Motivation in Education
Theory, Research and Applications

Dale Schunk Judith Meece Paul Pintrich

Fourth Edition

Pearson New International Edition

ALWAYS LEARNING®

PEARSON®

Pearson New International Edition

Motivation in Education
Theory, Research and Applications
Dale Schunk Judith Meece Paul Pintrich
Fourth Edition

PEARSON®

OVERVIEW OF ATTRIBUTION THEORY

Attribution theory is a cognitive theory of motivation based on the idea that individuals are conscious and rational decision makers (Weiner, 1992). Attribution theory makes two general assumptions. The first assumption is that people are motivated by a goal of understanding and mastering the environment and themselves (White, 1959). This goal is the main instigator of behavior, and the theory does not highlight any other goals, needs, motives, or drives. Individuals are motivated to understand and master their worlds to make them more predictable and controllable. As (Kelley 1971) noted, "The attributor is not simply an attributor, a seeker after knowledge; his latent goal in attaining knowledge is that of effective management of himself and his environment" (p. 22). This striving for mastery and understanding allows people to learn and adapt to their environments.

The second assumption is that people are naïve scientists, trying to understand their environments and, in particular, the causal determinants of their behaviors and the behaviors of others. As a function of their search for mastery, individuals seek to understand why things happen and why people say and do things. For example, students may seek to understand why they failed or passed an exam, as did Roy and Akane. A teacher may attempt to understand the reasons why one student in the class learns to read so easily and why another one has difficulty. In our example, Mr. Kiley probably wondered why Akane, who usually does so well in math, got a lower grade than usual on that test. In fact, he may try to determine why all the students did poorly on this material and if his teaching was partly responsible. Attribution theory can be applied to other aspects of everyday life; for example, individuals may try to understand why others will not socialize with them. Besides the achievement and affiliation domains, the search for causes is commonplace in many other domains, such as sports ("Why did your favorite team lose?"), politics ("Why did this person win the election?"), economics ("Why did your friend lose his job?"), and criminal justice ("Why did this person commit this crime?").

The general attribution model is displayed in Figure 1 (Weiner, 1986, 1992). The remainder of this chapter will provide a detailed explanation of this figure, but a short overview of the most important points will be helpful as an advance organizer. As shown in the second and third columns of Figure 1, perceived causes and the causal dimensions that underlie them are the heart of the model. The perceived causes of an event are influenced by two general types of antecedent conditions shown in column 1: environmental factors and personal factors (Kelley & Michela, 1980). Environmental factors include specific information (e.g., if the teacher told Roy and Akane that they did poorly on a test because they did not study hard enough), as well as social norms and information (e.g., how others did on the test; how mathematics is generally perceived in the culture). Personal factors include prior beliefs that individuals might hold about the test and about themselves (e.g., both Akane and Roy have perceptions of their mathematical ability based on experience prior to the quadratic equations test). These two general factors influence the attributions individuals make and whether they attribute their failure to low ability, bad luck, a hard test, lack of effort, a bad mood, fatigue, or any other reason that could be generated for test failure.

It is important to remember that attributions are perceived causes of outcomes; they may not be the actual causes. When Roy concluded that he did not do well on the test because he lacked mathematical ability, this attribution is the one that produced a psychological consequence (shame) and a behavioral consequence (less future effort in mathematics), regardless of the actual causes of the event (e.g., he may not have tried very hard and the test was difficult). In this way,

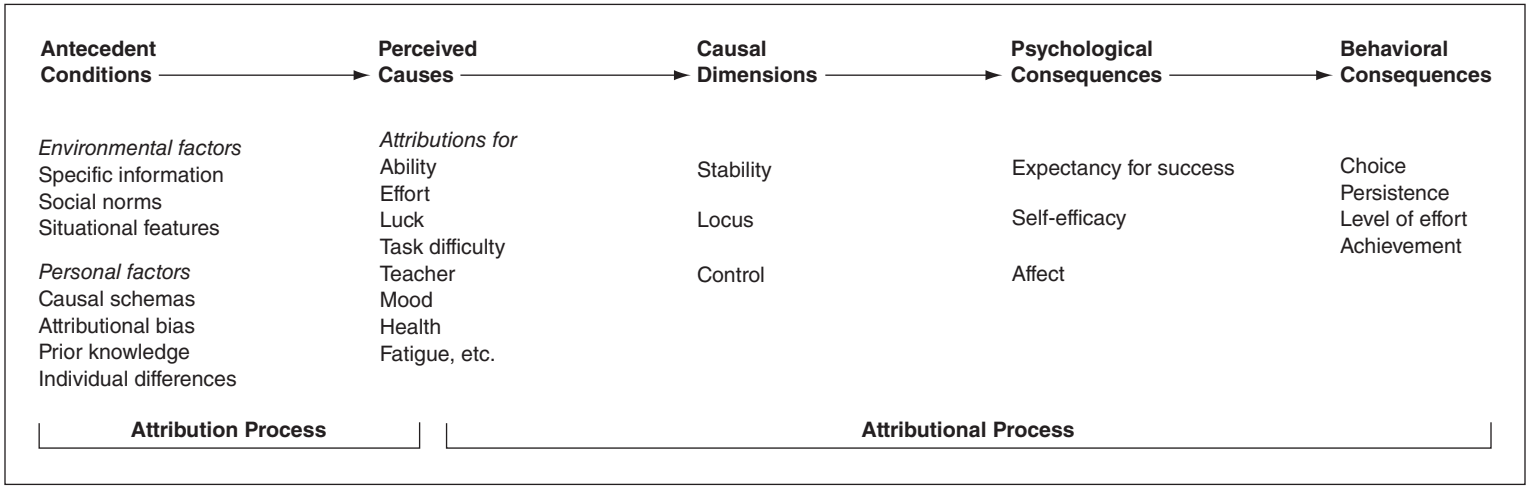

Figure 1 Overview of the general attributional model
Material drawn from Weiner (1986, 1992).

attribution theory gives precedence to the individual's construction of beliefs, in line with the cognitive and constructivist perspective of this text. Although there may be concerns about the accuracy of individuals' attributions (Nisbett & Wilson, 1977), accuracy is not necessary for the attribution to have psychological and behavioral consequences.

As shown in Figure 1, attributions can be categorized along three dimensions (stability, locus, and control), according to Weiner's (1986) model. These causal dimensions have the psychological force to influence expectancies for success, self-efficacy beliefs, affects, and actual behavior (columns 4 and 5 in Figure 1). Attribution theory assumes that even though there are numerous possible attributions (Graham & Williams, 2009), they can be categorized along these three dimensions.

The stability dimension refers to how stable a cause is over time, ranging from stable to unstable. Locus denotes whether a perceived cause is internal or external to the person. Controllability refers to how much control the person has over the cause; it can range from controllable to uncontrollable.

Roy's attribution of low ability is stable (his low ability will remain the same over time), internal (to Roy), and not controllable by Roy (there is not much he can do to change it). Attribution theory and research have shown that the stability dimension is most closely related to expectancy for success (Weiner, 1986). Roy's attribution to a stable cause (low ability) should result in low expectancies for success on future tests. Conversely, if Roy had succeeded and attributed his success to high ability (also a stable cause), then he should expect to do well on the next test. In contrast, Akane also did not do as well as in the past, but she attributed her performance to a difficult task (external) and she expects to try harder in the future, so her attribution should not have the same debilitating effects.

Attributional dimensions and affects are linked (Weiner, 1986, 1992, 2000). Esteem-related affects are related to the locus dimension (e.g., we generally feel pride when we think that something internal to us was responsible for a successful outcome), and social-related affects such as guilt and shame are related to the controllability dimension (e.g., we often feel guilt if we fail due to something under our control or shame when it is not under our control, as in Roy's case).

These expectancy beliefs and affects are then linked to behaviors as the final step in the model. Students with high expectancies and values will tend to choose a task, try harder, and persist longer at that task, which should result in higher achievement. In the same fashion, positive emotions should result in motivated behaviors (choice, effort, and persistence), whereas negative emotions should lead individuals to avoid the task. In our example, Roy begins to decrease his effort in mathematics after making a low grade and attributing it to low ability. In contrast, Akane attributes her failure to task difficulty and increases her effort and persistence. We now present a more detailed description of how attributions are formed and their psychological and behavioral consequences.

ANTECEDENTS OF ATTRIBUTIONS

Attribution theory assumes that individuals use various information sources as data to make inferences (attributions) about the causal determinants of behavior (Graham & Williams, 2009). As noted in Figure 1, this information can come from two general sources: external cues and information in the environment, and knowledge and schemas internal to the person. As individuals attempt to assign causality for an event, attribution theory defines the central task of perceivers as detecting *covariation* between causes and effects (Heider, 1958).

Environmental Factors

Specific Information and Social Norms

There are many cues and sources of information that people can use to detect covariation. People may have access to specific information that provides them with direct knowledge of the causes of their behavior. For example, Roy and Akane knew how hard they studied for the test. If they did not study or prepare for the test at all, this lack of effort may be sufficient to explain the failure. Both of them studied, so they cannot attribute poor performance to a complete lack of effort. Interestingly, Roy and Akane have access to this information about their actual level of effort, but their teacher may not have such ready access. Accordingly, Mr. Kiley may make a different attribution for their performance, lacking the specific information about their level of effort. In fact, Akane wonders if Mr. Kiley thinks that she did not study for the test. This example highlights an important distinction in attribution theory between the actor (Roy/Akane) and observer (Mr. Kiley) discussed later. It is important to note that actors generally have more specific information about their behaviors and outcomes than do people who only observe the behaviors and outcomes (e.g., Mr. Kiley really does not know how much they studied at home, but he may infer little effort for Akane, particularly given her past record of success).

Other information that can influence attributions includes specific feedback from the task or from others. One of the most direct types of information that students receive is teacher feedback, which can influence students' perceptions of their ability and effort (Pintrich & Blumenfeld, 1985). Teacher feedback usually stresses effort ("I know you can do better if you try harder") or strategy use ("You got it right because you used the correct method"); ability feedback is given less often by teachers (Blumenfeld et al., 1982; Blumenfeld, Hamilton, Bossert, Wessels, & Meece, 1983). If Mr. Kiley were to tell Roy that he did poorly on the exam because he lacks ability, then Roy (in the absence of other information) may accept this attributional statement by the teacher as the major cause of his failure. This attributional feedback about lack of ability may be particularly influential given the infrequency with which teachers seem to make ability attributions. More research is needed on how students integrate the usual and frequently occurring classroom feedback with other more infrequent yet potentially powerful feedback (Blumenfeld et al., 1982).

Information about task difficulty can influence the types of attributions made for outcomes. Weiner and Kukla (1970) provided individuals with information about the relative success or failure of others on a task (ranging from 1 to 99% of others who were successful). Participants then rated whether a target person was responsible for success or failure. The results showed that participants were likely to attribute the outcome to the task when there was consistency between the target's and others' outcome. If most everyone succeeded or failed, then the target's outcome was attributed to an easy or hard task, respectively. In contrast, if the target succeeded when most people failed or failed when most people succeeded, the attribution was made to the person (Weiner, 1992). Continuing with our example, if almost all the students in Roy's class failed the exam, then he is not likely to attribute his failure to something about himself; rather, he will probably infer that the exam was difficult. If he is the only one who failed the test and everyone else did well, however, then he might see it as an easy task and attribute his failure to some personal characteristic (e.g., lack of ability, low skill, low effort, bad mood). This type of information about the relative difficulty of the task given other students' performances demonstrates how individuals can use social norms to make attributions (Weiner, 1992).

Consensus, Consistency, and Distinctiveness

Although specific information and social norms provide cues to the perceiver about what type of attributions to make, Kelley (1967) proposed that all information can be categorized according to several factors that influence the attribution process. Kelley believed that the basic question confronting the perceiver was how to assign causality to the person or the environment, reflecting the general principle that behavior is a function of both. To answer this question, the perceiver considers three factors: the *distinctiveness* of the entities, the *consensus* across persons, and the *consistency* over time and situations.

Kelley (1967) illustrated the operation of these factors and their influence attributions using a movie. Assume that Anne recommends a movie to Roger, and Roger must decide whether to watch it. He must determine whether the movie (the entity) is good or if Anne's recommendation should be attributed to something about her (the person). If Roger knows that Anne responds differentially to movies—some are good and some are not (high distinctiveness)—then Roger will probably infer that it is something about the movie (the entity) that is good. At the same time, if Roger hears from other people that the movie is good (high consensus), this consensus across people increases the probability that an entity attribution will be made (the entity—the movie—is good). In the same way, if Anne has seen the movie several times and still likes it (high consistency across time) and has seen it in different situations (e.g., with friends at a theater, watching a DVD at home—high consistency across situations), then Roger will tend to make an entity attribution (the movie is good). In this case of high distinctiveness, high consensus, and high consistency, an attribution to the entity—the movie—is likely. In contrast, if there is low distinctiveness (Anne likes all movies) and low consensus (other people don't like the movie), a person attribution is most likely (e.g., it is something about Anne that makes her like the movie).

These three dimensions of distinctiveness, consensus, and consistency can be applied to attributions in classrooms. For example, Ms. Early is a seventh-grade science teacher who is trying to determine why Carla, a student in her first-period class, is misbehaving. In many situations like this, the effect (misbehavior) may be a function of the interaction between the classroom (entity) and student (person), but depending on the distinctiveness, consensus, and consistency of the information, different types of attributions may be made. If Carla only misbehaves in Ms. Early's classroom and not other classrooms (high distinctiveness) and misbehaves frequently in her classroom (high consistency), it increases the probability that something about Ms. Early's classroom may be responsible. If many other students in her first-period class misbehave (high consensus across persons), then it is likely that something about her class is the causal factor. In contrast, if Carla misbehaves often in other classrooms (low distinctiveness) and no other students misbehave in Ms. Early's class (low consensus), then an attribution might be made to Carla. Application 1 offers other ways that distinctiveness, consensus, and consistency can be applied in classrooms.

Kelley's covariation model is a rational model of the attribution process, but there is evidence that individuals do not always use all three types of information equally (Fiske & Taylor, 1991). Consistency information is utilized most often and consensus the least (Major, 1980; Olson, Ellis, & Zanna, 1983). In reviewing research on teachers, Peterson and Barger (1984) suggested that consistency information is the most salient. They concluded that teachers are most likely to make attributions for a student's behavior that are consistent with prior beliefs about that student. For example, when a normally high-achieving student does well, the teacher is likely to attribute that performance to the student's ability, thereby maintaining prior beliefs. In contrast, if a normally low-achieving student does well on a task, this is inconsistent with prior beliefs and may be attributed to some unstable factor such as luck (Clark & Peterson, 1986).

APPLICATION 1

Using Distinctiveness, Consensus, and Consistency Information

Attribution theory offers teachers a model of how students' perceptions of the causes of their successes or failures (attributions) can influence their expectancies for success, self-efficacy, emotions, and achievement behaviors. This model has important implications for teaching practice.

Teachers will benefit from trying to assess the reasons for students' behavior in a scientific manner. This involves collecting and using information about the students and attempting to determine the distinctiveness, consensus, and consistency of the information before making a final determination of the causes of the behavior. For example, if Ms. Sloan is trying to determine why Joe continually acts out in her classroom, she should seek information about the specificity of the behavior in her classroom. Does Joe's misbehavior only occur on certain types of tasks or for certain types of activities (use of distinctiveness cues)? Ms. Sloan also should look for the consistency of Joe's behavior across different classrooms (ask other teachers about Joe's behavior in their classrooms) as well as the consensus of different teachers' attributions for Joe's problem behavior.

Student portfolios offer another means of applying a scientific perspective to understand behavior. Students can assemble portfolios with their course work and present these to the teacher. Mr. Davis asked his high school students to do this in economics class. When Mr. Davis examines each student's portfolio, the diversity of the products can provide him with distinctiveness, consistency, and consensus information about the student's performance. For example, Mr. Davis might see that Anna consistently does well on more structured assignments but has difficulty on reports and essays that are more open-ended. Because all portfolio information is available to Mr. Davis at the same time, he can examine all of the student's work at once and avoid bias in assessment.

Personal Factors

Information presented to individuals influences their attributions, but personal factors also affect attributions. We have divided personal factors into four general categories: (a) causal schemas, (b) attributional biases (certain type of causal schemas), (c) prior knowledge, and (d) individual differences (Figure 1).

Causal Schemas

Individuals use various principles and beliefs about causality to make attributions. These principles and beliefs are assumed to be learned, stored, and represented cognitively by the individual and can be activated by situational cues in the environment. Some basic principles seem to be established by about age 3 (Kassin & Pryor, 1985; White, 1988). Fiske and Taylor (1991) suggested six general principles that individuals use to judge causality.

- *Causes must precede effects.* Even children as young as age 3 know that events that occur after the target event cannot be causes of the target event. In the example of Roy failing the exam, the fact that he had a fight with his girlfriend after he took the test cannot be a cause of his failure on the exam.