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Behaviorist Views of Learning

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LEARNING OUTCOMES

- 9.1:** Describe five basic assumptions underlying behaviorist views of learning, and apply these assumptions to classroom practice.
- 9.2:** Explain how learners can acquire involuntary responses through classical conditioning and how you might help a student overcome classically conditioned emotional responses that interfere with classroom performance.
- 9.3:** Describe the effects that various kinds of consequences can have on behavior.
- 9.4:** Apply behaviorist principles to encourage productive student behaviors and discourage undesirable ones.
- 9.5:** Accommodate students' personal and cultural backgrounds and special needs in your application of behaviorist principles.
- 9.6:** Describe circumstances in which behaviorist techniques might not be helpful.

CASE STUDY: THE ATTENTION GETTER

James is the sixth child in a family of nine children. He likes many things; for instance, he likes rock music, comic books, basketball, and strawberry ice cream. But more than anything else, James likes attention.

James is a skillful attention getter. He gets his teacher's attention by making outrageous remarks in class, throwing paper airplanes across the room, and refusing to turn in assignments. He gets his classmates' attention by teasing them, poking them, and writing obscenities on the restroom walls. And by the middle of the school year, James's antics are regularly earning him trips to the school office, where he gets the assistant principal's attention at least once a week.

- Why might James be choosing inappropriate behaviors, rather than more productive ones, in order to get attention? What general principle of learning might explain his behavior?

As you consider James's situation, think back to your own experiences as a student in elementary and secondary school. Which students received the most attention: those who behaved well or those who behaved poorly? Chances are, your teachers and classmates paid the most attention to misbehaving students (Landrum & Kauffman, 2006; J. C. Taylor & Romanczyk, 1994). James has undoubtedly learned that if he wants to be noticed—if he wants to stand out in a crowd—he must behave in ways that are hard to ignore.

Throughout our lives we learn many, many new behaviors—how to sharpen a pencil, dribble a basketball, make and fly a paper airplane, and so on. In this chapter we'll examine a theoretical perspective known as **behaviorism**, which focuses on how people's immediate environments bring about changes in their behavior. We'll also use behaviorist ideas to understand how, as teachers, we can help students acquire behaviors that are more complex, productive, or prosocial than the ones they exhibit when they first enter our classrooms.

Basic Assumptions of Behaviorism

When psychologists first began systematically studying human learning and behavior in the late 1880s, much of their work involved asking people to "look" inside their heads and describe what they were mentally doing (e.g., Ebbinghaus, 1885/1913; Galton, 1880; James, 1890). But beginning in the early 1900s, some psychologists criticized this approach as being subjective and scientifically unsound. In their minds, the human mind was a *black box* that couldn't be opened for inspection. Instead, these psychologists began to focus on two things that could be observed and objectively measured: local conditions and events—that is, environmental **stimuli** (sometimes abbreviated as **S**)—and learners' behaviors, or **responses** (sometimes abbreviated as **R**). This focus gave rise to the behaviorist movement, which dominated much of psychology in the middle decades of the twentieth century, especially in North America. In later decades, psychologists became increasingly inventive in their efforts to study thinking processes with scientific rigor, and many left the behaviorist approach behind for more cognitively oriented approaches. Nevertheless, behaviorism is still very much alive and well, in large part because behaviorist concepts and principles can be quite useful in helping people of all ages acquire productive behaviors in classrooms and other settings.

Underlying the behaviorist perspective are several key assumptions:

- *People's behaviors are largely the result of their experiences with stimuli in their immediate environments.* Many early behaviorists suggested that, with the exception of a few simple reflexes, a person is born as a "blank slate" (or in Latin, *tabula rasa*), with no inherited tendency to behave one way or another. Over the years the environment "writes" on this slate, slowly molding, or **conditioning**, the person into someone who has unique characteristics and ways of behaving.

As teachers, we must keep in mind the very significant effect that students' past and present environments are likely to have on their behaviors. We can often use this basic principle to

behaviorism Theoretical perspective in which learning and behavior are described and explained in terms of stimulus-response relationships.

stimulus (S) Specific object or event that influences an individual's learning or behavior.

response (R) Specific behavior that an individual exhibits.

conditioning Term commonly used by behaviorists for learning; typically involves specific environmental events leading to the acquisition of specific responses.

CHAPTER OUTLINE

Basic Assumptions of Behaviorism

Building on Existing Stimulus–

Response Associations: Classical

Conditioning

Classical Conditioning of Involuntary
Emotional Responses

Common Phenomena in Classical
Conditioning

Addressing Counterproductive Emotional
Responses

Learning from Consequences:

Instrumental Conditioning

Contrasting Classical Conditioning and
Instrumental Conditioning

The Various Forms That Reinforcement
Can Take

The Various Forms That Punishment
Can Take

Strategies for Encouraging Productive Behaviors

Using Reinforcement Effectively

Shaping New Behaviors

Bringing Antecedent Stimuli and
Responses into the Picture

Strategies for Discouraging Undesirable Behaviors

Creating Conditions for Extinction

Cueing Inappropriate Behaviors

Reinforcing Incompatible Behaviors

Using Punishment When Necessary

Addressing Especially Difficult Classroom Behaviors

Applied Behavior Analysis

Functional Analysis and Positive Behavior
Support

Diversity in Student Behaviors and Reactions to Consequences

Accommodating Students with Special
Needs

Strengths and Potential Limitations of Behaviorist Approaches

our advantage: By changing the classroom environment, we may also be able to change how students behave.

• *Learning involves a behavior change.* Whereas most contemporary psychologists think of *learning* as a mental phenomenon, many behaviorists define it as a behavior change—in particular, learning is a *change in behavior as a result of experience*. Such a view of learning can often be useful in the classroom. Consider this scenario:

Your students look at you attentively as you explain a difficult concept. When you finish, you ask, “Any questions?” You look around the room, and not a single hand is raised. “Good,” you think, “everyone understands.”

But *do* your students understand? On the basis of what you’ve just observed, you really have no idea whether they do or don’t. Only observable behavior changes—perhaps an improvement in achievement test scores, a greater frequency of independent reading, or a reduction in off-task behaviors—can ultimately tell us that learning has occurred.

• *Learning involves forming associations among stimuli and responses.* By and large, behaviorist principles focus on relationships among observable events. For example, the opening case study illustrates one important behaviorist principle: People are likely to learn and exhibit behaviors that bring about certain kinds of consequences. For example, in the opening case study, James has formed an association between his own disruptive behaviors (*responses*) and attention from other people (which is an environmental event, or *stimulus*, for James).

If we were to take a strict black-box perspective here, we wouldn’t concern ourselves with what’s going on inside James’s head at all. But in recent decades, it has become increasingly evident, even to behaviorists, just how difficult it is to omit thinking from explanations of learning and behavior. Accordingly, some behaviorists have begun to incorporate cognitive processes and other internal phenomena into their theoretical explanations (e.g., DeGrandpre, 2000; Rescorla, 1988). As you read this chapter, you’ll find that I occasionally allude to internal phenomena in my discussion of behaviorist principles. In doing so, I’m revealing my own bias as a cognitive psychologist, and pure behaviorists might object.

• *Learning is most likely to take place when stimuli and responses occur close together in time.* When two events occur at more or less the same time—perhaps two stimuli or perhaps a stimulus and a response—there is *contiguity* between them. The following examples illustrate contiguity:

- One of your instructors (Professor X) scowls at you as she hands back an exam she has just corrected. You discover that you’ve gotten a D– on the exam, and your entire body tenses up. The next time Professor X scowls at you, that same bodily tension returns.
- Another instructor (Professor Y) calls on you every time you raise your hand. Although you’re fairly quiet in your other classes, you find yourself raising your hand and speaking up more frequently in this one.

In the first situation, Professor X’s scowl and the D– on your exam are presented more or less simultaneously. Here we see contiguity between two stimuli. In the second situation, your hand-raising response is followed immediately by Professor Y’s request for your input. In this case we see contiguity between a response and a subsequent stimulus (although calling on you is a response that Professor Y makes, it’s a *stimulus* for you). In both situations a behavior has changed: You’ve learned to tighten your muscles every time one instructor scowls, and you’ve learned to raise your hand and speak up more frequently in another instructor’s class.

• *Many species, including human beings, learn in similar ways.* Many behaviorist principles have been derived from research with nonhuman animals. For instance, as you’ll see in a moment, our knowledge about classical conditioning first emerged from Ivan Pavlov’s early work with dogs. And another well-known behaviorist, B. F. Skinner, worked almost exclusively with rats and pigeons.

PRINCIPLES/ASSUMPTIONS

TABLE 9.1 • Basic Assumptions of Behaviorism and Their Educational Implications

ASSUMPTION	EDUCATIONAL IMPLICATION	EXAMPLE
Influence of the environment	● Create a classroom environment that fosters desirable student behaviors.	● When a student consistently has trouble working independently, praise her inconspicuously every time she completes an assignment without having to be prompted.
Learning as a behavior change	● Conclude that learning has occurred only when students exhibit a change in classroom performance.	● Regularly assess students' learning, and look for ongoing progress in what they know and can do.
Focus on observable events (stimuli and responses)	● Identify specific stimuli (including your own actions as a teacher) that may be influencing students' behaviors.	● If a student frequently engages in disruptive classroom behavior, consider whether you might be encouraging such behavior by giving him attention every time he misbehaves.
Contiguity of events	● If you want students to associate two events (stimuli, responses, or stimulus and response), make sure those events occur close together in time.	● Include enjoyable yet educational activities in each day's schedule as a way of helping students associate school subject matter with pleasurable feelings.
Similarity of learning principles across species	● Remember that research with nonhuman species often has relevance for classroom practice.	● Reinforce a hyperactive student for sitting quietly for successively longer time periods—a <i>shaping</i> process based on early research studies with rats and pigeons.

Students in my own educational psychology classes sometimes resent having human learning compared to that of laboratory rats. But, in fact, behaviorist principles developed from the study of nonhuman animals are often quite helpful in explaining human behavior.

Table 9.1 summarizes the five assumptions just described and draws general implications for classroom practice.

Building on Existing Stimulus–Response Associations: Classical Conditioning

Consider this situation:

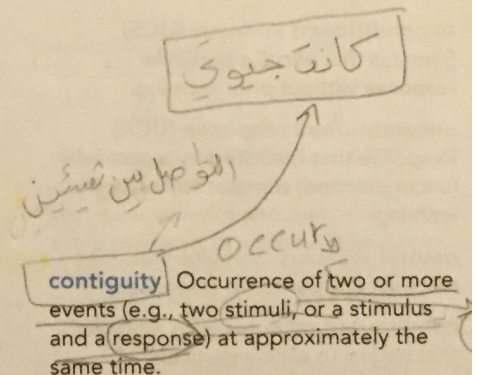
Alan has always loved baseball. But in a game last year, he was badly hurt by a wild pitch while he was up at bat. Now, although he still plays baseball, he gets anxious whenever it's his turn at bat, to the point that his heart rate increases and he often backs away from the ball instead of swinging at it.

One possible explanation of Alan's behavior is **classical conditioning**, a theory that explains how we sometimes learn new responses as a result of two stimuli being presented at approximately the same time. Alan experienced two stimuli—an oncoming baseball and its painful impact—almost simultaneously. The ways in which Alan now responds to a pitched ball—his physiological reactions and his backing away—are ones he didn't exhibit before his painful experience with the baseball. Thus, learning has occurred.

Classical conditioning was first described by Ivan Pavlov (e.g., 1927), a Russian physiologist who was conducting research about salivation. Pavlov often used dogs in his research projects and presented meat to get them to salivate. He noticed that the dogs frequently began to salivate as soon as they heard the lab assistant coming down the hall, even though they couldn't yet smell the meat that the assistant was bringing. Curious about this phenomenon, Pavlov conducted an experiment to examine more systematically how a dog learns to salivate in response to a new stimulus. His experiment went something like this:

1. Pavlov flashes a light and observes that the dog doesn't salivate. Using the letters S for stimulus and R for response, we can symbolize Pavlov's first observation like this:

S (light) → R (none)



classical conditioning Form of learning in which a new, involuntary response is acquired as a result of two stimuli being presented close together in time.

2. Pavlov flashes the light again and presents meat immediately afterward. He repeats this procedure several times, and the dog salivates each time. The dog is demonstrating something it already knows how to do—salivate to meat—and hasn't yet learned anything new. We can symbolize Pavlov's second observation like so:

$$\left. \begin{array}{l} S \text{ (light)} \\ S \text{ (meat)} \end{array} \right\} \rightarrow R \text{ (salivation)}$$

3. Pavlov flashes the light once more, but this time without any meat. The dog salivates; in other words, it has learned a new response to the light stimulus. We can symbolize Pavlov's third observation this way:

$$S \text{ (light)} \rightarrow R \text{ (salivation)}$$

In more general terms, classical conditioning proceeds as follows:

1. It begins with a stimulus–response association that already exists—in other words, an **unconditioned** stimulus–response association. Pavlov's dog salivates automatically whenever it smells meat, and Alan becomes upset and backs away whenever he encounters a painful stimulus. No learning is involved in either case. When a stimulus leads to a particular response without prior learning, we say that an **unconditioned stimulus (UCS)** elicits an **unconditioned response (UCR)**.¹ The unconditioned response is typically an automatic, involuntary one over which the learner has little or no control.
2. Conditioning occurs when a **neutral stimulus**—one that doesn't elicit any particular response—is presented immediately before the unconditioned stimulus. In the case of Pavlov's dog, a light is presented immediately before the meat. In the case of Alan, a baseball is pitched immediately before the painful impact. Conditioning is especially likely to occur when both stimuli are presented together on several occasions and when the neutral stimulus occurs *only* when the unconditioned stimulus is about to follow (R. R. Miller & Barnet, 1993; Rachlin, 1991; Rescorla, 1967). Sometimes one pairing is enough, especially if the unconditioned stimulus is a very painful or frightening one.
3. Before long, the new stimulus also elicits a response, usually one very similar to the unconditioned response. The neutral stimulus has become a **conditioned stimulus (CS)**, and the response to it has become a **conditioned response (CR)**. For example, Pavlov's dog acquires a conditioned response of salivation to a new, conditioned stimulus—the light. Likewise, Alan acquires conditioned responses of increased heart rate and backing away—both of which reflect *anxiety*—to a pitched baseball. Like the unconditioned response, the conditioned response is an involuntary one: It occurs automatically every time the conditioned stimulus is presented.

CLASSICAL CONDITIONING OF INVOLUNTARY EMOTIONAL RESPONSES

Classical conditioning can help us understand how people learn a variety of involuntary responses, especially responses associated with physiological processes, emotions, and other relatively “thoughtless” aspects of human functioning (Mineka & Zinbarg, 2006; J. B. Watson & Rayner, 1920). Following are three examples of how unpleasant emotional responses might be learned through classical conditioning. Notice that in each case two stimuli are presented together: One stimulus already elicits a response, and the second stimulus begins to elicit a similar response as a result of the pairing.

- Bernard falls into a swimming pool and almost drowns. A year later, when his mother takes him to the local recreation center for a swimming lesson, he cries hysterically as she tries to drag him to the side of the pool.

¹In discussions of classical conditioning, behaviorists often use the word *elicit* (meaning “draw forth or bring out”), as I do here. The word conveys the idea that learners have little or no control over their classically conditioned responses.

unconditioned stimulus (UCS)

Stimulus that elicits a particular response without prior learning.

unconditioned response (UCR)

Response that is elicited by a particular (unconditioned) stimulus without prior learning.

neutral stimulus Stimulus that does not elicit any particular response.

conditioned stimulus (CS) Stimulus that begins to elicit a particular response through classical conditioning.

conditioned response (CR) Response that begins to be elicited by a particular (conditioned) stimulus through classical conditioning.

UCS: inability to breathe → UCR: fear of asphyxiation
 CS: swimming pool → CR: fear of the pool

- Bobby misses a month of school because of illness. When he returns to school, he doesn't know how to do the long division problems his teacher is now assigning. After a number of frustrating experiences with the assignments, he begins to feel anxious whenever he encounters a division task.

UCS: failure/frustration → UCR: anxiety about failure
 CS: long division → CR: anxiety about long division

- Beth's teacher catches her writing a note to a friend during class. The teacher reads the note to the entire class, revealing some very personal, private information that embarrasses her. Beth now feels extremely uncomfortable whenever she goes into that teacher's classroom.

UCS: humiliation → UCR: embarrassment in response to humiliation
 CS: teacher/classroom → CR: emotional discomfort in response to teacher/classroom

As teachers, we should create a classroom environment in which stimuli—including our own behaviors—are likely to elicit such responses as enjoyment or relaxation, *not* fear or anxiety. When students associate school with pleasant circumstances (e.g., positive feedback, enjoyable activities), they soon learn that school is a place they want to be. But when they encounter unpleasant stimuli in school—such as public humiliation or constant frustration and failure—they may eventually learn to fear or dislike a particular activity, subject area, teacher, or school in general.

COMMON PHENOMENA IN CLASSICAL CONDITIONING

Two common phenomena in classical conditioning are generalization and extinction. As you'll discover later in the chapter, variations of these phenomena occur in instrumental conditioning as well.

GENERALIZATION

When people learn a conditioned response to a new stimulus, they may respond in the same way to similar stimuli—a phenomenon known as **generalization**. For example, a boy who learns to feel anxious about long division problems may generalize the anxiety response to other kinds of math problems. And a girl who experiences humiliation in one classroom may generalize her feelings of embarrassment to other classrooms as well. Thus, we see a second reason that students should associate pleasant feelings with school subject matter: Students' reactions to a particular topic, activity, or context may generalize—that is, they may *transfer*—to other topics, activities, or contexts.

EXTINCTION

Pavlov discovered that conditioned responses don't necessarily last forever. By pairing a light with meat, he conditioned a dog to salivate to the light alone. But later, when he repeatedly flashed the light without following it with meat, the dog salivated less and less. Eventually, the dog no longer salivated to the light flash. When a conditioned stimulus occurs repeatedly *in the absence* of the unconditioned stimulus—for example, when math is never again associated with failure or when a teacher is never again associated with humiliation—the conditioned response may decrease and eventually disappear. In other words, **extinction** can occur.

Many conditioned responses do fade over time. Unfortunately, many others do not. A child's fear of water or anxiety about mathematics can persist for years. One reason that fears and anxieties persist is that learners tend to avoid situations that elicit negative emotional reactions. But if they stay away from a stimulus that makes them fearful, they never have a chance to experience the stimulus in the absence of the unconditioned stimulus with which it was originally paired. As a result, they have no opportunity to learn to be *unafraid*—no opportunity for the response to undergo extinction.

The best part of third grade was

division
 algebra
 multiplication
 math
 reading

In a personal "yearbook," Ashton identifies math and reading as being the best part of his third-grade year. He clearly associates these subjects with pleasure rather than discomfort.



secure.

Create a classroom atmosphere in which students feel physically and psychologically safe and



specific academic topics may generalize to other situations.

Remember that the feelings students develop in response to you, your classroom, or

generalization Phenomenon in which a person learns a response to a particular stimulus and then makes the same response to a similar stimulus; in classical conditioning, involves making a conditioned response to a stimulus similar to a conditioned stimulus.

extinction Gradual disappearance of an acquired response; in classical conditioning, results from repeated presentation of a conditioned stimulus in the absence of the unconditioned stimulus.

Notice that I've defined both *reinforcer* and *punishment* in terms of their effects on behavior, rather than in terms of their relative pleasantness and desirability. Some learners increase certain behaviors for consequences that most of us would think of as unpleasant—consequences that we certainly wouldn't think of as “rewards.” As an example, let's return to the opening case study. When James throws objects, makes outrageous comments, and so on, we can assume that his teacher is probably frowning at or scolding him, which we don't usually think of as desirable outcomes. Yet those consequences are leading to an increase in James's misbehaviors; thus, they're apparently reinforcing for him. Other people's attention, regardless of the form it might take, can be highly reinforcing for some students and often serves to maintain counterproductive classroom behaviors (McGinnis, Houchins-Juárez, McDaniel, & Kennedy, 2010; Mueller, Nkosi, & Hine, 2011; N. M. Rodriguez, Thompson, & Baynham, 2010).

Punishment, too, seems to be in the eye of the beholder. For example, some seemingly very desirable forms of attention, such as teacher praise, can be a must-to-avoid—and hence punishing—for adolescents who don't want their peers to think of them as a “goodie-two-shoes” or teacher's pet (Burnett, 2001; Piffner, Rosen, & O'Leary, 1985).

CONTRASTING CLASSICAL CONDITIONING AND INSTRUMENTAL CONDITIONING

Classical conditioning and instrumental conditioning both involve stimuli and responses. But instrumental conditioning is different from classical conditioning in two important ways:

- *The response is voluntary rather than involuntary.* In classical conditioning, the response is involuntary: When a particular (conditioned) stimulus is present, the response usually follows automatically, with little choice on the learner's part. In instrumental conditioning, however, the response is typically voluntary: The learner can control whether or not to make it. For example, in the opening case study, James can choose whether to make inappropriate comments, toss paper airplanes, or tease classmates; nothing in the classroom environment is forcing him to do these things.

The voluntary nature of responses in instrumental conditioning is an important one for teachers to keep in mind. In order for such conditioning to occur, *learners must first make a response*. Many educational applications of behaviorist principles, then, involve getting students physically and actively engaged in working with academic subject matter.

- *Learning occurs as a result of a stimulus that comes after, rather than before, the response.* Classical conditioning results from the pairing of two stimuli, one (the UCS) that initially elicits a response and another (the CS) that begins to elicit the same or a similar response. Thus, these two stimuli *lead to* certain responses. In instrumental conditioning, however, the learner makes the first move, and an environmental stimulus (either a reinforcer or punishment) follows. Typically there's a **contingency** between the response and the consequence: The consequence almost always follows the response and seldom occurs when the response hasn't been made. For example, a teacher who praises students only when they behave appropriately is making reinforcement contingent on desired behavior. In contrast, a teacher who laughs at the antics of a chronically misbehaving student is providing reinforcement even when an acceptable response hasn't occurred; consequently, the student's behavior is unlikely to improve.

Don't confuse *contingency* with the term *contiguity* introduced near the beginning of the chapter. Contingency involves an if-this-happens-then-that-happens relationship. In contrast, contiguity simply involves two things happening at about the same time. Effective instrumental conditioning usually involves contiguity as well as contingency; that is, the consequence occurs almost immediately after the response (J. A. Kulik & Kulik, 1988; Rachlin, 1991). The immediacy of reinforcement or punishment after a response is especially important when working with young children. It's less critical for older children and adolescents, who are better able to make a mental connection between what they do *now* with what happens to them *later* (more on this point shortly).

THE VARIOUS FORMS THAT REINFORCEMENT CAN TAKE

Reinforcers come in all shapes and sizes, and different ones are effective for different learners. We explore a few possibilities in the following exercise.



Get students physically and actively engaged in working with classroom topics.

contingency Situation in which one event happens only after another event has already occurred; one event is contingent on the other's occurrence

EXPERIENCING FIRSTHAND

WHAT WOULD IT TAKE?

1. Imagine that you're currently enrolled in my educational psychology class. As your instructor, I ask you if you'd be willing to spend an hour after class tutoring two classmates who are having trouble understanding course material. You have no other commitments for that hour, but you'd really like to spend the time at a nearby coffee shop where several friends are having lunch. What would it take for you to spend the hour tutoring your classmates instead of joining your friends? Would you do it to gain my approval? Would you do it for a candy bar? How about if I gave you five dollars? Would you do it simply because it made you feel good to be helping someone else? Write down a consequence—perhaps one I've just listed or perhaps a different one altogether—that would persuade you to help your classmates instead of meeting your friends.
2. A few weeks later, I ask you to spend the weekend (eight hours a day on both Saturday and Sunday) tutoring the same two struggling classmates. What would it take this time to convince you to do the job? Would my approval do the trick? A candy bar? Five dollars? Five hundred dollars? Or would your internal sense of satisfaction be enough? Once again, write down what it would take for you to agree to help your classmates.

There are no right or wrong answers to this exercise. Different people would agree to tutor classmates for different reasons. But you were probably able to identify at least one consequence in each situation that would entice you to give up your free time to help others.

PRIMARY VERSUS SECONDARY REINFORCERS

Some reinforcers, such as a candy bar, are **primary reinforcers**, because they address a basic biological need. Food, water, sources of warmth, and oxygen are all primary reinforcers. To some extent, physical affection and cuddling seem to address built-in biological needs as well, and for an adolescent addicted to an illegal substance, the next "fix" is also a primary reinforcer (Harlow & Zimmerman, 1959; Lejuez, Schaal, & O'Donnell, 1998; Vollmer & Hackenberg, 2001).

Other reinforcers, known as **secondary reinforcers**, don't satisfy any physiological need. Praise, money, good grades, and trophies are examples. Such stimuli may become reinforcing over time through their association with other stimuli that already have a reinforcing effect. For example, if praise is occasionally associated with a special candy treat from Mother, and if money often comes with a hug from Father, the praise and money eventually become reinforcing in and of themselves. In this way, seemingly unpleasant stimuli can become reinforcers. For instance, if James regularly associates a teacher's scolding with something he wants—more attention—then a scolding may indeed become a reinforcer in its own right.

Secondary reinforcers are far more common in classrooms than primary reinforcers. In fact, making primary reinforcers (e.g., lunch, restroom breaks) contingent on certain levels of performance is generally *not* good teaching practice. When we use secondary reinforcers, however, we must remember that they're *learned* reinforcers, and not everyone has come to appreciate them. Although most students respond positively to such consequences as praise and good grades, a few students may not.

POSITIVE VERSUS NEGATIVE REINFORCEMENT

Up to this point, we've been talking about reinforcement as the *presentation* of a particular reinforcing stimulus. But in some cases we can also reinforce a behavior through the *removal* of a stimulus. Behaviorists use the terms *positive reinforcement* and *negative reinforcement*, respectively,

Positive reinforcement Whenever a particular stimulus is *presented* after a behavior and the behavior increases as a result, **positive reinforcement** has occurred. Don't be misled by the word *positive*, which in this case has nothing to do with the pleasantness or desirability of the stimulus being presented. Positive reinforcement can occur even when the presented stimulus is one that others might think is *unpleasant* or *undesirable*. The word *positive* here simply means *adding* something to the situation. For instance, some students may make a response to get a teacher's

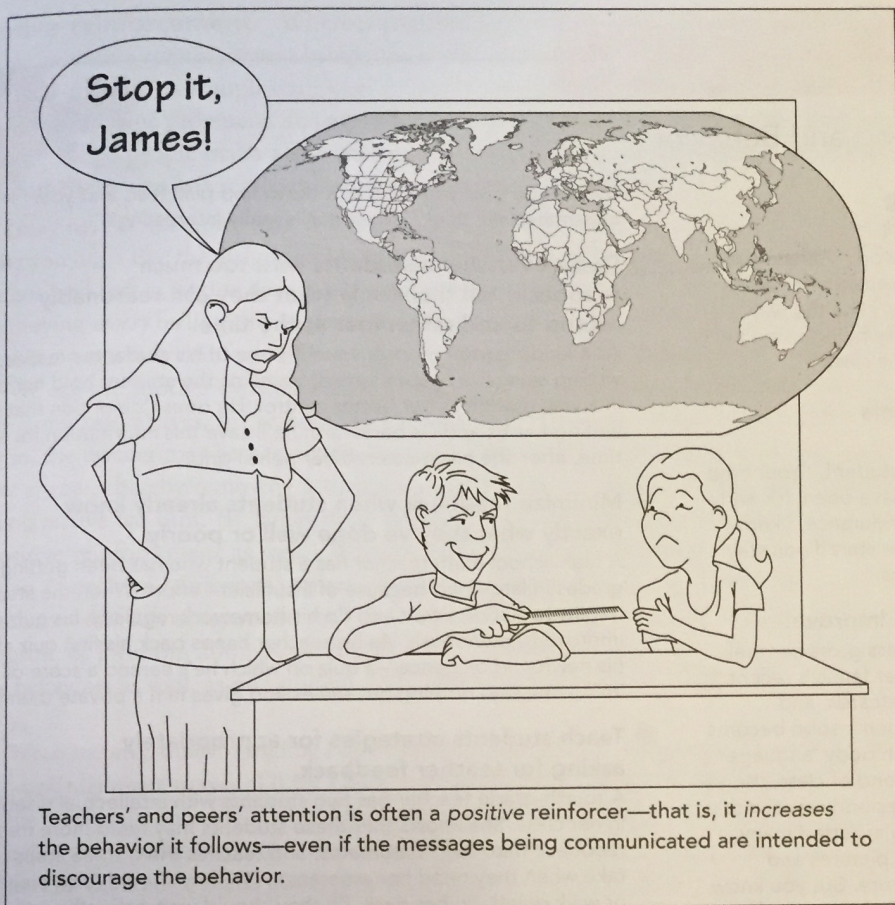


Keep in mind that not all students have learned to appreciate such secondary reinforcers as praise and good grades.

primary reinforcer Consequence that satisfies a biologically built-in need.

secondary reinforcer Consequence that becomes reinforcing over time through its association with another reinforcer.

positive reinforcement Consequence that brings about the increase of a behavior through the presentation (rather than the removal) of a stimulus.



praise, but others (like James in the opening case study) may behave in a way that gets them a scolding. Most students will work for As, but a few may actually prefer Cs or even Fs. (As a school psychologist, I once worked with a high school student who used Fs as a way to get revenge on his overly controlling parents.) Depending on the individual, any one of these stimuli—praise, a scolding, an A, or an F—can be a positive reinforcer. Following are examples of the forms that positive reinforcement can take:

- A *concrete reinforcer* is an actual object—something that can be touched (e.g., a snack, sticker, or toy).
- A *social reinforcer* is a gesture or sign (e.g., a smile, attention, or praise) that one person gives another, often to communicate positive regard.
- An *activity reinforcer* is an opportunity to engage in a favorite pastime. Learners often do one thing—even something they don't like to do—if it enables them to do something they enjoy. This phenomenon is sometimes called the **Premack principle** (Premack, 1959, 1963). For example, children with attention-deficit hyperactivity disorder (ADHD) are more likely to sit quietly during a lesson if they know that doing so will enable them to engage in a physically more lively activity afterward (Azrin, Vinas, & Ehle, 2007).
- A *token reinforcer* is a small, insignificant item (e.g., poker chip, specially marked piece of colored paper) that a learner can later use to “purchase” a desired object or privilege. It's often used in a *token economy*, a strategy to be described a bit later.
- Sometimes the simple message that an answer is correct or that a task has been done well—*positive feedback*—is reinforcement enough. In fact, sometimes even *negative feedback* can be reinforcing if the overall message is a positive one. The Creating a Productive Classroom Environment feature “Using Feedback to Improve Learning and Behavior” offers suggestions based on research by behaviorists, cognitive psychologists, and motivation theorists.



Be aware that certain consequences that seem “negative” (e.g., scoldings, bad grades) may nevertheless be *positively* reinforcing for some students.

Premack principle Phenomenon in which learners do less-preferred activities in order to engage in more-preferred activities.

Creating a Productive Classroom Environment

Using Feedback to Improve Learning and Behavior

- **Be explicit about what students are doing well—ideally, at the time they are doing it.**

When praising her students for appropriate classroom behavior, a second-grade teacher is quite specific about the actions for which she's commending them. For example, she says, "I like the way you're working quietly" and "You should see Ricky being so polite. Thank you, Ricky, for not disturbing the rest of the class."

- **Give concrete guidance about how students can improve their performance.**

A high school physical education teacher tells a student, "Your time in the 100-meter dash wasn't as fast as it could have been. It's early in the season, though, and if you work on your endurance, I know you'll improve. Also, I think you might get a faster start if you stay low when you first come out of the starting blocks."

- **Communicate optimism that students can improve.**

When a student in a middle school geography class gives her oral report on Mexico, she goes on at length about her family's recent trip to Puerto Vallarta, showing many photos, postcards, and souvenirs to illustrate her remarks. The other students soon become bored and communicate their displeasure through body language and occasional whispers across the aisles. At the end of class, the student is devastated that her report has been so poorly received. Her teacher takes her aside and gently says, "You included many interesting facts in your report, Julie, and all your pictures and artifacts really helped us understand Mexican culture. But you know how young teenagers are—they can have a pretty short attention span at times. I'll be assigning oral reports again next semester."

Before you give yours, let's sit down and plan it so that your classmates will think, 'Wow, this is really interesting!'"

- **Don't overwhelm students with too much feedback; tell them only what they can reasonably attend to and remember at the time.**

As a kindergarten teacher watches one of his students practice writing several alphabet letters, he helps the student hold her pencil in a way that gives her better control. He doesn't mention that she's writing her Bs and Ds backward; he'll save this information for a later time, after she has mastered her pencil grip.

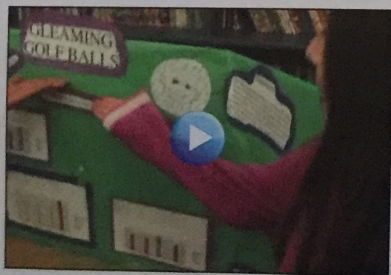
- **Minimize feedback when students already know exactly what they've done well or poorly.**

A high school math teacher has a student who has been getting poor grades in large part because of insufficient effort. When the student begins to buckle down and do his homework regularly, his quiz scores improve tremendously. As his teacher hands back his first quiz after his newfound diligence—a quiz on which he's earned a score of 96%—she says nothing but smiles and gives him a private thumbs-up.

- **Teach students strategies for appropriately asking for teacher feedback.**

A fourth-grade teacher has two students with intellectual disabilities in her class. She knows that these students may need more frequent feedback than their classmates. She teaches them three steps to take when they need her assistance: (1) They should raise their hands or walk quietly to her desk; (2) they should wait patiently until she has time to speak with them; and (3) they should make their needs known (e.g., "How am I doing?" "What do I do next?").

Sources: Bangert-Drowns, Kulik, Kulik, & Morgan, 1991; Boyanton, 2010; D. L. Butler & Winne, 1995; Craft, Alberg, & Heward, 1998, p. 402 (fourth-grade example); Feltz, Chase, Moritz, & Sullivan, 1999; Hattie & Gan, 2011; Hattie & Timperley, 2007; K. A. Meyer, 1999; Narciss, 2008; Pintrich & Schunk, 2002; Schunk & Pajares, 2005; Shute, 2008; J. V. Stokes, Luiselli, Reed, & Fleming, 2010; Tunstall & Gipps, 1996.



One form of intrinsic reinforcement is students' sense of pride about a job well done. For example, watch "Science Fair Projects."

The reinforcers just listed are **extrinsic reinforcers**, those provided by the external environment (often by other people). Yet some positive reinforcers are **intrinsic reinforcers**, those supplied by learners themselves or inherent in tasks being performed. When students perform certain behaviors in the absence of any observable reinforcers—when they read an entire book without putting it down, do extra classwork without being asked, or practice with a neighborhood rock group into the wee hours of the morning—they're probably working for the intrinsic reinforcement that such behaviors yield. Intrinsic reinforcers are *not* observable events and thus don't fit comfortably within traditional behaviorist theory. Yet students clearly do engage in some behaviors solely for the intrinsic satisfaction their behaviors bring. For instance, in the earlier "What Would It Take?" exercise, if you agreed to help your classmates simply because doing so would make you feel good, you'd be working for an intrinsic reinforcer.

From our perspective as teachers, positive feedback (an extrinsic reinforcer) and the feelings of pleasure and satisfaction that such feedback can bring (intrinsic reinforcers) are probably the most desirable forms of classroom reinforcement. But we must remember that the classroom successes that yield such forms of reinforcement can occur only when instruction has been carefully tailored to individual skill levels and abilities and only when students have learned to value academic achievement. When students aren't motivated to achieve academic success for whatever reasons, then social reinforcers, activity reinforcers, and occasionally even concrete reinforcers can be used to increase desired classroom behaviors.

Negative reinforcement Whereas positive reinforcement involves the presentation of a stimulus, **negative reinforcement** brings about the increase of a behavior through the *removal* of a stimulus—typically an unpleasant one, at least from the learner's perspective. The word *negative* here isn't a value judgment. It simply refers to the act of *taking away*, rather than adding, a stimulus.² When people make a response in order to get rid of something and the frequency of the response increases as a result, they're being negatively reinforced.

Imagine, for example, that you have a difficult assignment to do for one of your classes. Because you don't like the assignment hanging over your head, you complete it and give it to your instructor well before its due date. After you turn it in, you feel much better: You've gotten rid of that annoying *worry* feeling. If you find yourself completing future assignments early as well, then you've been negatively reinforced for your complete-something-before-due-date behavior.

We can see another possible example of negative reinforcement in the opening case study. When James misbehaves, his teacher sometimes sends him to the assistant principal's office. By doing so, the teacher may be negatively reinforcing his troublesome behavior. In particular, James *gets out of class*, thereby removing a stimulus—some aspect of the classroom environment—that may be aversive for him. (If James likes spending time with the assistant principal, he's receiving positive reinforcement as well.) Whereas some students misbehave in class primarily to get attention (a positive reinforcer), others often misbehave to escape something they don't want to do, such as a difficult assignment, and their escape behavior is negatively reinforced (McComas, Thompson, & Johnson, 2003; K. A. Meyer, 1999; Mueller et al., 2011). Students may learn other escape behaviors as well, as one student with a learning disability revealed:

When it comes time for reading I do everything under the sun I can to get out of it because it's my worst nightmare to read. I'll say I have to go to the bathroom or that I'm sick and I have to go to the nurse right now. My teacher doesn't know that I'll be walking around campus. She thinks I am going to the bathroom or whatever my lame excuse is. All I really want to do is get out of having to read. (Zambo & Brem, 2004, p. 5)

As teachers, we should use negative reinforcement rarely, if at all. Ideally, we want to create a classroom environment in which there are few stimuli that students want to escape. Nevertheless, we should recognize that negative reinforcement *does* have an effect on behavior. Some students may finish an assignment more to get it out of the way than for any intrinsic satisfaction the assignment brings. Others may engage in a variety of responses—perhaps misbehaving or identifying imaginary reasons for leaving the classroom—as a way of avoiding the assignment altogether. When certain responses enable students to eliminate or escape unpleasant stimuli, those responses will increase in frequency.

LOOKING AT REINFORCEMENT FROM A DEVELOPMENTAL PERSPECTIVE

Children's preferences for various kinds of reinforcers tend to change with age. For example, concrete reinforcers (e.g., scratch-and-sniff stickers, small trinkets) can be effective with young children, but teenagers are more likely to appreciate opportunities to interact with friends. Table 9.2 presents forms of reinforcement that may be especially effective at various grade levels.

An important developmental trend is evident in Table 9.2 as well: As children get older, they become better able to handle **delay of gratification**. That is, they can forego small, immediate reinforcers for the larger reinforcers that their long-term efforts may bring down the road (Atance, 2008; L. Green et al., 1994; Steinberg, Graham, et al., 2009). Whereas a preschooler or kindergartner is apt to choose a small reinforcer available *now* rather than a larger and more attractive reinforcer she can't get until tomorrow, an 8-year-old may be willing to wait a day or two for the more appealing item. Many adolescents can delay gratification for several weeks or even longer. For instance, as a 16-year-old, my son Jeff worked long hours stocking shelves at the



When students consistently behave in ways that enable them to avoid or escape certain activities, identify and address possible reasons that students find the activities aversive.

extrinsic reinforcer Reinforcer that comes from the outside environment, rather than from within the learner.

intrinsic reinforcer Reinforcer that is provided by the learner or inherent in the task being performed.

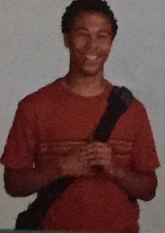
negative reinforcement Consequence that brings about the increase of a behavior through the removal (rather than the presentation) of a stimulus.

delay of gratification Ability to forego small, immediate reinforcers in order to obtain larger ones later on.

²You might draw an analogy between positive versus negative reinforcement and positive versus negative numbers. Positive numbers and positive reinforcement both *add* something to a situation. Negative numbers and negative reinforcement both *subtract* something from a situation.

DEVELOPMENTAL TRENDS

TABLE 9.2 • Effective Reinforcers at Different Grade Levels

GRADE LEVEL	AGE-TYPICAL CHARACTERISTICS	EXAMPLE	SUGGESTED STRATEGIES
 K-2	• Preference for small, immediate reinforcers over larger, delayed ones • Examples of effective reinforcers: • Concrete reinforcers (e.g., stickers, crayons, small trinkets) • Teacher approval (e.g., smiles, praise) • Privileges (e.g., going to lunch first) • "Grown-up" responsibilities (e.g., taking absentee forms to the main office)	When a kindergarten teacher asks children to choose between a small snack before morning recess or a larger one after recess, most of them clamor for the smaller, immediate snack.	• Give immediate praise for appropriate behavior. • Describe enjoyable consequences that may come later as a result of students' current behaviors. • Use stickers, handwritten smiley faces, and the like to reinforce students' written work. • Have students line up for recess, lunch, or dismissal based on desired behaviors (e.g., "Table 2 is the quietest and can line up first"). • Rotate opportunities to perform classroom duties (e.g., feeding the goldfish, watering plants); make such duties contingent on appropriate behavior.
 3-5	• Increasing ability to delay gratification (i.e., to put off small reinforcers in order to gain larger ones later on) • Examples of effective reinforcers: • Concrete reinforcers (e.g., snacks, pencils, small toys) • Teacher approval and positive feedback • "Good citizen" certificates • Free time (e.g., to draw or play games)	Nine-year-old Li-Mei glows with pride when her teacher praises her for helping a classmate with a challenging writing assignment	• Use concrete reinforcers only occasionally, perhaps to add novelty to a classroom activity. • Award a certificate to a Citizen of the Week, explicitly identifying things the recipient has done especially well; be sure that every student gets at least one certificate during the school year. • Plan a trip to a local amusement park for students with good attendance records (especially useful for students at risk for academic failure).
 6-8	• Increasing desire to have social time with peers • Examples of effective reinforcers: • Free time with friends • Acceptance and approval from peers • Teacher approval and emotional support (especially critical after the transition to middle school or junior high) • Specific positive feedback about academic performance (preferably given in private)	Students in a sixth-grade science class work diligently on an assigned lab activity, knowing that if they complete it before the end of the class session they can have a few minutes to talk with their friends.	• Make short periods of free time with peers (e.g., five minutes) contingent on accomplishing assigned tasks. • Spend one-on-one time with students, especially those who appear to be socially isolated. • Provide explicit feedback about what things students have done well (e.g., their use of colorful language in an essay or their prosocial behaviors with classmates).
 9-12	• Increasing ability to postpone immediate pleasures in order to gain desired long-term outcomes • Concern about getting good grades (especially for students who are applying to selective colleges) • Examples of effective reinforcers: • Opportunities to interact with friends • Specific positive feedback about academic performance • Public recognition for group performance (e.g., newspaper articles about a club's public service work) • Positions of responsibility (e.g., being student representative to the Faculty Senate)	When 16-year-old Deon's friends ask him to go to the movies on a Thursday evening, he declines. "I have to study for tomorrow's history test," he tells them. "If I keep my grades up, I'll have a better chance of getting a good college scholarship."	• Acknowledge students' concerns about earning good grades, but focus their attention on the value of learning school subject matter for its own sake. • Be sure that good grades are contingent on students' own work; take precautions to ensure that cheating and plagiarism are not reinforced. • Publicize accomplishments of extracurricular groups and athletic teams in local news media. • Provide opportunities for independent decision making and responsibility, especially when students show an ability to make wise decisions.

Sources: E. M. Anderman & Mueller, 2010; L. H. Anderman, Patrick, Hruda, & Linnenbrink, 2002; Atance, 2008; Cizek, 2003; S. A. Fowler & Baer, 1981; L. Green, Fry, & Myerson, 1994; Hine & Fraser, 2002; Krumboltz & Krumboltz, 1972; Rimm & Masters, 1974; Rotenberg & Mayer, 1990; M. G. Sanders, 1996; Steinberg, Graham, et al., 2009; Urdan & Mestas, 2006; M.-T. Wang & Holcombe, 2010.

local grocery store (hardly an intrinsically reinforcing activity!) to earn enough money to pay half the cost of a \$400-a-night limousine for his high school prom.

Some children and adolescents are better able to delay gratification than others. Those who are willing and able to postpone reinforcement are less likely to yield to temptation, more carefully plan their future actions, and achieve at higher levels at school (Bembenutty & Karabenick, 2004; Rothbart, 2011; Shoda, Mischel, & Peake, 1990). However, even 4- and 5-year-olds can learn to delay gratification for a few hours if their teachers tell them that rewards for desired behaviors (e.g., sharing toys with peers) will be coming later in the day (S. A. Fowler & Baer, 1981). Teaching children effective waiting strategies—for instance, focusing attention on something else during the delay and using such self-talk as “If I wait a little longer, I’ll get something better”—enhances their ability to postpone gratification as well (Binder, Dixon, & Ghezzi, 2000).



When working with young children, try to reinforce desired behaviors immediately, even if only by pointing out that a desired consequence will come later.

THE VARIOUS FORMS THAT PUNISHMENT CAN TAKE

Historically, the use of punishment in the classroom has been controversial, and in fact some forms of punishment do a great deal of harm. But under certain conditions, punishment can be both effective and appropriate, especially when students seem to have little motivation to change their behavior for the better.

All punishing consequences fall into one of two categories. **Presentation punishment** involves presenting a new stimulus, presumably something that a learner finds unpleasant and doesn’t want. Scoldings and teacher scowls—if they lead to a reduction in the behavior they follow—are instances of presentation punishment. **Removal punishment** involves removing an existing stimulus or state of affairs, presumably one that a learner finds desirable and doesn’t want to lose. Loss of a privilege, a fine or penalty (involving the loss of money or previously earned points), and grounding (i.e., restriction from certain pleasurable outside activities) are all examples of removal punishment.³

Over the years I’ve often seen or heard people use the term *negative reinforcement* when they’re really talking about punishment. Remember, negative reinforcement is *reinforcement*, which increases a response, whereas punishment has the opposite effect. Table 9.3 can help you understand the distinction.

CONSEQUENCES THAT SERVE AS EFFECTIVE PUNISHMENTS

As a general rule, we should use only mild forms of punishment in the classroom. Researchers and educators have identified several mild consequences that can be effective in reducing classroom misbehaviors.

Verbal reprimands (scolding) As is true for James in the opening case study, some students seem to thrive on teacher scolding because it brings them the attention they can’t seem to get in other ways. But most students find verbal reprimands to be unpleasant and punishing (Landrum & Kauffman, 2006; Pfiffner & O’Leary, 1993; Van Houten, Nau, MacKenzie-Keating, Sameoto, & Colavecchia, 1982). In general, reprimands are most effective when they’re immediate, brief, unemotional, and given in a quiet tone of voice. Whenever possible, we should reprimand students privately rather than publicly. When students are scolded in front of classmates, some may relish the peer attention, and others (e.g., many Native American and Hispanic students) may feel totally humiliated (Fuller, 2001).

Response cost The loss either of a previously earned reinforcer or of an opportunity to obtain reinforcement is known as **response cost**. A form of *removal punishment*, response cost is especially effective when used in combination with reinforcement of appropriate behavior and when learners who make a few missteps within an overall pattern of desirable behavior lose only a *little* of what they’ve earned (Conyers et al., 2004; Landrum & Kauffman, 2006; E. L. Phillips, Phillips, Fixsen, & Wolf, 1971).

presentation punishment

Punishment involving presentation of new stimulus, presumably one a learner finds unpleasant.

removal punishment Punishment involving removal of an existing stimulus, presumably one a learner doesn’t want to lose.

response cost Loss either of a previously earned reinforcer or of an opportunity to obtain reinforcement.

³You may sometimes see the terms *positive punishment* and *negative punishment* used instead of *presentation punishment* and *removal punishment*, respectively. But in my experience, such terms can lead to the same value-judgment misinterpretation problem that exists for negative reinforcement: Many people mistakenly believe that positive punishment is somehow more desirable than negative punishment, which isn’t necessarily the case.

COMPARE/CONTRAST

TABLE 9.3 • Distinguishing among Positive Reinforcement, Negative Reinforcement, and Punishment

CONSEQUENCE	EFFECT	EXAMPLES
Positive reinforcement	Response <i>increases</i> when a new stimulus (presumably one the learner finds desirable) is <i>presented</i> .	- A student is <i>praised</i> for writing an assignment in cursive. She begins to write other assignments in cursive as well. - A student <i>gets lunch money</i> by bullying a girl into surrendering hers. He begins bullying his classmates more frequently.
Negative reinforcement	Response <i>increases</i> when a previously existing stimulus (presumably one the learner finds undesirable) is <i>removed</i> .	- A student <i>no longer has to worry</i> about a research paper that he completed several days before the due date. He begins to do his assignments ahead of time whenever possible. - A student <i>escapes the principal's wrath</i> by lying about her role in recent school vandalism. After this incident she begins lying to school faculty whenever she finds herself in an uncomfortable situation.
Presentation punishment	Response <i>decreases</i> when a new stimulus (presumably one the learner finds undesirable) is <i>presented</i> .	- A student is <i>scolded</i> for taunting other students. She taunts others less frequently after that. - A student is <i>ridiculed by classmates</i> for asking what they perceive to be a stupid question during a lesson. He stops asking questions in class.
Removal punishment	Response <i>decreases</i> when a previously existing stimulus (presumably one the learner finds desirable) is <i>removed</i> .	- A student is <i>removed from the softball team</i> for a week for showing poor sportsmanship. She rarely shows poor sportsmanship in future games. - A student <i>loses points on a test</i> for answering a question in a creative but unusual way. He takes fewer risks on future tests.

Logical consequences A **logical consequence** is something that follows naturally or logically from a student's misbehavior; in other words, it's punishment that fits the crime. For example, if a student destroys a classmate's possession, a reasonable consequence is for the student to replace it or pay for a new one. If two close friends talk so much that they aren't completing assignments, a reasonable consequence is for them to be separated. The use of logical consequences makes logical sense, and research vouches for its effectiveness (Dreikurs, 1998; Landrum & Kauffman, 2006; Nucci, 2001).

Positive-practice overcorrection One desired result of administering punishment, of course, is that students learn more appropriate behavior in the process. **Positive-practice overcorrection** involves having a student repeat an action, but doing it correctly, perhaps in an exaggerated form. For example, a student who runs dangerously down the school corridor might be asked to back up and then *walk*—perhaps at a normal pace, or perhaps very slowly—down the hall. Similarly, a student in a drivers' education class who neglects to stop at a stop sign might be asked to drive around the block, return to the same intersection, and come to a complete stop (perhaps counting aloud to five) before proceeding. In general, positive-practice overcorrection is most likely to be effective when its duration is relatively short and when teachers portray it as a means for helping students acquire appropriate behavior rather than simply as punishment per se (Alberto & Troutman, 2013; R. G. Carey & Bucher, 1983; M. D. Powers & Crowel, 1985).

Time-out A misbehaving student given a **time-out** is placed in a dull, boring (but not scary) situation—perhaps a separate room designed especially for time-outs, a little-used office, or a remote corner of the classroom. A student in time-out has no opportunity to interact with classmates and no opportunity to get reinforcement. The length of the time-out is typically quite short (perhaps 2 to 10 minutes, depending on the student's age), but the student isn't released until any inappropriate behavior (e.g., screaming, kicking) has stopped.

Time-outs have been used successfully to reduce a variety of noncompliant, disruptive, and aggressive behaviors. Keep in mind, however, that a time-out is apt to be effective only if ongoing classroom activities are a source of pleasure and reinforcement for a student. If a time-out allows a student to escape difficult tasks or an overwhelming amount of noise and stimulation, it might actually be a form of negative reinforcement and thus *increase* undesirable

logical consequence Unpleasant consequence that follows naturally or logically from a student's misbehavior.

positive-practice overcorrection Consequence of a poorly performed response in which a learner must repeat the response correctly and appropriately, perhaps in an exaggerated manner.

time-out Consequence for misbehavior in which a learner is placed in a dull, boring situation with no opportunity for reinforcement or social interaction.

behavior (J. M. Donaldson & Vollmer, 2011; McClowry, 1998; Pfiffner, Barkley, & DuPaul, 2006; Rortvedt & Miltenberger, 1994; A. G. White & Bailey, 1990).

In-school suspension Like time-out, **in-school suspension** involves placing a student in a quiet, boring room within the school building. However, it often lasts one or more school days and involves close adult supervision. Students receiving in-school suspension spend the day working on their class assignments, enabling them to keep up with their schoolwork. But they have no opportunity for interaction with peers—an aspect of school that's reinforcing for most students.

Although in-school suspension programs haven't been systematically investigated through controlled research studies, educators report that these programs are often effective in reducing chronic behavior problems. They're typically most effective when suspension sessions include instruction in appropriate behaviors and missing academic skills and when the supervising teacher acts as a supportive resource rather than a punisher (Gootman, 1998; Huff, 1988; Pfiffner et al., 2006; J. S. Sullivan, 1989).

CONSEQUENCES THAT MAY UNDERMINE DESIRED BEHAVIOR CHANGES

Several forms of punishment are typically *not* recommended because they have adverse side effects, convey a counterproductive message, or actually serve as reinforcers for some students.

Physical punishment Most experts advise against physical punishment for school-age children (e.g., W. Doyle, 1990; Hyman et al., 2006; Landrum & Kauffman, 2006). Furthermore, its use in the classroom is *illegal* in many places. Even mild physical punishment, such as a spank or slap with a ruler, can lead to such undesirable outcomes as resentment of the teacher, avoidance of school tasks, lying, aggression, vandalism, and truancy. When carried to extremes, physical punishment constitutes child abuse and can cause long-term physical damage, psychological problems, or both.

Psychological punishment Any consequence that seriously threatens a student's sense of self-worth is **psychological punishment** and isn't recommended. Fear tactics, embarrassing remarks, and public humiliation can lead to some of the same side effects as physical punishment can—for instance, resentment, distraction from schoolwork, and truancy—and can inflict long-term psychological harm. By deflating students' sense of self, psychological punishment can also dampen their interest in classroom subject matter and expectations for future performance (Brendgen, Wanner, Vitaro, Bukowski, & Tremblay, 2007; J. Ellis, Fitzsimmons, & Small-McGinley, 2010; Hyman et al., 2006).

Extra classwork Asking a student to complete makeup work for time missed in school is a reasonable and justifiable request. But assigning extra classwork or homework beyond that required for other students is inappropriate if it's assigned simply to punish a student for wrongdoing (H. Cooper, 1989; Corno, 1996). Such punishment has a very different side effect: It communicates the message that schoolwork is unpleasant.

Out-of-school suspension Teachers and administrators are negatively reinforced when they suspend a problem student. After all, they get rid of something they don't want—a problem! But out-of-school suspension is usually *not* an effective means of changing a student's behavior. For one thing, being suspended from school may be exactly what the student wants, in which case inappropriate behaviors are being reinforced rather than punished. Also, because many students with chronic behavior problems tend to do poorly in their schoolwork, suspension involves a loss of valuable instructional time and interferes with any psychological attachment to school. Thus, it decreases students' chances for academic and social success even further and increases the probability that students will drop out before graduation (American Psychological Association Zero Tolerance Task Force, 2008; Christenson & Thurlow, 2004; Gregory, Skiba, & Noguera, 2010; Osher, Bear, Sprague, & Doyle, 2010).

CONSEQUENCES WITH MIXED REVIEWS

Two additional forms of punishment get mixed reviews regarding effectiveness. In some situations *missing recess* is a logical consequence for students who fail to complete their schoolwork during regular class time because of off-task behavior. Yet research indicates that, especially at

in-school suspension Consequence for misbehavior in which a student is placed in a quiet, boring room within the school building, typically to do schoolwork under close adult supervision.

psychological punishment Consequence that seriously threatens self-esteem and general psychological well-being.



Do not use physical punishment, public humiliation, or extra classwork to discourage undesirable behaviors.



Advocate for in-school alternatives to out-of-school suspension for wrongdoing.