

Personality and Sport

After reading this chapter, you should be able to

1. describe what makes up personality and why it is important,
2. discuss major approaches to understanding personality,
3. identify how personality can be measured,
4. assess personality tests and research for practicality and validity,
5. understand the relationship between personality and behavior in sport and exercise,
6. describe how cognitive strategies relate to athletic success, and
7. apply what you know of personality in sport and exercise settings to better understand people's personalities.

Thousands of articles, many of them written during the 1960s and 1970s, have been published on aspects of sport personality (Ruffer, 1976; Vealey, 2002). There also has been a resurgence in interest in personality research over the last decade. This voluminous research demonstrates how important researchers and practitioners consider the role of personality to be in sport and exercise settings. Researchers have asked, for example, what personality characteristics might increase the risk of athletic injuries or influence a patient's physical therapy adherence. Researchers have questioned why some exercisers stay with their fitness program but others lose motivation and drop out, whether personality tests should be used to select athletes for teams, and whether athletic success can be predicted by an athlete's personality type.



Activity 3.1 helps you identify why understanding personality is important for sport and exercise science professionals.

Defining Personality

Have you ever tried to describe your own personality? If you have, you probably found yourself listing adjectives, such as *funny*, *outgoing*, *happy*, or *stable*. Maybe you remembered how you reacted in various situations. Is there more to personality than these kinds of attributes? Many theorists have attempted to define personality, and they agree on one aspect: uniqueness. In essence, personality refers to the characteristics—or blend of characteristics—that make a person unique. One of the best

ways to understand and personality is through its structure. Think of personality as divided into three separate but related levels (figure 3.1): a psychological core, typical responses, and role-related behavior (Marrrens, 1975).

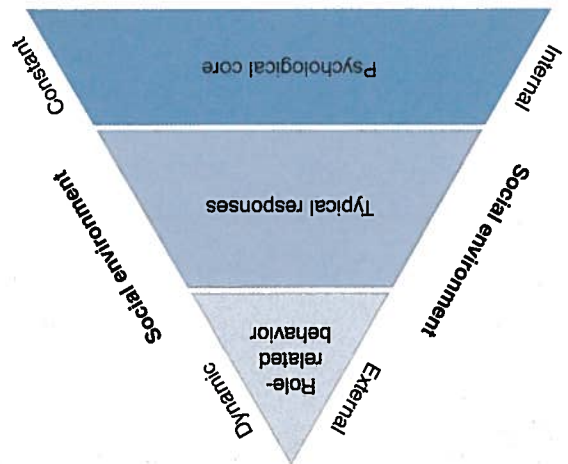


FIGURE 3.1 A schematic view of personality structure. Adapted by permission from R. Marrrens, *Social Psychology and Physical Activity* (New York: Harper & Row, 1975), 146. Copyright 1975 by Rainer Marrrens.

Key Point

Personality is the sum of the characteristics that make a person unique. The study of personality helps us work better with students, athletes, patients, and exercisers and work more effectively with coworkers.

Psychological Core

The most basic level of your personality is called the **psychological core**. The deepest component, it includes your attitudes and values, interests and motives, and beliefs about yourself and your self-worth. In essence, the psychological core represents the centerpiece of your personality and is “the real you,” not who you want others to think you are. For example, your basic values might revolve around the importance of family, friends, and religion in your life.

Typical Responses

Typical responses are the ways we each learn to adjust to the environment or how we usually respond to the world around us. For example, you might be happy-

Understanding Personality Structure

Activity 3.2 helps you recognize the structure of your own personality.

Role-Related Behavior How you act based on what you perceive your social situation to be is called **role-related behavior**. This behavior is the most changeable aspect of personality: Your behavior changes as your perceptions of the environment change. Different situations require playing different roles. You might, on the same day, play the roles of student at a university, coach of a Little League team, employee, and friend. Likely you'll behave differently in each of these situations; for example, you'll probably exert more leadership as a coach than as a student or employee. Roles can conflict with each other. For example, a parent who is coaching her child's soccer team might feel a conflict between her coaching and parenting roles.

go-lucky, shy, and even tempered. Often your typical responses are good indicators of your psychological core. That is, if you consistently respond to social situations by being quiet and shy, you are likely to be introverted, not extroverted. However, if someone observed you being quiet at a party and from that evidence alone concluded that you were introverted, that person could well be mistaken—it may have been the particular party situation that caused you to be quiet. Your quietness may not have been a typical response.

As shown in figure 3.1, the three levels of personality encompass a continuum from internally driven to externally driven behaviors. To simplify this, compare your levels of personality to a chocolate-covered cherry. Everyone sees the outside wrapper (role-related behavior), those who go to the trouble to take off the wrapper see the chocolate layer (typical responses), and only the people interested or motivated enough to bite into the candy see the cherry center (psychological core). The psychological core is not only the most internal of the three levels and the hardest to get to know; it is also the most stable part of your personality. It remains fairly constant over time. On the other end of the continuum are the most external, role-related behaviors, which are subject to the greatest influence from the external social environment. For example, you might

always tell the truth because being truthful is one of your core values. But your behavior might vary in some areas, such as being aloof in your role as a fitness director and affectionate in your role as a parent. Usually your responses lie somewhere in between, however, because they result from the interaction of your psychological core and role-related behaviors.

Both stability and change are desirable in personality. The core, or stable, aspect of personality provides the structure we need to function effectively in society, whereas the dynamic, or changing, aspect allows for learning.

As a physical activity professional, we can be more effective when we understand the different levels of personality structure that lie beyond the role-related behaviors particular to a situation. Getting to know the real person (i.e., the psychological core) and that person's typical modes of response produces insight into the individual's motivations, actions, and behavior. In essence, we need to know what makes people tick to be able to choose the best way to help them. It's especially helpful to understand more about people's individual core values (i.e., psychological core) when we work with them in the long term, such as over a season or more.

Studying Personality From Six Viewpoints

Psychologists have looked at personality from several viewpoints. Six of the major ways to study personality in sport and exercise are the psychodynamic, trait, situation, interactional, phenomenological, and integrative, or biopsychosocial, approaches.

Psychodynamic Approach

Popularized by Sigmund Freud and neo-Freudians such as Carl Jung and Erik Erikson, the **psychodynamic approach** to personality is characterized by two themes (Cox, 1998):

1. It places emphasis on unconscious determinants of behavior, such as what Freud called the *id*, or instinctive drives, and how these conflict with the more conscious aspects of personality, such as the *superego* (one's moral conscience) or the *ego* (the conscious personality).
2. This approach focuses on understanding the person as a whole rather than identifying isolated traits or dispositions.

The psychodynamic approach is complex; it views personality as a dynamic set of processes that are constantly changing and are often in conflict with one another (Vealey, 2002). For example, those taking a psychodynamic approach to the study of personality might discuss how unconscious aggressive instincts conflict with other aspects of personality, such as one's *superego*, to determine behavior. Special emphasis is placed on how adult personality is shaped by the resolution of conflicts between unconscious forces and the values and conscience of the *superego* in childhood. For example, Gaskin, Andersen, and Morris (2010) used a psychodynamic approach to study the sport and physical activity experiences of a young man with cerebral palsy. They found that sport helped address this individual's sense of inferiority that resulted from social isolation in his childhood. At the same time, however, his success in sport did not totally compensate for his feelings of inferiority and in some ways allowed him to avoid some challenges (e.g., developing romantic relationships) that young adults must face. Thus, this individual's present functioning could be explained by conflicts and unresolved childhood issues, and although sport served a positive role in his life, it allowed him to unconsciously avoid other important issues.

Although the psychodynamic approach has had a major effect on the field of psychology, especially clinical approaches to psychology, it has had less effect on sport psychology. Swedish sport psychologist Erwin Apitzsch (1995) measured defense mechanisms such as denial in athletes and used this information to help performers better cope with stress and anxiety. Strean and Strean (1998) discussed how psychodynamic concepts (e.g., resistance) can be used to explain athlete behavior—not just maladaptive functioning of athletes, but normal personality as well. Gaskin, Andersen, and Morris (2009, 2010) also published several case studies demonstrating how a psychodynamic approach can help in understanding deep and often unconscious issues such as poor self-image, identification with people who do not have disabilities, and compliance that may arise in those with physical disabilities. Finally, Conroy and Benjamin (2001) discussed and presented examples of the use of a structural analysis method of social behavior to measure psychodynamic constructs through case study research. This is important because a major weakness of the psychodynamic approach has been the difficulty of testing it.

Another weakness of the psychodynamic approach is that it focuses almost entirely on internal determinants of behavior and gives little attention to the social

environment. For this reason, many contemporary sport psychology specialists do not adopt the psychodynamic approach. Moreover, it is unlikely that most sport psychology specialists, especially those trained in educational sport psychology, will become qualified to use a psychodynamic approach. However, Giges (1998) indicated that although specialized training is certainly needed to use the psychodynamic approach in a therapeutic manner, an understanding of its key concepts can help us understand athletes and their feelings, thoughts, and behaviors.

Finally, the key contribution of this approach is the recognition that not all the behaviors of an exerciser or athlete are under conscious control and that at times it may be appropriate to focus on unconscious determinants of behavior. For example, a world-class aerial skier had a particularly bad crash; when he recovered, he could not explain his inability to execute the complex skill. He said that in the middle of executing the skill he would freeze up "like a deer caught in headlights." Moreover, extensive cognitive-behavioral psychological strategies (described later in this chapter), which have been successfully used with other skiers, did not help him. The athlete eventually was referred to a clinical psychologist, who took a more psychodynamic approach to the problem and had more success.

Trait Approach

The **trait approach** assumes that the fundamental units of personality—its traits—are relatively stable. That is, personality traits are enduring and consistent across a variety of situations. Taking the trait approach, psychologists consider that the causes of behavior generally reside in the person and that the role of situational or environmental factors is minimal. Traits are considered to predispose a person to act a certain way regardless of the situation or circumstances. If an athlete is competitive, for example, she will be predisposed to playing hard and giving her all regardless of the situation or score. However, at the same time, a predisposition does not mean that the athlete will always act this way; it simply means that the athlete is *likely* to be competitive in sport situations.

Key Point

The trait approach, which dominated the early study of personality, does not consider the particular situations that might also influence an individual's behavior.

The most noted of the trait proponents in the 1960s and 1970s include Gordon Allport, Raymond Cattell, and Hans Eysenck. Cattell (1965) developed a personality inventory with 16 independent personality factors that he believed describe a person. Eysenck and Eysenck (1968) viewed traits as relative, the two most significant traits ranging on continuums from introversion to extroversion and from stability to emotionality. Today, the Big 5 model of personality is most widely accepted (Allen, Greenlee, & Jones, 2013; Gill, Williams, & Reifsteck, 2017). This model contends that five major dimensions of personality exist:

1. Neuroticism (nervousness, anxiety, depression, and anger) versus emotional stability
2. Extraversion (enthusiasm, sociability, assertiveness, and high activity level) versus introversion
3. Openness to experience (originality, need for variety, curiosity)
4. Agreeableness (amiability, altruism, modesty)
5. Conscientiousness (constraint, achievement striving, self-discipline)

These five dimensions have been found to be the most important general personality characteristics that exist across individuals; most other more specific personality characteristics fall within these dimensions (McKae & John, 1992). Moreover, it is hypothesized that individuals possessing different levels of these characteristics will behave differently. For example, people high in conscientiousness would be more motivated toward order, self-discipline, and dutifulness, whereas those high on neuroticism would generally be vulnerable and self-conscious.

The Big 5 model of personality has been shown to be of some use in understanding why different exercise interventions are appropriate for people with different personality characteristics (Rhodes, Courneya, & Hayduk, 2002). A meta-analysis or statistical review of 35 independent studies also showed that the personality traits of extraversion and conscientiousness were positively correlated with physical activity levels, whereas neuroticism was negatively related to physical activity (Rhodes & Smith, 2006). Researchers have also begun to test the Big 5 model of personality in sport (Friedman, Hill, & Blanco, 1999; Wann, Dunham, Byrd, & Keenan, 2004). For example, in a study of sports fans, Wann and colleagues (2004) found that identifying with a local team (and receiving social support from others) was positively related to psychological well-being as measured by the Big 5 subscales

of extroversion, openness, and conscientiousness. Sport and exercise psychology researchers are examining the influence of Big 5 personality characteristics on both psychological states and behavior (Demulier, Le Scanff, & Stephan, 2013; Lochbaum et al., 2010; Merritt & Tharp, 2013; Singley, Hale, & Russell, 2012). Summarizing much of this literature in a comprehensive review, Allen and colleagues (2013) concluded that personality is related to long-term athletic success. According to Allen and colleagues, good evidence shows that athletes have higher levels of extraversion than do nonathletes and that athletes who play high-risk sports and team sports score higher on extraversion and lower on conscientiousness than do athletes who play low-risk sports and individual sports.

Regardless of the particular view and measure endorsed, trait theorists argue that the best way to understand personality is to consider traits that are relatively enduring and stable over time. However, simply knowing an individual's personality traits will not always help us predict how that person will behave in a particular situation. For example, some people anger easily during sport activity, whereas others seldom get angry. Yet the

individuals who tend to get angry in sport may not necessarily become angry in other situations. Simply knowing an individual's personality traits does not necessarily help us predict whether she will act on them. A person's predisposition toward anger does not tell you what specific situations will provoke that response. Note, however, that Allen and colleagues (2013) have indicated that sport personality research has stagnated and has not kept pace with developments in general psychology. This suggests that traits have some utility in predicting behavior across a number of situations.

Situation Approach

Concerns with the trait approach to studying personality motivated some researchers to focus on the situation or environment that might trigger behaviors rather than on personality traits. The **situation approach** argues that behavior is determined largely by the situation or environment. It draws from social learning theory (Bandura, 1977), which explains behavior in terms of observational learning (*modeling*) and social reinforcement (*feedback*). This approach holds that environmental influences and



The trait approach assumes that personality traits are enduring and consistent across a variety of situations.

The Paradox of Perfectionism

Perfectionism has been one of the most widely studied personality characteristics in sport and exercise psychology. Perfectionism is a personality style characterized by setting extremely high standards of performance, striving for flawlessness, and a tendency to be overly critical in evaluating one's performance (Flett & Hewitt, 2005). The differentiation between perfectionistic striving versus perfectionistic concern is seen as especially critical in terms of determining whether perfectionism has positive or negative effects on the individual (Sellars, Evans, & Thomas, 2016). Investigators have also differentiated between self-oriented perfectionism (the degree to which an individual sets extremely high personal standards and stringently self-evaluates relative to those standards), socially prescribed perfectionism (the degree to which one perceives that significant others hold them to extremely high standards and base their approval on meeting those standards), and other-oriented perfectionism (the degree to which one holds others to extremely high standards) (Appleton, Hall, & Hill, 2010; Dunn, Dunn, & McDohaid, 2012). A sport-specific measure of perfectionism that assesses four dimensions—personal standards, concern over mistakes, perceived parental pressure, and perceived coach pressure—has also been developed (Dunn, Craft, & Dunn, 2011).

The multidimensional nature of perfectionism has led to interesting findings. **Maladaptive, or unhealthy, perfectionism** (a focus on high standards accompanied by a concern over mistakes and evaluation by others) has been found to be associated with excessive exercise (e.g., Flett & Hewitt, 2005), poor performance (Stoeber, Uphill, & Hotham, 2009), and athlete burnout (Hill & Gurrain, 2016). However, **adaptive, or healthy, perfectionism** (a focus on high standards but not excessively worrying about making mistakes or about how others evaluate one's performance) has been found to be associated with better learning and performance (Stoeber et al., 2009) and more adaptive goal patterns (e.g., Stoll, Lau, & Stoeber, 2008). Other interesting findings include the following:

- Perfectionistic standards do not automatically undermine performance and with the right goal focus can lead to optimal performance.
- Perfectionism is thought to be especially negative in times of failure.
- Extreme perfectionists with an ego orientation and low perceptions of ability will have debilitating effects, high levels of stress, motivational problems, and burnout.
- Perfectionists are at greater risk if they have poor coping skills.
- Certain types of perfectionism predispose people to engage in certain thought and behavioral processes that influence their exercise.
- Perfectionistic demands emanate from within individuals themselves or from others.
- A relationship exists between a child's levels of perfectionism and his or her parents' levels of perfectionism. Children whose parents model their own perfectionism or provide conditional approval of the child's attempts at achievement are more likely to have perfectionistic tendencies.
- Adaptive perfectionism is related to approach motivation, whereas maladaptive perfectionism is related to avoidance motivation.

It is important for those working in sport to help athletes and exercisers distinguish between a healthy commitment to high performance standards and unhealthy striving, e.g., negative reactions to imperfections, fear of failure) associated with maladaptive, or unhealthy, perfectionism. This requires that the athlete not overly link his or her self-worth to performance and reduce any irrational sense of importance placed on performance (Hill, Hall, & Appleton, 2010). Emphasizing a task-involved motivational climate, where the focus is on self-improvement (discussed in chapter 4) versus beating others, teaching psychological skills such as relaxation and self-talk, emphasizing flexible goals, and developing an accepting view of mistakes are additional strategies that can help physical activity participants deal with their unhealthy perfectionism (Sellars et al., 2016). Finally, if individuals are characterized by extreme perfectionism, seeing a sport psychologist may be warranted.

reinforcements shape the way you behave. You might act confident, for instance, in one situation but tentative in another, regardless of your particular personality traits. Furthermore, if the influence of the environment is strong enough, the effect of personality traits will be minimal. For example, if you are introverted and shy, you still might act assertively or even aggressively if you see someone getting mugged. Many football players are gentle and shy off the field, but the game (i.e., the situation) requires them to act aggressively. Thus, the situation would be a more important determinant of their behavior than their particular personality traits would be.

Although the situation approach is not as widely embraced by sport psychologists as the trait approach, Martin and Lumsden (1987) contended that you can influence behavior in sport and physical education by changing the reinforcements in the environment. Still, the situation approach, like the trait approach, cannot truly predict behavior. A situation can certainly influence some people's behavior, but other people will not be swayed by the same situation.

Interactional Approach

The **interactional approach** considers the situation and person as codeterminants of behavior—that is, as variables that together determine behavior. In other words, knowing both an individual's psychological traits and the particular situation is helpful in understanding behavior. Not only do personal traits and situational factors independently determine behavior, but at times they also interact or mix with each other in unique ways to influence behavior. For example, a person with a high hostility trait won't necessarily be violent in all situations (e.g., as a frustrated spectator at a football game in the presence of his mother). However, when the hostile person is placed in the right potentially violent situation (e.g., as a frustrated spectator at a football game with his roughneck friends), his violent nature might be triggered. In that particular situation, violence might result (e.g., he hits a fan for the opposing team who boos).

Key Point

Situations alone are not enough to predict behavior accurately; an individual's personality traits must also be considered.

Researchers using an interactional approach ask these kinds of questions:

- Will extroverts perform better in a team situation and introverts in an individual (i.e., nonteam) situation?
- Will highly motivated people adhere to a formal exercise program longer than exercisers with low motivation?
- Will self-confident children prefer competitive sport and youngsters with low self-confidence prefer noncompetitive sport situations?

The vast majority of contemporary sport and exercise psychologists favor the interactional approach to studying behavior. Bowers (1973) found that the interaction between persons and situations could explain twice as many behaviors as traits or situations alone could. The interactional approach requires investigating how people react individually in particular sport and physical activity settings.

Phenomenological Approach

Although many contemporary sport and exercise psychologists adopt an interactional approach to the study of personality, the phenomenological approach is the most popular orientation taken today (Vealey, 2002). Like the interactional view, the **phenomenological approach** contends that behavior is best determined by accounting for both situations and personal characteristics. However, instead of focusing on fixed traits or dispositions as the primary determinants of behavior, the psychologist examines the person's understanding and interpretation of herself and her environment. Hence, an individual's subjective experiences and personal views of the world and of herself are seen as critical.

Many of the most prominent contemporary theories used in sport psychology fall within the phenomenological framework. For example, self-determination theories of motivation such as cognitive evaluation theory (discussed in chapter 7), achievement goal theory (discussed in chapter 4), social cognitive theories such as Bandura's self-efficacy (discussed in chapter 15), and much of the recent research focusing on cognitive characteristics associated with athletic success (discussed later in this chapter) fall within the phenomenological approach.

Integrative, or Biopsychosocial, Approach

The most recent approach to studying personality is the **integrative, or biopsychosocial, approach** (McAdams & Pals, 2006). Those adopting this approach argue that

are most often stressed today and form the basis of much of this text. The integrated biopsychosocial model shows promise, but is only starting to be used.

Measuring Personality

When research is conducted appropriately, it can shed considerable light on how personality affects behavior in sport and exercise settings. Psychologists have developed ways to measure personality that can help us understand personality traits and states. Many psychologists distinguish between an individual's typical style of behaving (*traits*) and the situations' effects on behavior (*states*). This distinction between psychological traits and states has been critical in the development of personality research in sport. However, even though a given psychological trait predisposes someone to behave in a certain way, the behavior doesn't necessarily occur in all situations. Therefore, you should consider both traits and states as you attempt to understand and predict behavior.

Key Point

We should consider both situations and psychological traits in order to understand and predict behavior.

Trait and State Measures

Look at the sample questions from trait and state measures of confidence (Valey, 1986). They highlight the differences between trait and state measures of confidence in a sport context. The Trait Sport Confidence Inventory asks you to indicate how you "generally" or "typically" feel, whereas the State Sport Confidence Inventory asks you to indicate how you feel "right now," at a particular moment in a particular situation.

Situation-Specific Measures

Although general scales provide some useful information about personality traits and states, **situation-specific measures** predict behavior more reliably for given situations because they consider both the personality of the participant and the specific situation (interactional approach). For example, Sarason observed in 1975 that some students did poorly on tests when they became overly anxious. These students were not particularly anxious in other situations, but taking exams made them freeze up. Sarason devised a situationally specific scale

the mission of those who study personality is to understand the "whole person" and an integrative framework that considers the interaction of biological, psychological, and social factors is needed to truly understand one's personality. Hence, to understand personality, one needs to consider the dynamic interaction of biological factors, dispositional traits, adaptations one makes to situations, and self-defined life stories or narratives that are all situated in one's social context or culture. Especially interesting is the self-defined narrative component in which McDams and Pals contend that we all develop our own self-stories based on both our own history and imagined future. These narratives, which are anchored in one's social or cultural context, help people develop meaning in their lives.

The integrative model is relatively new and is only now being used to guide sport and exercise psychology research. For example, Mallett and Coulter (2016) used the McAdams and Pals (2006) whole-person framework to examine the personality of a successful Olympic coach. This framework provided a deep understanding of the coach, and the investigators found that compared to personality disposition norms, the coach was conscientious, stable, agreeable, and open to new experiences. His orientation toward achievement and power striving influenced his motivational actions. And his personal narrative helped him make sense of his life and showed that he invested himself in his athletes, helping them develop their potential in an effort to seek redemption for situations in which he had fallen short as an athlete. The integrated model helped the researchers understand this coach in a more complete and holistic way than if they had examined only his disposition.

Differences Among the Six Approaches

The six approaches, or viewpoints, to understanding personality differ in several important ways. First, they vary along a continuum of behavioral determination ranging from the view that behavior is determined by a person's internal characteristics (e.g., psychodynamic theories) to the view that behavior is determined by the situation or environment (e.g., situation approach). Second, they vary greatly in terms of assumptions about the origins of human behavior—whether behavior is determined by fixed traits or by conscious or subconscious determinants and how important a person's active interpretation of herself and her environment is. Although all these viewpoints have played an important role in advancing our understanding of personality in sport and physical activity, the interactional and phenomenological views

Trait Sport Confidence Inventory

Think about how self-confident you are when you compete in sport. Answer the following two questions based on how confident you *generally* feel when you compete in your sport. Compare your self-confidence with that of the most self-confident athlete you know. Please answer (circle number) as you actually feel, not how you would like to feel.

	Low			Medium			High		
1. Compare your confidence in your ability to execute the skills necessary to be successful with that of the most confident athlete you know.	1	2	3	4	5	6	7	8	9
2. Compare your confidence in your ability to perform under pressure with that of the most confident athlete you know.	1	2	3	4	5	6	7	8	9

State Sport Confidence Inventory

	Low			Medium			High		
1. Compare the confidence you feel right now in your ability to execute the skills necessary to be successful with that of the most confident athlete you know.	1	2	3	4	5	6	7	8	9
2. Compare the confidence you feel right now in your ability to perform under pressure with that of the most confident athlete you know.	1	2	3	4	5	6	7	8	9

for measuring how anxious a person usually feels before taking exams (i.e., test anxiety). This situation-specific scale could predict anxiety right before exams (state anxiety) better than a general test of trait anxiety could.

Key Point

We can predict behavior better when we have more knowledge of the specific situation and the ways individuals respond to particular types of situations.

www | **Activity 3.3 allows you to measure your trait sport confidence.**

Sport-Specific Measures

Now look at some of the questions and response formats from the Test of Attentional and Interpersonal

Style (Nideffer, 1976) and the Profile of Mood States (McNair, Lorr, & Droppleman, 1971). Notice that the questions do not directly relate to sport or physical activity. Rather, they are general and more about overall attentional styles and mood.

Key Point

Sport-specific measures of personality predict behavior in sport settings better than do general personality tests.

Historically, almost all of the trait and state measures of personality in sport psychology came from general psychological inventories that did not specifically reference sport or physical activity. This is not the case today as a number of sport-specific tests have been developed. Sport-specific tests provide more reliable and valid measures of personality traits and states in sport and exercise

Test of Attentional and Interpersonal Style

Using the following scale, please indicate the answer that most closely fits the way you see yourself.

0 = Never 1 = Rarely 2 = Sometimes 3 = Frequently 4 = Always

- _____ I get caught up in my thoughts and become oblivious to what is going on around me.
- _____ It is easy for me to direct my attention and focus narrowly on something.
- _____ I am good at rapidly scanning crowds and picking out a particular person or face.

Profile of Mood States

The following is a list of words that describe feelings people have. Indicate how you have been feeling this past week, including today.

0 = Not at all 1 = A little 2 = Moderately 3 = Quite a bit 4 = Extremely

- _____ Energetic _____ Full of pep _____ Tense
- _____ Fatigued _____ Annoyed _____ Confused

contexts. For example, rather than test how anxious you are before giving a speech or going out on a date, a coach might test how anxious you are before a competition (especially if excess anxiety proves detrimental to your performance). A sport-specific test of anxiety assesses precompetitive anxiety better than a general anxiety test does. Psychological inventories developed specifically for use in sport and physical activity settings include

- the Sport Competition Anxiety Test, which measures competitive trait anxiety (Martens, 1977);
- the Competitive State Anxiety Inventory-2, which measures precompetitive state anxiety (Martens, Burton, Vealey, Bump, & Smith, 1982); and
- the Trait-State Confidence Inventory, which measures sport confidence (Vealey, 1986).

Some tests have been developed for particular sports. These inventories can help identify a person's areas of psychological strength and weakness in that sport or physical activity. After gathering the results, a coach can advise players on how to build on their strengths and reduce or eliminate their weaknesses. An example of a sport-specific test is the Tennis Test of Attentional and Interpersonal Style (Van Schoyck & Grasha, 1981).

Using Psychological Measures

Feelings change before and during a competition. Usually states are assessed shortly before (within 30 minutes of) the onset of a competition or physical activity. Although a measurement can indicate how someone is feeling at that moment, these feelings might change during the competition. For example, Mateo's competitive state anxiety 30 minutes before playing a championship football game might be very high. However, once he takes a few good hits and gets into the flow of the game, his anxiety might drop to a moderate level. In the fourth quarter, Mateo's anxiety might increase again when the score is tied. We need to consider such fluctuations when evaluating personality and reactions to competitive settings.

The knowledge of personality is critical to success as a coach, teacher, health care professional, or exercise leader. You may be tempted to use psychological tests to gather information about the people whom you want to help professionally. Bear in mind, however, that psychological inventories alone cannot actually predict athletic success.

Sample Items From the Tennis Test of Attentional and Interpersonal Style

Please check the answer that most closely fits the way you see yourself. Use the following scale:

0 = Never 1 = Rarely 2 = Sometimes 3 = Frequently 4 = Always

- _____ When playing tennis, I find myself distracted by the sights and sounds around me.
- _____ When playing doubles, I am aware of the movements and positions of all the players on the court.
- _____ I am good at quickly analyzing a tennis opponent and assessing strengths and weaknesses.

and they have sometimes been used unethically—or at least inappropriately—and administered poorly. It is essential that professionals understand the limitations and the uses and abuses of testing in order to know what to do and what not to do. A better approach to using personality measures is to identify athletes who might need greater support, to identify athletes and exercisers who might be more susceptible to disputes and clashes, and to help oneself as a physical activity leader or coach understand one's own personality (Allen et al., 2013).

You want to be able to make an informed decision—that is, to be an informed consumer—on how (or whether) to use personality tests. The following are important questions to consider about psychological testing:

- Should psychological tests be used to help select athletes for a team?
- What qualifies someone to administer psychological tests?

- Should coaches give psychological tests to their athletes?
- What types of psychological tests should be used with athletes?
- How should psychological tests be administered to athletes?

In 1999, the American Psychological Association and the National Council on Measurement in Education provided seven helpful guidelines on the use of psychological tests. We explain these guidelines briefly in the following sections.

Key Point

All psychological tests contain a degree of measurement error; use caution when interpreting their results.

Consider Traits and States to Understand Behavior

Julian is a trait confident person in general; he usually responds to situations with higher confidence than Tim, who is low trait-confident. As a coach you are interested in how confidence relates to performance, and you want to know how Tim and Julian are feeling immediately before a swimming race. Although Tim is not confident in general, he swam on his high school team and is confident in his swimming abilities. Consequently, his state of confidence right before the race is high. Conversely, although Julian is highly confident in general, he has had little swimming experience and is not even sure he can finish the race. Thus, his state confidence is low right before the race. If you measured only Tim's and Julian's trait confidence, you would be unable to predict how confident they feel before swimming. On the other hand, if you observed Tim's and Julian's state confidence in a different sport—baseball, for example—their results might be different.

This example demonstrates the need to consider both trait and state measures when investigating personality. State and trait levels alone are less significant than the difference between a person's current state level and trait level. This difference in scores represents the effect of situation factors on behavior. Julian's and Tim's state anxiety levels differed because of experience in swimming (a situational factor).

Know the Principles of Testing and Measurement Error

Before you administer and interpret psychological inventories you should understand testing principles, be able to recognize measurement errors, and have well-designed and validated measures. Not all psychological tests have been systematically developed and made reliable. Making predictions or drawing inferences about an athlete's or exerciser's behavior and personality structure on the basis of these tests would be misleading and unethical. Test results are not absolute or irrefutable. Even valid tests that have been reliably developed may have measurement errors. Suppose you wish to measure self-esteem in 10- to 12-year-old physical education students. You choose a good test developed for adults because no tests have been developed specifically for youngsters. If the students do not fully understand the questions, however, the results will not be reliable. Similarly, if you give a test developed on a predominantly white population to African American and Hispanic athletes, the results might be less reliable because of cultural differences. In these situations, a researcher should conduct pilot testing with the specific population to establish the reliability and validity of the test instrument.

People usually want to present themselves in a favorable light. Sometimes they answer questions in what they think is a socially desirable way, a response style known as "taking good." For example, an athlete may fear letting her coach know how nervous she gets before competition, so she skews her answers on a precompetition anxiety test in an attempt to appear calm, cool, and collected.

The American Psychological Association recommends that people administering tests be aware of the limitations of their training and preparation. However, some people do not recognize the limits of their knowledge, or they use and interpret test results unethically, which can be damaging to the athletes. For instance, it is inappropriate to use personality inventories developed to measure psychopathology (abnormality, such as schizophrenia or manic depression) to measure a more normal increase in anxiety. Furthermore, it is inappropriate to give physical education students a clinical personality test.

Do Not Use Psychological Tests for Team Selection

Using only psychological tests to select players for a team is an abuse because the tests are not accurate enough to be predictive. For example, determining whether an athlete has the "right" psychological profile to be a middle linebacker in football or a point guard in basketball on the basis of psychological tests alone is unfair. Some psychological tests may have limited use, but they must be considered in conjunction with physical performance measures, coach evaluations, and the actual levels of play. Using personality inventories alone to select athletes for a team or to cut them from a team is an abuse of testing that should not be tolerated. When psychological tests are used as part of a battery of measures to help in the athlete-selection process, three key conditions should always be kept in mind (Singer, 1988):

1. The particular test must be a valid and reliable measure.
2. The user must know what personality characteristics are key for success in the sport of interest and the ideal levels of those characteristics needed.
3. The user should know how much athletes can compensate in some characteristics for the lack of others.

Include Explanation and Feedback

Before they actually complete tests, athletes, students, and exercisers should be told the purpose of the tests, what they measure, and how the tests are going to be used. Athletes should receive specific feedback about the results to allow them to gain insight into themselves from the testing process.

Assure Athletes of Confidentiality

It is essential to assure people that their answers will remain confidential in whatever tests they take (and to ensure that this confidentiality is maintained). With this assurance, test takers are more likely to answer truthfully. When they fear exposure, they may fake or falsify

Individuals need special training (e.g., certification, course work) in psychological assessment to be qualified to interpret results from personality tests.

Key Point

their answers, which can distort the findings and make interpretation virtually useless. Students in a physical education class might wonder if a test will affect their grades, and in these circumstances they are more likely to exaggerate their strengths and minimize their weaknesses. If you do not explain the reasons for testing, test takers typically become suspicious and wonder whether the coach will use the test to help select starters or weed out players.

Take an Intraindividual Approach

It is often a mistake to compare an athlete's psychological test results with the norms, even though in some cases such a comparison might be useful. Athletes or exercisers might seem to score high or low in anxiety, self-confidence, or motivation in relation to other people, but the more critical point is how they are feeling relative to how they usually feel (an **intraindividual approach**). Use this psychological information to help them perform better and enjoy the experience more, but relative to their own standards, not the scores of others.

Take the example of assessing an exerciser's motivation. It isn't as important to know whether the indi-

vidual's motivation to exercise is high or low compared to that of other exercisers as much as how it compares with competing motivations that particular exerciser has (e.g., being with his family or carrying out his job responsibilities).

Understand and Assess Specific Personality Components

A clear understanding of the components of personality provides you with some perspective for using and interpreting psychological tests. For example, to measure someone's personality, you would certainly be interested in her psychological core. You would select specific types of tests to gain an accurate understanding of the various aspects of her personality. To measure more subconscious and deeper aspects of personality, you could use a projective test, for example. **Projective tests** usually include pictures or written situations, and the test takers are asked to project their feelings and thoughts about these materials. Hence, someone might be shown a photo of an exhausted runner crossing a finish line at the end of a highly contested cross country race and then be asked to write about what is happening. A high-achieving,

Dos and Don'ts in Personality Testing

Do

- Inform participants about the purpose of the personality test and exactly how it will be used.
- Allow only qualified individuals who have an understanding of testing principles and measurement error to give personality tests.
- Integrate personality test results with other information obtained about the participant.
- Use sport- and exercise-specific tests whenever possible, giving these tests in consultation with a sport psychologist.
- Use both state and trait measures of personality.
- Provide participants with specific feedback concerning the results of the test.
- Compare individuals against their own baseline levels rather than against normative information.

Don't

- Do not use clinical personality tests that focus on abnormality to study an average population of sport and exercise participants.
- Do not use personality tests to decide who makes a team or program and who doesn't.
- Do not give or interpret personality tests unless you are qualified to do so by the American Psychological Association or another certifying organization.
- Do not use personality tests to predict behavior in sport and exercise settings without considering other sources of information, such as observational data and performance assessments.

confident person might emphasize how the runner made an all-out effort to achieve her goal, whereas a low achiever might project feelings of sorrow for losing the race in a close finish.

Projective tests are interesting, but they are often difficult to score and interpret. Consequently, sport psychologists usually assess personality in sport by looking at typical responses invoked by the actual situation they are interested in. For instance, coaches want to know more than whether an athlete is generally anxious—they also want to know how the athlete deals with competitive anxiety. So a test that measures anxiety in sport would be more useful to a coach or sport psychologist than would a test that measures anxiety in general. Likewise, a test that measures motivation for exercise would be more useful to an exercise leader than a general motivation test would be.

Focusing on Personality Research

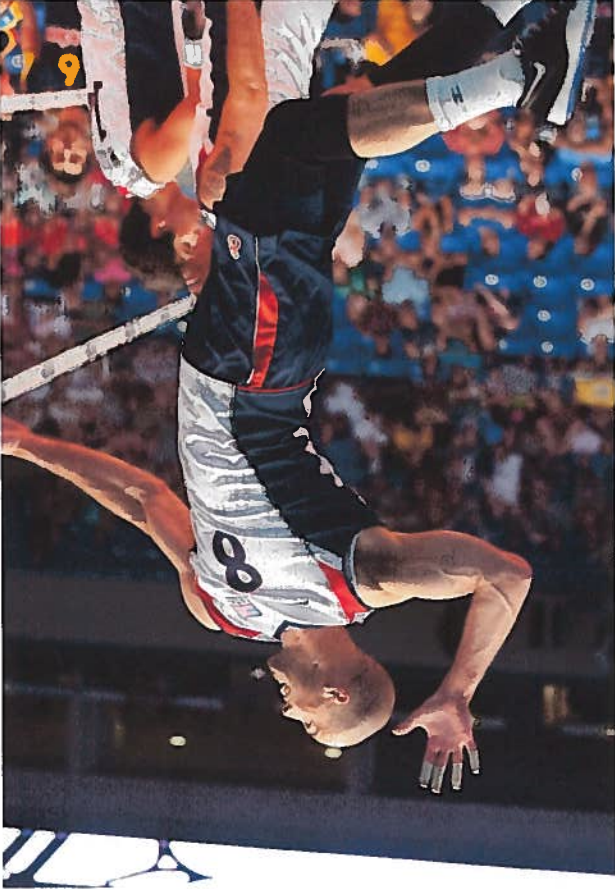
The research from the 1960s and 1970s yielded few useful conclusions about the relationship of personality to sport performance. In part these meager results stemmed from methodological, statistical, and interpretive problems, which we discuss later. Researchers were divided into two camps. Morgan (1980) described one group as taking a credulous viewpoint; that is, these researchers believed that personality is closely related to athletic success. The other group, he said, had a skeptical viewpoint and argued that personality is not related to athletic success.

Neither the credulous nor the skeptical viewpoint appears to have proved correct. Rather, some relationship exists between personality and sport performance and exercise involvement, but it is far from perfect. That is, although personality traits and states can help predict sport behavior and success, they account for only some of the behavior and may not be as precise as hoped. For example, the fact that some Olympic long-distance runners exhibit introverted personalities does not mean that a long-distance runner needs to be introverted to be successful. Similarly, although many successful middle linebackers in football have aggressive personalities, other successful middle linebackers do not.

We now turn our focus to the research on personality, sport performance, and sport preference. But remember that personality alone doesn't account for behavior in sport and exercise. Some caution is needed in interpreting the findings of personality research because an attribution or assumption of cause-and-effect relationships between personality and performance was a problem in many of the early studies.

Athletes and Nonathletes

Try to define an athlete. It isn't easy. Is an athlete someone who plays on a varsity or interscholastic team? Someone who demonstrates a certain level of skill? Who jogs daily to lose weight? Who plays professional sports? Who plays intramural sports? Keep this ambiguity in mind as you read about studies that have compared personality traits of athletes and nonathletes. Such ambiguity in definitions has weakened this research and clouded its interpretation.



Traits that are desirable for sport—such as independence and assertiveness—are not specific to either men or women. All good athletes must possess these personality traits.

Key Point

Consistent personality differences distinguish athletes from nonathletes. However, these differences tend to be very small.

For years it was thought that few consistent differences existed between athletes and nonathletes on personality measures. However, recent reviews of literature have concluded that because of better measures and conceptual approaches used by researchers, consistent differences do emerge (Allen et al., 2013; Allen & Labode, 2014) with athletes being more extraverted and conscientious and less neurotic than nonathletes. However, these differences tend to be very small. It's also possible that certain personality types are drawn to a particular sport, rather than participation in a sport somehow changing one's personality.

Female Athletes

As more women compete in sport, we need to understand the personality profiles of female athletes. In 1980, Williams found that successful female athletes differed markedly from the normative female in terms of personality profile. Compared with female nonathletes, female athletes were more achievement oriented, independent, aggressive, emotionally stable, and assertive. Most of these traits are desirable for sport. Apparently, outstanding athletes have similar personality characteristics regardless of whether they are male or female.

Key Point

Few personality differences are evident between male and female athletes, particularly at the elite level.

Positive Mental Health and the Iceberg Profile

After comparing personality traits of more successful athletes with those of less successful athletes using a measure called the Profile of Mood States (POMS), Morgan developed a **mental health model** that he reported to be effective in predicting athletic success (Morgan, 1979, 1980; Morgan, Brown, Raglin, O'Connor, & Ellickson, 1987). Basically, the model suggests that positive mental health as assessed by a certain pattern of POMS scores is directly related to athletic success and high levels of performance.

Morgan's model predicts that an athlete who scores above the norm on the POMS subscales of neuroticism, depression, fatigue, confusion, and anger and below the norm on vigor will tend to pale in comparison with an athlete who scores below the norm on all of these traits

except vigor, instead scoring above the norm on vigor. Successful elite athletes in a variety of sports (e.g., swimmers, wrestlers, oarsmen, and runners) are characterized by what Morgan called the **iceberg profile**, which reflects positive mental health. The iceberg profile of a successful elite athlete shows vigor above the mean of the population and tension, depression, anger, fatigue, and confusion below the mean of the population (figure 3.2a). The profile looks like an iceberg in that all negative traits are below the surface (population norms) and the one positive trait (vigor) is above the surface. In contrast, less successful elite athletes have a flat profile, scoring at or below the 50th percentile on nearly all psychological factors (figure 3.2b). According to Morgan, this reflects negative mental health.

Key Point

Morgan's mental health model proposes that successful athletes exhibit greater positive mental health than less successful (or unsuccessful) athletes exhibit.

Performance Predictions

Morgan (1979) psychologically evaluated 16 candidates for the 1974 U.S. heavyweight rowing team using the POMS, correctly predicting 10 of the 16 finalists. Success with this and similar studies led Morgan to conclude that more successful athletes exhibit the iceberg profile and more positive mental health than those who are less successful. You might think that these impressive statistics mean you should use psychological tests for selecting athletes for a team. However, as you will later read, most sport psychologists vehemently oppose using psychological tests for team selection and, in fact, Morgan did not think the test should be used for selection purposes. Personality testing is far from perfect (only 10 of 16 rowers were correctly predicted), and use of testing for selection might mean that athletes will be unfairly and erroneously selected for or cut from a team.

Key Point

Tests can help identify an athlete's psychological strengths and weaknesses, and this information can be used to develop appropriate training in psychological skills.

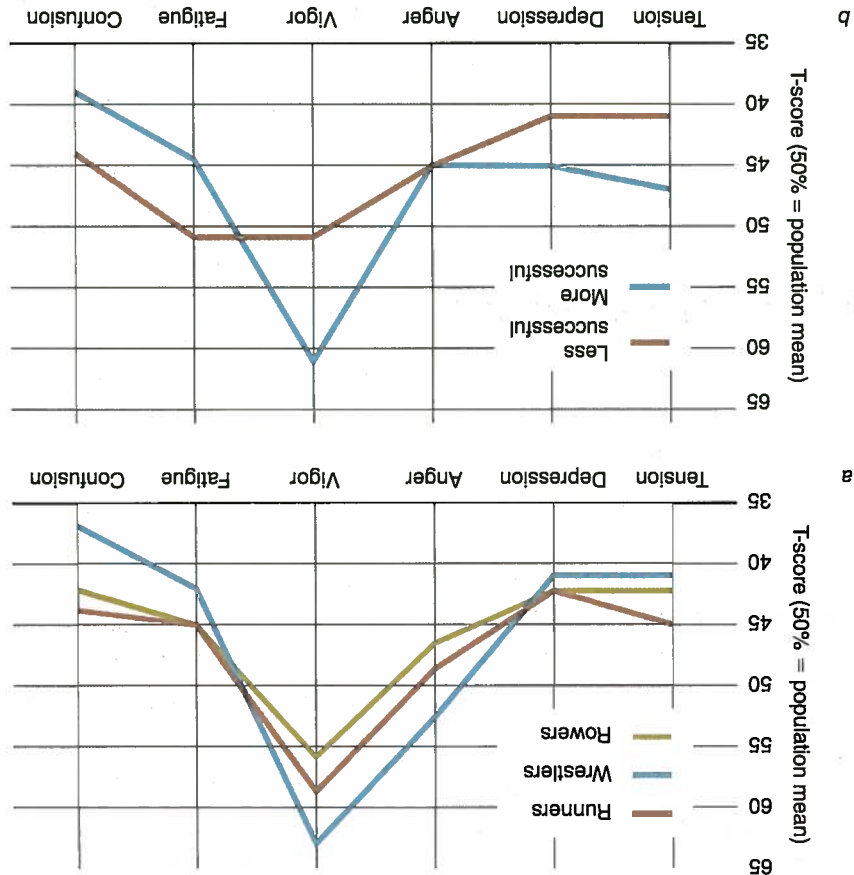


FIGURE 3.2 (a) Iceberg profiles for elite runners, distance runners, and rowers. (b) Psychological profiles of more and less successful elite athletes.

Adapted by permission from W. Morgan, *Coach, Athlete and the Sport Psychologist* (Toronto: University of Toronto School of Physical and Health Education, 1979), 185. By permission of W. Morgan.

Although Morgan's mental health (iceberg profile) model is still supported in the literature (Raglin, 2001), it has received criticism (Trapavassis, 2000; Renger, 1993; Renger, Landers, Kylo, & Ermer, 1995; Terry, 1995). Renger (1993), for instance, believed that results had been misinterpreted. According to Renger, evidence was insufficient to conclude that the profile differentiates athletes of varying levels of ability; instead, it distinguished only athletes from nonathletes. Similarly, Rowley and colleagues (1995) conducted a statistical review (called a *meta-analysis*) of all the iceberg profile research and found that the profile did indeed differentiate successful from less successful athletes but accounted for a very small percentage (less than 1%) of their performance variation. Rowley and colleagues warned that the evidence does not justify using the instrument as a basis for team selection and that users must be careful to protect against social desirability effects (e.g., participants "faking good" to impress their coaches). Terry (1995) also warned that

the POMS is not a test for "identifying champions," as Morgan had originally proposed in his iceberg profile model of mental health. At the same time, according to Terry, this does not imply that the test is useless. He indicated that optimal mood profiles are most likely sport dependent; therefore, mood changes in athletes should be compared with the athletes' previous mood levels and not with large-group norms. Drawing on research and his experience in consulting with athletes, Terry recommended that the POMS test be used in the following ways:

- To monitor the athlete's mind-set
- To catalyze discussion during one-on-one sessions
- To improve one's mood over time
- To identify problems early
- To monitor the mood of team officials and support staff

- To monitor training load (see chapter 22 for more details)
- To monitor an athlete during the acclimatization process
- To identify overtrained athletes (see chapter 22)
- To monitor an athlete during rehabilitation from overtraining (see chapter 22)
- To monitor emotional responses to injury (see chapter 20)
- To predict performance (but not for athlete selection)
- To individualize mental training

Thus, iceberg profile research clearly has implications for professional practice. However, the criticisms of this research have shown that it is not possible to realistically select teams or accurately predict major variations in athletic performance on the simple basis of giving a personality measure. Personality data of this type, however, have useful purposes. Such data can help sport psychologists discover the kinds of psychological traits and states associated with successful athletes, and once these psychological factors are understood, athletes can work with sport psychologists and coaches to develop psychological skills for improving performance. For example, psychological skills training (see chapters 12–17) can help exercisers and athletes cope more effectively with anger and anxiety.

In summary, personality tests are useful tools that help us better understand, monitor, and work with athletes and exercisers. They are not magical instruments that allow us to make sweeping generalizations about individuals' behaviors and performances.

Exercise and Personality

Sport psychologists have investigated the relationship between exercise and personality. We will begin by briefly summarizing the research on the relationship between the Big 5 personality traits and physical activity involvement. The relationship between exercise and two personality dispositions, type A behavior and self-concept, will then be briefly reviewed.

Big 5 Personality Correlates of Physical Activity

The relationship between physical activity involvement and the Big 5 personality traits of neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness has been examined in a variety of studies. A meta-analysis of 33 of these studies revealed

that extraversion and conscientiousness are positively related to physical activity involvement, while neuroticism is negatively related (Rhodes & Smith, 2006). This makes sense as people who are more sociable or outgoing and more self-disciplined and achievement oriented are more likely to exercise, while those who are depressed and anxious are not. However, similar to the relationship between personality measures and athletic involvement, these associations are relatively small and mostly correlational. Few cause–effect relationships have been established. This has lead reviewers to conclude that “behavioral action is unlikely to arise directly from personality” and the greatest contribution will come from looking at how other personality constructs interact with environment considerations to produce behavior (Rhodes & Smith, 2006, p. 963).

Grit

In her best-selling book *Grit: The Power of Passion and Perseverance*, psychologist Angela Duckworth (2016) introduced the notion of grit, an important personality characteristic related to the pursuit of goals in many fields. Grit is defined as “. . . trait-level perseverance and passion for long-term goals” (Duckworth & Quinn, 2009, p. XX). It involves maintaining interest and effort while strenuously working toward goals and challenges despite facing adversity, failure, and slow progress. Gritty individuals exhibit stamina when working toward achievement and maintain their effort over years.

A valid and reliable measure of grit has been developed, and in addition to an overall scale score, two subscales are assessed: consistency of one's interest and perseverance of effort (Duckworth, Peterson, Matthews & Kelly, 2007; Duckworth & Quinn, 2009). Duckworth and her colleagues studied a variety of populations in a variety of settings and found that within those settings, grittier individuals are less likely to drop out of the U.S. Military Academy at West Point, and more likely to stay married, spend time practicing spelling, and further their education (Duckworth, 2016).

While Duckworth discusses the importance of grit to sport success, only a few studies have begun to explore this relationship. In a study examining the predictive validity of grit in predicting West Point cadet attrition and performance, grit was found to predict physical and athletic performance (Kelly, Matthews, & Bartone, 2014). In a study of high- versus low-grit elite youth soccer players, Larkin, O'Connor, and Williams (2016) found that gritty players engaged in significantly more training, competition, play, and indirect soccer involvement. The grittier players were also found to perform better than their less

gility counterparts on perceptual-cognitive skills tests. Although additional studies are needed, initial evidence points to the importance of grit in predicting athlete and exerciser performance and motivation.

Type A Behavior

The type A behavior pattern is characterized by a strong sense of urgency, an excess of competitive drive, and an easily aroused hostility. The antithesis of the type A behavior pattern is called type B. Initially, a link was found between type A behavior and increased incidence of cardiovascular disease. Later, it was suspected that the anger-hostility component of the type A construct is the most significant disease-related characteristic. Although the causes of type A behavior have not been conclusively determined, considerable evidence points to the socio-cultural environment, such as parental expectations of high standards in performance, as the likely origin (Giradano, Everly, & Dusek, 1990).

Early efforts to modify type A behavior through exercise interventions have had mixed results. One positive study showed that a 12-week aerobic program not only was associated with reductions in type A behavior but also helped participants significantly reduce cardiovascular reactivity to mental stress (Blumenthal et al., 1988). Thus, changing type A behavior patterns through exercise could result in positive health benefits.

Key Point

Type A behavioral patterns apparently can be altered through exercise, and this can reduce the risk of cardiovascular disease.

Self-Concept

Exercise appears to also have a positive relationship with self-concept (Biddle, 1995; Marsh & Redman, 1994; Sonstroem, 1984; Sonstroem, Harlow, & Josephs, 1994). Sonstroem (1984) suggested that these changes in self-concept might be associated with the *perception* of improved fitness rather than with actual changes in physical fitness. Although studies so far have not proved that changes in physical fitness produce changes in self-concept, exercise programs seem to lead to significant increases in self-esteem, especially with subjects who initially show low self-esteem. For example, Martin, Waldron, McCabe, and Yun (2009) found that girls participating in the Girls on the Run program had positive changes in their global self-esteem and in appearance, peer, physical, and running self-concepts.

Examining Cognitive Strategies and Success

Parallel to the sport personality research, the exercise and self-concept research has shown that it is best to think of self-concept or self-esteem not only as a general trait (global self-esteem) but also as one that includes numerous content-specific dimensions, such as social self-concept, academic self-concept, and physical self-concept. As you might expect, research shows that exercise participation has the greatest effect on the physical dimension of self-concept (Fox, 1997; Marsh & Sonstroem, 1995; Spence, McGannon, & Poon, 2005). This relationship is discussed further in chapter 18.

Key Point

Exercise and increased levels of fitness appear to be associated with increases in self-esteem, especially among individuals initially low in self-esteem.

Although some differences are evident among the personality traits and dispositions of athletes and exercisers, researchers have not been satisfied with the utility of the information thus far. For this reason, many contemporary investigators have adopted the phenomenological approach to studying personality and turned from studying traditional traits to examining mental strategies, skills, and behaviors that athletes use for competition and their relationship to performance success (Gould & Maynard, 2009; Sijmami et al., 2016; Tod, Edwards, & McGuigan & Lovell, 2015). One of the first studies to take this approach was an investigation by Mahoney and Avenier (1977) of gymnasts competing for berths on the U.S. men's gymnastics team. The authors found that the gymnasts who made the team coped better with anxiety, used more internal imagery, and used more positive self-talk than those who didn't make the team.

Key Point

Olympic medalists, unlike nonmedalists, internalize their strategies to the extent that they react automatically to adversity.

Smith, Schutz, Smoll, and Ptacek (1995) developed and validated a measure of sport-specific psychological skills, the Athletic Coping Skills Inventory–28 (ACSI). The ACSI yields an overall score of an athlete's psychological skills as well as scores on the following seven subscales:

1. Coping with adversity
2. Peaking under pressure
3. Goal setting and mental preparation
4. Concentration
5. Freedom from worry
6. Confidence and achievement motivation
7. Coachability

Smith and colleagues examined the relationship between the overall scale and subscale scores and athletic performance in two studies. In the first study (Smith et al., 1995), 762 high school male and female athletes representing a variety of sports completed the ACSI. They were classified as underachievers (those who had a coach's talent rating that was higher than their actual performance ratings), normal achievers (those whose ratings were equal to their actual performance), and overachievers (those who were rated by their coaches as performing above their talent level). The study showed that, compared with the other groups, the overachieving athletes had significantly higher scores on several subscales (coachability, concentration, coping with adversity) as well as higher total scale scores. These results show that psychological skills can assist athletes in getting the most out of their physical talent.

The sample in the second study (Smith & Christensen, 1995) was a quite different group of athletes: 104 minor league professional baseball players. Scores on the ACSI were related to such performance measures as batting averages for hitters and earned run averages for pitchers. Interestingly, as with the high school athletes from the first study, expert ratings of *physical* skills did not relate to ACSI scores. Moreover, psychological skills accounted for a significant portion of performance variations in batting and pitching, and these skills contributed even more than physical ability. (Remember that these were all highly skilled and talented athletes, so this does not mean that physical talent is unimportant.) Finally, higher psychological skill scores were associated with player survival or continued involvement in professional baseball 2 and 3 years later. Thus, performance in elite sport appeared to be clearly related to mental skills.

A third study using the ACSI was conducted with Greek athletes (basketball, polo, and volleyball) at both

the elite and nonelite levels (Kioumourtzoglou, Tzetzis, Derri, & Mihalopoulou, 1997). It revealed a number of differences, most notably that the elite athletes all showed superior ability, compared with the nonelite controls, to cope with adversity. The elite athletes were also better at goal setting and mental preparation.

Although Smith and colleagues (1995) acknowledged that the ACSI is a useful measurement tool for research and educational purposes, they warned that it should not be used for team selection. They argued that if athletes think the ACSI is being used for selection purposes, they are likely to knowingly give answers that will make themselves look good to coaches or to unwittingly give certain responses in hopes that they will become true.

The association between cognitive strategies and performance is supported by additional studies. Reviews of the literature have shown that cognitive strategies improve soccer performance (Slimani et al., 2016) and performance on strength, endurance, and muscular power tasks (Tod et al., 2015).

In-Depth Interview Techniques

Researchers have also attempted to investigate the differences between successful and less successful athletes by taking a **qualitative approach** (a growing methodological trend in the field, as mentioned in chapter 2). In-depth interviews probe the coping strategies that athletes use before and during competition. The interview approach provides coaches, athletes, and sport psychologists with much more in-depth personality profiles of an athlete than do paper-and-pencil tests. For example, all 20 members of the 1988 U.S. Olympic freestyle and Greco-Roman wrestling teams were interviewed. Compared with nonmedalist wrestlers, Olympic medal winners used more positive self-talk, had a narrower and more immediate focus of attention, were better prepared mentally for unforeseen negative circumstances, and had more extensive mental practice (Gould, Eklund, & Jackson, 1993).

One wrestler described his ability to react automatically to adversity:

“Something I've always practiced is to never let anything interfere with what I'm trying to accomplish at a particular tournament. So, what I try to do is if something is [maybe going] to bother me . . . completely empty my mind and concentrate on the event coming up My coping strategy is just to completely eliminate it from my mind, and I guess I'm blessed to be able to do that. (Gould et al., 1993)”

Medalists seemed able to maintain a relatively stable and positive emotional level because their coping strategies became automatic, whereas nonmedalists had more fluctuating emotions as a consequence of not coping well mentally. Take the following example of a nonmedalist Olympic wrestler:

“I had a relaxation tape that seemed to give me moments of relief . . . it got to the point where what you would try to do was not think about wrestling and get your mind on other things. But inevitably . . . you would bind up and get tight, [your] pulse would pick up, and your palms and legs and hands or feet [would be] sweating. You go through that trying to sleep, and I would resort to my relaxation tape. I don't think I coped very well with it really. (Gould et al., 1993)”

Mental Plans

Mental planning is a large part of cognitive strategies. Additional quotes from Olympic athletes may help further explain the benefits and workings of the mental strategies mentioned by the wrestlers just quoted (Orlick & Partington, 1988):

“The plan or program was already in my head. For the race I was on automatic, like turning the program on cruise control and letting it run. I was aware of the effort I was putting in and also of my opponent's position in relation to me, but I always focused on what I had to do next.”

growth.

Olympic athletes learn a systematic series of mental strategies to use before and during competition, including refocusing plans. Thus, they come prepared mentally not only to perform but also to handle distractions and unforeseen events before and during the competition (Gould & Maynard, 2009; Orlick & Partington, 1988). These mental plans especially help athletes whose sense of control (a personality trait) is low; the plans allow them to feel more in control regardless of situational influences. Figure 3.3 provides an example of a detailed refocusing plan for a Canadian Olympic swimmer.

“I usually try to work with my visualization on what it is I'm likely going to use. Different wrestlers have different moves, you know. They always like to throw a right arm spin or something, and I'll visualize myself blocking that and things like that.”

“Before I start, I focus on relaxing, on breathing calmly. I feel activated but in control since I'd been thinking about what I was going to do in the race all through the warm-up. I used the period just before the start to clear my mind, so when I did actually start the race all my thoughts about what I would be doing in the race could be uncluttered.”

Mental Strategies Used by Successful Athletes

- To enhance confidence, successful athletes practice specific plans for dealing with adversity during competition.
- They practice routines for dealing with unusual circumstances and distractions before and during a competition.
- They concentrate wholly on the upcoming performance, blocking out irrelevant events and thoughts.
- They use several mental rehearsals before competition.
- They don't worry about other competitors before a competition and focus instead on what is controllable.
- They develop detailed competition plans.
- They learn to regulate arousal and anxiety.

Situation	Strategy
Late arrival to venue	Use imagery to simulate swimming fast while driving in van, stretch in van, check and make sure equipment (e.g., suit, goggles) are ready, condense normal warm-up exercises, remind self that you have raced well before upon arriving late, breathe and follow normal prerace routine
Delay in start	Stay warm and do some light stretching when waiting Relax and think of things that make you happy or keep you positive
False start by competitor	Climb back on pool deck, step behind blocks, do several stretches, implement normal prerace routine from stepping onto block
Poor start of race	Visualize flushing mistake out as you exhale, focus on your stroke rhythm, say "Relax and go"
Mistake during race	Visualize flushing mistake out as you exhale, repeat motivational phrases ("Go, go, go")
Poor performance in event	Allow yourself five minutes to be mad, think about what happened, and what, if anything, needs to change; touch wall and visualize transferring the bad race and associated thoughts onto the wall

FIGURE 3.3 Refocusing plan for an Olympic swimmer.



Activity 3.4 helps you better comprehend how cognitive strategies influence athletic performance.

Identifying Your Role in Understanding Personality

Now that you have learned something about the study of personality in sport and exercise settings, how can you use the information to better understand the individ-

uals in your classes and on your teams? Later chapters explore the practical aspects of changing behaviors and developing psychological skills. In the meantime, use these guidelines to help you better understand the people with whom you work now and to consolidate what you have learned about personality structure.

1. *Consider both personality traits and situations.* To understand someone's behavior, consider both the person and the situation. Along with understanding personality, always take into account the particular situation in which you are teaching or coaching.

LEARNING AIDS

SUMMARY

1. Describe what makes up personality and why it is important.
Personality refers to the characteristics or blend of characteristics that makes individuals unique. It comprises three separate but related levels: a psychological core, the most basic and stable level of personality; typical responses, or the ways each person learns to adjust to the environment; and role-related behaviors, or how a person acts based on what she perceives the situation to be. Role-related behavior is the most changeable aspect of personality. Understanding personality will help you improve your teaching and coaching effectiveness.
2. Discuss major approaches to understanding personality.
Six major routes to studying personality in sport and exercise are the psychodynamic, trait, situation, interactional, phenomenological, and integrative, or biopsychosocial, approaches. The psychodynamic approach emphasizes the importance of unconscious determinants of behavior and of understanding

Given recent advances in genetic research and testing, the question of whether personality is determined genetically (by nature) or through the environment (by nurture) is highly relevant to sport and physical activity professionals. Although this issue has not been studied in sport and exercise psychology per se, general psychological research shows that personality both has a genetic base (up to 60%) and that it is influenced by learning. Both extreme positions regarding nature versus nurture, then, are false. Genetics and the environment determine one's personality. Moreover, some research suggests that although we may be genetically predisposed to have certain characteristics, our environment influences whether and how much we manifest these characteristics. In sport and exercise psychology, then, we focus primary attention on learning and environmental influences because sport and exercise science professionals can influence personality development regardless of the role of genetics in personality.

A second critical question addressed in personality research focuses on the notion of whether certain individuals gravitate to specific sports because of their personality characteristics (the gravitation hypothesis) or whether one's personality changes as a result of participation in sport and physical activity (the change hypothesis). Although some evidence exists for both notions, neither has been convincingly demonstrated, most likely because both have an element of truth.

Nature Versus Nurture and Gravitation Versus Change

2. *Be an informed consumer.* To know how and when to use personality tests, understand the ethics and guidelines for personality testing. This chapter has provided guidelines. As a professional, it will be your responsibility to understand the dos and don'ts of personality testing.
3. *Be a good communicator.* Although formal personality testing can disclose a great deal about people, so can sincere and open communication. Asking questions and being a good listener can go a long way toward establishing rapport and finding out about an individual's personality and preferences. A more detailed discussion of communication is presented in chapter 11.
4. *Be a good observer.* Another good way to gain valuable information about people's personalities is to observe their behavior in different situations. If you combine your observation of an individual's behavior with open communication, you'll likely get a well-rounded view and understanding of his or her personality.
5. *Be knowledgeable about mental strategies.* A constellation of mental strategies facilitates the learning and performance of physical skills. Be aware of these strategies and implement them appropriately in your programs, selecting them to benefit an individual's personality.

the person as a whole. It has had little impact in sport psychology. The trait approach assumes that personality is enduring and consistent across situations and that psychological traits predispose individuals to behave in consistent ways regardless of the situation. In contrast, the situational approach argues that behavior is determined largely by the environment or situation. Neither the trait nor the situational approach has received widespread support in the sport psychology literature. Most researchers take an interactional approach to the study of sport personality, which considers personal and situational factors as equal determinants of behavior. The phenomenological approach focuses on a person's understanding and subjective interpretation of himself and his environment versus fixed traits. This highly held view is also consistent with the interactional view in that behavior is believed to be determined by personal and situational factors. The integrative, or biopsychosocial, approach contends that to understand personality, one needs to consider the dynamic interaction of biological factors, dispositional traits, adaptations one makes to situations, and self-defined life stories or narratives that are all situated in one's social context or culture.

3. Identify how personality can be measured.

To measure personality, an interactional approach should assess both psychological traits (an individual's typical style of behaving) and states (the situation's effects on behaviors). Although general personality scales provide some useful information about personality states and traits, situation-specific measures (e.g., sport-specific measures) predict behavior more reliably.

4. Assess personality tests and research for practicality and validity.

Although useful, psychological tests alone have not proved to be accurate predictors of athletic success. And when they are used, they must be used ethically. Users of personality tests must know the principles of testing and measurement error, know their own limitations relative to test administration and interpretation, avoid using tests alone for team selection, always give athletes test explanations and feedback, assure athletes of confidentiality, take an intraindividual approach to testing, and understand and assess specific personality components.

5. Understand the relationship between personality and behavior in sport and exercise.

Exercise has been found to enhance self-concept, especially the physical component of one's self. Type A behavior has been shown to be an important personality factor influencing wellness. Although some personality differences have been found through comparison of athletes with nonathletes and comparison of athletes from different sports, the most interesting and consistent findings come from comparisons of less successful athletes with more successful athletes exhibiting more positive mental health. These results, however, have limited application.

6. Describe how cognitive strategies relate to athletic success.

Over the last several decades, researchers have turned their attention away from measuring traditional traits and toward examining the cognitive or mental strategies, skills, and behaviors that athletes use. Successful athletes, compared with their less successful counterparts, possess a variety of psychological skills. These include arousal regulation and management, high self-confidence, better concentration and focus, feelings of being in control and not forcing things, positive imagery and thoughts, commitment and determination, goal setting, well-developed mental plans, and well-developed coping strategies.

7. Apply what you know of personality in sport and exercise settings to better understand people's personalities.

As a professional in sport and exercise, you need to gather information about the personalities of people with whom you work. Specifically, consider both personality traits and situations, be an informed consumer, communicate with athletes, observe your subjects, and be knowledgeable about mental strategies.

KEY TERMS

psychological core
typical responses
role-related behavior
psychodynamic approach
trait approach
maladaptive, or unhealthy,
perfectionism

adaptive, or healthy,
perfectionism
situation approach
interactional approach
phenomenological approach
integrative, or biopsychosocial,
approach

situation-specific measures
intraindividual approach
projective tests
mental health model
iceberg profile
meta-analysis
qualitative approach

REVIEW QUESTIONS

1. Discuss the three levels of personality, including the stability of the different levels.
 2. Compare and contrast the psychodynamic, situation, trait, interactional, phenomenological, biopsychosocial, and integrative approaches to personality. Which approaches are most common among sport psychologists today? Why?
 3. Compare and contrast state and trait measures of personality. Why are both needed for a better understanding of personality in sport?
 4. Why are sport-specific personality inventories more desirable than general psychological inventories for measuring personality in sport and exercise? Name examples of both sport-specific and general personality measures.
 5. Discuss four important guidelines for administering psychological tests and providing feedback from the results of these tests.
 6. Discuss the research comparing the personalities of athletes and nonathletes and male and female athletes. Do athletes versus nonathletes and male versus female athletes have unique personality profiles?
 7. Discuss Morgan's mental health model and the iceberg profile as they relate to predicting athletic success. Can athletic success be predicted from psychological tests? Explain.
 8. What personality factors are related to exercise behavior?
 9. Compare and contrast the cognitive strategies of successful athletes with those of less successful athletes.
- CRITICAL THINKING QUESTIONS**
1. Should psychological tests be used for team selection? Explain your answer.
 2. What is your role in understanding personality? When might you consider using personality tests? Discuss other ways to assess participants' personalities.

Motivation

After reading this chapter, you should be able to

1. define motivation and its components,
2. describe typical views of motivation and whether they are useful,
3. detail useful guidelines for building motivation,
4. define achievement motivation and competitiveness and indicate why they are important,
5. compare and contrast theories of achievement motivation,
6. explain how achievement motivation develops, and
7. use fundamentals of achievement motivation to guide practice.

Fernando is a cocaptain and center on his high school football team. His team does not have outstanding talent, but if everyone gives maximum effort and plays together, the team should have a successful season. When the team's record slips below .500, however, Fernando becomes frustrated with some of his teammates who don't seem to try as hard as he does. Despite being more talented than he, these players don't seek out challenges, are not as motivated, and often give up in the presence of adversity. Fernando wonders what he can do to motivate some of his teammates.

Like Fernando, teachers, coaches, and exercise leaders often wonder why some individuals are highly motivated and constantly strive for success, whereas others seem to lack motivation and avoid evaluation and competition. In fact, coaches frequently try to motivate athletes with inspirational slogans: "Winners never quit!" "Go hard or go home!" "Give 110%!" Physical educators also want to motivate inactive children, who often seem more

interested in playing computer games than volleyball. Exercise leaders and physical therapists routinely face the challenge of motivating clients to stay with an exercise or rehabilitation program. Although motivation is critical to the success of all these professionals, many do not understand the subject well. To have success as a teacher, coach, or exercise leader requires a thorough understanding of motivation, including the factors affecting it and the methods of enhancing it in individuals and groups. Often the ability to motivate people, rather than the technical knowledge of a sport or physical activity, is what separates the very good instructors from the average ones. In this chapter, we introduce you to the topic of motivation.

Defining Motivation

Motivation can be defined simply as the direction and intensity of one's effort (Sage, 1977). Sport and exercise

psychologists can view motivation from several specific vantage points, including achievement motivation, motivation in the form of competitive stress (see chapter 5), and intrinsic and extrinsic motivation (see chapter 7). These varied forms of motivation are all parts of the more general definition of motivation. Hence, we understand the specifics of motivation through this broader, holistic context, much as a football coach views specific plays from the perspective of a larger game plan or offensive or defensive philosophy. But what exactly do these components of motivation—direction of effort and intensity of effort—involve?

- **Direction of effort** refers to whether an individual seeks out, approaches, or is attracted to certain situations. For example, a high school student may be motivated to go out for the tennis team, a coach to attend a coaching clinic, a businesswoman to join an aerobics class, or an injured athlete to seek medical treatment.
- **Intensity of effort** refers to how much effort a person puts forth in a particular situation. For instance, a student may attend physical education class (approach a situation) but not put forth much effort during class. On the other hand, a golfer may want to make a winning putt so badly that he becomes overly motivated, tightens up, and performs poorly.

Key Point

Motivation is the direction and intensity of effort.

Although for discussion purposes it is convenient to separate the direction of effort from the intensity of effort, for most people direction and intensity of effort are closely related. For instance, students or athletes who seldom miss class or practice and always arrive early typically expend great effort during participation. Conversely, those who are consistently tardy and miss many classes or practices often exhibit low effort when in attendance.

Reviewing Three Approaches to Motivation

Each of us develops a personal view of how motivation works, our own model on what motivates people. We are likely to do this by learning what motivates *us* and by observing how other people are motivated. For instance,

if someone has a physical education teacher she likes and believes is successful, she will probably try to use or emulate many of the same motivational strategies that the teacher uses.

Moreover, people often act out their personal views of motivation, both consciously and subconsciously. A coach, for example, might make a conscious effort to motivate students by giving them positive feedback and encouragement. Another coach, believing that people are primarily responsible for their own behaviors, might spend little time creating situations that enhance motivation.

Although thousands of individual views exist, most people fit motivation into one of three general orientations that parallel the approaches to personality discussed in chapter 3:

1. Trait-centered orientation or view
2. Situation-centered orientation or view
3. Interactional orientation or view

Trait-Centered View

The **trait-centered view** (also called the **participation-centered view**) contends that motivated behavior is primarily a function of individual characteristics. That is, the personality, needs, and goals of a student, athlete, or exerciser are the primary determinants of motivated behavior. Thus, coaches often describe an athlete as a “real winner,” implying that this individual has a personal makeup that allows him to excel in sport. Similarly, another athlete may be described as a “loser” who has no get-up-and-go.

Some people have personal attributes that seem to predispose them to success and high levels of motivation, whereas others seem to lack motivation, personal goals, and desire. However, most of us would agree that we are in part affected by the situations in which we are placed. For example, if a physical therapist does not create a motivating rehabilitation environment, client motivation will consequently decline. Conversely, an excellent physical therapist who creates a positive environment will greatly increase motivation. Thus, ignoring environmental influences on motivation is unrealistic and is one reason sport and exercise psychologists have not endorsed the trait-centered view for guiding professional practice.

Situation-Centered View

In direct contrast to the trait-centered view, the **situation-centered view** contends that motivation level is

determined primarily by situation. For example, Brittany might be motivated in her aerobic exercise class but unmotivated in a competitive sport situation.

Probably you would agree that situation influences motivation, but can you also recall situations in which you remained motivated despite a negative environment? For example, maybe you played for a coach you didn't like who constantly yelled at and criticized you, but still you did not quit the team or lose your motivation. In such a case, the situation was clearly not the primary factor influencing your motivation level. For this reason, sport and exercise psychology specialists do not recommend the situation-centered view of motivation as the most effective for guiding practice.

Interactional View

The view of motivation most widely endorsed by sport and exercise psychologists today is the participant-by-situation **interactional view**. It can be traced to the work of Kurt Lewin (1951) who formulated that behavior is a function of the person and situation. Interactionists contend that motivation results neither solely from participant factors (e.g., personality, needs, interests, and goals) nor solely from situational factors (e.g., a coach's or teacher's style or the win-loss record of a team). Rather, the best way to understand motivation is to examine how these two sets of factors interact (figure 4.1).

Key Point

The best way to understand motivation is to consider both the person and the situation and how the two interact.

Sorrentino and Sheppard (1978) studied 44 male and 33 female swimmers in three Canadian universities, testing them twice as they swam a 200-yard freestyle time trial individually and then as part of a relay team. The situational factor that the researchers assessed was whether each swimmer swam alone or as part of a relay team. The researchers also assessed a personality characteristic in the swimmers—their affiliation motivation, or the degree to which a person sees group involvement as an opportunity for social approval versus social rejection. The objective of the study was to see whether each swimmer was oriented more toward social approval (i.e., viewing competing with others as a positive state) or toward rejection (i.e., feeling threatened by an affiliation-oriented activity, such as a relay, in which she might let others down) and how their motivational orientation influenced their performance.

As the investigators predicted, the approval-oriented swimmers demonstrated faster times swimming in the relay than when swimming alone (figure 4.2). After all, they had a positive orientation toward seeking approval from others—their teammates. In contrast, the rejection-threatened swimmers, who were overly concerned with letting their teammates down, swam faster alone than when they swam in the relay.

From a coaching perspective, these findings show that the four fastest individual swimmers would not necessarily make the best relay team. Depending on the athletes' motivational orientation, some would perform best in a relay and others would perform best individually. Many experienced team-sport coaches agree that starting the most highly skilled athletes does not guarantee having the best team in the game.

The results of the swimming study clearly demonstrate the importance of the interactional model of

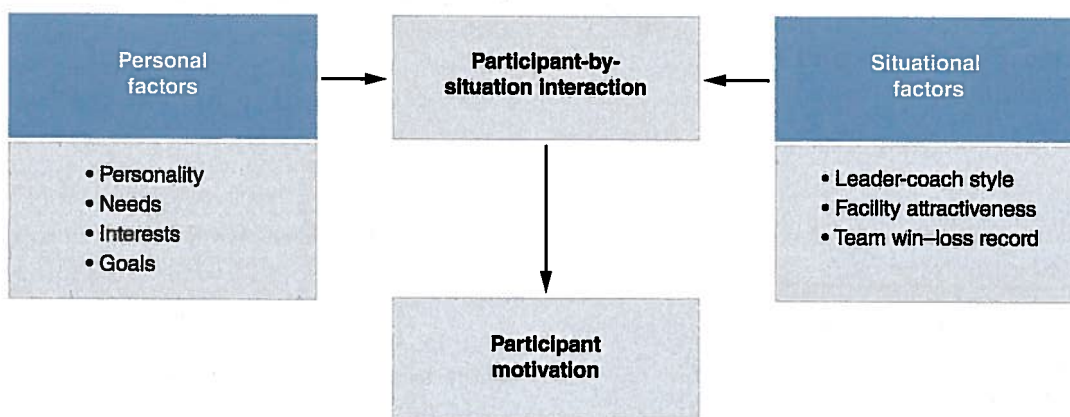


FIGURE 4.1 Participant-by-situation interactional model of motivation.

The interactional model of motivation has important implications for teachers, coaches, trainers, exercise leaders, and program administrators. Some fundamental guidelines for professional practice can be derived from this model.

Building Motivation With Five Guidelines

Activity 4.1 helps you better appreciate motivation and major views of motivation.

motivation. Knowing only a swimmer's personal characteristics (motivational orientation) was not the best way to predict behavior (the individual's split time) because performance depended on the situation (performing individually or in a relay). Similarly, it would be a mistake to look only at the situation as the primary source of motivation because the best speed depended on whether a swimmer was more approval oriented or rejection threatened. The key, then, was to understand the interaction between the athlete's personal makeup and the situation.

Guideline 1: Consider Both Situations and Traits in Motivating People

FIGURE 4.2 The interaction of two types of competitive situations (performing alone or on a relay team) and swimmer's approval orientation (approval oriented versus rejection threatened) on swimming performance.



When attempting to enhance motivation, consider both situational and personal factors. Often when working with students, athletes, or clients who seem to lack motivation, teachers, trainers, coaches, or exercise leaders immediately attribute this lack to the participants' personal characteristics. "These students don't care about learning," "This team doesn't want it enough," or "Exercise is just not a priority in these folks' lives"—such phrases ascribe personal attributes to people and, in effect, dismiss the poor motivation or avoid the responsibility for helping the participants develop motivation. At other times, instructors fail to consider the personal attributes of their students or clients and instead put all the blame on the situation (e.g., "This material must be boring" or "What is it about my instructional style that inhibits the participants' level of motivation?").

In reality, low participant motivation usually results from a combination of personal and situational factors. Personal factors do cause people to lack motivation, but so do the environments in which people participate. In fact, in the past decade motivation researchers have placed increased attention on the motivational climates that surround athletes and exercisers. Often it may be

easier for an instructor to change the situation or create a certain kind of environment than to change the needs and personalities of the participants. The key, however, is not to focus attention only on the personal attributes of the participants or only on the situation at hand but to consider the interaction of these factors.

Key Point

To enhance motivation, you must analyze and respond not only to a player's personality but also to the interaction of personal and situational characteristics. Because motivations may change over time, you should continue to monitor people's motives for participation even months after they've begun.

Guideline 2: Understand People's Multiple Motives for Involvement

Consistent effort is necessary in order to identify and understand participants' motives for being involved in sport, exercise, or educational environments. This understanding can be obtained in several ways.



Activity 4.2 lets you use your own experiences to identify the major motives for sport and exercise participation.

Identify Why People Participate in Physical Activity

Researchers know why most people participate in sport and exercise, and this is important because practitioners consider motives to be very important in influencing individual and team performance (Theodorakis & Gargalianos, 2003). Motives are also seen as critical in influencing exercise participation and adherence to injury rehabilitation protocol (see chapters 19 and 20). After reviewing the literature, Gill, Williams, & Reifsteck (2017) concluded that children have a number of motives for sport participation, including skill development and the demonstration of competence as well as challenge, excitement, and fun. Adult motives are similar to those of youths, although health motives are rated as more important by adults and competence and skill development less important. For example, Wankel (1980) found that adults cited health factors, weight loss, fitness, self-challenge, and feeling better as motives

for joining an exercise program. Their motives for continuing in the exercise program included enjoyment, the organization's leadership (e.g., the instructor), the activity type (e.g., running, aerobics), and social factors. It has also been found that motives change across age groups and that older adults' motives are less ego oriented than younger adults' (Steinberg, Grieve, & Glass, 2000). Moreover, research has found that the exercise behavior of male college students is more motivated by intrinsic factors such as strength and competition, whereas that of female college students is more motivated by extrinsic factors such as weight management and appearance (Egli, Bland, Melton, & Czech, 2011).

Taking a more theoretical approach, psychologists Edward Deci and Michael Ryan (1985, 2000) developed a general theory of motivation called self-determination theory. This theory contends that all people are motivated to satisfy three general needs:

1. Competence (e.g., "I am a good runner.")
2. Autonomy (e.g., A pitcher loves to decide what pitches to throw and to have the fate of the game in his or her hands.)
3. Social connectedness or belonging (e.g., A soccer player loves to be part of the team.)

How these motives are fulfilled leads to a continuum of motivation ranging from amotivation (no motivation) to extrinsic motivation to intrinsic motivation. This continuum of motivated behavior, especially the distinction between intrinsic and extrinsic motivation and the advantages of self-determined motivation, is discussed in more depth in chapter 7. What is important to understand now is that the athletes, exercisers, or patients you work with have the three general motivational needs of competence, autonomy, and connectedness or relatedness. The more you can provide for these needs, the greater a participant's motivation will be.

What motivates you to participate in sport and physical activity? As you think about what motivates you and others, remember these points:

- *People participate for more than one reason.* Most people have multiple motives for participation. For example, you may lift weights because you want to tone your body. Yet lifting weights also makes you feel good, plus you enjoy the camaraderie of your lifting partners. Thus, you lift for more than one reason.

- *People have competing motives for involvement.* At times people have competing motives. For instance, a person may want to exercise at the club after work *and* to be with his family. As a coach, teacher, or exercise

leader, you should be aware of such conflicting interests because they can affect participation.

• *People have both shared and unique motives.* Although it is possible to identify why people usually participate in sport and exercise, motives for participation vary greatly and can be unique to each individual. For example, Dwyer (1992) assessed college students' motives for participation and obtained results similar to those for young athletes: The most important motives for participation were fitness, fun, excitement and challenge, and improving skills. However, the college students rated friendship, achievement status, and team factors as less important—findings that vary from those in the youth sports literature. Thus, many of us would cite physical fitness, fun, and friendship as major motives for sport participation. However, some of us might have motives that are more individual, such as parental pressure or needing something to do. Still others might have highly idiosyncratic motives, such as the need to physically dominate others or the experience of calmness they actually derive from competition. Hence, people have both shared and unique motives for participation.

• *Gender differences in motivation.* Some gender differences exist in motivations for involvement. For example, Sirard, Pfeiffer, and Pate (2006) studied motivational factors associated with sport participation

in more than 1,600 middle school children. Findings showed that having fun was the highest-rated motive for all the children. When motives were compared across genders, girls cited social and skill benefits, competition, and fitness as major motives, whereas boys emphasized competition, social benefits, and fitness most often. The authors concluded that middle school boys have a greater attraction to the competitive aspects of sport, whereas girls have a greater attraction to the social aspects. The conclusions of this study are restricted to the age group sampled; however, they emphasize the importance of recognizing that although males and females may share many common motives for involvement in sport and physical activity, important differences may be evident.

• *Cultural emphasis affects motives.* Although many motives for sport and physical activity involvement are common across cultures, some are given more emphasis. Kim, Williams, and Gill (2003), for example, found that U.S. and Korean middle school students differed in their motivation: U.S. youngsters were more intrinsically motivated than their Korean counterparts. They also suggested that participants from Asian countries are more interdependence oriented whereas North Americans are more independence oriented. In another study, Yan and McCullagh (2004) found that American, Chinese, and Chinese American youths differed in their



Many factors influence a person's motivation to participate in sport. How does the motivation of these athletes differ from your motivation?

motives for sport and physical activity participation. Specifically, American youths were motivated primarily by competition and the need to improve; Chinese youths were more involved for social affiliation and wellness; and Chinese American youths participated because of travel, equipment use, and having fun. As most contemporary societies are becoming more culturally diverse, coaches, exercise leaders, and physical educators must become familiar with and recognize important cultural differences in participant motives.

Observe Participants and Continue to Monitor Motives

Because people have such a diverse range of motives for sport and exercise participation, you need to be aware of your students', athletes', or exercisers' motives for involvement. Following these guidelines should improve your awareness:

1. Observe the participants and see what they like and do not like about the activity.
2. Informally talk to others (e.g., teachers, friends, and family members) who know the student, athlete, or exerciser and solicit information about the person's motives for participation.
3. Periodically ask the participants to write out or tell you their reasons for participation.

Continue to monitor motives for participation. Research has shown that motives change over time. For instance, the reasons some individuals cited for beginning an exercise program (e.g., health and fitness benefits) were not necessarily the same motives they cited for staying involved (e.g., social atmosphere of the program; Wankel, 1980). Consequently, continuing to emphasize fitness benefits while ignoring the social aspect after people have begun the exercise program is probably *not* the most effective motivational strategy. In a 2006 survey, 13-year-old youths rated social and achievement reasons for liking physical activity as significantly more important than their counterparts asked the same questions 20 years earlier (Wold, et al., 2016). Over a 20-year period, as a group, the 13-year-olds became more socially and achievement oriented.

Guideline 3: Change the Environment to Enhance Motivation

Knowing why people become involved in sport and exercise is important, but this information alone is insufficient to enhance motivation. You need to use what

you learn about your participants to structure the sport and exercise environment to meet their needs.

Provide Both Competition and Recreation

Not all participants have the same desire for competition and recreation. Opportunities for both need to be provided. For example, many park district directors have learned that although some adult athletes prefer competition, others do not. Thus, the directors divide the traditional competitive softball leagues into competitive and recreational divisions. This choice enhances participation rates by giving people what they want.

Key Point

To enhance motivation, structure teaching and coaching environments to meet the needs of all participants.

Provide Multiple Opportunities

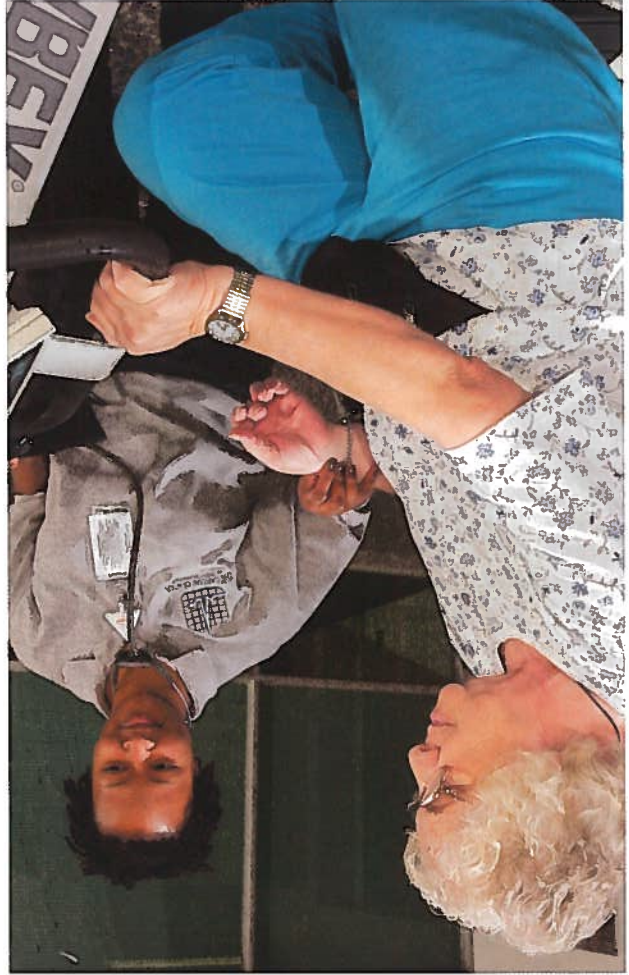
Meeting participant needs isn't always simple. Structuring a situation to enhance motivation may mean constructing an environment to meet multiple needs. For example, elite performers demand rigorous training and work at an intense level. Some coaches mistakenly think that world-class athletes need only rigorous physical training, but the truth is that elite athletes often also want to have fun and enjoy the companionship of their fellow athletes. When coaches pay more attention to the motives of fun and fellowship along with optimal physical training, they enhance motivation and improve their athletes' performance.

Adjust to Individuals in Groups

An important but difficult component of structuring sport and exercise environments is individualizing coaching and teaching. That is, each exerciser, athlete, and student has her unique motives for participation, and effective instructors must provide an environment that meets these diverse needs. Experienced coaches have known this for years. Legendary football coach Vince Lombardi (for whom the Super Bowl trophy is named), for example, structured his coaching environment to meet the needs of individual athletes (Kramer & Shaap, 1968). Lombardi had a reputation as a fiery, no-nonsense coach who was constantly on his players' backs. All-pro guard Jerry Kramer, for instance, said that Lombardi always yelled at him. (But Coach Lombardi was also clever: Just when Kramer was discouraged enough to

quit because of the criticism, Lombardi would provide some much-needed positive reinforcement.) In contrast to the more thick-skinned Kramer, all-pro quarterback Bart Starr was extremely self-critical. The coach recognized this and treated Starr in a much more positive way than he treated Kramer. Lombardi understood that these two players had different personalities and needs, which required a coaching environment flexible enough for them both.

Individualizing is not always easy to accomplish. Physical educators might be teaching 6 classes of 35 students each, and aerobics instructors might have classes with as many as 100 students in them. Without assistants, it is impossible to structure the instructional environment in the way Lombardi did. This means that today's instructors must be both imaginative and realistic in individualizing their environments.



Regardless of what kind of day you are having, a positive attitude goes a long way toward increasing motivation.

Guideline 4: Influence Motivation

Of course, a junior high school physical educator cannot get to know his students nearly as well as a personal trainer with one client or a basketball coach with 15 players on the team. However, the physical educator could, for example, have students identify on index cards their motives for involvement ("What do you like about physical education class? Why did you take the class?"), assess the frequency with which various motives are mentioned, and structure the class environment to meet the most frequently mentioned motives. If more students indicated they preferred noncompetitive activities to traditional competitive class activities, the instructor could choose to structure class accordingly. The instructor also might offer options in the same class and have half the students play competitive volleyball on one court and the other half play noncompetitive volleyball on a second court.

As an exercise leader, physical educator, or coach, you have a critical role in influencing participant motivation. A survey of physical educators who were all coaches showed that 73% of them considered themselves and their actions to be very important motivational factors for their athletes (Theodorakis & Gargalianos, 2003). At times your influence may be indirect and you won't even recognize the importance of your actions. For example, a physical therapist who is energetic and outgoing will, on personality alone, give considerable positive reinforcement to her clients. Over time, her clients come to expect her upbeat behavior. However, she may have a bad day and, although she does not act negatively in her rehabilitation sessions, she may not be up to her usual cheeriness. Because her patients know nothing about her circumstances, they perceive that they did something wrong and consequently become discouraged. Unbeknownst to the physical therapist, her patients are influenced by her mood.

You too will have bad days as a professional and will need to struggle through them, doing the best job you can. The key thing to remember is that your actions (and inaction) on such days can influence the motivational environment. Sometimes you may need to act more upbeat than you feel. If that's not possible, inform your students that you're not quite yourself so that they don't misinterpret your behavior.

Another effective way to influence motivation in physical activity settings is by infusing variety into exercise programming and creating optimal competi-

tive conditions. Sylvester and colleagues (2014) found that providing variety in an exercise program enhanced motivation and the exercise behavior of adults. Outcome uncertainty (versus one-sided wins) on the part of participants engaged in competition has also been found to lead to greater suspense, intrinsic motivation, and enjoyment for video game participants (Abuhamdeh, Csikszentmihalyi, & Jalal, 2015).

Using technology is another way physical activity leaders can enhance motivation. This may seem counterintuitive because we hear so much about how physically inactive people have become as they spend more time on their computers and phones. However, interest is increasing in using exergames (video games that require participants to physically interact with the game) or mobile GPS and phone-based games in which participants move or play tag outdoors to motivate people to engage in physical activity (Boulos & Yang, 2013). Wearable fitness trackers (like the Fitbit) can help motivate individuals to be active by providing feedback on how many steps they take during a day or data on other physical activity outcomes. In research funded by NASA, one group of kinesiology researchers has been exploring how virtual exercise buddies can increase physical activity motivation (Feltz, Forlenza, Winn, & Kerr, 2014). Finally, in a randomized controlled trial, a personalized Web-based intervention program called Active After 55 was found to significantly increase the intervention group's endurance, time spent stretching, flexibility, strength, and balance compared to a control group that did not participate in the program. Moreover, the more that participants in the Web-based program used the technology, the greater the positives change in their outcomes.

Guideline 5: Use Behavior Modification to Change Participants' Undesirable Motives

We have emphasized the need for structuring the environment to facilitate participant motivation because the exercise leader, trainer, coach, or teacher usually has more direct control over the environment than over the motives of individuals. This does not imply, however, that it is inappropriate to attempt to change a participant's motives for involvement.

A young football player, for example, may be involved in his sport primarily to inflict injury on others. This player's coach will want to use behavior modification techniques (see chapter 7) to change this undesirable motivation. That is, the coach will reinforce good clean play, punish aggressive play intended to inflict injury, and simultaneously discuss appropriate behavior with the player. Similarly, a cardiac rehabilitation patient beginning exercise on a doctor's orders may need behavior modification from her fitness instructor to muster the motivation to exercise. Of course, after the patient begins to exercise regularly, the instructor will focus on the intrinsic reasons for doing so. Using behavior modification techniques to alter participants' undesirable motives is certainly appropriate in some settings.

Key Point

Use behavior modification techniques to change undesirable motives and strengthen weak motivation.

Making Physical Activity Participation a Habit: Long-Term Motivation Effects

Karin Pfeiffer and colleagues (2006) took a very different approach to understanding physical activity motivation, investigating whether participation in youth sports predicts the levels of adult involvement in physical activity. They found that sport participation in the 8th and 9th grades predicted physical activity participation in the 12th grade. This suggests that requiring a habit of being physically active at a young age influences motivation for being active later in life. In another series of studies, Hagger and Chatzisarantis (2016) discovered that the students of physical education teachers who used teaching techniques that provided support and autonomy for students were more intrinsically motivated to participate. More important, it was also found that these increases in motivation transferred to out-of-school settings. Initial evidence, then, suggests that under the right conditions, physical activity can be made a lifelong habit.

Developing a Realistic View of Motivation

Motivation is a key variable in both learning and performance in sport and exercise contexts. People sometimes forget, however, that motivation is not the only variable influencing behavior. Sportswriters, for instance, typically ascribe a team's performance to motivational attributes—the extraordinary efforts of the players; laziness; the lack of incentives that follows from million-dollar, no-cut professional contracts; or a player's ability (or inability) to play in clutch situations. A team's performance, however, often hinges on nonmotivational factors, such as injury, playing a better team, being overtrained, or failing to learn new skills (Gould, Gnanan, Greenleaf, Medberry, & Peterson, 1999). Besides the motivational factors of primary concern to us here, biomechanical, physiological, sociological, medical, and technical–tactical factors are significant to sport and exercise and warrant consideration in any analysis of performance.

Key Point

As a leader, you are critical to the motivational environment and you influence motivation both directly and indirectly.

Some motivational factors are more easily influenced than others. It is easier for an exercise leader to change his reinforcement pattern, for instance, than it is for him to change the attractiveness of the building. (This is not to imply that cleaning up a facility is too time-consuming to be worth the trouble. Consider, for example, how important facility attractiveness is in the health club business.) Professionals need to consider what motivational factors they can influence and how much time (and money) it will take to change them. For example, a study by Kilpatrick, Hebert, and Bartholomew (2005) showed that people are more likely to report intrinsic reasons for participating in sport (e.g., challenge and enjoyment) and extrinsic reasons for taking part in exercise (e.g., appearance and weight). Because intrinsic motivation is thought to be a more powerful predictor of behavior over the long run, they suggest that exercise leaders who are interested in facilitating an active lifestyle may want to place more emphasis on sport involvement rather than simply focusing on increasing the amount of exercise time.

Understanding Achievement Motivation and Competitiveness

Throughout the first part of the chapter we have emphasized the importance of individual differences in motivation. In essence, individuals participate in sport and physical activity for different reasons and are motivated by different methods and situations. Therefore, it is important to understand why some people seem so highly motivated to achieve their goals (like Fernando in the football example at the beginning of the chapter) and why others seem to go along for the ride. We start by discussing two related motives that influence performance and participation in sport achievement: achievement motivation and competitiveness.

What Is Achievement Motivation?

Achievement motivation refers to a person's efforts to master a task, achieve excellence, overcome obstacles, perform better than others, and take pride in exercising talent (Murray, 1938). It is a person's orientation to strive for task success, persist in the face of failure, and have pride in accomplishments (Gill, 2000).

Not surprisingly, coaches, exercise leaders, and teachers have an interest in achievement motivation because it includes the precise characteristics that allow athletes to achieve excellence, exercisers to gain high levels of fitness, and students to maximize learning.

Like the general views of motivation and personality, views of achievement motivation in particular have progressed from a trait-oriented view of a person's need for achievement to an interactional view that emphasizes more changeable achievement goals and the ways in which these affect and are affected by the situation. Achievement motivation in sport is popularly called competitiveness.

What Is Competitiveness?

Competitiveness is defined as "a disposition to strive for satisfaction when making comparisons with some standard of excellence in the presence of evaluative others" (Martens, 1976, p. 3). Basically, Martens views competitiveness as achievement behavior in a competitive context, with social evaluation as a key component. It is important to look at a situation-specific achievement orientation: Some people who are highly oriented toward achievement in one setting (e.g., competitive sport) are not in other settings (e.g., math class). Martens' definition of competitiveness is limited to situations in which one is evaluated by, or has the

potential to be evaluated by, knowledgeable others. Yet many people compete with themselves (e.g., trying to better their own running time from the previous day) even when no one else evaluates the performance. The level of achievement motivation would bring out this self-competition, whereas the level of competitiveness would influence behavior in socially evaluated situations. For this reason, we discuss achievement motivation and competitiveness together in this chapter.

Effects of Motivation

Achievement motivation and competitiveness deal not just with the final outcome or the pursuit of excellence but also with the psychological journey of getting there. If we understand why motivation differences occur in people, we can intervene positively. Thus, we are interested in how a person's competitiveness and achievement motivation influence a wide variety of behaviors, thoughts, and feelings, including the following:

- Choice of activity (e.g., seeking out opponents of equal ability to compete against or looking for players of greater or lesser ability to play with)
- Effort to pursue goals (e.g., how often you practice)
- Intensity of effort in the pursuit of goals (e.g., how consistently hard you try during a workout)
- Persistence in the face of failure and adversity (e.g., when the going gets tough, do you work harder or take it easier?)

Identifying Four Theories of Achievement Motivation

Four theories have evolved over the years to explain what motivates people to act: need achievement theory, attribution theory, achievement goal theory, and competence motivation theory. We consider each of these in turn. A fifth, self-determination theory, is discussed in chapter 7 because it also explains how reinforcement influences motivation.

Need Achievement Theory

Need achievement theory (Atkinson, 1974; McClelland, 1961) is an interactional view that considers both personal and situational factors as important predictors of behavior. Five components make up this theory: personality factors or motives, situational factors, resultant tendencies, emotional reactions, and achievement-related behaviors (figure 4.3).

Personality Factors

According to the need achievement view, each of us has two underlying achievement motives: to achieve success and to avoid failure (see figure 4.3). The motive to achieve success is defined as “the capacity to experience pride in accomplishments,” whereas the motive to avoid failure is “the capacity to experience shame in failure” (Gill, 2000, p. 104). The theory contends that behavior is influenced by the balance of these motives.

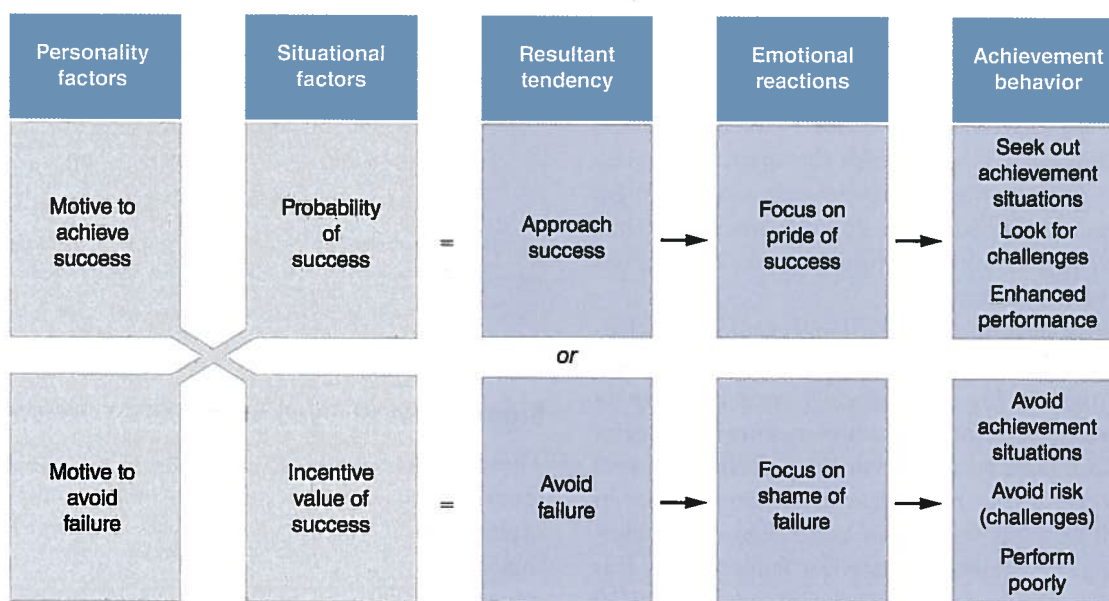


FIGURE 4.3 Need achievement theory.

In particular, high achievers demonstrate high motivation to achieve success and low motivation to avoid failure. They enjoy evaluating their abilities and are not preoccupied with thoughts of failure. In contrast, low achievers demonstrate low motivation to achieve success and high motivation to avoid failure. They worry and are preoccupied with thoughts of failure. The theory makes no clear predictions for those with moderate levels of each motive (Gill, 2000).

Situational Factors

As you learned in chapter 3, information about traits alone is not enough to accurately predict behavior. Situations must also be considered. You should recognize two primary considerations in need achievement theory: the **probability of success** in the situation or task and the **incentive value of success**. Basically, the probability of success depends on whom you compete against and the difficulty of the task. That is, your chance of winning a tennis match would be lower against Venus Williams than against a novice. The value you place on success, however, would be greater because it is more satisfying to beat a skilled opponent than it is to beat a beginner. Settings that offer a 50–50 chance of succeeding (e.g., a difficult but attainable challenge) provide high achievers the most incentive for engaging in achievement behavior. However, low achievers do not see it this way because losing to an evenly matched opponent might maximize their experience of shame.

Resistant Tendencies

The third component in need achievement theory is the **resistant tendency** or **behavioral tendency**, derived by considering an individual's achievement motive levels in relation to situational factors (e.g., probability of success or incentive value of success). The theory is best at predicting situations in which the chance of success is 50–50. That is, high achievers seek out challenges in this situation because they enjoy competing against others of equal ability or performing tasks that are not too easy or too difficult. Low achievers, on the other hand, avoid such challenges, instead opting for easy tasks where success is guaranteed or for unrealistically hard tasks where failure is almost certain. Low achievers sometimes prefer very difficult tasks because no one expects them to win. For example, losing to LeBron James one-on-one in basketball certainly would not cause shame or embarrassment. Low achievers do not fear failure—they fear the negative evaluation associated with failure. A 50–50 chance of success causes maximum uncertainty and

Emotional Reactions

The fourth component of the need achievement theory is the individual's emotional reactions, specifically how much pride and shame she experiences. Both high and low achievers want to experience pride and minimize shame, but their personality characteristics interact differently with the situation to cause them to focus more on either pride or shame. High achievers focus more on pride, whereas low achievers focus more on shame and worry.

Achievement Behavior

The fifth component of the need achievement theory indicates how the four other components interact to influence behavior. High achievers select more challenging tasks, prefer intermediate risks, and perform better in evaluative situations. Low achievers avoid intermediate risk, perform worse in evaluative situations, and avoid challenging tasks by selecting tasks so difficult that they are certain to fail or tasks so easy that they are guaranteed success.

Key Points

- Achievement motivation is the tendency to strive for success, persist in the face of failure, and experience pride in accomplishment. Achievement motivation in sport and exercise settings focuses on self-competitions, whereas competitiveness influences behavior in socially evaluative situations.
- High achievers select challenging tasks, prefer intermediate risks, and perform better when they are being evaluated. Low achievers avoid challenging tasks, avoid intermediate risks, and perform worse when they are being evaluated.

Significance of Need Achievement Theory

These performance predictions of the need achievement theory serve as the framework for all contemporary explanations for achievement motivation. That is, even though more recent theories offer different explanations for the thought processes underlying achievement differences, the behavioral predictions of high and low

achievers are basically the same. The most important contribution of need achievement theory is its task preference and performance predictions.

Attribution Theory

Attribution theory focuses on how people *explain* their successes and failures. This view, originated by Heider (1958) and extended and popularized by Weiner (1985, 1986), holds that literally thousands of possible explanations for success and failure can be classified into a few categories (figure 4.4). These most basic attribution categories are **stability** (a factor to which one attributes success or failure is either fairly permanent or unstable), **locus of causality** (a factor is either external or internal to the individual), and **locus of control** (a factor either is or is not under the individual's control).

Attributions as Causes of Success and Failure

A performer can perceive his success or failure as attributable to a variety of possible reasons. These perceived causes of success or failure are called attributions. For example, you may win a swimming race and attribute your success to

- a stable factor (e.g., your talent or good ability) or an unstable factor (e.g., good luck),
- an internal cause (e.g., your tremendous effort in the last 50 meters) or an external cause (e.g., an easy field of competitors), and
- a factor you can control (e.g., your race plan) or a factor out of your control (e.g., your opponents' lack of physical conditioning).

Or, you may drop out of an exercise program and attribute your failure to

- a stable factor (e.g., your lack of talent) or an unstable factor (e.g., the terrible instructor),
- an internal cause (e.g., your bad back) or an external cause (e.g., the exercise facility being too far from your home), and
- a factor you can control (e.g., your lack of effort) or a factor out of your control (e.g., the cost of the program).

Historically, attribution theory has been used to describe individuals' sport or exercise behavior. However, investigators have also begun to examine team attributions—that is, reasons or explanations for team performance (Allen, Coffee, & Greenlees, 2012; Shapcott, Carron, Greenlees, & Hakim, 2010). This is an important development because team attributions are being found to influence important cognitive (e.g., expectations and choices), affective (e.g., emotions), and behavioral (e.g., approach or avoidance) responses of groups. Studies have also linked attributions to physical therapy outcomes. Weinberg, Hall, and Sverdlik (2015) found that an attribution retraining intervention encouraging elderly patients to make attributions to personally controllable aspects of rehabilitation exercises (e.g., “my efforts will pay off”) versus maladaptive attributions (e.g., “I won't recover because of old age”) resulted in higher levels of motivation, physical functioning, and life satisfaction than those found in the no-intervention control group.

Why Attributions Are Important

Attributions affect expectations of future success or failure and emotional reactions (Biddle, Hanrahan, & Sellars, 2001; McAuley, 1993). Attributing performance to certain types of stable factors has been linked to

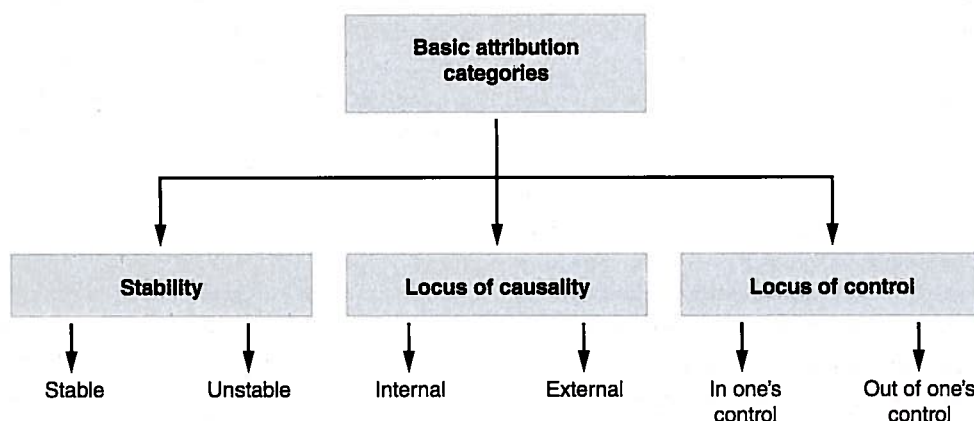


FIGURE 4.4 Weiner's basic attribution categories.

TABLE 4.1 Attributions and Achievement Motivation

Attributions		Psychological result		
Stability factors		Expectancy of future success		
Stable	Unstable	Increased expectation of success	Emotional influences	
		Decreased expectation of success		
Causality factors		Emotional influences		
Internal cause	External cause	Increased pride or shame		Emotional influences
Decreased pride or shame	Decreased pride or shame	Decreased motivation		
Control factors		Emotional influences		
In one's control	Out of one's control	Increased motivation	Emotional influences	
Decreased motivation	Out of one's control	Decreased motivation		

on beating others in competition, for example, one is defined as being "performance" involved, and when one is focused on learning or mastering a task, one is defined as being "task" involved. It is important to recognize, however, that in the achievement goal literature different terms have been used by different authors to refer to being "performance" or "task" involved. Specifically, when referring to the orientation of beating or surpassing the performance of others the terms *performance oriented*, *ego oriented*, and *outcome oriented* have been used to mean the same thing by various authors. When referring to the achievement orientation of defining success based on self-improvement or task mastery the terms *task oriented* and *mastery oriented* are used. For simplicity, the terms **ego oriented** and **task oriented** are used in this chapter. Finally, regardless of which terms are used, the interesting question is why one person is task involved when another is ego involved. Achievement goal theory contends that a person's achievement goals and her perceived ability interact to determine her motivation (figure 4.5):

1. Achievement goals
2. Interpretation of environmental demands
3. Level of perceived ability

To understand someone's achievement motivation, we must understand what success and failure mean to that person. The best way to do that is to examine a person's achievement goals and how they interact with that

expectations of future success. For example, if Sophia, an elementary physical education student, ascribes her performance success in gymnastics to a stable cause (e.g., her high ability), she will expect the outcome to occur again in the future and will be more motivated and confident. She may even ask her parents whether she can sign up for after-school gymnastics. In contrast, if Marion attributes her performance success in tumbling to an unstable cause (e.g., luck), he won't expect it to occur regularly and his motivation and confidence will not be enhanced. Of course, a failure also can be ascribed to a stable cause (e.g., low ability), which would lessen confidence and motivation, or to an unstable cause (e.g., luck), which would not.

Key Point

How performers explain or attribute their performance affects their expectations and emotional reactions, which in turn influence future achievement motivation. Attribution theory focuses on how individuals explain their successes and failures.

Attributions to internal factors and to factors in our control (e.g., ability, effort) rather than to external factors or factors outside our control (e.g., luck, task difficulty) often result in emotional reactions such as pride and shame. For example, a lacrosse player will have more pride (if successful) or shame (if unsuccessful) if she attributes her performance to internal factors than she would if she attributes it to luck or an opponent's skill (table 4.1).

Activity 4.3 tests your understanding of attribution theory.

Achievement Goal Theory

Both psychologists and sport and exercise psychologists have focused on achievement goals as a way of understanding differences in motivation (Roberts, 2012; Dweck, 1986; Maehr & Nicholls, 1980; Nicholls, 1984). According to the **achievement goal theory**, one is motivated by one's "interpretation" of what it takes to achieve success. But success for one person may not be success for another person. Success may be achieved by beating others in competition, or success may be achieved by learning or mastering a task. When focused

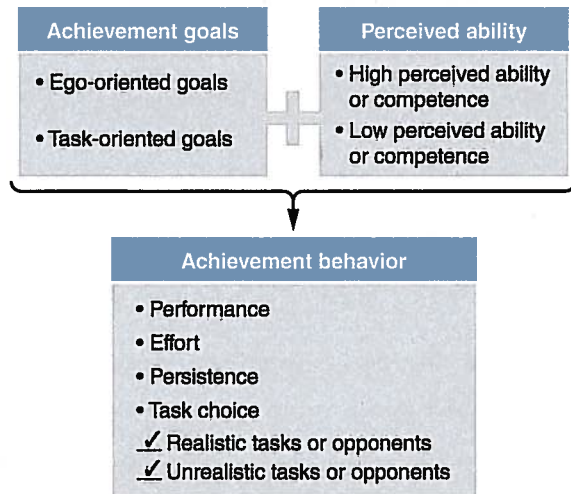


FIGURE 4.5 Three key factors in the achievement goal approach.

individual's perceptions of competence, self-worth, and ability and the demands of the environment (what goals are stressed in the environment).

Ego and Task Orientations

Holly may compete in bodybuilding because she wants to win trophies and have the best physique of anybody in the area. She has adopted an ego goal orientation because she has learned that over time this goal is more meaningful to her. She is disposed (called a disposition or orientation) to define success as beating others in competition. Her focus is on comparing herself to and defeating others. Holly feels good about herself when she succeeds (because it means she has high perceived ability) but not so good about herself when she loses (because it means she has low perceived ability).

Kadija also likes to win contests, but she primarily takes part in bodybuilding to see how much she can improve her strength and physique. She has adopted a **task goal orientation** in which the focus is on improving relative to her own past performances. Her perceived ability remains high because it is not based on a comparison with others.

For a particular situation, people can hold both task and ego achievement goals. The goals are considered to be independent; therefore, a person can be high in one and low in the other, or high or low in both. For example, a person might want to win the local turkey trot but also to set a personal best time for the race. However, according to researchers in achievement goal theory, most people tend to be higher on one or the other achievement goal disposition.

Environmental Demands

Another reason an athlete may be task or ego involved is because of the perceived demands in the environment (also called the motivational climate). If the coach focuses only on winning and losing, as an example, and gives feedback based on winning and losing, then the athlete learns quickly that being ego focused is the criterion for success in that environment for that coach, and the motivational climate is outcome focused. Similarly, if the coach is focused on learning tasks and strategies, then the criterion for success is learning and mastering the task or strategy, and the motivational climate is task involving. The motivational focus of the person, the degree of task or performance involvement, is based on an interaction between one's personal orientation, either task or performance orientation, and on the perceived motivational climate created by the teacher or coach.

Value of a Task Orientation

Sport psychologists argue that a task orientation more often than an ego orientation leads to a strong work ethic, persistence in the face of failure, and optimal performance. This orientation can protect a person from disappointment, frustration, and a lack of motivation when the performance of others is superior (something that often cannot be controlled). Because focusing on personal performance provides greater control, individuals become more motivated and persist longer in the face of failure.

Key Point

An ego goal orientation focuses on comparing performance with and defeating others, whereas a task goal orientation focuses on comparing performance with personal standards and personal improvement. It is best to adopt a task orientation, which emphasizes comparisons with your own performance standards rather than with the performances of others, especially if one is learning a set of important physical activity skills.

Task-oriented people also select moderately difficult or realistic tasks and opponents. They do not fear failure. And because their perception of ability is based on their own standards of reference, it is easier for them to feel good about themselves and to demonstrate high perceived competence than it is for ego-oriented individuals to do so.

Problems With an Ego Orientation

In contrast to task-oriented individuals, ego-oriented people have more difficulty maintaining high perceived competence. They judge success by how they compare with others, but they cannot necessarily control how others perform. After all, at least half of the competitors must lose, which can lower a fragile perceived competence. People who are ego oriented and have low perceived competence demonstrate a low or maladaptive achievement behavioral pattern (Roberts, 2012). That is, they are likely to reduce their efforts, cease trying, or make excuses. To protect their self-worth they are more likely to select tasks in which they are guaranteed success or are so outmatched that no one would expect them to do well. They tend to perform less well in evaluative situations.

Entity and Incremental Goal Perspectives

Dweck and Leggett (1988) and Elliot and Dweck (2005) proposed a social-cognitive model of achievement motivation. Similar to task and ego goal orientations, achievement behavior patterns are explained by how participants view their ability. Participants who are characterized by an **entity view** adopt an ego goal focus, where they see their ability as fixed and unable to be changed through effort, or an **incremental focus**, where they adopt a task goal perspective and believe they can change their ability through hard work and effort. Research shows that physical activity participants who adopt an entity focus are characterized by maladaptive motivation patterns (e.g., negative self-thoughts and feelings; Li & Lee, 2004). For example, while studying soccer players Gardner, Vella and Magee (2015) found that entity beliefs were associated with increased anxiety while incremental beliefs with lower anxiety. Jowett and Spray (2013) also found that although elite British track and field athletes felt that natural ability was certainly evident in their high-level performance, over all they adopted an incremental view of ability in which they believed that general ability in athletics is malleable rather than fixed and that building on it is possible. These beliefs about ability were influenced by their upbringing, their transition from junior to senior sport, the motivation climate in which they trained and competed, coaching, and the initial success they had in sport. Finally, in her highly popular book, *Mindset: The New Psychology of Success*, Dweck (2006) linked her many years of research to practice demonstrating that entity and incremental views of success (which she calls fixed mindset and growth mindset, respectively) are powerful determinants of behavior in academic, personal relationship, business, and athletic situations.

Approach Versus Avoidance Achievement Goals

Another component of achievement goal theory deals with the approach and avoidance dimension of goals (Elliot, 1999). Researchers contend that in addition to ego and task goal orientations, people's views of competence are characterized by either approach goals, where the athlete or exerciser focuses on achieving competence (e.g., working out because of a desire to look good or perform well), or avoidance goals, where the athlete or exerciser focuses on avoiding incompetence (e.g., working out because one does not want to look bad or fail at something). Thus, an individual can be task approach oriented (e.g., "I want to improve my personal best running time"), task avoidance oriented (e.g., "I don't want to run slower than my personal best time"), ego approach oriented (e.g., "I want to win the race and beat her"), or ego avoidance oriented (e.g., "I don't want to lose to her"). Research has shown that approach goals (both task and ego) are positively related to the physical activity levels of university students (Lochbaum, Podlog, Litchfield, Surles, & Hillard, 2013). Other studies have found that approach and avoidance goals are related to physical activity motivation (Moreno, Gonzales-Cuete, Sicilia, & Spray, 2010; Nien & Duda, 2008; Wang, Liu, Lochbaum, & Stevenson, 2009). This research suggests that practitioners in sport and exercise should target approach goals rather than avoidance goals.

Importance of Motivational Climate

Sport psychologists have studied how goal orientations and perceived ability work together to influence motivation of physical activity participants as well as how the social climate influences one's goal orientations and motivation level (Duda, 2005; Ntoumanis & Biddle, 1999). Some psychologists contend, for example, that the social climates of achievement settings can vary significantly in several dimensions. These include such things as the tasks that learners are asked to perform, student-teacher authority patterns, recognition systems, student ability groupings, evaluation procedures, and times allotted for activities to be performed (Ames, 1992). Research has revealed that in a motivational climate of task goal orientation, there are more adaptive motivational patterns, such as positive attitudes, increased effort, and effective learning strategies. In contrast, a motivational climate of ego orientation has been linked with less adaptive motivational patterns, such as low persistence, low effort, and attribution of failures to (low) ability (Ntoumanis & Biddle, 1999).

Most important, researchers have found that motivational climates influence the types of achievement goals participants adopt: Task-oriented climates are associated with task goals and ego-oriented climates are associated with ego goals (Duda & Hall, 2001). Coaches, teachers, and exercise leaders, then, play an important role in facilitating motivation through the psychological climates they create.

Competence Motivation Theory

A final theory that has been used to explain differences in achievement behavior, especially in children, is competence motivation theory (Weiss & Chaumeton, 1992; Weiss & Ambrose, 2008). Based on the work of developmental psychologist Susan Harter (1988), this theory holds that people are motivated to feel worthy or competent and, moreover, that such feelings are the primary determinants of motivation. **Competence motivation theory** also contends that athletes' perceptions of control (feeling control over whether they can learn and perform skills) work along with self-worth and competence evaluations to influence their motivation. However, these feelings do not influence motivation directly. Rather, they influence affective or emotional states (e.g., enjoyment, anxiety, pride, and shame) that in turn influence motivation. It is also important to recognize that one's competence differs across domains (e.g., academic, physical, social).

If a young soccer player, for example, has high self-esteem, feels competent, and perceives that he has control over the learning and performance of soccer skills, then efforts to learn the game will increase his enjoyment, pride, and happiness. These positive affective states will in turn lead to increased motivation. In contrast, if an exerciser has low self-esteem, feels incompetent, and believes that personal actions have little bearing on increasing fitness, then negative affective responses will result, such as anxiety, shame, and sadness. These feelings will lead to a decline in motivation.

Considerable research has demonstrated the link between competence and motivation (Weiss, 1993; Weiss & Ambrose, 2008). Specifically, feedback and reinforcement from others and various motivational orientations (e.g., goal orientations and trait anxiety) influence feelings of self-esteem, competence, and control. Wong and Bridges (1995) tested this model using 108 youth soccer players and their coaches. The researchers measured perceived competence, perceived control, trait anxiety, and motivation as well as various coaching behaviors. As you might expect, they found that trait anxiety and coaching

behaviors predicted perceived competence and control, which in turn were related to the players' motivation levels. Hence, young athletes' perceptions of competence and control are critical determinants of whether they will strive toward achievement. Thus, enhancing perceived competence and control should be primary goals of professionals in exercise and sport science.

What Theories of Achievement Motivation Tell Us

To compare how these four theories explain achievement motivation, table 4.2 summarizes major predictions from each, showing how high and low achievers differ in terms of their motivational orientation and attributions, the goals they adopt, their perceived competence and control, their task choices, and their performance. We next discuss how a person's achievement motivation and competitiveness develop.

Developing Achievement Motivation and Competitiveness

Is achievement motivation learned? At what age do children develop achievement tendencies? Can sport and exercise professionals influence and motivate children toward certain kinds of achievement?

Achievement motivation and competitiveness are believed to develop in three stages (Scanlan, 1988; Veroff, 1969). These stages are sequential—that is, you must move through one stage before progressing to the next (figure 4.6). Not everyone makes it to the final stage, and the age at which people reach each stage varies considerably. The three stages are as follows:

1. *Autonomous competence stage.* In this stage, which is thought to occur before the age of 4 years, children focus on mastering their environment and on self-testing. For example, Brandon is a preschooler who is highly motivated to learn to ride his tricycle, and he couldn't care less that his sister Eileen can ride better than he can. He rarely compares himself with others and focuses instead on self-referenced standards.
2. *Social comparison stage.* In the social comparison stage, which begins at about the age of 5 years, a child focuses on directly comparing his performance with that of others. Children seem preoccupied with asking, "Who is faster, bigger, smarter, and stronger?"

3. *Integrated stage.* The integrated stage involves both social comparison and autonomous achievement strategies. The person who fully masters this integration knows when it is appropriate to compete and compare herself with others and when it is appropriate to adopt self-referenced standards. This stage, which integrates components from the previous two stages, is the most desirable. There is no typical age for entering this stage.

TABLE 4.2 What Theories of Achievement Motivation Tell Us

High achiever		Low achiever	
Motivational orientation		• High motivation to achieve success • Low motivation to avoid failure • Focuses on the pride of success	• Low motivation to achieve success • High motivation to avoid failure • Focuses on shame and worry that may result from failure
Attributions		• Ascribes success to stable and internal factors within one's own control • Ascribes failure to unstable and external factors outside one's own control • Ascribes success to unstable and external factors outside one's own control • Ascribes failure to stable and internal factors within one's own control	• Usually adopts an incremental or task goal • Typically adopts avoidance goals
Perceived competence and control		• Has high perceived competence and believes that achievement is within one's own control	• Has low perceived competence and believes that achievement is outside one's own control
Task choice		• Seeks out challenges and able competitors and tasks	• Avoids challenges; seeks out very difficult or very easy tasks and competitors
Performance conditions		• Performs well in evaluative conditions	• Performs poorly in evaluative conditions

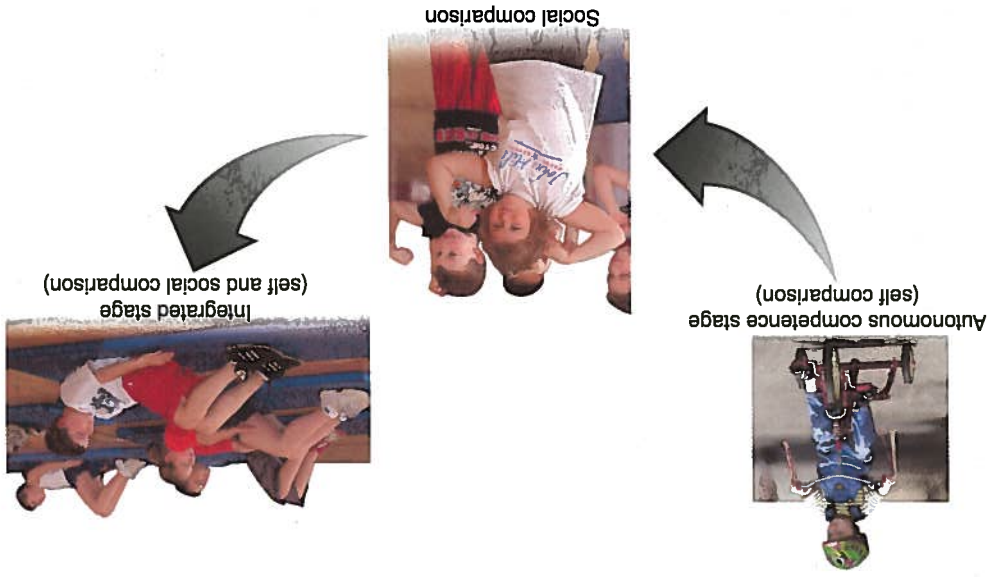


FIGURE 4.6 Three stages in the development of achievement motivation.

Tips for Guiding Achievement Orientation

- Consider the interaction of personal and situational factors in influencing achievement behavior.
- Emphasize task goals and downplay ego goals.
- Create a task-oriented motivational climate.
- Monitor and alter your attributional feedback.
- Assess and correct inappropriate participant attributions.
- Help participants determine when to compete and when to focus on individual improvement.
- Enhance perceptions of competence and control.

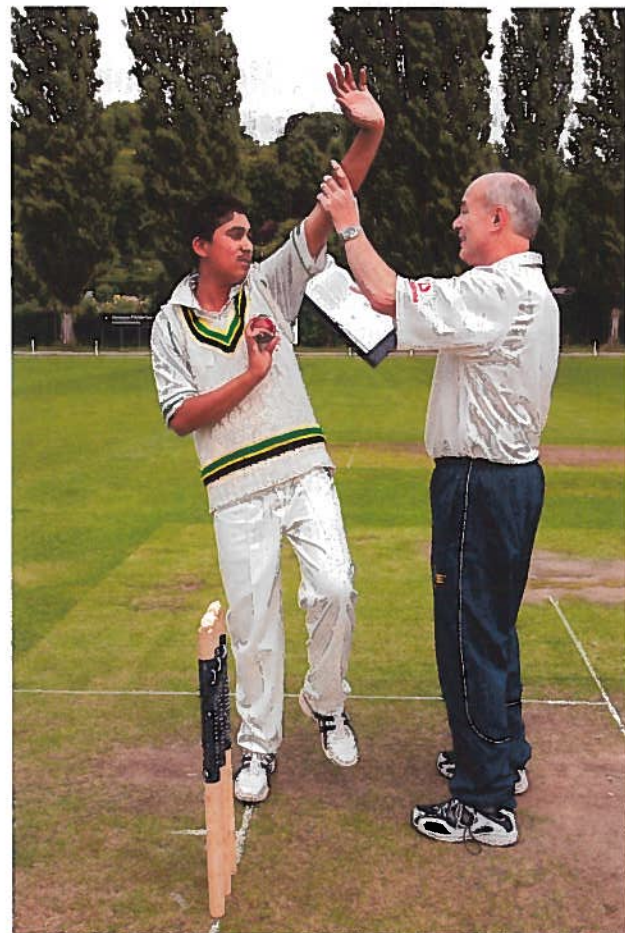
Importance of Distinguishing Between Stages

Recognizing the developmental stages of achievement motivation and competitiveness helps us better understand the behavior of people we work with, especially children. Thus, we will not be surprised when a preschooler is not interested in competition or when fourth and fifth graders seem preoccupied with it. An integrated achievement orientation, however, must ultimately be developed, and it is important to teach children when it is appropriate or inappropriate to compete and compare themselves socially.

Influencing Stages of Achievement Motivation

The social environment in which a person functions has important implications for achievement motivation and competitiveness. Significant others can play an important role in creating a positive or negative climate. Parents, teachers, and coaches all play especially important roles. Teachers and coaches directly and indirectly create motivational climates. They define tasks and games as competitive or cooperative, group children in certain ways (e.g., picking teams through a public draft in which social comparison openly occurs), and differentially emphasize task or ego goals (Ames, 1987; Roberts, 1993).

As professionals, we can play significant roles in creating climates that enhance participant achievement motivation. For example, Treasure and Roberts (1995) created both task and ego motivational climates in a study of a youth soccer physical education class by randomly assigning the children to either a task or ego-oriented climate. They found that after 10 sessions of having players participate in each climate, players who performed in the task climate focused more on



A coach must understand what motivates his athletes. The tactics used to motivate this athlete may be very different from the tactics used to motivate his teammates.

effort, were more satisfied, and preferred more challenging tasks compared with those who performed in the ego-oriented motivational climate. In another study, Gershgoren, Tenenbaum, Gerhgoren, and Eklund (2011) randomly assigned youth soccer players and their

Using Achievement Motivation in Professional Practice

parents to different parental feedback conditions and examined the effects of parental feedback on players' goal orientations and performance on a penalty kick task. Findings revealed that players who received task-oriented feedback from their parents perceived the motivational climate to be more task oriented and became more task-oriented and less ego-oriented while performing. Similarly, Pensgaard and Roberts (2000) examined the relationship between motivational climate and stress in Olympic soccer players and found that a perception of a mastery climate was related to reduced stress. Hence, the motivational climate created by parents, teachers, and coaches influences achievement motivation and other important psychological states (e.g., stress).

Recognize Interactional Factors in Achievement Motivation

You now know that the interaction of personal and situational factors influences the motivation that particular students, athletes, and exercisers have to achieve. What should you watch for to guide your practice? Essentially, you assess

- the participants' stages of achievement motivation,
- their goal orientations,
- attributions they typically make about their performances, and
- situations they tend to approach or avoid.

Let's take two examples. Jose performs well in competition, seeks out challenges, sets task-oriented approach goals, and attributes success to stable internal factors such as his ability. He also adopts an incremental approach where he believes hard work leads to achievement. These are desirable behaviors, and he is most likely a high achiever. Felix, on the other hand, avoids competitors of equal ability, gravitates toward extreme competitive situations (where either success or failure is almost certain), focuses on ego goals, becomes tense

Emphasize Task Goals

in competitions, and attributes failure to his low ability (or attributes success to external, unstable factors, such as luck). Felix is also characterized by an entity view of achievement where he views his abilities as fixed and in many ways nonalleable. Because of this, Felix demonstrates maladaptive achievement behavior and will need your guidance. Felix's may even be a case of **learned helplessness**, an acquired condition in which a person perceives that his or her actions have no effect on the desired outcome of a task or skill (Dweck, 1980). In other words, the person feels doomed to failure and believes that nothing can be done about it. The individual probably makes unhelpful attributions for failure and feels generally incompetent.

Focus on Approach Goals

Emphasize task goals as well as approach goals with students, athletes, and exercisers. Do not emphasize avoidance goals, and make an effort to intervene if students are voicing avoidance goals.

Monitor and Alter Attributional Feedback

In addition to downplaying ego goals and emphasizing task or individual-specific mastery goals, you must be conscious of the attributions you make while giving feedback. It is not unusual for teachers, coaches, or exercise leaders to unknowingly convey subtle but powerful messages through the attributions that accompany their feedback. Adults influence a child's interpretations of performance success—and future motivation—by how they give feedback (Biddle et al., 2001; Horn, 1987). For example, notice how this physical educator provides feedback to a child in a volleyball instructional setting:

“You did not bump the ball correctly. Bend your knees more and contact the ball with your forearms. Try harder—you'll get it with practice.”

The coach not only conveys instructional information to the young athlete but also informs the child that he can accomplish the task. The instructor concludes the message by stating that persistence and effort pay off. In contrast, consider the effects of telling that same child the following:

“ You did not bump the ball correctly! Your knees were not bent and you did not use your forearms. Don’t worry, though—I know softball is your game, not volleyball.”

Although well-meaning, this message informs the young athlete that she will not be good at volleyball so she shouldn’t bother trying. Of course, you should not make unrealistic attributions (e.g., telling an exerciser that with continued work and effort she can become an Olympic marathoner when in fact her body type makes this unlikely). Rather, the key is to emphasize task goals by focusing on individual improvement and then to link attributions to those individual goals (e.g., “I’ll be honest: You won’t become an Olympic marathoner, but with hard work and consistent training you can run farther and faster and become a lot fitter than you are now”).

When you work with children, attributing performance failure to their low effort may be effective only if they believe they have the skills they need to ultimately achieve the task (Horn, 1987). If Oscar believes that he is totally inept at basketball, telling him that he didn’t learn to dribble because he did not try will not increase his achievement motivation—it may only reinforce

his low perception of ability. Do not make low-effort attributions with children under the age of 9 unless you also reassure them that they have the skills needed to accomplish the task. The child must believe he has the skills necessary to perform the task.

Assess and Correct Inappropriate Attributions

We need to monitor and correct inappropriate or maladaptive attributions that participants make of themselves. Many performers who fail (especially those with learned helplessness) attribute their failure to low ability, saying things such as “I stink” or “Why even try? I just don’t have it.” They adopt an entity perspective to defining ability. Teaching children in classroom situations to replace their lack-of-ability attributions with lack-of-effort attributions helped them alleviate performance decrements after failure—this strategy was more effective than actual success (Dweck, 1975)! Moreover, attribution retraining that focuses on creating positive emotional states and expectations after success and avoiding low-ability attributions after failure has been shown to be effective in sport and physical education contexts (Biddle et al., 2001). If you hear students or clients make incorrect attributions for successful performances, such as “That was a lucky shot,” correct them and indicate that hard work and practice—not luck—made the shot successful. Especially important is the need to correct participants when they make low-ability attributions after failure. Get them to change

Attributional Guidelines for Providing Instructor Feedback

Do

- In the case of student or client failure, emphasize the need to try harder and exert effort. However, link such attributions to individual goals and capabilities.
- In the case of student or client success, attribute success to ability.
- In the case of student or client success, attribute success to high effort.

Don’t

- In the case of student or client failure, don’t make low ability attributions signifying that personal improvement is unlikely.
- In the case of student or client success, don’t attribute success to luck.
- In the case of student or client success, don’t attribute success to easiness of task.
- In general, don’t make insincere or false attributions of any kind.

Adapted from American College of Sports Medicine, *ACSM’s Health/Fitness Facility Standards and Guidelines*, 2nd ed. (Champaign, IL: Human Kinetics, 1997)

SUMMARY

1. **Define motivation and its components.**
Motivation can be defined as the direction and intensity of effort. The direction of effort refers to whether an individual seeks out, approaches, or is attracted to certain situations. The intensity of effort refers to how much effort a person puts forth in a particular situation.
2. **Describe typical views of motivation and whether they are useful.**
Three views of motivation include the trait-centered view, the situation-centered view, and the interactional view. Among these models of motivation, the participant-by-situation interactional view is the most useful for guiding professional practice.
3. **Detail useful guidelines for building motivation.**
Five fundamental observations, derived from the interactional view of motivation, make good guidelines for practice. First, participants are motivated both by their internal traits and by situations. Second, it is

LEARNING AIDS

Determine When Competitive Goals Are Appropriate

You are also responsible for helping participants determine when it is appropriate to compete and when it is appropriate to focus on individual improvement. Competing is sometimes a necessity in society (e.g., to make an athletic team or to gain admission to a selective college). At times, however, competing against others is counterproductive. You wouldn't encourage a basketball player to not pass off to teammates who have better shots or a cardiac rehabilitation patient to exceed the safe training zone in order to be the fastest jogger in the group. The key, then, is developing judgment. Through discussion you can help students, athletes, and exercisers make good decisions in this area. Society emphasizes

Teaching children in classroom situations to replace lack-of-ability attributions with lack-of-effort attributions helped alleviate performance decrements after failure.

Key Point

Activity 4.4 helps you learn to empower athletes.

from statements such as "I stink; why even try? I will never get it" to "I'll get it if I just hang in there and focus on what my coach said to do." You have an important responsibility to ensure that participants use attributions that will facilitate achievement motivation and efforts.

Enhance Feelings of Competence and Control

Enhancing perceived competence and enhancing feelings of control are critical ways to foster achievement motivation in physical activity participants, especially children (Weiss, 1993). You can do this by keeping practices and competitions fun and focused on achievement and by matching participant skills and abilities. Instructors can enhance competence by using appropriate feedback and reinforcement and by helping create individualized challenges and goals for participation (see chapters 7 and 16, respectively). Maximizing the involvement of all participants is critical for enhancing competence. Chapter 15 discusses additional means of enhancing competence.

Activity 4.5 has you apply your knowledge of motivation by completing a case study on regaining motivation.

Key Point

Make consistent and repeated use of achievement motivation strategies.

social evaluation and competitive outcomes so much that you will need to counterbalance by stressing a task (rather than an outcome) orientation. Talking to someone once or twice about this issue is not enough. Consistent, repeated efforts are necessary to promote good judgment about appropriate competition.

important to understand participants' motives for involvement. Third, you should structure situations to meet the needs of participants. Fourth, recognize that as a teacher, coach, or exercise leader you play a critical role in the motivational environment. Fifth, use behavior modification to change participants' undesirable motives. You must also develop a realistic view of motivation: Recognize that other factors not related to motivation influence sport performance and behavior and learn to assess whether motivational factors may be readily changed.

4. Define achievement motivation and competitiveness and indicate why they are important.

Achievement motivation refers to a person's efforts to master a task, achieve excellence, overcome obstacles, perform better than others, and take pride in exercising talent. Competitiveness is a disposition to strive for satisfaction when making comparisons with some standard of excellence in the presence of evaluative others. These notions are important because they help us understand why some people seem so motivated to achieve and others seem simply to go along for the ride.

5. Compare and contrast theories of achievement motivation.

Theories of achievement motivation include the need achievement theory, the attribution theory, the achievement goal theory, and the competence motivation theory. Together these theories suggest that high and low achievers can be distinguished by their motives, the tasks they select to be evaluated on, the effort they exert during competition, their persistence, and their performance. High achievers usually adopt mastery (task) and approach goals and have high perceptions of their ability and control. They attribute success to stable, internal factors such as high ability and attribute failure to unstable, controllable factors such as low effort. They are characterized by an incremental view of achievement. Low achievers, on the other hand, usually have low perceived ability and control, judge themselves more on ego goals, focus on avoidance goals, and attribute successes to luck or ease of the task (external, uncontrollable factors). They attribute failure to low ability (an internal, stable attribute). Low achievers are also characterized by an entity view of achievement.

6. Explain how achievement motivation develops.

Achievement motivation and its sport-specific counterpart, competitiveness, develop through stages that include an autonomous stage when the individual focuses on mastery of her environment, a social comparison stage when the individual compares herself with others, and an integrated stage when the individual both focuses on self-improvement and uses social comparison. The goal is for the individual to reach an autonomous, integrated stage and to know when it is appropriate to compete and compare socially and when instead to adopt a self-referenced focus of comparison.

7. Use fundamentals of achievement motivation to guide practice.

Parents, teachers, and coaches significantly influence the achievement motivation of children and can create climates that enhance achievement and counteract learned helplessness. They can best do this by (a) recognizing interactional influences on achievement motivation, (b) emphasizing individual task goals and downplaying ego goals, (c) monitoring the attributions made by those with whom you work and providing appropriate attributional feedback, (d) teaching participants to make appropriate attributions, (e) discussing with participants when it is appropriate to compete and compare themselves socially and when it is appropriate to adopt a self-referenced focus, and (f) facilitating perceptions of competence and control.

KEY TERMS

motivation	probability of success	task oriented
direction of effort	incentive value of success	task goal orientation (mastery goal orientation)
intensity of effort	resultant tendency (behavioral tendency)	entity view
trait-centered view (participant-centered view)	attribution theory	incremental focus
situation-centered view	stability	competence motivation theory
interactional view	locus of causality	learned helplessness
achievement motivation	locus of control	
competitiveness	achievement goal theory	
need achievement theory	ego oriented	

REVIEW QUESTIONS

1. Explain the direction and intensity aspects of motivation.
2. Identify three general views of motivation. Which should be used to guide practice?
3. Describe five fundamental guidelines of motivation for professional practice.
4. What are the primary motives people have for participating in sport? What are their primary motives for participating in exercise activities?
5. In what ways does achievement motivation influence participant behavior?
6. Explain and distinguish four theories that explain achievement motivation.
7. What are attributions? Why are they important in helping us understand achievement motivation in sport and exercise settings?
8. Distinguish between an outcome (competitive) and a task (mastery) goal orientation. Which should be most emphasized in sport, physical education, and exercise settings? Why?
9. Identify the three stages of achievement motivation and competitiveness. Why are these important?
10. Discuss how a teacher's or coach's attributional feedback influences participant achievement. What is learned helplessness? Why is it important?

CRITICAL THINKING QUESTIONS

1. List at least three ways to better understand someone's motives for involvement in sport and physical activity.
2. Design a program that eliminates learned helplessness in performers. Indicate how you will foster an appropriate motivational climate.