# Assessment by the Numbers

Experienced test interpreters can do incredible things with test information. We have seen professionals draw accurate conclusions from TAIS scores in an uncanny manner. Lucky but educated guesses like, "I'll bet the guy is missing two fingers from his right hand" are almost too strange to believe. We've had people look at a TAIS profile and perfectly describe someone they had never met (but whom we knew well). This level of skill takes time to develop. Where do you start?

The first step with any psychological test is to become familiar with the scales on the inventory. You already began this process relative to TAIS in chapter 3, when you were asked to provide behavioral examples of the different concentration skills and interpersonal characteristics measured by that inventory. Table 4 provides narrative descriptions of each TAIS scale, along with an indication of how the scale is to be interpreted.

Although you will require a thorough understanding of the individual TAIS scales, you don't want to rely too heavily on single scores when providing feedback. The richness of an individual's test results can only come out as you begin to look at the scores on the different scales in relationship to one another. In this chapter, we present a six-step process for interpreting TAIS results that involves looking at the relationships between scales. The steps are fairly simple. Your major challenge will be to interpret an individual's scores within the context of his or her sport. Your success in validating and effectively communicating test results will depend on your ability to link the scores to actual, performance-relevant behavior.

By the time you finish this chapter you should be able to

- Write a one-paragraph description of an individual, based on TAIS scores, that captures the essence of the person—a paragraph that describes the individual's performance strengths, or the cognitive, personal, and interpersonal attributes that have contributed to the athlete's success up to the present time. You can then use this paragraph to begin your test feedback session.
- 2. Write a one-paragraph description, based on TAIS scores, that captures the kind of cognitive, personal, and interpersonal mistakes the individual is most likely to make as pressure increases. This information will help you explore possible problems in your feedback session with the athlete.

# Table 4. The Attentional and Interpersonal Style (TAIS) Scales



**BET (Broad-External Awareness):** The higher individuals score on this scale, the more capable they are of attending to a wide range of external cues. High scorers are good at assessing situations, reading nonverbal cues, and reacting instinctively to their environments. This "street sense" is important in many fast-moving, open-skill sports.

- **OET** (Overloaded by External Information): High scorers make mistakes because they become distracted by task-irrelevant external cues. These individuals have a broad-external focus when it is inappropriate. For example, they fail to eatch the ball because the movement of an opponent distracts them.
- **BIT (Broad-Internal Attention):** High scorers are good at organizing and integrating a wide range of internal information (e.g., thoughts, ideas, feelings, and past experiences). These people are good at analyzing, planning, and using the past to anticipate the future. This attentional style is most important for developing strategies, analyzing opponents, and planning training programs.
- **OIT (Overloaded by Internal Information):** High scorers make mistakes because they become distracted by their own thoughts at critical times. Their biggest mistake in sport is overanalyzing, either jumping to inappropriate conclusions (e.g., guessing a fastball when the pitcher throws a change-up) or failing to react because they are still thinking when they ought to be reacting.
- *NAR (Narrow/Focused):* High scorers are good at narrowing their focus of attention, either externally or internally, as the situation demands. They are skilled at following through and at paying attention to details. They are perfectionists. Individual, closed-skill sports like golf, diving, and shooting, and sports that require a great deal of precision, place a heavy demand on this type of concentration.
- **RED** (*Reduced Flexibility*): High scorers make mistakes because anxiety or anger interferes with their ability to make needed attentional shifts from an external focus to an internal focus or vice versa. Angry individuals become overly focused on the external sources of their anger and fail to think before acting. Anxious or worried individuals become overly focused on their own feelings and fail to react quickly enough to changes in the competitive situation.
- *INFP (Information Processing):* High scorers on this scale become bored easily and need to be challenged mentally. They prefer a cognitively complex and continually changing environment. Low scorers are more comfortable, and perform better, in structured environments.
- **BCON (Behavior Control):** High scorers are often seen as unconventional or impulsive (particularly by those who are more conservative). They tend to live by their own rules and to take more risks. They are more likely to compete in high-risk sports like downhill skiing. Low scorers tend to be more conservative, rule-bound, and in control of both their behavior and their emotional expressiveness (especially regarding anger).
- *CON (Need for Control):* The higher individuals score on the control scale, the more they want to assume a leadership role and the more they feel as if they are in control of their lives. High scorers are more willing to take the initiative and to assume responsibility when leadership is lacking.
- SES (Self-Esteem): High scorers on this scale describe themselves as competent and confident. Under pressure, the first emotion they feel is anger. Low scorers, on the other hand, react to pressure by becoming anxious and developing negative self-talk. This scale is positively correlated with the control scale. Thus, athletes who are in control tend to have high levels of self-esteem, while the opposite is true for those who are not in control.

# Table 4. The Attentional and Interpersonal Style (TAIS) Scales



- *P/O (Physical Orientation/Competitiveness):* High scorers have been physically competitive in the past and enjoy head-to-head competition with others.
- **OBS (Obsessive/Speed of Decision Making):** This scale measures speed of decision making. A high scorer, someone who is "obsessive," tries hard to avoid errors and, as a result, considers every possible angle before making a decision. Low scorers on this scale make decisions quickly and move on. Differences between coaches and athletes in terms of their speed of decision making are a primary source of conflicts and breakdowns in communication.
- *EXT (Extroversion):* High scorers on this scale need and enjoy socializing. They are outgoing and, when anxious, are likely to seek involvement with others. Not surprisingly, athletes involved in team sports tend to score higher on this scale than do athletes involved in individual sports.
- *INT (Introversion):* High scorers enjoy personal space and privacy and may retreat from social involvement when under pressure. Among athletes who must room together, large differences in extroversion and introversion scores often create conflict.
- *IEX (Intellectual Expression):* High scorers express their thoughts and ideas in front of others. They use their intellect and their verbal communication skills to solve problems and to motivate others.
- *NAE (Negative Affect Expression):* High scorers are good at confronting issues and setting limits with people. They are not afraid to express criticism or anger. When this score is much higher than PAE, the individual is unlikely to be supportive of others when he or she is under pressure.
- **PAE (Positive Affect Expression):** High scorers are supportive of and encouraging toward others. They need, and give, positive verbal and physical feedback (e.g., touching, patting). When NAE is very low, high scorers on the PAE scale may have difficulty setting limits on themselves and on others. Their desire to please others makes them susceptible to being taken advantage of.
- **DEP** (Depression/Self-Criticalness): A high score is associated with being highly self-critical and with many of the feelings associated with depression (e.g., guilt and shame). Scores above the 90th percentile should serve as a warning that the individual's entire profile may be affected in negative ways. Because the DEP scale reflects feelings, scores will improve as the person's mood improves.

 Use TAIS scores to generate testable hypotheses regarding the specific reasons for performance problems and to identify the specific steps needed to improve performance.

#### **Predicting Performance**

To accurately predict the conditions under which an individual will and will not perform well, it is important that you fulfill the following requirements:

- You must know about the athlete's technical and tactical skills and knowledge, and you must gather information about the technical and tactical demands of the performance situation.
- You must get information about the athlete's cognitive skills and abilities. For example, you must assess the person's ability to pay attention to the

right things, to learn new information, to solve problems, to anticipate events, and to make good decisions.

- You have to assess the athlete's intrapersonal behavior to determine levels of drive and motivation, degree of competitiveness, willingness to take risks, and speed of decision making.
- You must assess the athlete's interpersonal behavior to gauge levels of extroversion, support, confrontation, and intellectual expressiveness.
- Finally, you need to determine how intellectually and emotionally stable the person is. To what extent can the individual keep anger, frustration, worry, or anxiety from interfering with the ability to make effective decisions and to perform?

## **TAIS Information**

Information from TAIS will not tell you anything about the individual's technical and tactical skills or knowledge, nor will it tell you anything about the technical and tactical demands of the sport or the position. You must gather that information from other sources (e.g., from your own sports background, from the individual you are testing, from observations of performance, and from coaches). We have emphasized that you do not have to become a technical or tactical expert in every sport. You do, however, need two things:

- 1. You need enough knowledge about a particular sport to be able to draw upon sport-specific examples to illustrate the points you make when you are providing test feedback.
- 2. You need the input of a qualified expert in the sport to tell you whether or not the individual being tested has the technical and tactical talent and knowledge necessary for success. When there are technical and tactical weaknesses, you need to know what they are so that you don't automatically assume that the presenting problems are due to psychological factors.

Although TAIS does not measure the technical and tactical skills of an athlete or a coach, the instrument does provide information about the individual's cognitive abilities, intra- and interpersonal characteristics, and emotional stability. Table 5 shows you which TAIS scales are associated with different behavioral competency areas.

## Table 5. TAIS Scale Loadings on Performance-Relevant Behavioral Competency Areas



Technical/tactical skill and knowledge Cognitive skills and abilities Personal attributes/intrapersonal skills Interpersonal characteristics Emotional and intellectual stability

BET, BIT, NAR, INFP CON, SES, P/O, OBS EXT, INT, IEX, NAE, PAE OET, OIT, RED, BCON, DEP

TAIS scales

#### **Presentation of Cases**

In this chapter, you will be exposed to TAIS scores from six different subjects. Each case has been carefully selected to illustrate the diversity of issues you are likely to encounter when working with athletes. Because the cases involve different sports, the material will challenge you to develop enough understanding of each sport to be able to translate characteristics measured by TAIS into performance-relevant, sport-specific behavior. With each case, you will be provided the following information:

- the reason for referral,
- information about the athlete's technical and tactical skill,
- the conditions under which the TAIS was administered, and
- the individual's scores on TAIS.

This information will help you anticipate the subject's response set or attitude toward testing, and it will help you put TAIS results into a situational context. Because this is the first time a TAIS summary chart and profile have been presented together in this book, let's make sure you understand how the two relate.

Case 1 and the associated TAIS profile and summary chart present test scores for John, the elite sprinter we discussed in chapter 1. The summary chart at the top of the page lists John's scores alongside the average score for the comparison group on each of the 17 TAIS scales. John's scores are presented in the column labeled "You," and the average score for the comparison group is presented in the column labeled "Norm." In this example, the comparison group is male athletes (intercollegiate). As you can see by looking at the chart, John's score on the TAIS scale measuring external awareness, or BET, is at the 32nd percentile (compared with the general population). In comparison, the average male athlete scores at the 70th percentile (also compared with the general population).

Here is how to relate John's scores in the summary chart to his TAIS profile: The TAIS scale abbreviations on the profile (BET, OET, BIT, OIT, etc.) correspond to the brief scale descriptions provided in the summary chart. BET corresponds to John's score on the External Awareness scale; OET corresponds to John's score on the External Distractibility scale. Begin reading summary chart scores from the top left of the chart to the bottom right. Summary chart scores correspond to the scores on the profile when you read from left to right. Thus, the next-to-last score is Supportive/Encouraging, and the last score is Self-Critical. These two scores correspond to the PAE and the DEP scales on the profile.

When looking at a TAIS profile, keep the following in mind:

- The percentiles shown on the left side of the profile are based on the general population. Thus, the average person in the general population scores at the 50th percentile on every TAIS scale.
- The shaded area above each TAIS scale describes the area within which most of the individuals (68%) in the comparison group scored. For example, when it comes to the scale measuring "Need for Control/