

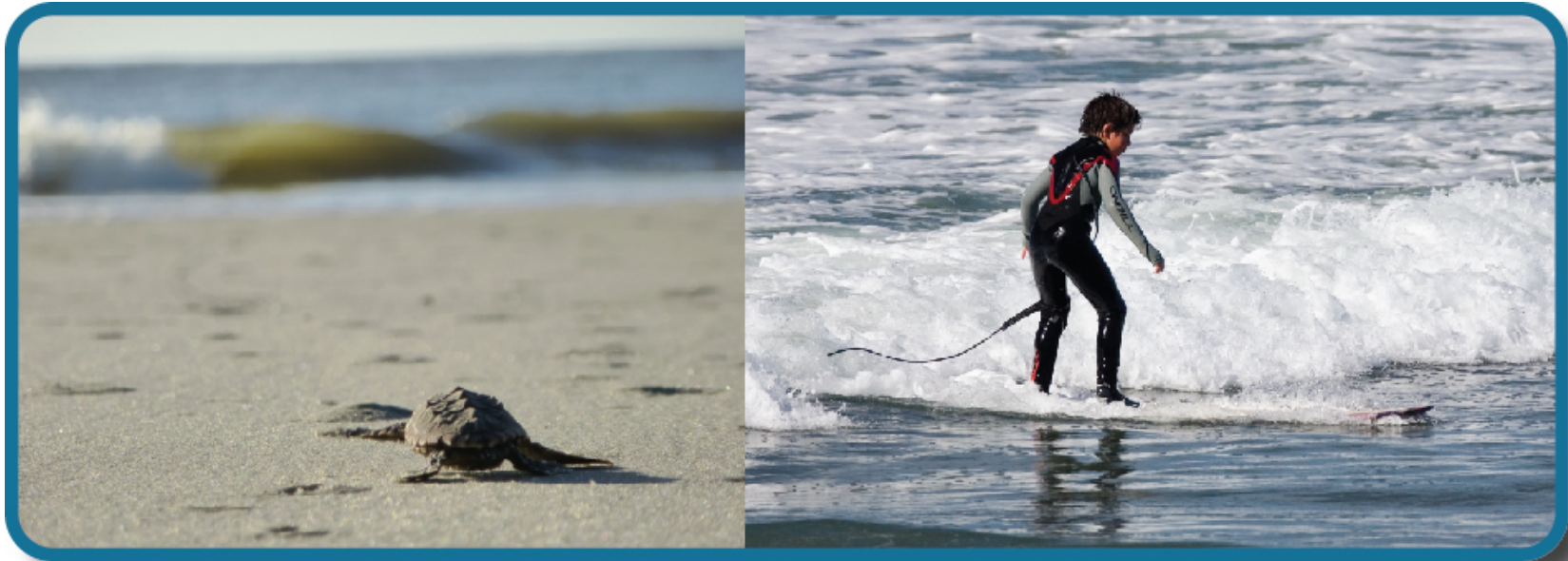
PSYCHOLOGY

Chapter 6 LEARNING

PowerPoint Image Slideshow



FIGURE 6.1



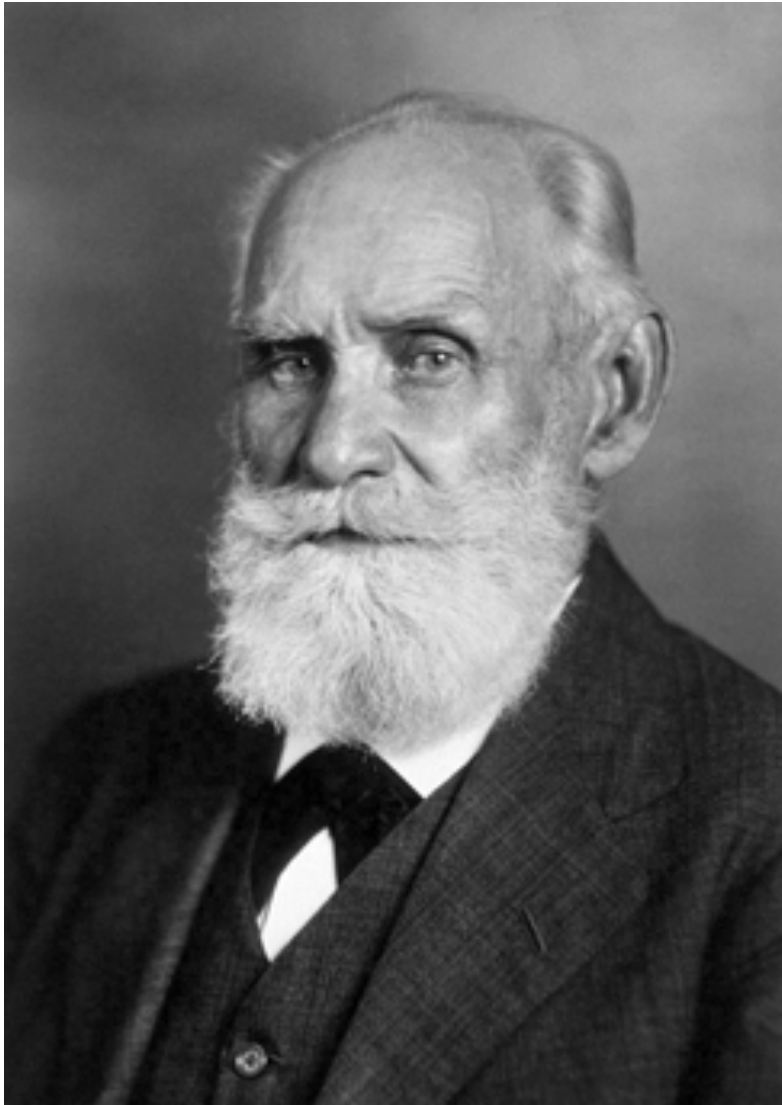
Loggerhead sea turtle hatchlings are born knowing how to find the ocean and how to swim. Unlike the sea turtle, humans must learn how to swim (and surf). (credit “turtle”: modification of work by Becky Skiba, USFWS; credit “surfer”: modification of work by Mike Baird)

FIGURE 6.2



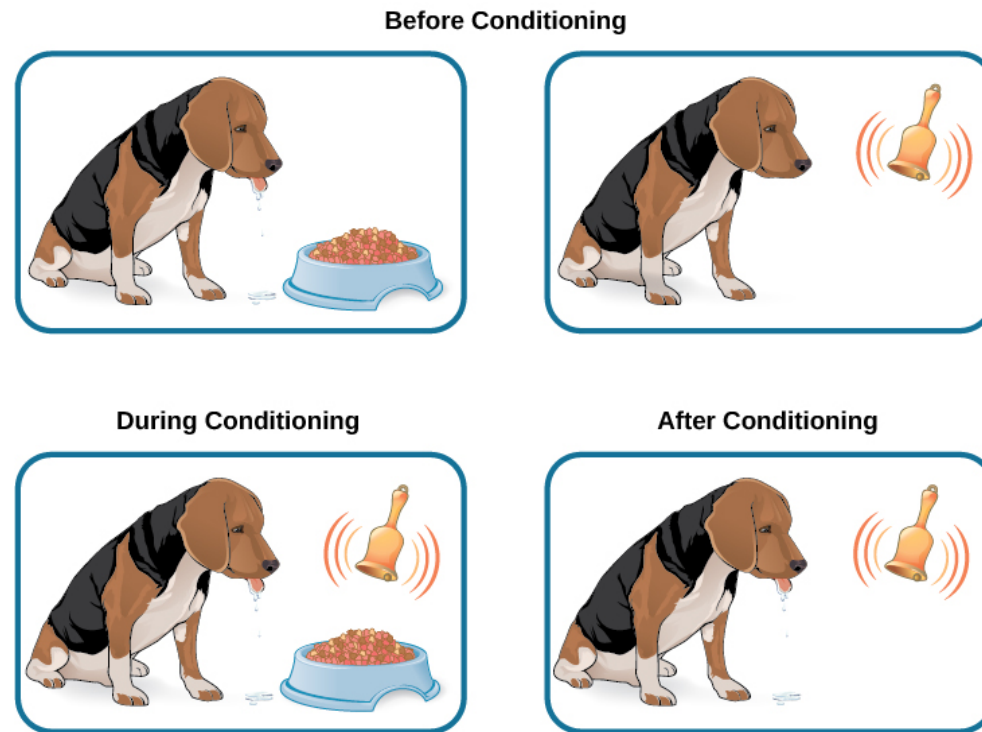
In operant conditioning, a response is associated with a consequence. This dog has learned that certain behaviors result in receiving a treat. (credit: Crystal Rolfe)

FIGURE 6.3



Ivan Pavlov's research on the digestive system of dogs unexpectedly led to his discovery of the learning process now known as classical conditioning.

FIGURE 6.4



Before conditioning, an unconditioned stimulus (food) produces an unconditioned response (salivation), and a neutral stimulus (bell) does not produce a response. During conditioning, the unconditioned stimulus (food) is presented repeatedly just after the presentation of the neutral stimulus (bell). After conditioning, the neutral stimulus alone produces a conditioned response (salivation), thus becoming a conditioned stimulus.

FIGURE 6.5

In higher-order conditioning, an established conditioned stimulus is paired with a new neutral stimulus (the second-order stimulus), so that eventually the new stimulus also elicits the conditioned response, without the initial conditioned stimulus being presented.

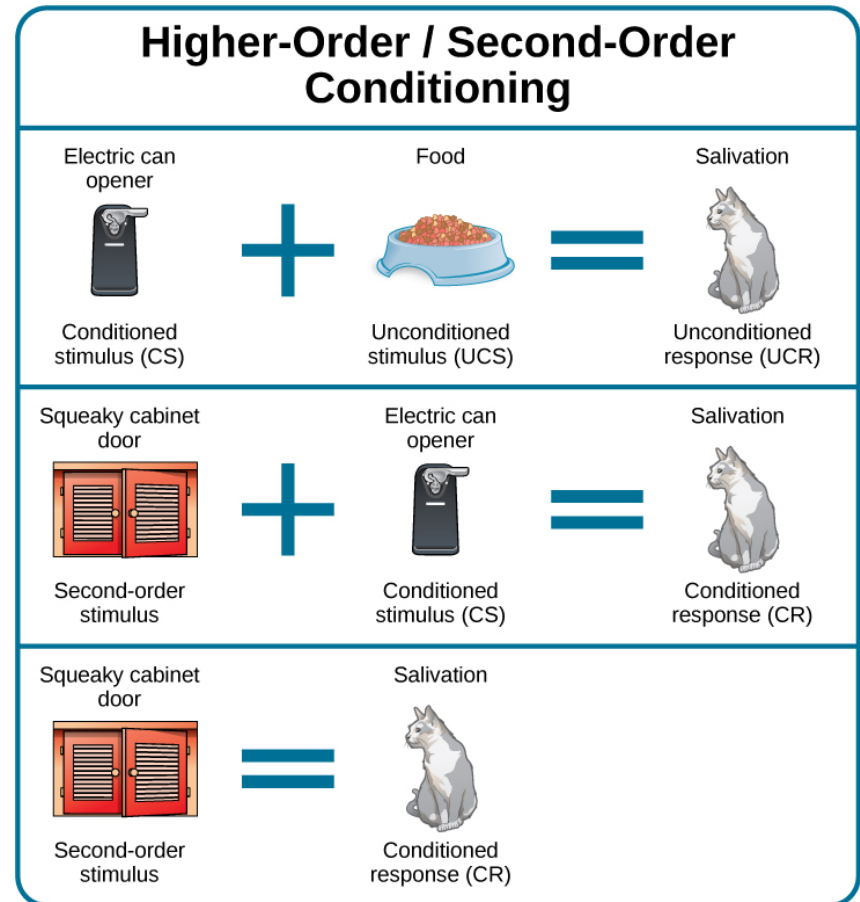
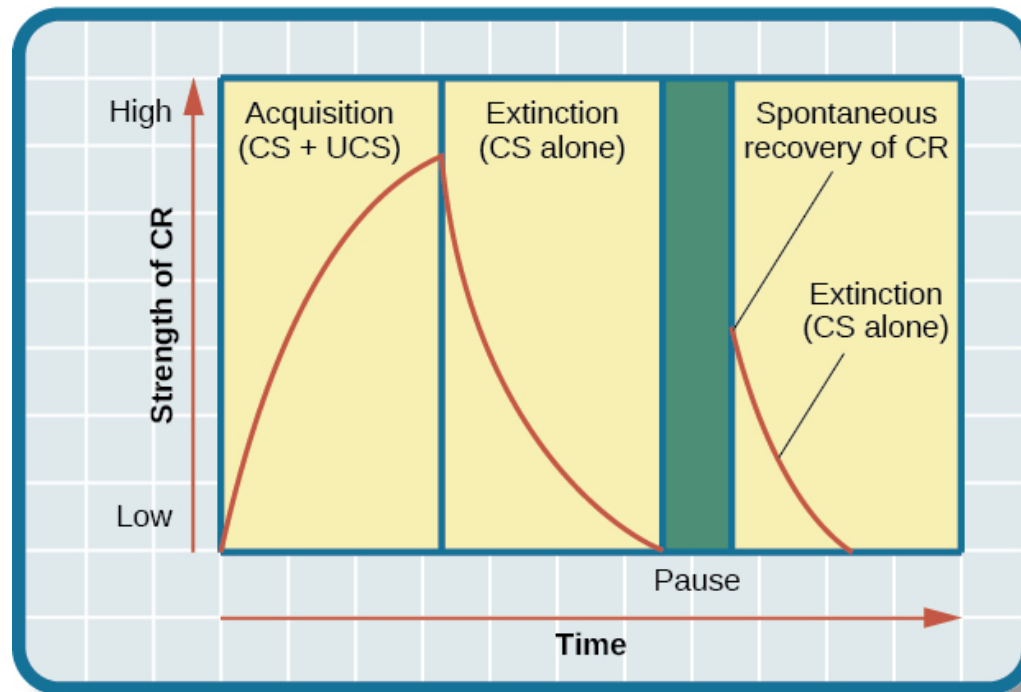


FIGURE 6.6



Kate holds a southern stingray at Stingray City in the Cayman Islands. These stingrays have been classically conditioned to associate the sound of a boat motor with food provided by tourists. (credit: Kathryn Dumper)

FIGURE 6.7



This is the curve of acquisition, extinction, and spontaneous recovery. The rising curve shows the conditioned response quickly getting stronger through the repeated pairing of the conditioned stimulus and the unconditioned stimulus (acquisition). Then the curve decreases, which shows how the conditioned response weakens when only the conditioned stimulus is presented (extinction). After a break or pause from conditioning, the conditioned response reappears (spontaneous recovery).

FIGURE 6.8



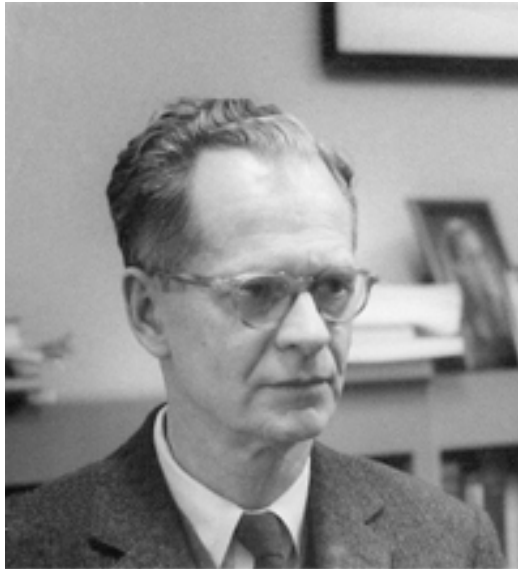
John B. Watson used the principles of classical conditioning in the study of human emotion.

FIGURE 6.9

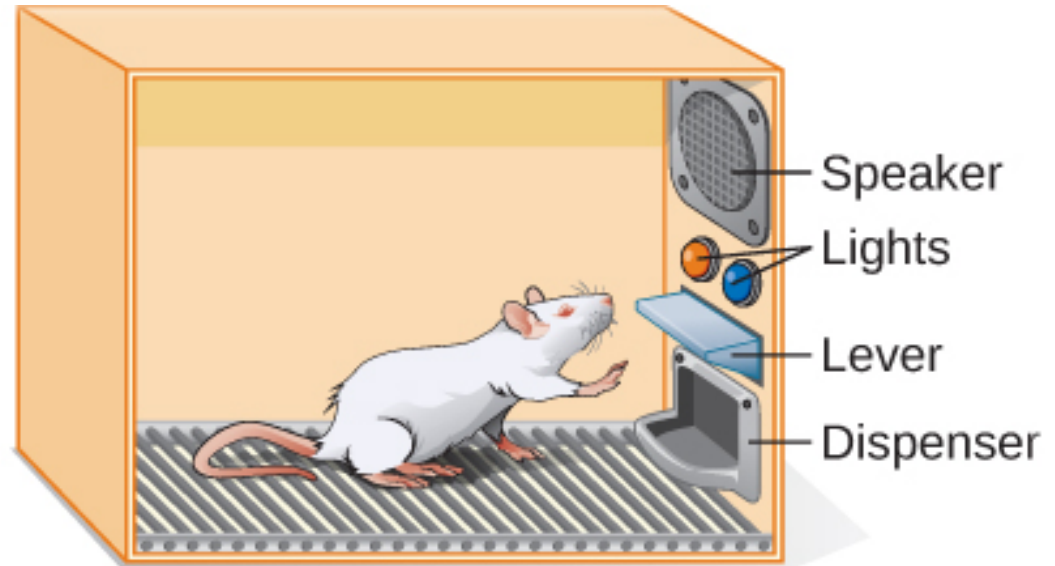


Through stimulus generalization, Little Albert came to fear furry things, including Watson in a Santa Claus mask.

FIGURE 6.10



(a)



(b)

- (a) B. F. Skinner developed operant conditioning for systematic study of how behaviors are strengthened or weakened according to their consequences.
- (b) In a Skinner box, a rat presses a lever in an operant conditioning chamber to receive a food reward. (credit a: modification of work by “Silly rabbit”/Wikimedia Commons)

FIGURE 6.11



Sticker charts are a form of positive reinforcement and a tool for behavior modification. Once this little girl earns a certain number of stickers for demonstrating a desired behavior, she will be rewarded with a trip to the ice cream parlor. (credit: Abigail Batchelder)

FIGURE 6.12



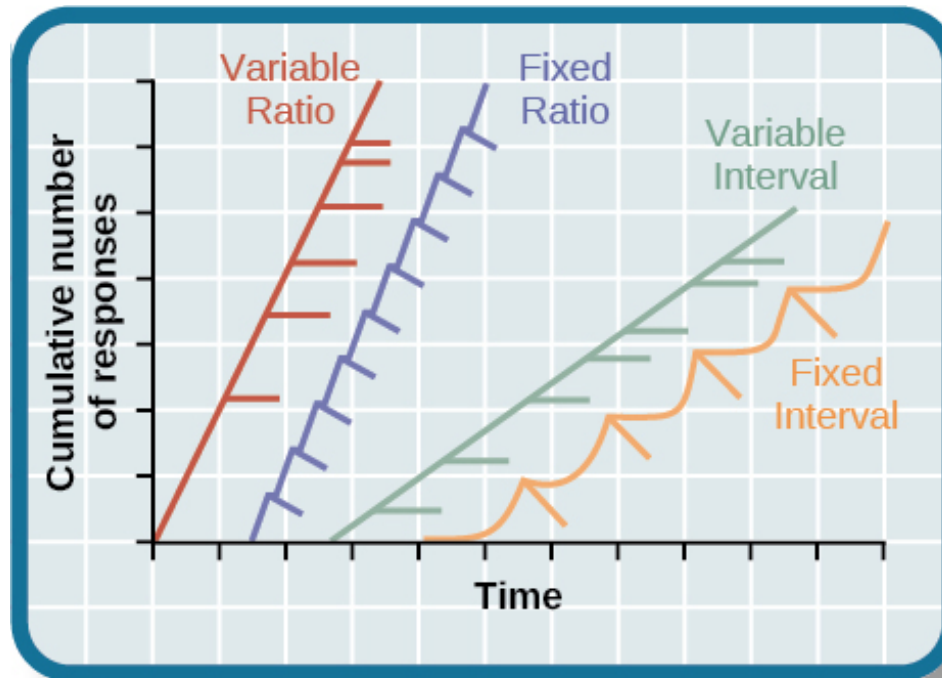
(a)



(b)

Time-out is a popular form of negative punishment used by caregivers. When a child misbehaves, he or she is removed from a desirable activity in an effort to decrease the unwanted behavior. For example, (a) a child might be playing on the playground with friends and push another child; (b) the child who misbehaved would then be removed from the activity for a short period of time. (credit a: modification of work by Simone Ramella; credit b: modification of work by “JefferyTurner”/Flickr)

FIGURE 6.13



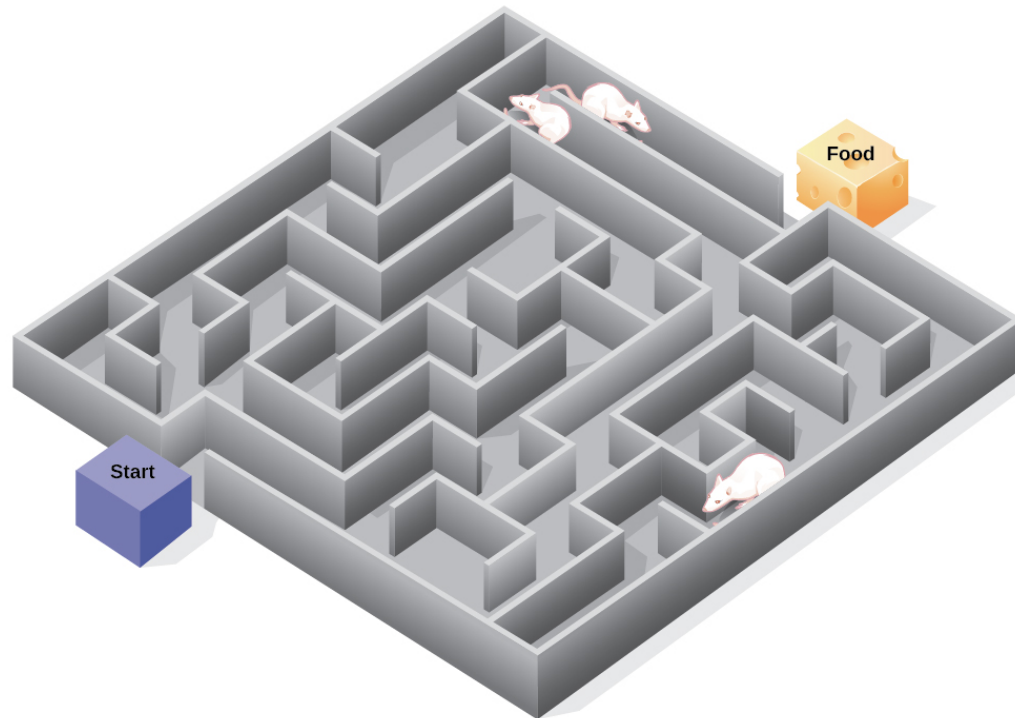
The four reinforcement schedules yield different response patterns. The variable ratio schedule is unpredictable and yields high and steady response rates, with little if any pause after reinforcement (e.g., gambler). A fixed ratio schedule is predictable and produces a high response rate, with a short pause after reinforcement (e.g., eyeglass saleswoman). The variable interval schedule is unpredictable and produces a moderate, steady response rate (e.g., restaurant manager). The fixed interval schedule yields a scallop-shaped response pattern, reflecting a significant pause after reinforcement (e.g., surgery patient).

FIGURE 6.14



Some research suggests that pathological gamblers use gambling to compensate for abnormally low levels of the hormone norepinephrine, which is associated with stress and is secreted in moments of arousal and thrill. (credit: Ted Murphy)

FIGURE 6.15



Psychologist Edward Tolman found that rats use cognitive maps to navigate through a maze. Have you ever worked your way through various levels on a video game? You learned when to turn left or right, move up or down. In that case you were relying on a cognitive map, just like the rats in a maze. (credit: modification of work by “FutUndBeidl”/Flickr)

FIGURE 6.16



This spider monkey learned to drink water from a plastic bottle by seeing the behavior modeled by a human. (credit: U.S. Air Force, Senior Airman Kasey Close)

FIGURE 6.17



(a)



(b)

- (a) Yoga students learn by observation as their yoga instructor demonstrates the correct stance and movement for her students (live model).
- (b) Models don't have to be present for learning to occur: through symbolic modeling, this child can learn a behavior by watching someone demonstrate it on television. (credit a: modification of work by Tony Cecala; credit b: modification of work by Andrew Hyde)

FIGURE 6.18



Can video games make us violent? Psychological researchers study this topic. (credit: “woodleywonderworks”/Flickr)

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