Chapter 14

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Self-Confidence

After reading this chapter you should be able to

1. define and understand the benefits of self-confidence,
2. understand how expectations affect performance and behavior,
3. explain the theory of self-efficacy,
4. explain how you would assess self-confidence, and
5. describe strategies for building self-confidence.

If you listen to interviews with athletes and coaches after competitions, you will inevitably hear them discussing the critical role that self-confidence (or a lack of self-confidence) played in their mental success (or failure). Research, too, indicates that the most consistent factor distinguishing highly successful from less successful athletes is confidence (Jones & Hardy, 1990). In interviews with 63 of the highest achievers from a wide variety of sports, nearly 90% stated that they had a very high level of self-confidence. What this means is that top athletes, regardless of the sport, consistently display a strong belief in themselves and their abilities. Let's look at how Olympic decathlon gold medalist Daly Thompson and all-time tennis great Jimmy Connors view confidence.

> *I've always been confident of doing well. I know whether or not I'm going to win. I have doubts, but come a week or ten days before the event, they're all gone. I've never gone into competition with any doubts. I've always had confidence of putting 100% in and at the end of the day, I think regardless of where you come, you can't do any more than try your best.*
>
> **— *Daly Thompson (cited in Hemery, 1986, p. 156)***

> *The whole thing is never to get negative about yourself. Sure, it's possible that the other guy you're playing is tough and that he may have beaten you the last time you played, and okay, maybe you haven't been playing all that well yourself. But the minute you start thinking about these things you're dead. I go out to every match convinced that I'm going to win. That's all there is to it.*
>
> **—*Jimmy Connors (cited in Weinberg, 1988, p. 127)***

Even elite athletes sometimes have self-doubts, however, although they still seem to hold the belief they can perform at high levels. Former world-class middle-distance runner Herb Elliot stated, "I think one of my big strengths has been my doubts of myself; if you're very aware of the weaknesses and are full of your own self-doubts, in a sense, that's quite a motivation" (Hemery, 1986, p. 155). So sometimes there is a struggle between feeling self-confident and recognizing your weaknesses. Let's begin by defining what we mean by self-confidence.

Defining Self-Confidence

Although we hear athletes and exercisers talk about confidence all the time, it is not an easy term to define precisely. Sport psychologists define **self-confidence** as the belief that you can successfully perform a desired behavior. The desired behavior might be kicking a soccer goal, staying on an exercise regimen, recovering from a knee injury, serving an ace, or hitting a home run. But the common factor is that you believe you will get the job done.

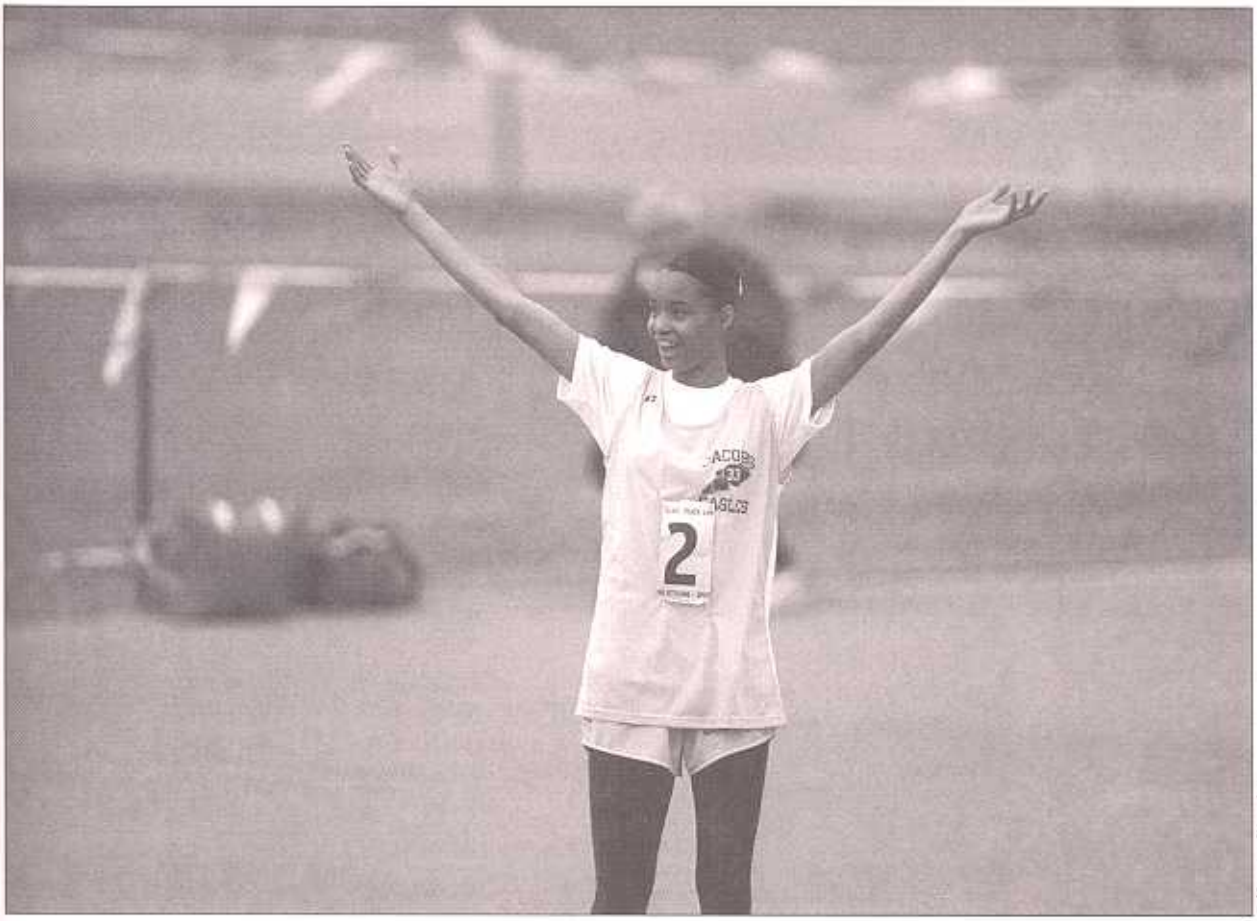
Vealey (1986) views self-confidence as both a trait and a state. **Trait self-confidence** is defined as the belief or degree of certainty individuals usually possess about their ability to be successful in sport. **State self-confidence** is the belief of certainty individuals possess at a particular moment about their ability to be successful in sport. Although someone might have a general or overall level of self-confidence, this can change from situation to situation or even within a competition. Here is how a college basketball player described self-confidence and its sometimes transient nature:

> *The whole thing is to have a positive mental approach. As a shooter, you know that you will probably miss at least 50% of your shots. So you can't get down on yourself just because you miss a few in a row. Still, I know it's easy for me to lose my confidence fast. Therefore, when I do miss several shots in a row I try to think that I am more likely to make the next one since I'm a 50% shooter. If I feel confident in myself and my abilities, then everything else seems to fall into place.*

Confident athletes believe in themselves. Most importantly, they believe in their ability to acquire the necessary skills and competencies, both physical and mental, to reach their potential. Less confident players doubt whether they are good enough or have what it takes to be successful.

When you doubt your ability to succeed or expect something to go wrong, you are creating what is called a **self-fulfilling prophecy**—which means that expecting something to happen actually helps cause it to happen. Unfortunately, this phenomenon is common in both competitive sport and exercise programs. Negative self-fulfilling prophecies are psychological barriers that lead to a vicious cycle: The expectation of failure leads to actual failure, which lowers self-image and increases expectations of future failure. For example, a baseball batter in a slump begins to expect to strike out, which leads to increased anxiety and decreased concentration, which in turn usually result in lowered expectancies and poorer performance.

A great example of someone overcoming a negative self-fulfilling prophecy is the story of how Roger



Bannister broke the 4-minute mile. Before 1954 most people claimed there was no way to run a mile in less than 4 minutes. Many runners were timed at 4:03, 4:02, and 4:01, but most runners agreed that to get below 4 minutes was physiologically impossible. Roger Bannister, however, did not. Bannister felt certain that he could break the 4-minute barrier under the right conditions—and he did. Bannister's feat was impressive, but what's really interesting is that in the next year more than a dozen runners broke the 4-minute mile. Why? Did everyone suddenly get faster or start training harder? Of course not. What happened was that runners finally believed it could be done. Until Roger Bannister broke the barrier, runners had been placing psychological limits on themselves because they felt it just wasn't possible to break the 4-minute mile.

Benefits of Self-Confidence

Self-confidence is characterized by a high expectancy of success. It can help individuals to arouse positive emotions, facilitate concentration, set goals, increase effort, focus their game strategies, and maintain momentum. We'll discuss each of these briefly.

Confidence Arouses Positive Emotions

When you feel confident, you are more likely to remain calm and relaxed under pressure. This state of mind and body allows you to be aggressive and assertive when the outcome of the competition lays in the balance.

Confidence Facilitates Concentration

When you feel confident, your mind is free to focus on the task at hand. When you lack confidence, you tend to worry about how well you are doing or how well others think you are doing. A preoccupation with avoiding failure will impair concentration by making you more easily distracted.

Confidence Affects Goals

Confident people tend to set challenging goals and pursue them actively. Confidence allows you to reach for the stars and realize your potential. People who are not confident tend to set easy goals and never push themselves to the limits (see goal setting in chapter 15).

Confidence Increases Effort

How much effort someone expends and how long she will persist in pursuit of that goal depend largely

on confidence (Weinberg, Yukelson, & Jackson, 1980). When ability is equal, the winners of competitions are usually the athletes who believe in themselves and their abilities. This is especially true where persistence is essential, such as running a marathon, playing a 3-hour tennis match, or enduring painful rehabilitation sessions.

Confidence Affects Game Strategies

People in sport commonly refer to "playing to win" or, conversely, "playing not to lose." These phrases sound similar but they produce very different styles of play. Confident athletes tend to play to win: They are usually not afraid to take chances and so they take control of the competition to their advantage. When athletes are not confident, they play not to lose: They are tentative and try to avoid making mistakes. For example, a confident basketball player who comes off the bench will try to make things happen by scoring, stealing a pass, or getting an important rebound to ignite the team. A less confident player will try to avoid making a mistake, like turning over the ball or failing to take an open shot. They are content not to mess up and less concerned with making something positive happen.

Confidence Affects Psychological Momentum

Athletes and coaches refer to momentum shifts as critical determinants of winning and losing (Miller & Weinberg, 1991). Being able to produce positive momentum or reverse negative momentum is an important asset. Highly skilled athletes are better able to rebound from adversity (i.e., being behind) than are their less elite counterparts (Ransom & Weinberg, 1985). And confidence appears to be a critical ingre-

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Psychological Momentum: Illusion or Reality?

Most coaches and athletes speak about the concept of psychological momentum and how it is often elusive; you have it one minute and the next minute you don't. Competitions often seem to sway back and forth: One team or player is "on a roll" and then, just as quickly, the other team or player gets rolling. Researchers have found that this feeling of momentum might be more an illusion than a reality. For example, a study investigated the "hot hand" phenomenon in basketball, which traditionally has meant that when a player has hit a few shots in a row, he or she is likely to continue making baskets. But using records from professional basketball teams, researchers mathematically analyzed the probability of making a shot after having made several shots in a row. They discovered that a player was just as likely to miss the next basket as to make the next basket after having several successful shots in a row (Gillovich, Vallone, & Tversky, 1985). Other psychologists learned that after scoring three consecutive points and having momentum, volleyball teams were just as likely to win as to lose the next point (Miller & Weinberg, 1991). Researchers continue to investigate this elusive concept of psychological momentum.

dient in this process. People who are confident in themselves and their abilities have a never-give-up attitude. They view situations in which things are going against them as challenges and react with increased determination. For example, Wayne Gretzky, Michael Jordan, Steffi Graf, and Tiger Woods exude the confidence to reverse momentum when the outlook looks bleak.

Optimal Self-Confidence

Although confidence is a critical determinant of performance, it will not overcome incompetence. Confidence can take an athlete only so far. The relation between confidence and performance can be represented by the form of an inverted-U with the highest point skewed to the right (see Figure 14.1). Performance improves as the level of confidence increases—up to an optimal point, whereupon further increases in confidence produce corresponding decrements in performance.

Optimal self-confidence means being so convinced that you can achieve your goals that you will strive hard to do so. It does not necessarily mean you will always perform well, but it is essential to reaching your potential. You can expect to make some errors and bad decisions, and you might lose concentration occasionally.

People strive for an individual, optimal confidence level but sometimes become either overconfident or underconfident.

But a strong belief in yourself will help you deal with errors and mistakes effectively and keep you striving toward success. Each person has an optimal level of self-confidence, and performance problems can arise with either too little or too much confidence.

Lack of Confidence

Many people have the physical skills to be successful but lack confidence in their ability to perform these skills under pressure—when the game or match is on the line. For example, a volleyball player consistently hits strong and accurate spikes during practice. In the match, however, her first spike is blocked back in her face. She starts to doubt herself and becomes tentative and conservative in subsequent spikes, thus losing her effectiveness.

Self-doubts undermine performance: They create anxiety, break concentration, and cause indecisiveness. Individuals lacking confidence focus on their shortcomings rather than on their strengths, distracting themselves from concentrating on the task at hand. Sometimes athletes in the training room doubt their ability to fully recover from injury. Exercisers often have self-doubts about the way they look or their ability to stay with a regular exercise program. But, as noted earlier, for some individuals a little self-doubt keeps them motivated and prevents complacency or overconfidence.

Overconfidence

Overconfident people are actually falsely confident. That is, their confidence is greater than their

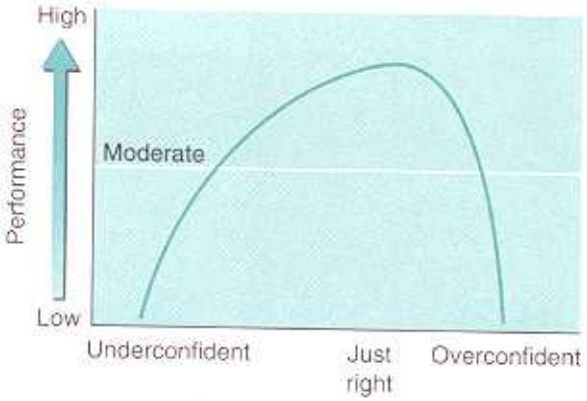


Figure 14.1 The inverted-U illustrating the confidence-performance relationship.

abilities warrant. Their performance declines because they believe that they don't have to prepare themselves or exert the effort to get the job done. This occurs when a top-rated team takes another team for granted, its members thinking that all they have to do is show up to win. You cannot be overconfident, however, if your confidence is based on actual skill and ability (and, in other words, as long as you give proper credit to your competitor). As a general rule, overconfidence is much less a problem than underconfidence. When it does occur, however, the results can be just as disastrous.

In the mid-1970s Bobby Riggs lost a famous "battle of the sexes" tennis match against Billie Jean King. Riggs explained the loss this way:

> *It was mainly a case of overconfidence on my part. I overestimated myself. I underestimated Billie Jean's ability to meet the pressure. I let her pick the surface and the ball because I figured it wouldn't make a difference, that she would beat herself. Even when she won the first set, I wasn't worried. In fact, I tried to bet more money on myself. I miscalculated. I ran out of gas. She started playing better and better. I started playing worse. I tried to slow up the game to keep her back but she kept the pressure on. (Tarshis, 1977, p. 48)*

A more common situation is when two players or teams of different abilities play each other. The better player or team often approaches the competition overconfidently. They slight preparation and play haphazardly, which may well cause them to fall behind early in the competition. The opponent, meanwhile, starts to gain confidence, making it even harder for the overconfident players to come back and win the competition. This scenario happens even to the best athletes, but they will usually not let it happen often.

False overconfidence is seen sometimes when athletes attempt to cover self-doubts. Most coaches encourage athletes to be confident, so players usually aren't comfortable showing self-doubt. Thus, they fake overconfidence to hide actual feelings of self-doubt. It would be more constructive to express these feelings to the coach and have the coach devise a program to help athletes remove their doubts and gain back their self-confidence. Of course, this means that the coach or teacher must create an atmosphere that encourages open communication from their students or athletes.

How Expectations Influence Performance

Since self-confidence is the belief that you can successfully perform a desired behavior, it becomes clear that one's expectations play a critical role in the behavior-change process. Research has shown that giving people a sugar pill for extreme pain (telling them that it's morphine) can produce as much relief as a painkiller. In essence, the powerful effect of expectations on performance is evident in many aspects of daily life, including sport and exercise. Keeping expectations high and maintaining confidence under adversity are important not only for athletes and exercisers but also for officials. Here is what a professional tennis umpire has said on the subject:

> *The chair umpire in tennis is a job that requires individuals who have confidence in themselves and are not easily shaken. The players hit the ball so hard and fast and close to the lines that it is virtually impossible to be absolutely certain of all the calls. But . . . you can't start to doubt yourself, because once you do, you start to lose control of the match. In the end the players will respect you and your calls more if you show them that you are confident in your judgment and your abilities.*

Self-Expectations and Performance

There have been some interesting studies to demonstrate the relation of expectations and performance.

Positive expectations for success have been shown to produce positive effects in many fields of life, including sport.

Expecting to beat a tough opponent or successfully perform a difficult skill can produce exceptional performance as psychological barriers are overcome.

In one study, subjects were each paired with someone they thought clearly stronger in arm strength and then instructed to arm wrestle (Nelson & Furst, 1972). Remarkably, in 10 of the 12 contests, the objectively weaker subject (whom both subjects believed was stronger) won the competition. Clearly, the most important factor was not actual physical strength but who the competitors expected to win.

In another study two groups of subjects were told that they were lifting either more weight or less weight than they really were (Ness & Patton, 1979). For example, someone who had already lifted 130 pounds was told he was given 130 pounds again, when in fact he was given 150 pounds, or vice versa. A third group of subjects was told nothing about how much weight they were lifting. Subsequently, subjects lifted the most weight when they thought they were lifting less—that is, when they believed and expected they could lift the weight.

In a study conducted on the 1976 U.S. men's Olympic gymnastics team (Mahoney & Avener, 1977), researchers interviewed gymnasts to assess their level of confidence. The gymnasts with self-doubts tended to perform worse during the qualifying meet than those who expressed no self-doubts. Among the 12 finalists, the gymnasts who exhibited the strongest expectations of success in the meet tended to perform the best. More recent studies have also found that self-confidence was a critical factor in discriminating between successful and less successful performers (Jones, Hanton, & Swain, 1994; Mahoney, Gabriel, & Perkins, 1987). In summary, these studies demonstrate the critical role that self-expectations play on an athlete's performance.

Coaching Expectations and Athletes' Performance

The idea that a coach's expectations could affect athletes' performances evolved from a classic study: Rosenthal and Jacobson (1968) informed teachers that a standardized test of academic ability had identified certain children in each of their classes as "late bloomers" who could be expected to show big gains in academic achievement and IQ over the course of the school year. In fact, these children had been

Your expectations of others affect not only your own behavior but the feelings and behavior of others.

selected at random, so there was no reason to expect they would show greater academic progress than their classmates. But at the end of the school year, these so-called late bloomers did in fact achieve greater gains in IQ scores than the other children did. Rosenthal and Jacobson suggested that the false test information made the teachers expect higher performance from the targeted students, which led them to give these students more attention, reinforcement, and instruction. The students' performance and behavior thus conformed to the teachers' expectations that they were gifted students.

Studies in physical education classrooms (Martinek & Johnson, 1979) and competitive sport environments (Chase, Lirgg, & Feltz, 1997; Solomon, Striegel, Eliot, Heon, & Maas, 1996) also indicate that teachers' and coaches' expectations can alter their students' and athletes' performances. These studies found that head coaches provided more of all types of feedback to athletes of whom they had high expectations and that these athletes viewed their coaches more positively. In addition, the coaches' expectations were a significant predictor of their athletes' performances. This process is a form of the self-fulfilling prophecy, but it does not occur in all situations: Some teachers and coaches let their expectations affect their interaction with students and athletes, but others do not.

A sequence of events that occurs in athletic settings seems to explain the expectation-performance relationship (Horn, 1986).

Step 1. Coaches Form Expectations

Coaches usually form expectations of their athletes and teams. Sometimes these expectations come from an individual's race, physical size, gender, or socioeconomic status. These expectations are called **person cues**. The exclusive use of person cues to form judgments about an athlete's competence could certainly lead to inaccurate expectations. Coaches also use **performance information**, such as past accomplishments, skill tests, practice behaviors, and other coaches' evaluations. When these sources of information lead to an accurate assessment of the athlete's ability and potential, there's no problem. However, inaccurate expectations (either too high or too low), especially when they are inflexible, will typically lead to inappropriate behaviors on the part of the coach.

This brings us to the second step in the sequence of events—the self-fulfilling prophecy.

Step 2. Coaches' Expectations Influence Their Behaviors

Among teachers and coaches who behave differently if they have high or low expectancies of a given student or athlete, behaviors usually fit into one of the following categories:

Frequency and Quality of Coach-Athlete Interaction

- Coach spends more time with high-expectancy athletes he or she expects more of.
- Coach shows more warmth and positive affect toward these high-expectancy athletes.

Quantity and Quality of Instruction

- Coach lowers his or her expectations of what skills some athletes will learn, thus establishing a lower standard of performance.
- Coach allows the athletes he or she expects less of correspondingly less time in practice drills.
- Coach is less persistent in teaching difficult skills to these "low-expectation" athletes.

Type and Frequency of Feedback

- Coach provides more reinforcement and praise for "high-expectation" athletes after a successful performance.
- Coach provides less beneficial feedback to "low-expectation" athletes, such as praise after a mediocre performance.
- Coach gives "high-expectation" athletes more instructional and informational feedback.

Here is an example of how a coach's expectations might affect his or her behavior.

During the course of a volleyball game, Kira (whose coach has high expectations of her) attempts to spike the ball despite the fact that the setup was poor, pulling her away from the net. The spike goes into the net, but the coach says, "Good try, Kira, just try to get more elevation on your jump so you can contact the ball above the level of the net." When Janet (whom the coach expects less of) does the same thing, the coach says, "Don't try to spike the ball when you're not in position, Janet. You'll never make a point like that."

Step 3. Coaches' Behaviors Affect Athletes' Performances

In this step the coaches' expectation-biased treatment of athletes affects performance both physically and psychologically. It is easy to understand that athletes who consistently receive more positive and instructional feedback from coaches will show more improvement in their performance and enjoy the competitive experience more. Look at these ways athletes are affected by the negatively biased expectations of their coaches:

- Low-expectation athletes exhibit poorer performances due to less effective reinforcement and playing time.
- Low-expectation athletes exhibit lower levels of self-confidence and perceived competence over the course of a season.
- Low-expectation athletes attribute their failures to lack of ability, thus substantiating the notion that they aren't any good and have little chance of future success.

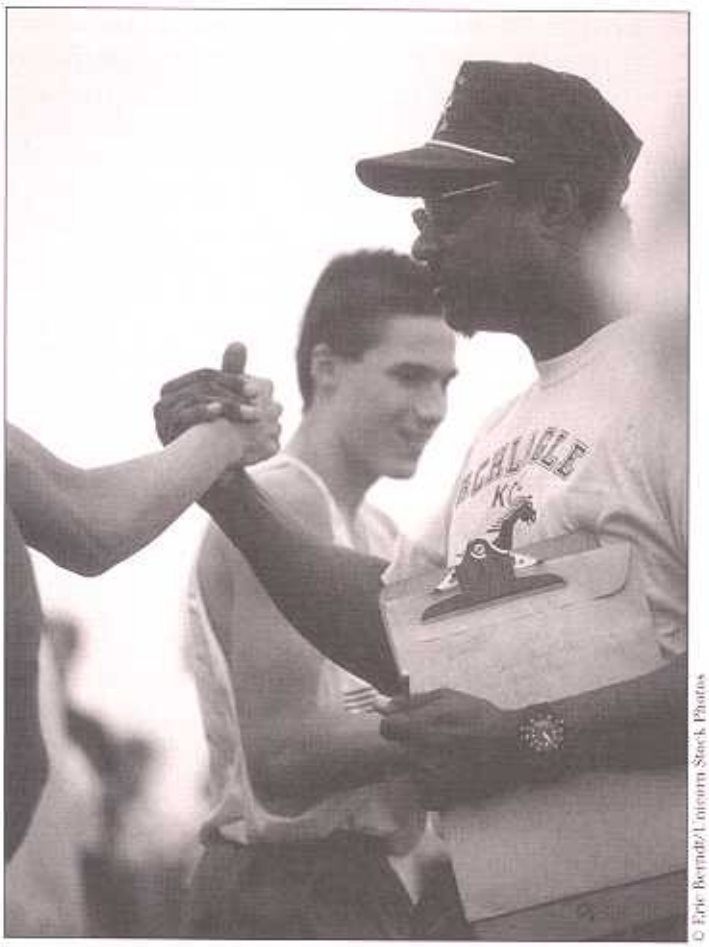
Step 4. Athletes' Performances Confirm the Coaches' Expectations

Step 4 of course communicates to coaches that they were correct in their initial assessment of the athletes' ability and potential. Few coaches observe that their own behaviors and attitudes help produce this result. And not all athletes will allow a coach's behavior or expectations to affect their performance or psychological reactions. Some athletes look to other sources, such as parents, peers, or other adults, to form perceptions of their competency and abilities. The support and information from these other people can often help athletes resist the biases communicated by a coach.

Clearly, sport and exercise professionals, including trainers and rehabilitation specialists, need to be aware of how they form expectations and how their behavior is affected. Early on, both teachers and coaches should determine how they form expectations and whether their sources of information are reliable indicators of an individual's ability. Initial assessments can be mistaken. Coaches and teachers should also monitor the quantity and quality of reinforcement and instructional feedback they give so that they make sure all participants get their fair share. Such actions help ensure that each participant has a fair chance to reach his or her potential and enjoy the athletic experience.

Self-Efficacy Theory

Self-efficacy, the perception of one's ability to perform a task successfully, is really a situation-specific



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Self-efficacy theory provides a model to study the effects of self-confidence on sport performance, persistence, and behavior.

form of self-confidence. For our purposes, we'll use the terms interchangeably. Psychologist Albert Bandura (1977a; 1986) brought together the concepts of confidence and expectations to formulate a clear and useful conceptual model of self-efficacy. Bandura's theory of self-efficacy has been adapted to explain behavior within several disciplines of psychology, and it has formed the theoretical basis adopted for most performance-oriented research in self-confidence and sport. The theory was originally developed within the framework of a social-cognitive approach to behavior change that placed self-efficacy as a common cognitive mechanism for mediating motivation and behavior. Consistent with the orientation of this textbook, self-efficacy theory takes an interactional approach, viewing one's self-efficacy as interacting with environmental determinants to produce behavior change.

Bandura's self-efficacy theory has several underlying premises, including the following:

- If someone has the requisite skills and sufficient motivation, then the major determinant of his or her performance is self-efficacy. Self-efficacy alone is not enough to be successful—an athlete must also want to succeed and have the ability to succeed.
- Self-efficacy affects an athlete's choice of activities, level of effort, and persistence. Athletes who believe in themselves will tend to persevere, especially under adverse conditions.
- Although self-efficacy is task-specific, it can generalize or transfer to other similar skills and situations.
- Self-efficacy is related to goal setting, with those exhibiting high self-efficacy being more likely to set challenging goals.

According to Bandura's theory, one's feelings of self-efficacy are derived from six principal sources

of information: performance accomplishments, vicarious experiences, verbal persuasion, imaginal experiences, physiological states, and emotional states. The fact that these six sources of efficacy are readily applicable in sport and exercise contexts is largely responsible for the theory's popularity among sport and exercise psychologists. These six categories or sources are not mutually exclusive in terms of the information they provide, although some are more influential than others. The relation between the major sources of efficacy information, efficacy expectations, and performance is diagrammed in Figure 14.2. We'll discuss each source in the sections that follow.

Performance Accomplishments

Performance accomplishments (particularly clear success or failure) provide the most dependable basis for self-efficacy judgments because they are based on one's mastery experiences. If experiences are generally successful, they will raise the level of self-efficacy. However, repeated failures will result in expectations of lower efficacy. For example, if a field-goal kicker has kicked the winning field goal in several games as time was running out, he will have a high degree of self-efficacy that he can do it again. Similarly, an athlete rehabilitating from a wrist injury will persist in exercise after seeing steady improvement in her range of motion and wrist strength. Research into diving and gymnastics shows that performance accomplishments increase self-efficacy, which in turn increases subsequent performance (McAuley, 1985) as well as exercise adherence (McAuley, 1992; 1993a). Coaches and teachers can help participants experience the feeling of successful performance by using such tactics as guiding a gymnast through a complicated move, letting young baseball players play on a smaller field, or lowering the basket for young basketball players.

Vicarious Experiences

Physical educators, exercise leaders, athletic trainers, and coaches all often use **vicarious experiences**, also known as demonstration or **modeling**, to help students learn new skills. This can be a particularly important source of efficacy information for

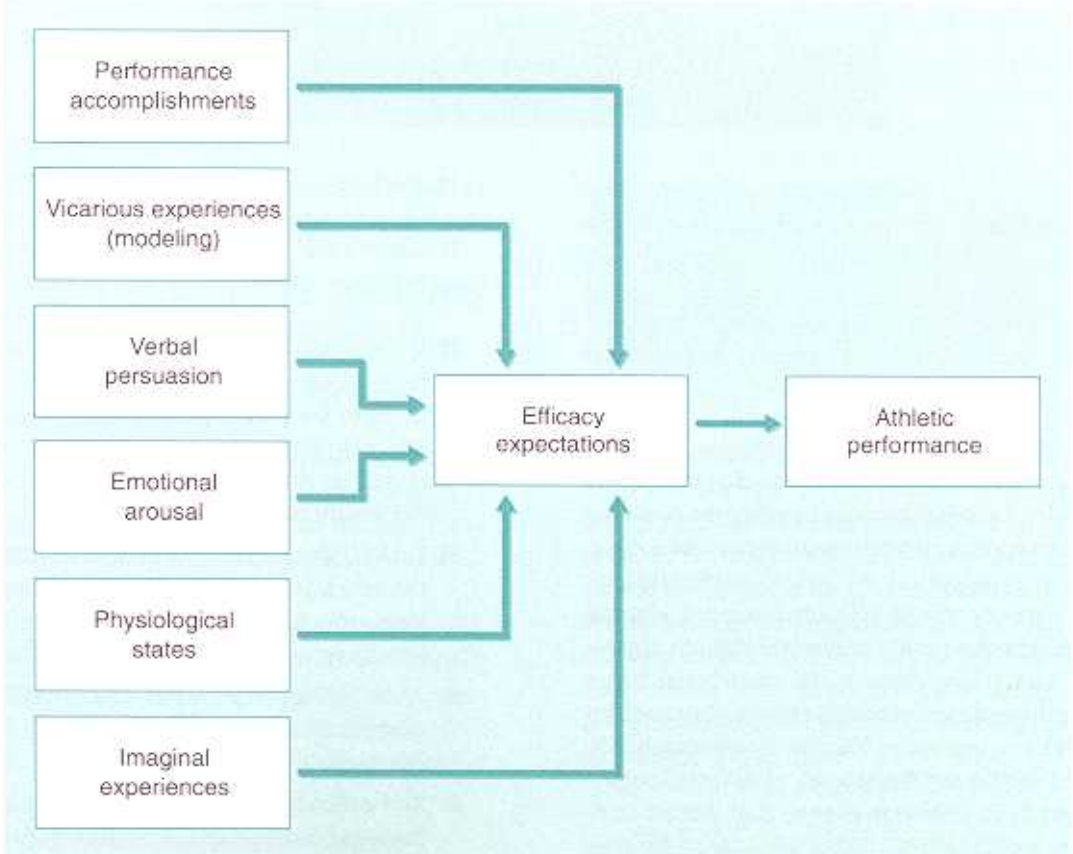

Figure 14.2 *Relations among sources of efficacy information, efficacy expectations, and athletic performance.*
Adapted from Feltz, 1984.

MORE INFORMATION

Sources of Sport Self-Confidence

Recently researchers have identified nine sources of self-confidence specific to sport. Many of these are similar to the six sources Bandura earlier identified in his self-efficacy theory. The nine sources fall into the three general categories of achievement, self-regulation, and climate:

- Mastery—developing and improving skills
- Demonstration of ability—showing ability by winning and outperforming opponents
- Physical and mental preparation—staying focused on goals and prepared to give maximum effort
- Physical self-presentation—feeling good about my body and weight
- Social support—getting encouragement from teammates, coaches, and family
- Coaches' leadership—trusting the coaches' decisions and believing in their abilities
- Vicarious experience—seeing other athletes perform successfully
- Environmental comfort—feeling comfortable in the environment where I will perform
- Situational favorableness—seeing breaks going my way and feeling everything is going right

performers lacking experience with the task at hand, relying on others to judge their own capabilities. For example, seeing a team member complete a difficult move on the uneven parallel bars can reduce anxiety and help convince other gymnasts that they, too, can accomplish this move. Although vicarious experiences are usually not as potent as actual performance accomplishments in building self-efficacy, they have been effective in improving performance. For example, people watching skilled models who were similar to the observers themselves enhanced their self-efficacy and performance (Gould & Weiss, 1981; Lirgg & Feltz, 1991). Coaches view their own modeling of self-confidence as an important, additional source of confidence for their athletes (Gould, Hodge, Peterson, & Giannini, 1989; Weinberg, Grove, & Jackson, 1992). In essence, coaches perceive that if they act confidently, then their athletes will feel more confident.

According to Bandura (1965; 1974; also see McCullagh, Weiss, & Ross, 1989), modeling can be best understood through a four-stage process: attention, retention, motor reproduction, and motivation. In order to learn through watching, careful **attention** must first be given to the model. Our ability to attend to depends on respect for the person observed, interest in the activity, and how well we can see and hear. The best teachers and coaches do not overload you with information, expect you to focus your attention on all the specific elements of the skill, or show the skill only one quick time. Rather, they focus on a few key points, demonstrate several times, and let you know exactly what to look for.

For effective modeling to occur, the observed act must be committed to memory. This **retention** can be accomplished through mental practice techniques, analogies (e.g., tell the athlete to liken the tennis serve motion to throwing a racquet), or by having individuals verbally repeat the key points aloud (Remember the hokey-pokey dance in elementary physical education? "Put your right foot in, take your right foot out."). The key is to help the observer remember the modeled act.

Even if people attend to the demonstrated physical skills and remember how to do them, they still may not be able to perform if they have not learned **motor reproduction**, that is, how to coordinate their muscle actions with their thoughts. For example, you could know exactly what a good approach and

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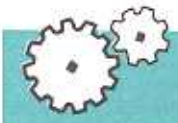


Tips for Giving Effective Demonstrations

Effective modeling is one of the primary sources of self-efficacy. Try to determine whether each tip fits the category of attention, retention, motor reproduction, or motivation.

- Inform learners of the importance of the skill to the game or activity.
- Point out a high-status model (e.g., professional athlete) who effectively uses the skill to be modeled.
- Make sure participants do not face any distractions and that they can all see and hear.
- Make eye contact with the learner as you convey instructions about the modeled act.
- Demonstrate complex skills from several angles (e.g., tennis serve for both left- and right-handed individuals).
- Focus learner attention on only three or four key points of the skill.
- Repeat demonstrations of complex skills.
- Make sure instructions always slightly precede the skill or segment of the skill being demonstrated.
- Have the learners mentally rehearse what was shown immediately after observing the demonstration.
- Practice the skill immediately after it has been demonstrated and mentally rehearsed.
- Have observers name the subunits or parts of the skill.
- Always follow slow-motion demonstrations by giving at least one demonstration performed at full speed.
- Reinforce correct performance of the modeled act.

With children, focus on fewer key points and emphasize mental practice.

delivery in bowling looks like and even be able to mimic the optimal physical action, but without physical practice to learn the timing, you will not roll strikes. When modeling sport and exercise skills, you must make sure you have taught lead-up skills, provided optimal practice time, and considered the progression of how to best order related skills.

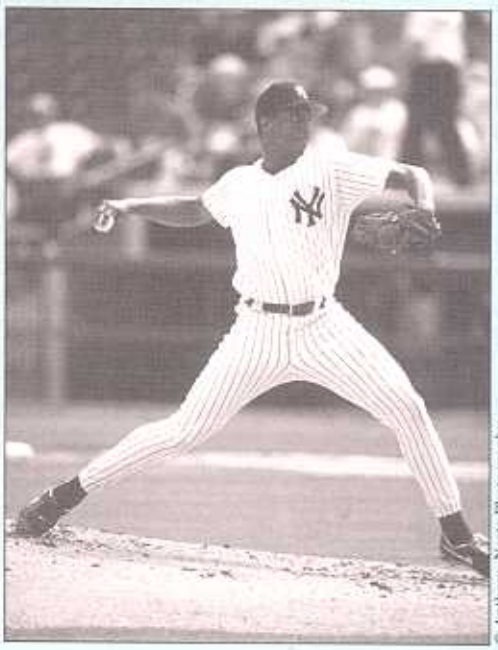
The final stage in the modeling process is **motivation**, and it affects all the other stages. Without being motivated, an observer will not attend to the model, try to remember what was seen, and practice the skill. The key, then, is to motivate the observer through praise, through the promise of earning rewards, by imparting the importance of learning the modeled activity, or by utilizing models who will motivate them.

Verbal Persuasion

Coaches, teachers, and peers often use persuasive techniques to influence behavior. An example would be a baseball coach telling a player, "I know you're a good hitter, so just hang in there and take your swings. The base hits will eventually come." Similarly, an exercise leader might tell an exercise participant to "hang in there and don't get discouraged, even if you have to miss a couple of days." This type of encouragement is important to participants and can be helpful in improving self-efficacy. When a psychological barrier is present, coaches and instructors sometimes even resort to deception to persuade performers that they can perform certain skills. For example, if a high jumper has a mental block about high-jumping six feet, in practice the coach might

MORE INFORMATION

Collective Efficacy: A Special Case of Self-Efficacy



A recent focus of research has been on the concept of collective, or team, efficacy. Collective efficacy refers to a belief or perception shared by members of the team regarding their aggregate capabilities. In short, it's each individual's perception of the efficacy of the team as a whole. Research (Lirgg & Feltz, 1994) has demonstrated that athletes' belief in the team's total (collective) efficacy was positively related to performance; adding up each individual's personal self-efficacy, however, was *not* related to team performance. In essence, coaches should be more concerned with building the efficacy of the team as a whole rather than with each individual player's self-efficacy. Creating a belief in the team and its ability to be successful as a group appears to be critical to success. Many of the great teams (Chicago Bulls, New York Yankees, Montreal Canadians, San Francisco 49ers) have had this sense of team efficacy during their winning years. Therefore, in order to enhance performance and productivity—whether you are a coach, teacher, exercise leader, or head athletic trainer—it seems crucial that you get your team, group, or class to believe in themselves as a unit (as opposed to simply believing in themselves individually).

raise the bar to six feet but tell the athlete it's really 5 feet 10 inches. Using deception is tricky, however, and can undermine credibility and trust.

Verbal persuasion to enhance confidence can also take the form of self-persuasion. Janel Jorgensen, silver medalist in the 100-meter butterfly in the 1988 Olympic Games, explains:

> *You have to believe it's going to happen. You can't doubt your abilities by saying, Oh I'm going to wake up tomorrow and I'm going to feel totally bad since I felt bad today and yesterday. You can't go about it like that. You have to say O.K., tomorrow I'm going to feel good. I didn't feel good today. That's that. We will see what happens tomorrow. (Ripol, 1993, p. 36)*

Imaginal Experiences

Individuals can generate beliefs about personal efficacy or inefficacy by imagining themselves or others behaving effectively or ineffectively in future situations. The key to using imagery as a source of confidence is to see oneself demonstrating mastery (Moritz et al., 1996). A detailed discussion of the use of imagery in sport and exercise settings is provided in chapter 13.

Physiological States

Physiological states influence self-efficacy when individuals associate aversive physiological arousal with poor performance, perceived incompetence, and perceived failure. Thus, when people become aware of unpleasant physiological arousal (e.g., racing heartbeat), they are more likely to doubt their competence than if they were experiencing pleasant physiological arousal (smooth, rhythmical breathing). For instance, some athletes may interpret increases in their physiological arousal or anxiety (such as the heart's beating fast or their breathing being shallow) as a fear that they cannot perform the skill successfully (lowered self-efficacy), whereas others might perceive them as a sign that they are ready for the upcoming competition (enhanced self-efficacy).

Emotional States

Although physiological cues are important components of emotions, emotional experiences are not simply the product of physiological arousal. Thus, emotions or moods can be an additional source of information about self-efficacy. For example, an injured athlete who is feeling depressed and anxious about her rehabilitation would probably have lowered feelings of self-efficacy. Conversely, an athlete who feels energized and positive would probably have enhanced feelings of self-efficacy.

Assessing Self-Confidence

Now that you understand the relation of confidence and performance and that effectiveness can be hampered by overconfidence or underconfidence, the next step is to identify confidence levels in a variety of situations. Athletes might do this by answering the following questions:

- When am I overconfident?
- How do I recover from mistakes?
- When do I have self-doubts?

Sport Confidence Inventory

Read each question carefully and think about your confidence with regard to each item as you competed during the last year or season. For each item indicate by what percentage of time you feel you have had too little, too much, or just the right degree of confidence. Below is an example to give you some confidence in filling out the inventory correctly.

	Underconfident (%)	Confident (%)	Overconfident (%)
You are a pole vaulter:			
How confident are you each time you attempt to clear 17 feet?	20	70	10

The three answers should always add up to 100%. You may distribute this 100% in any way you think is appropriate. You may assign all 100% to one category, split it between two categories, or, as in the example, divide it among all three categories.

	Underconfident (%)	Confident (%)	Overconfident (%)
How confident are you with respect to . . .			
1. your ability to execute the skills of your sport or exercise?	____	____	____
2. your ability to make critical decisions during the contest?	____	____	____
3. your ability to concentrate?	____	____	____
4. your ability to perform under pressure?	____	____	____
5. your ability to execute successful strategy?	____	____	____
6. your ability to put forth the effort needed to succeed?	____	____	____
7. your ability to control your emotions during competition?	____	____	____
8. your physical conditioning or training?	____	____	____
9. your ability to relate successfully to your coach(es)?	____	____	____
10. your ability to come back when behind?	____	____	____

Adapted from ACEP, 1989.

- Is my confidence consistent throughout the event?
- Am I tentative and indecisive in certain situations?
- Do I look forward to and enjoy tough, highly competitive games?
- How do I react to adversity?

The Sport Confidence Inventory presents a more formal and detailed self-confidence inventory to assess confidence levels.

To score your overall confidence, add up the percentages in each of the three columns and then divide by 10. The higher your score in the "Confident" column, the more likely you are to be at your optimal level of confidence during competition. High scores in the "Underconfident" or "Overconfident" columns present some potential problem areas. To determine specific strengths and weaknesses, look at each item. The scale assesses confidence both in physical and mental terms. You can use this questionnaire to inform yourself or others of areas you need to work on.

Building Self-Confidence

Many people believe that you either have confidence or you don't. Confidence can be built, however, through work, practice, and planning. Jimmy Connors is a good example. Throughout his junior playing days, his mother taught him to always hit out and go for winners. Because of this playing style he lost some matches he should have won. Yet Connors said he never could have made it without his mother and grandmother. "They were so sensational in their support, they never allowed me to lose confidence. They just kept telling me to play the same way, and they kept assuring me that it would eventually come together. And I believed them" (Tarshis, 1977, p. 102).

Confidence can be improved through performance accomplishments, acting confidently, thinking confidently, imagery, physical conditioning, and preparation. We will consider each of these in turn.

Performance Accomplishments

We have already discussed the influence of performance accomplishments on self-efficacy, but we'll elaborate on some of those points here. The concept is simple: Successful behavior increases confidence and leads to further successful behavior. The successful accomplishment might be beating a particular opponent, coming from behind to win, fully extending your knee during rehabilitation, or exercising continuously for 30 minutes.

Of course, when a team loses 8 games in a row, it will be hard-pressed to feel confident about winning the next game, especially against a good team. Confidence is crucial to success, but how can you be confident without previous success? It appears to be a "Catch-22" dilemma: "We're losing now because we're not feeling confident, but I think the reason the players don't feel confident is that they have been losing."

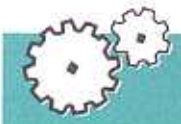
You are certainly more likely to feel confident about performing a certain skill if you can consistently execute it during practice. That's why good practices and preparing physically, technically, and tactically to play your best enhance confidence. For the most part, performance accomplishments build confidence, and confidence then improves subsequent performance. Nothing elicits confidence like experiencing in practice what you want to accomplish in the competition.

Similarly, an athlete rehabilitating a shoulder separation needs to experience some success in improving range of motion to keep up her confidence that she will eventually regain full range of motion. Short-term goals can help her feel she has made progress and can enhance her confidence (also see chapter 15).

A coach should structure practices to simulate actual performance conditions. For example, if foul shooting under pressure has been a problem in the past, each player could shoot an extra 100 free throws during practice. However, that would not simulate actual game action. It would be better for each player to sprint up and down the floor several times before shooting any free throw (since this is what happens during a game). Furthermore, to create pressure a coach might require each player to make five free throws in a row or to continue this drill until they do so. This can create a little pressure and fatigue (just like in the game). As the players start to consistently make their free throws under these conditions, it will build confidence that they can do the same thing in a game.

Performance accomplishments represent the most powerful way to build confidence. Manipulate or create situations that allow participants to experience success and a sense of accomplishment.

APPLICATION



Dos and Don'ts for Building Self-Confidence

Dos

- Do maintain a high positive precompetitive environment.
- Do have high expectations of all your participants.
- Do set realistic but challenging short- and long-term goals.
- Do provide lots of contingent, positive feedback and praise.
- Do structure the environment to provide for early success.
- Do try to find individuals doing something right (as opposed to just looking for their mistakes).

Don'ts

- Don't use sarcasm and put-downs to motivate people.
- Don't allow teammates or group members to belittle other team or group members.
- Don't criticize individuals for inconsequential mistakes or errors.
- Don't embarrass and criticize individuals at the first sign of a mistake.
- Don't criticize the person, criticize the behavior.

Acting Confidently

Thoughts, feelings, and behaviors are interrelated: The more an athlete acts confidently, the more likely she is to feel confident. This is especially important when you begin to lose confidence and your opponent, sensing this, begins to gain confidence. Acting confidently is also important for other sport and exercise professionals. An aerobics instructor should project confidence when leading her class if she wants to have a high-spirited workout. An athletic trainer should act confidently when treating athletes so they feel trust and confidence during the rehabilitation process.

Athletes should try to display a confident image during competition. They can demonstrate their confidence by keeping their head up high—even after a critical error. Many people give themselves away through body language and movements that indicate they are lacking confidence.

Acting confidently can also lift spirits during difficult times. If someone walks around with slumped shoulders, head down, and a pained facial expression, he communicates to all observers that he is down, which works to pull him even further down. It is best to keep your head up, shoulders back, and facial muscles loose to indicate that you are confident and will persevere. This will keep opponents guessing.

Thinking Confidently

Confidence consists of thinking you can and will achieve your goals. As a collegiate golfer noted, "If I think I can win, I'm awfully tough to beat." A positive attitude is essential to reaching potential. Athletic performers need to discard negative thoughts ("I'm so stupid," "I can't believe I'm playing so bad," "I just can't beat this person," or "I'll never make it") and replace them with positive thoughts ("I'll keep getting better if I just work at it," "Just keep calm and focused," "I can beat this guy," or "Hang in there and things will get better"). Thoughts and self-talk should be instructional and motivational rather than judgmental. Correcting one's technique, encouragement, and cues to perform the skill more successfully should be the focus of self-talk (see chapter 16). In fact, positive self-talk not only can provide specific performance cues but also keep motivation and energy high. Although sometimes difficult to do, positive self-talk results in a more enjoyable and successful athletic experience, making it well worth using.

Imagery

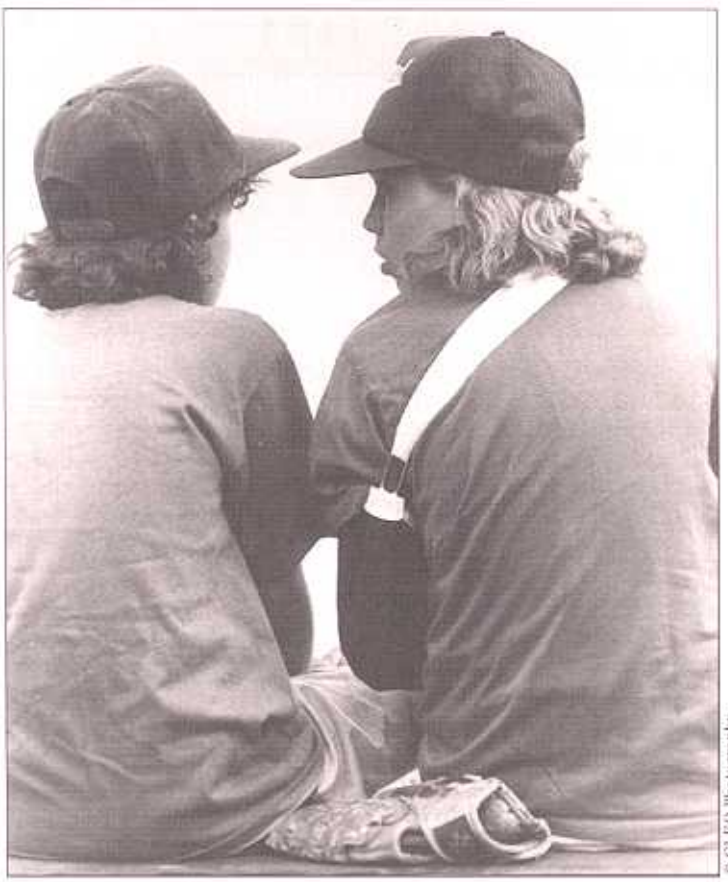
As you can recall from chapter 13, one use of imagery is to help build confidence. You can see yourself

CLOSE-UP

Fast Is What You Think It Is

Kenyon College's Gregg Parini won the 1980 NCAA Division III 50-yard freestyle in 21.49 seconds but worried the next winter about successfully defending his title. Gregg's coach thought a major barrier preventing Gregg from going faster was his conception of what is fast. So he told Gregg that a major difference between swimmers going 20-plus seconds and those going 19-plus was their positive thinking. After all, what's the difference between a 20-plus and 19-plus? One second in a race that covers half the distance of a football field—that's almost nothing.

The coach suggested to Gregg that he was limiting himself by what he thought was fast for a Division III swimmer. Twenty-one plus was fast enough to win Division III, so that's what Gregg swam. Then, the coach asked him what he'd be shooting for if he were swimming in Division I. "Twenty-plus" was Gregg's reply. Gregg won the 1981 Division III Nationals in 20.83 (Bell, 1982, pp. 44–45). Gregg since has been named Division III coach of the year at Denison University.



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doing things that you either have never been able to do or have had difficulty doing. For example, a golfer who consistently has been slicing the ball off the tee can imagine himself hitting the ball straight down the fairway. A long-distance runner can see herself beating an arch rival after losing to her in the last five races. A football quarterback can visualize different defensive alignments and then try to counteract these with specific plays and formations. Similarly, trainers can help injured athletes build confidence by having them imagine getting back on the playing field and performing well.

Physical Conditioning

Being in your best possible physical shape is another key to feeling confident. Athletes in most sports now train year-round to improve strength, endurance, and

flexibility. Training and following good nutritional habits help you know that you can stay out there as long as necessary to get the job done.

Preparation

Jack Nicklaus has said in interviews, "As long as I'm prepared, I always expect to win." The flip side of this is that you can't expect to win if you're unprepared. Being prepared gives you confidence that you have done everything possible to ensure success. A plan gives you confidence because you know what you're going to try to do. Many athletes enter a competition without a strategy. But there should always be a plan of attack, which requires that you have at least a general idea of what you want to accomplish and how you will do it.

Most successful Olympic athletes have detailed plans and strategies of what they want to do. They also have alternative strategies (Gould, Eklund, & Jackson, 1992c; Orlick, 1986). For example, a miler should go into every race with both a plan on how to run the race and an adjustment strategy if the pace of the race dictates such a move. A good plan considers not only your own abilities but also your opponent's.

Good preparation also includes a set precompetition routine. Knowing exactly what will happen and when it will happen gives you confidence and puts your mind at ease. Being sure when you will eat, practice, stretch out, and arrive at the competition helps build confidence that extends to the competition itself. (See chapter 16 for more on precompetition routines.)

SUMMARY

1 *Define and understand the benefits of self-confidence.*

Self-confidence has been defined as the belief that you can successfully perform a desired behavior. High levels of self-confidence can enhance positive emotions, concentration, setting more challenging goals, increasing effort, and developing effective competitive strategies.

2 *Understand how expectations affect performance and behavior.*

Expectations can have a critical affect on performance. Expecting to win or expecting to lose can greatly impact one's performance in a competition. Coaches' or teachers' expectations can also have a tremendous influence on the performance and behavior of students and athletes. Coaches and teachers have been shown to act differently depending on whether they have high or low expectations of a player or student.

3 *Explain the theory of self-efficacy.*

Self-efficacy theory takes an interactional approach to the study of self-confidence, viewing one's self-efficacy as interacting with an environmental determinant to produce behavioral change. The theory views self-efficacy as the major determinant of performance as long as one has the requisite skills and is motivated to perform. The sources of self-efficacy include performance accomplishments, vicarious experiences, verbal persuasion, imaginal experiences, physiological states, and emotional states.

4 *Explain how you would assess self-confidence.*

You can assess self-confidence by asking some key questions such as How do you deal with adversity? How do you recover from a mistake? How easily do you lose your confidence? Do you get tentative in pressure situations? You can also measure self-confidence more formally through psychological confidence inventories. One such inventory asks you to rate yourself as being underconfident, overconfident, or confident about different aspects of your performance.

5 *Describe strategies for building self-confidence.*

Strategies for enhancing one's self-confidence include acting confidently, thinking confidently, using imagery, being in good physical condition, and preparing mentally and physically for upcoming performances.

KEY TERMS

self-confidence
trait self-confidence
state self-confidence
self-fulfilling prophecy
person cues
performance information
self-efficacy
vicarious experiences (modeling)
attention
retention
motor reproduction
motivation

REVIEW QUESTIONS

1. What is self-confidence? How is it related to expectations?
2. Describe two studies that demonstrate the important role that expectations can have on performance.
3. Discuss the implications that Rosenthal's and Jacobson's study on expectation effects has for coaches and physical education teachers.
4. What is self-efficacy? How does it affect behavior?
5. Discuss the six sources of self-efficacy. What evidence supports that these various sources influence efficacy?
6. Discuss Bandura's four-stage modeling process.
7. Discuss three characteristics of confidence and how these are related to athletic performance.
8. Describe the relationship between self-confidence and athletic performance, including the ideas of overconfidence and underconfidence.
9. Discuss three strategies for building self-efficacy, and describe how they affect sport performance.
10. Name three dos and don'ts for coaching when attempting to build self-confidence in athletes.
11. Is psychological momentum an illusion? Discuss this statement, citing relevant research to support your answer.

CRITICAL THINKING QUESTIONS

1. You are a new coach for a high school basketball team. You have just selected your team after rigorous tryouts. You feel that you have a wide range of talent and ability on the team, and you want to be able to develop the younger talent. But you also know how easy it is to fall into the trap of creating differential expectations of the various athletes. Using the four-step process for how coaches' expectations might influence their own behavior and that of their athletes, what specific types of feedback or instruction would you use to keep the expectations of all your athletes high? How would you also structure practices to help keep athlete expectations high?
2. Sometimes we create psychological barriers for ourselves by not believing that we can accomplish something. Discuss three situations in your life (or a close friend's or family member's) when a psychological barrier was created. How could you handle things differently to create a more positive expectation?