

Fourth Edition

Motivation *in* Education

Theory, Research, and Applications



Dale H. Schunk | Judith L. Meece | Paul R. Pintrich

Imitation
تقليد

Reciprocity
Volition
الادارة + المصلحة

CHAPTER 4

Social Cognitive Theory → Bandura (1986)

- * Historical Influences
 - Theories of Imitation
 - Social Learning Theory
- * Theoretical Framework
 - Reciprocal Interactions
 - Learning and Motivation
 - Enactive and Vicarious Learning
 - Modeling and Vicarious Processes
 - Functions of Modeling
 - Characteristics of Effective Models
 - Functions of Modeled Consequences
 - Reciprocal Teaching
 - Tutoring and Mentoring
 - Motivational Processes
 - Outcome Expectations
 - Goals

- Values
- Self-Efficacy
- Motivated Learning
- * Social Comparison
 - Festinger's Theory
 - Development of Social Comparison
 - Motivation and Achievement
- * Self-Regulation and Volition
 - Self-Regulation
 - Volition
- * Group Motivation
- Conformity and Compliance
- Collaborative Learning
- Collective Self-Efficacy
- Summary
- Further Reading

Ms. Teasdale stayed late after school to set up an aquarium in an activity center at the back of her fifth-grade classroom. The next morning, the first few students to enter the room immediately spotted it and went over to investigate. As more children entered the room they also went over to the aquarium, and soon it was completely surrounded by children and blocked from view. When Tim, Maria, and Robert entered the room, they saw all the other children in the back of the room but did not know why they were there. Maria said, "I wonder what's going on there. Let's go look." So they joined the group at the aquarium.

At 8:30, Ms. Teasdale announced that they could look at the aquarium later, but that now they should go to their seats because school was ready to begin. After some introductory activities, Ms. Teasdale began a new lesson on subtracting fractions with unlike denominators and finding lowest common denominators. Ms. Teasdale explained and demonstrated the operations while the children followed along. Afterward they practiced solving problems as a group (guided practice); Ms. Teasdale wrote problems on the board and asked different children to tell her what to do to solve them. She then asked different children to go to the board to solve problems. After a few minutes, she asked children to work alone solving problems (independent practice). She circulated among students and monitored their work, providing corrective instruction to individual students as necessary. By the end of the period, Ms. Teasdale felt the children were making good progress. Derek—a student who often had trouble with arithmetic—even remarked to her, "I really think I know how to do these!"

During the independent practice time, Lisa and C. J. began to talk to each other. Ms. Teasdale noticed this but said nothing to these students because she figured it would stop. Ms. Teasdale then began to provide some corrective instruction to Bryan. The other students realized that Ms. Teasdale was busy and was letting the conversation go on. Soon the noise level in the classroom increased as more children began talking with one another. Suddenly, Ms. Teasdale stood up and said loudly, "Kerry, you know you are supposed to be working quietly. Please stop talking and get back to work." Kerry became silent, and the rest of the class quickly stopped talking as well.

Later that morning, it was time to line up to go to a computer class. The children were noisy and were pushing and shoving. Michael, a popular boy in the class, stepped out of line and said in a loud voice, "Hey, let's cut this out. You know Ms. Teasdale said if we can't line up quietly we don't get to go to the media center. I want to go, so let's stop now." The others followed Michael's lead and the line became quiet and orderly.

These examples highlight the importance of social influences on behavior, which is the domain of social cognitive theory. People acquire knowledge, rules, skills, strategies, beliefs, and emotions by observing others. People also learn about the appropriateness of modeled actions by observing their consequences. In contrast to behavior theories that stress the consequences of behavior, social cognitive theory contends that individuals act based on their thoughts, goals, beliefs, and values.

This chapter focuses on Bandura's (1986) social cognitive theory. Early in his career, Bandura was influenced by Miller and Dollard's (1941) work (discussed later), and he later conducted a series of seminal studies on modeling that helped to establish the theory's conceptual foundation (Bandura & Walters, 1963). Bandura felt that behavior theories offered incomplete explanations of human behavior because they did not address the influence of social models but rather concentrated on animal learning and human behavior in nonsocial situations.

* Social cognitive theory distinguishes learning from performance of previously learned actions. By observing models, people learn skills and strategies that they may not demonstrate at the time of learning but rather later when they are motivated and believe it would be appropriate to do so. There are countless examples of this phenomenon. A few years ago, a news item detailed how a 5-year-old boy saved a choking 6-year-old girl by applying the Heimlich maneuver (i.e., applying sudden pressure to the victim's abdomen just below the rib cage to dislodge an object caught in the throat). The boy never performed this life-saving technique previously, but he learned it when he watched a television show in which an individual applied it to someone who was choking. The young hero became motivated to use the technique when confronted with a situation in which he felt it would prove useful.

Social cognitive theory postulates that motivational processes influence both learning and performance (Schunk, 1995), unlike some historical theories (Chapter 1) that considered motivation to be a performance variable. Bandura expanded social cognitive theory's scope to encompass learning and performance of cognitive, social, and motor skills, strategies, and behaviors. A key variable is self-efficacy, or one's perceived capabilities to learn or perform actions at designated levels (Bandura, 1993, 1997). Bandura also integrated motivational processes with self-regulation (Bandura, 1986, 1988), which we discuss later in this chapter. This expansion of the theory increases its explanatory potential and has important implications for classrooms.

Initially, we describe some historical influences on social cognitive theory. We then explicate the key assumptions and principles of Bandura's theory and follow this with an in-depth analysis of modeling processes. We discuss the important motivational processes of outcome expectations, goals, values, and self-efficacy and show how they fit in a model of motivated learning. A section on social comparison follows, followed by a discussion of self-regulation to include the acquisition of self-regulatory processes and the role of volition. The chapter concludes with the topic of group motivation.

After studying this chapter, you should be able to:

- Describe the various ways that imitation has been construed in psychological theories.
- Exemplify the reciprocal interaction model of Bandura's social cognitive theory.
- Exemplify the various functions of modeling.
- Discuss how model characteristics may affect motivation and learning.
- Discuss the operation of motivational processes: outcome expectations, goals, values, and self-efficacy.
- Define social comparison and explain its relation to motivation.
- Define self-regulation and volition and discuss how motivation plays a role during their phases.
- Explain the important processes involved in group motivation to include conformity and compliance, collaborative learning, and collective self-efficacy.

HISTORICAL INFLUENCES

Although Bandura developed and expanded social cognitive theory, earlier theorists recognized the importance of the social environment on motivation or included in their theories processes similar to those emphasized by Bandura. In Chapter 1 we discussed Tolman's theory of purposive behaviorism to include latent learning experiments. Here we address theories of imitation and Rotter's social learning theory.

Theories of Imitation

From the time of the ancient Greeks, imitation has been thought of as an important influence on behavior (Rosenthal & Zimmerman, 1978). The Greek word **mimesis** refers to learning through observing the actions of others and abstract models exemplifying literary and moral styles. Theories of imitation have conceptualized it as an instinct, developmental phenomenon, generalized response class, or instrumental behavior.

Instinct

At the start of the twentieth century, a popular idea was that people possessed a natural instinct to imitate the actions of others (Tarde, 1903). James (1890) believed that imitation was an instinct:

But the instinct of *imitating gestures* develops earlier than that of imitating sounds The various accomplishments of infancy, making "pat-a-cake," saying "bye-bye," "blowing out the candle," etc., usually fall well inside the limits of the first year. Later come all the various imitative games in which childhood revels, playing "horse," "soldiers," etc., etc. And from this time onward man is essentially the imitative animal. His whole educability and in fact the whole history of civilization depend on this trait. (p. 408)

imitative response class was maintained with intermittent reinforcement. Children will imitate the behaviors of models (e.g., parents, peers) as long as the models remained discriminative stimuli for reinforcement.

This view limits imitation to performance of previously learned behaviors because the imitator must be able to perform the response; however, research shows that diverse types of skills and behaviors can be learned through observation (Rosenthal & Zimmerman, 1978). Another limitation concerns the necessity of reinforcement for imitated behaviors. Observers learn from models in the absence of reinforcement to models or observers. Reinforcement primarily affects observers' performance of learned behaviors rather than the learning itself (Bandura, 1986).

*Instrumental Behavior

Miller and Dollard (1941) developed an elaborate theory of imitation that generated much research on modeling. Imitation was "[a] process by which 'matched,' or similar, acts are evoked in two people and connected to appropriate cues" (Miller & Dollard, 1941, p. 10). They rejected the idea that imitation involved people mimicking cues and being reinforced. Instead, they adopted a Hullian framework (Chapter 1) and proposed that imitation was instrumental behavior triggered in response to a cue and aimed at drive reduction. Imitation was instrumental because it led to reinforcement.

There are different types of imitation. For motivation the most important type is **matched-dependent behavior**, which occurs when the model is older, smarter, or more skilled than the imitator. The imitator's behavior is dependent on (elicited by) behavioral cues of the model. Much classroom activity has the look of matched-dependent behavior: Students pattern their behaviors after those of teachers, aides, and peers. Miller and Dollard believed that repeated reinforcement of imitated behavior established imitation as a secondary (acquired) drive, which can generalize to new situations.

Miller and Dollard's conception of imitation as learned instrumental behavior was an important advance in the study of imitation, but this view contains problems. New responses cannot be created through imitation; imitation represents performance of learned behaviors. This theory also does not account either for delayed imitation in which imitators perform matching responses sometime after they are displayed by models or imitated behaviors that are not reinforced (Bandura & Walters, 1963). This narrow conception can explain behaviors that correspond closely to those portrayed by models. As we discuss later, modeling is a more powerful phenomenon that has implications for motivation and learning.

Social Learning Theory

Rotter (1954) formulated a theory that integrated learning and personality theories. A key point was, "The major or basic modes of behaving are learned in social situations and are inextricably fused with needs requiring for their satisfaction the mediation of other persons" (Rotter, 1954, p. 84). The theory comprises four basic variables: behavior potential, expectancy, reinforcement value, and the psychological situation (Rotter, Chance, & Phares, 1972).

Behavior potential refers to the probability that an individual will act in a certain fashion relative to alternatives. In any given situation, people may perform different actions. Behavior potential denotes the likelihood of these possibilities. Behavior includes observable and nonobservable acts (e.g., thinking, planning) that can manifest themselves in behavior.

perform activities they value and avoid those that are dissatisfying (Schunk, 1987). People forego money, prestige, and power when they judge the activities they must engage in to receive these rewards as unacceptable (e.g., questionable business practices). Classroom applications of modeling are given in Application 4.1.

APPLICATION 4.1

Applying Modeling in Classrooms

1. Use inhibition. Several students in Mrs. East's class were wasting time and not completing their assignments. A few minutes before recess Mrs. East tapped on a student's desk and said, "James, if you do not finish your work you may not go to recess!" James began to work more productively, as did several other students who also had not finished their work.

Mr. Taylor was checking to see if the band parade lines were straight. He was walking along the first line and adjusting students who were not in line. The students in the other parade lines began to straighten themselves.

2. Use disinhibition. Mr. Markham was concerned because few students in his social studies class participated in discussions. One day while discussing a topic some students spoke up freely without his calling on them. Soon more students began to speak out during discussions, and Mr. Markham complimented the class on their great participation.

Keri was a shy student in a third-grade class. One day Keri went up to two other girls and began talking with them. The teacher told Keri how much she liked seeing Keri interacting with others. Keri's social interactions increased over the next few days.

3. Use response facilitation. A physical education teacher asked the first three students who entered class to start running laps around the gym. As other students arrived, they automatically started running around the gym with the first three students.

Mr. Laird, a science teacher, brought several homemade robots to share with his class during a unit on mechanics. He had the robots operating at the back of the room when the students arrived. As the students entered, they all immediately went to the back of the room to watch the robots rather than going to their desks.

4. Use observational learning. Ms. Hagaman, a first-grade teacher, used manipulative materials to show her students how to subtract. After explaining each problem, she had the students perform the same operations with the manipulatives at their desks.

Mr. Moore, a tennis coach, demonstrated different types of tennis swings several times. After demonstrating each type, he had his students practice the swing with their rackets.

Characteristics of Effective Models

Modeling does not occur automatically when observer and model are paired. Observers must attend to models and be motivated to learn from them. In addition, theory and research have identified characteristics of models that are important influences on modeling: competence, perceived similarity, credibility, and enthusiasm.

Competence

Perceived model competence aids observational learning because students are more likely to attend to and pattern their actions after models who perform successfully than those less competent (Schunk, 1987). Competent models also display skills correctly, which diminishes the likelihood that students will learn erroneously. This is not to suggest that models of superior competence to observers always make the best teachers. When adult models perform poorly, children may be swayed by status and try to learn anyway because they assume that the adults are not entirely at fault. Children are more likely to detect errors by peers than by teachers, especially if children are less familiar with the content demonstrated by teachers. Perceived superior competence also may not positively affect motivation. Some students who observe teachers flawlessly demonstrate complex skills may believe that they never will become that competent.

For self-evaluative purposes, the best models may be students who are equal to or slightly more competent than observers. France-Kaatrude and Smith (1985) had first and fourth graders perform a task. Children could compare their performances with a peer of higher, lower, or equal competence. Children allowed to compare with similarly performing peers compared most often and demonstrated the greatest persistence. Younger children compared more often with similar peers than did older children.

In forming self-evaluations, children routinely compare their performances with those of their peers (Schunk, 1987). Social comparisons with peers whom children judge as similar in ability can be highly motivating. When model age and competence conflict (e.g., same age but lower competence), children are swayed more by competence information. This suggests that teachers could use younger children to model skills, assuming that students believe the models are competent. Use of younger child models also could enhance observers' self-efficacy; observers may believe that if younger children can learn, they can, too.

Observers often pattern their actions after those displayed by models of high status as defined by position, job responsibility, or social standing. In the example at the beginning of this chapter, Michael is a high-status model, as shown by the class following his directions to line up properly. Patterning one's actions after high-status models is functional and should lead to improvement so long as the models are competent and are displaying behaviors in their areas of expertise. Status becomes problematic when people model behaviors that lie outside of their areas of expertise (e.g., athletes advertising personal care products).

Perceived Similarity

Similarity to models constitutes an important source of information and can be motivating (Bandura, 1986). Similarity helps observers gauge behavioral appropriateness and form outcome expectations (i.e., beliefs about the consequences of actions; discussed later in this chapter). The more alike observers are to models, the greater is the probability that similar actions by observers are socially appropriate and will produce comparable results (Bandura, 1986; Schunk, 1995). Model attributes often predict the functional value of behavior. Similarity is especially influential when observers have little information about functional value; for example, unfamiliar tasks or those not immediately followed by consequences (Schunk, 1987).

Model similarity also affects observers' self-efficacy. Observing similar others succeed can raise observers' self-efficacy and motivate them to try the task if they believe that since others can succeed, they can as well. Observing others fail can lead people to believe they lack the competence to succeed and dissuade them from attempting the task. Similarity is particularly important when students are uncertain about their performance capabilities, such as when they lack task familiarity and have little information to use in judging self-efficacy.

Research on similarity in gender supports the idea that similarity is beneficial when it provides information on task appropriateness (Schunk, 1987). Seeing a same-sex child play with a toy provides the observer with sex-appropriateness information, which can have motivational effects. When children are uncertain about the gender appropriateness of behavior, they may model same-sex peers because they have been rewarded for doing so and believe the models to be good examples of their sex role. Teachers who employ peer models of both sexes to portray classroom learning activities may help alter students' preconceived ideas on sex-role appropriateness (e.g., boys are good in mathematics, girls are good in reading).

Credibility

Model credibility can affect observers' motivation to model actions. Models who act consistently with the behaviors they model are more likely to be judged by observers as credible and to be emulated than are models who display one action but behave differently (Bandura, 1986). Models who practice what they preach validate their claim that the behavior is appropriate and useful. In contrast, when models say one thing and do another, they are conveying to observers that a behavior is fine for observers but not for them, and observers may wonder why.

In a classic study, Bryan and Walbek (1970) exposed elementary school children to an adult model who played a bowling game and won gift certificates, after which children played the game and won certificates. A collection box for certificates was placed on a table so that certificates won could be donated to needy children. While playing, the model preached either generosity ("If I win any money today, I am going to give some to those poor children.") or selfishness ("If I win any money today, I am not going to give any to the poor children."), after which the model either did or did not donate some certificates. The model's actions motivated children better than did the model's verbalizations. Children exposed to a generous model were more likely to donate than those who observed a selfish model; children who heard exhortations for generosity were no more likely to donate than those who heard verbalized selfishness.

Enthusiasm

Models who present their message enthusiastically enhance observers' learning and motivational processes (e.g., self-efficacy, attributions) better than less enthusiastic models (Perry, 1985). There are numerous real-life examples of model enthusiasm ranging from media personalities to motivational speakers. These models hope to motivate observers to act in ways they advocate.

Model enthusiasm might affect observers because people may pay better attention to enthusiastic models, which should enhance learning. Enthusiasm also might motivate observers to retain the skills and strategies being modeled. Enthusiastic models could promote observers' perceptions of task value, especially if the models practice what they preach. Enthusiasm could raise observers' self-efficacy because verbal persuasion is a source of efficacy information (discussed in the next section). To the extent that an enthusiastic model conveys a "you-can-do-it" attitude to observers, their self-efficacy and motivation for improving their skills should increase.

Classroom research has identified a teacher expressiveness factor that includes such attributes as enthusiasm, rapport, dynamism, and charisma (Abrami, Leventhal, & Perry, 1982; Perry, 1985). In a seminal study, Naftulin, Ware, and Donnelly (1973) had Dr. Myron L. Fox, who unbeknownst to listeners was a professional actor, give a lecture on mathematics as applied to human behavior to audiences of educators and mental health professionals. Dr. Fox delivered his talk in a distinguished and enthusiastic fashion, replete with gestures and humor; however, it made little sense and included unrelated content, double-talk, non sequiturs, neologisms, and