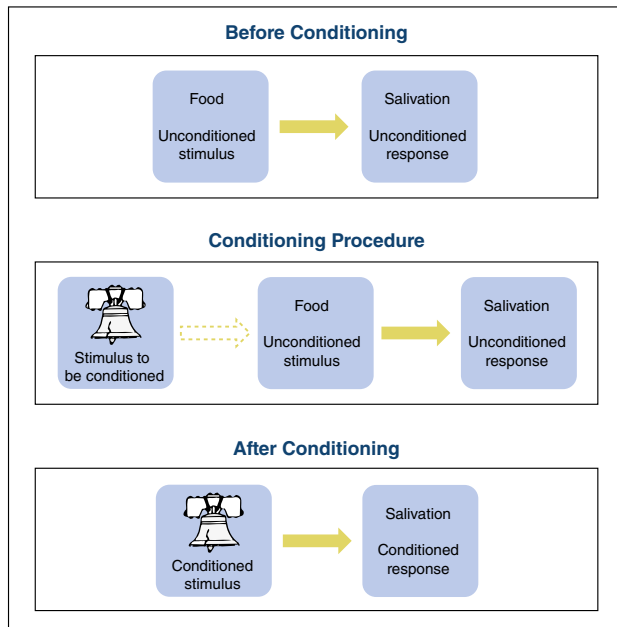
- Salivation

Respondent conditioning

- Pairing the bell
- with the food
- causes the bell to elicit salivation.

Respondent Conditioning

And, at the risk of being too repetitious, let's take a glance at another diagram of Pavlov's original respondent-conditioning procedure:



QUESTION

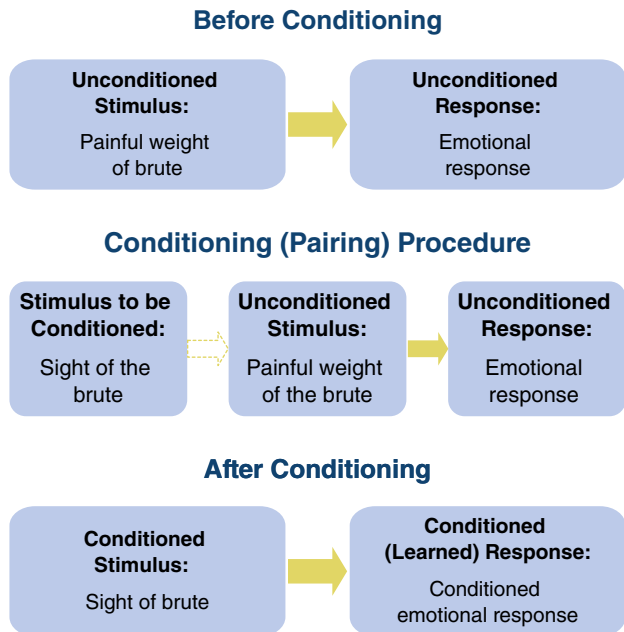
1. Define and give examples of the following concepts:
 - a. *unconditioned stimulus*
 - b. *unconditioned response*
 - c. *conditioned stimulus*
 - d. *conditioned response*
 - e. *respondent conditioning*

Fear and Football

Saturday morning, Big State U's alumni day and an alumni football game, with Gentleman Juke out of retirement to play quarterback. First quarter. The crowd roars, or at least Mae, Dawn, and Sid roar, as Juke sees the monster linebacker rushing toward him. Splat, he's on his back, crushed by the burly brute; he feels the pain, his stomach churns, his heart races, his adrenaline flows. He pushes the brute off himself with mighty force, barely restraining his fist from going for the guy's face mask, and settles for a loud oath.

Second quarter. Juke sees the monster linebacker rushing toward him. His stomach churns, his heart races, his adrenaline flows (in other words, he's very emotional). He dodges to the right, back, to the right again, and then rushes forward, across the goal line, almost as agile and fast as when he used to be part of the BSU 11. And his emotional responses give him the energy to save his

butt. They're much the same emotional response that the pain of the brute's weight caused. In other words, the fearful emotional response can also become a conditioned response elicited by a conditioned stimulus (previously paired with painful stimuli).



Tying It All Together

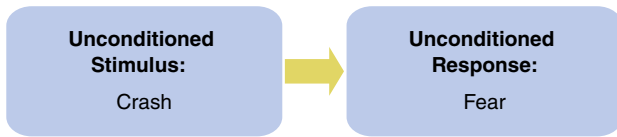
The respondent conditioning process caused the sound of Pavlov's bell to elicit his dog's conditioned salivation, because it had been paired with food (the unconditioned stimulus). It caused darkness to elicit Sammy's conditioned fear response, because it had been paired with loud noises and flashing lights. And it caused the sight of the rushing monster linebacker to elicit Juke's conditioned emotional response (which we'll call anger). We're all Pavlov's doggies under the skin.

By the way, most psychologists think we acquire emotional responses through respondent or Pavlovian conditioning. The consistent pairing of emotion-producing stimuli with neutral stimuli may bring about the conditioned fear responses to these other stimuli. Sometimes a single pairing can establish an event or object as a conditioned aversive stimulus, as with Sammy's fear of darkness.

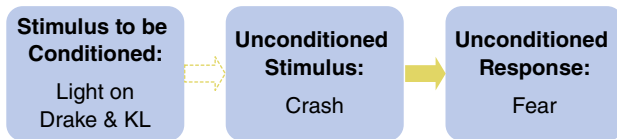
Can you think of any conditioned fear responses that you've learned? Any with just one pairing?

I've got a couple: I'm stopped at the light on Drake Road and KL Avenue. A guy on prescription drugs crashes into the back of my old Volvo, permanently trashing it; and for a while after that, I get a little antsy every time I have to stop at that light.

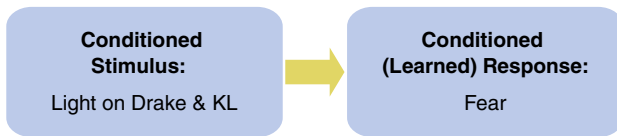
Before Conditioning



Conditioning (Pairing) Procedure



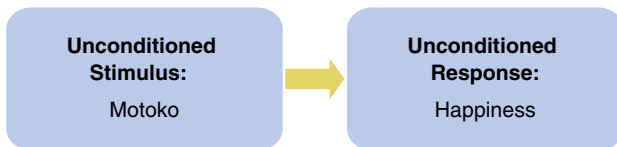
After Conditioning



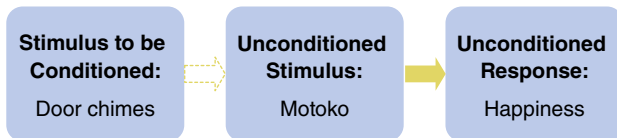
By the way, this happened to me again, in my new Volvo at the light on Parkview Avenue and Stadium Drive. This time the woman sped away as soon as I got out of my car to check the minor damage on my rear bumper. And for just a few days after that, when I pulled up to that stoplight I'd get a very light antsy feeling, even though I hadn't even been thinking about the collision until I felt the feeling.

What about conditioned happiness responses? It's dinner time on Saturday night, my door chimes ring, and I get a little happy, because that's the conditioned stimulus for my happiness at the sight of Motoko, which will occur in a couple of seconds.

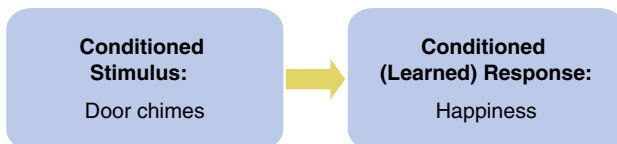
Before Conditioning



Conditioning (Pairing) Procedure



After Conditioning



And one more little conditioned happiness response: When I walk into the West Hills Fitness Center every morning, I find myself starting to

smile. Why, because I'm going to work out? No way! Because I'll be seeing a few friends, mainly just nodding acquaintances, with whom I can exchange a friendly hello. Yeah that humble little interact-with-people stimulus can cause a conditioned smiling response when I see the conditioned stimulus—entering into the gym.

QUESTION

1. Give an example of *respondent conditioning* of an emotional response.

Example

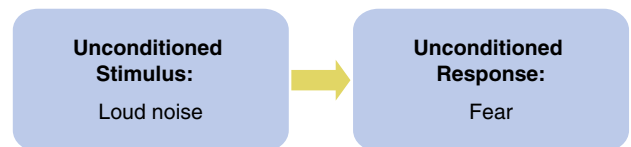
CONDITIONING A PHOBIA WITH LITTLE ALBERT²

This may be the most notorious experiment in the field of psychology. Also, the most famous. In 1920, John B. Watson and his grad student assistant, Rosalie Rayner, conditioned a phobic reaction in a 9-month-old infant. The infant, Little Albert, was a happy, robust baby; the son of a wet nurse on the campus pediatric hospital staff.

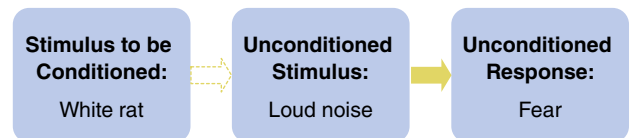
Like Sammy, loud noises startled and frightened him and could cause him to cry.

But he showed no fear of a white rat and other furry animals. So Watson and Rayner did their respondent conditioning experiment by showing him a white rat and then striking a resonant piece of metal with a hammer. It worked: Watson and Rayner conditioned a phobia in Little Albert, complete with his startle response and crying.

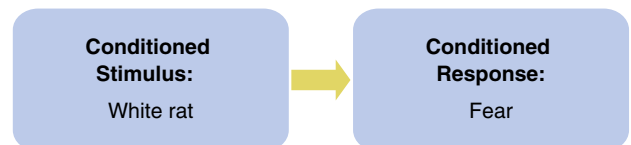
Before Conditioning



Conditioning Procedure



After Conditioning



Respondent Conditioning

Ethical research? Probably not. In fact, there's no way you'd be allowed to repeat Watson and Rayner's experiment in any university today. Now all research has to meet pretty high ethical standards. Things have changed a lot in the last 100 years, often for the better.

Watson and Rayner thought they had established a phobia that would last for Albert's lifetime if they didn't try to get rid of it. They might have gradually changed Albert's experiences with furry objects until they were always pleasant. In this way, they might have eliminated the phobia they had experimentally established. Unfortunately, they never had the chance to finish this phase of the experiment because Albert's mother removed him from the hospital after they started the last series of experimental procedures.

Let's review: Striking the iron bar behind Albert produced a fear response. This type of response to loud noises is common in all infants and perhaps is reflexive, unlearned behavior. Thus, because the sound from striking the metal bar unconditionally produced an unlearned fear response, we'll call that sound the unconditioned stimulus. We could also define the fear responses that resulted when Watson and Rayner struck the metal bar as the unconditioned response because they were a natural reaction to the noise; the white rat functioned as the conditioned stimulus as Watson and Rayner repeatedly paired it with the unconditioned stimulus, the loud noise. After several pairings, the white rat alone produced the fear response. The fear response to the white rat is the conditioned response. This procedure is the same as the one Pavlov used in conditioning the salivation response.

QUESTION

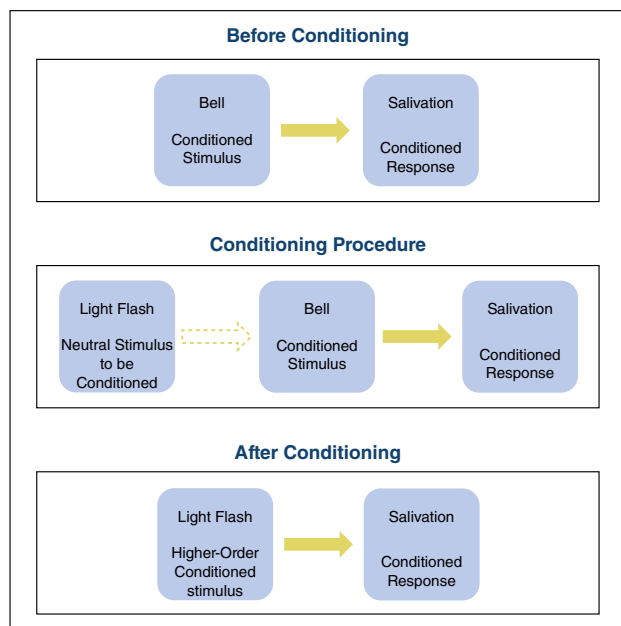
1. Give an example of conditioning a phobia. Include the
 - unconditioned stimulus (US)
 - unconditioned response (UR)
 - conditioned stimulus (CS)
 - conditioned response (CR)
 - conditioning procedure.

HIGHER-ORDER RESPONDENT CONDITIONING

In respondent conditioning, we can create a **higher-order conditioned stimulus**, by pairing a neutral stimulus with a conditioned stimulus, rather than pairing it directly with an unconditioned stimulus. For example, first we might create a conditioned stimulus, by pairing the sound of the bell with some food (bell ==> food). Then we might create a higher-order

conditioned stimulus, by pairing a light flash with the bell, not directly with the food (light ==> bell). In turn, we could try to create an even higher-order conditioned stimulus, by pairing the light with the sound of a buzzer, and on and on. And, of course, the further removed the higher-order conditioned stimulus is from the unconditioned stimulus, the weaker it will be until it has no eliciting power. The procedure for creating a higher-order conditioned stimulus is called **higher-order conditioning**.

True confessions: I shouldn't have implied that Motoko was an **unconditioned stimulus** that the sound of the Saturday-night door chimes were paired with. Her sight was also a **conditioned stimulus** that itself had been paired with many stimuli, both conditioned and otherwise. So my happiness response produced by the door chimes was really a higher, higher, higher-order respondent conditioning process. And, oh yeah, the little social interactions with the guys and gals at the gym are also really conditioned stimuli, not unconditioned ones. But higher-order respondent conditioning rocks!



Definition: CONCEPT

Higher-order respondent conditioning

- Establishing a conditioned stimulus
- by pairing a neutral stimulus
- with an already established conditioned stimulus.

QUESTION

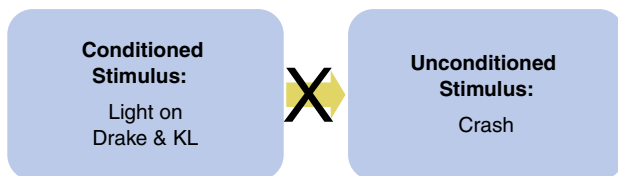
1. Higher-order respondent conditioning

- a. Define it.
- b. Give an example.

RESPONDENT EXTINCTION

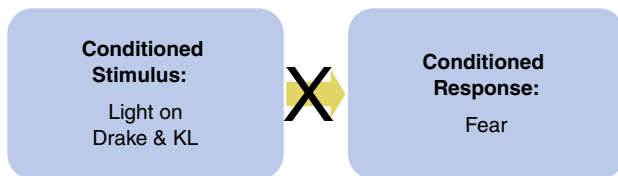
I'm sure you'll be relieved to know that after I had to stop a few times at the light on Drake and KL, I no longer felt antsy. Why? Because that guy was no longer crashing into the back of my Volvo. And we call that **respondent extinction**.

Respondent Extinction Procedure



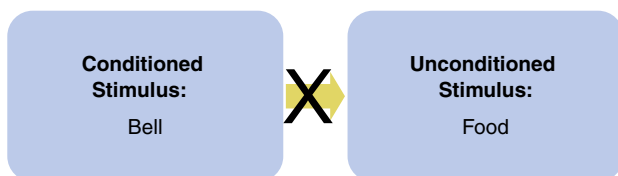
In other words, the extinction procedure involved presenting the stimulus that had become conditioned stimulus (the light on Drake and KL) but no longer pairing it with the unconditioned stimulus (the crash). So the light on Drake and KL stopped eliciting the conditioned response (fear).

After Extinction

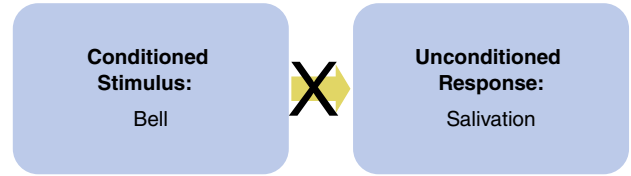


In respondent conditioning, we extinguish a previously conditioned stimulus by presenting it but no longer following it with the unconditioned stimulus. Back in early Russia, Pavlov rings the bell but no longer presents the food, and gradually Fang stops salivating to the sound of the bell. In other words, the conditioned stimulus extinguishes, as does the conditioned response of salivating to that bell:

Respondent Extinction Procedure

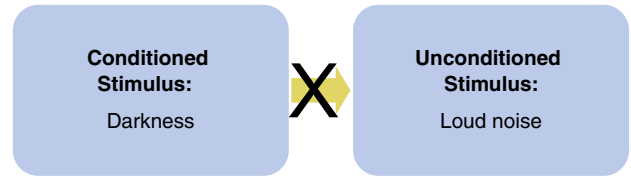


After Extinction

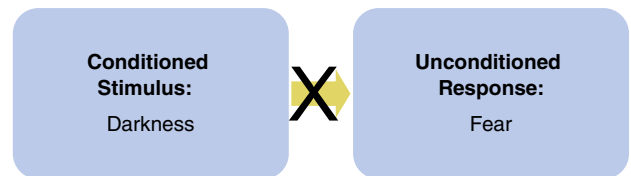


Same with Sammy's phobia.

Respondent Extinction Procedure



After Extinction



Definition: CONCEPT

Respondent extinction

- Present the conditioned stimulus
- without pairing it
- with the unconditioned stimulus,
- or with an already established conditioned stimulus,
- and the conditioned stimulus will lose its eliciting power.

QUESTION

1. Respondent extinction

- a. Define it.
- b. Give an example.
- c. Cool; now give another example.

Example

PHIL'S PHOBIA³

"You'll like the zoo," Mr. Jones told his 10-year-old son, Phil. "We can see elephants and monkeys, too. We'll have a great time, so let's have no nonsense, OK?"