# Using Personality Tests for Selection, Screening, and Training: TAIS and "The Big Five Personality Characteristics"

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This paper is written for individuals who are already using The Attentional and Interpersonal Style (TAIS) - inventory, as well as for those who are in the process of considering it's use.  The article has two purposes:

>    To provide a summary of the most recent opinions and issues relating to the use of personality inventories like TAIS for selection, screening, and training.

>    To help you see how TAIS can be differentiated from other personality inventories.

Over the past seventy years, the use of psychological tests for selection, screening, and training, has waxed and waned in direct relationship to the pressure being placed on society to find qualified people to fill critical assignments (Banks, 1995).  From my perspective, the demand for psychological tests is increasing and will increase much more dramatically in the next few years because of the dramatic advances in technology and the breakdown businesses are experiencing in global boundaries.  We really are becoming a world economy.

As technological advances continue we see fewer people in decision making positions, but, the power those relatively few decision makers have, and the pressure they are under, has increased dramatically.  In today's business climate, decision makers have to perform up to their full potential in unstructured, unpredictable, and often highly stressful environments.  Today, companies have to respond quicker, and have to make critical decisions before they have all of the information they would like.  Under these conditions mistakes can't be tolerated.  Organizations have to put the right people in the right positions, and those people have to able to communicate effectively with each other, and function as a team.  Recent research is providing convincing evidence that personality tests can help.

## Research Findings Relating to Management

DeVries published a paper indicating that for the past 10 years, the failure rate for senior executives in corporate America has been higher than 50% (DeVries, 1992). Given the damage a single individual can cause in today's market place, that failure rate can no longer be tolerated.  The reasons for failure are most often associated with decision making problems and/or interpersonal conflicts resulting from arrogance, untrustworthiness, insensitivity, inability to confront issues, and an inability to delegate (Hogan, Curphy, & Hogan, 1994).  One of the biggest predictors of success as a manager and when absent one of the best indicator of problems is the ability to self-monitor, to have an accurate perception of one's own strengths and weaknesses (Zaccaro, Foti,  & Kenny, 1991; Ellis, 1988).

Hogan, Hogan, and Roberts (1996) in an article in the American Psychologist have made a strong argument for the use of psychological tests in selection, screening and training.  A quick summary of the main points includes the following:

"The data are reasonably clear that well constructed personality measures are valid predictors of job performance, and they can enhance fairness in the employment process (p. 469)."

"There is no evidence whatsoever that well-constructed personality inventories systematically discriminate against any ethnic or national group (p. 473).

"Measures of normal personality are not medical examinations and, therefore do not fall under the purview of the Americans with Disabilities Act (p. 474).

The base rate of deliberate faking in applicant populations is low (p. 475)

Specific behavior is not more important than personality. "any single behavior is a high fidelity, narrow bandwidth expression of a personality disposition. We rarely want to predict how late an employee will be next Tuesday; rather, we are interested in a person's punctuality. To predict punctuality-a broad bandwidth behavioral characteristic-we need constructs of the same bandwidth (i.e., personality dispositions).

"Many personality researchers now agree that the existing personality inventories all measure essentially the same five broad dimensions of behavior, with varying degrees of efficiency (p. 470). "

## The "Big Five" Personality Variables

Over the past few years, factor analytic studies of a wide range of multi-scale personality inventories like the 16PF, the Myers Briggs, the California Psychological Inventory, TAIS, NEO Personality Inventory, MMPI, and the Hogan Personality Inventory, have identified five general factors which are common to all of them. It is these five factors which meta analytic studies have been found to be predictive of job performance (Barrick & Mount, 1991; Tett, Jackson & Rothstein, 1991).

On the surface, the discovery that all well constructed multi-scale personality inventories were measuring the same five fairly broad behavioral dimensions, seems a little like "good news," "bad news." The good news is that there is some consensual validation for more global behavioral dispositions and that these have some predictive validity across sex, race and culture. The bad news is that people may have a tendency to over generalize and fail to differentiate between the different measures of personality. To understand this issue, and to see how TAIS can be differentiated from the competition, let's take a closer look at the "Big Five."

**"Surgency"**, this dimension reflects sociable, gregarious, assertive, leadership type behaviors. Some examples of scales measuring "surgency" include, dominance, capacity for status, social presence, need for power, assertiveness, and sociability. <u>On TAIS, surgency is most directly related to the leadership factor which consists of Control, Self-Esteem, Physical Orientation and/or Intellectual Expression (CON, SES, P/O, IEX).</u>

**Emotional stability**, this dimension of personality reflects calm, cool, steady, self-confident behavior. It is the opposite of anxious, worried, insecure, emotional behavior. Personality test scales measuring this dimension include neuroticism, emotional stability, negative affectivity, and affect. <u>On TAIS emotional stability is most directly reflected in the cluster of scales measuring</u>

the ability to focus (NAR), distractability (OET), overload (OIT), behavior impulsivity (BCON), and the expression of anger and frustraton (NAE).

**Conscientiousness**, this dimension separates individuals who are hard working, focused, and persevering from those who are impulsive, irresponsive and undependable.  Personality scales measuring this dimension include prudence, ambition, will to achieve, need for achievement, dependability.  On TAIS conscientious is reflected in subject's scores on scale measuring the willingness to make personal sacrifices to accomplish goals and objectives (FOT), focus and commitment (FOCUS), and the ability to concentrate in high pressure situations (PUP).

**Agreeableness,** this dimension separates individuals who are cooperative, sympathetic, warm, and good natured, from those who are aloof, cold and distant. Personality scales measuring agreeableness include likeability, friendly compliance, need for affiliation, and love.  On TAIS, agreeableness is most directly reflected in the extroversion factor which includes extroversion (EXT), positive affect expression (PAE), a low score on introversion (INT), and a high score on the persuasiveness scale.

**"Intellectance"**, this dimension is associated with being imaginative, cultured, broad minded, and curious as opposed to concrete, practical, and narrow minded. Personality traits associated with this include culture, and openness to experience.  On TAIS, this factor is most directly tied to the analytical skill (BIT), awareness (BET), speed of decision making (SPEED, OBS), and energy and multi-tasking ability (INFP).


## "Narrowing  the  Bandwidth"

Given the consistency with which the "Big Five" dimensions of personality appear in well constructed, multi-dimensional personality inventories, and given the correlation's between those dimensions and performance, Hogan et al., (1996) suggest choice of a test should begin with one which measures these dimensions.  "It is like making sure that the car you want to buy has an engine, brakes, steering system, transmission, and headlights (p. 470).   Having selected an inventory which at a minimum measures the "Big Five", it is then pointed out that prediction of performance within a particular arena can be improved by sharpening your measures "narrowing the bandwidth."  This is accomplished by looking at individual scales rather than more global factors as the following quote from Hogan et. al. (1994) illustrates:

*"We recommend selecting personality predictors on the basis of job analysis results because measures chosen in this way have significantly higher correlation's with performance (Tett, Jackson, & Rothstein, 1991).  Next, we recommend matching measures and criteria in terms of their specificity (Pulakos, Borman, & Hough 1988).  Although the big-five dimensions are useful for summarizing results, they*

*are the wrong band width for many prediction problems; narrower measures of personality often yield higher validity coefficients (Cronbach, 1984; Hough, 1992; Shannon & Weaver, 1949)."*

## Shared and Unique Variance

Looking at the names of scales which make up the different big five dimensions of personality, it's easy to see that at least in the minds of their developers, they measure different things. Will to achieve, prudence, dependability, ambition, the ability to narrow one's focus of attention, external and internal distractibility are presumably quite different, yet they obviously share something in common. It is this common or shared variance which causes the measures to correlate with each other, and the computer to cluster them together into a factor called "Conscientiousness." Looking across a wide range of studies, this factor has been shown to have some limited ability to predict performance in the general work place. As Hogan et. al. (1994) indicate, however, the ability to predict performance, however, can be dramatically improved by:

• Getting a behavioral definition of "conscientious" behavior in a given work environment. Is it being on time? Is it follow through on job assignments? Is it the ability to avoid distractions? Is it avoiding risks?

• Looking at the individual scales which provide the best direct measure of the behavior which is defined as performance relevant within the job setting.

Talking to the supervisor for a group of police dispatchers, it becomes clear that "conscientious behavior" within this particular work environment means staying focused on the task at hand, and avoiding external distractions (the other dispatchers conversations etc.). True any of the above measures of conscientious behavior will probably have some small but statistically significant (assuming sample size is large enough) correlation with job performance (e.g., between .20 and .30). Those measures which have a direct relationship to the criterion behaviors however (e.g., distractibility and focus) should correlate much higher (e.g., between .30 and .60).

## TAIS Advantage One

When the assessment situation calls for both generalizability (e.g., the ability to predict lateness in general as opposed to lateness within a particular situational context), and more situationally focused predictability (e.g., distractible as opposed to conscientious behavior) TAIS is the instrument of choice. All it takes to demonstrate this particular TAIS advantage is:

• Help the client behaviorally define the characteristics leading to success and/or failure in a given job.

• Compare brief descriptions of the different instruments scales, to see which best reflect the job relevant behaviors.

## Intrapersonal Characteristics vs. Interpersonal Characteristics

The big five personality dimensions are measures of individual's interpersonal behaviors.  These behaviors provide information about things like a person's management style, how he or she will be perceived by others, whether or not the person will be a leader or a follower, etc.  Although interpersonal behaviors can be critical determinants of success and/or failure in those performance settings where teamwork and management skills are required, they don't provide information about a person's ability to learn, nor do they provide all of the information required to understand why an individual behaves in a certain way.

Intelligence, the ability to process information, analytical skill, environmental awareness, and decision making skills are all critical determinants of performance.  These are "cognitive" or intrapersonal characteristics however, not interpersonal ones.  It is these intrapersonal characteristics which relate to a persons ability to attend to task relevant cues, and to learn new material. To have a complete understanding of an individual's behavior, and/or to more accurately predict performance, you need to know something about both intra and interpersonal behavior.


## TAIS Advantage Two

The attentional and interpersonal style (TAIS) inventory measures both intrapersonal characteristics (concentration skills) and interpersonal characteristics.  By providing information about performance relevant intra and inter-personal characteristics:

- TAIS helps you paint a more complete picture of all of the elements contributing to a particular behavior pattern (e.g., A reluctance to speak up in a group setting.).

- TAIS gives you the information you need to develop performance enhancement and training programs designed to meet the needs of the individual within the context of a particular performance setting.


## The Importance of The Instrument's Underlying Theory

Tests are developed and administered for different reasons.  Sometimes they are used to provide insight into, and/or understanding of, a person's behavior.  Sometimes they are used to provide information about the likelihood an individual will behave in a particular way in the future.  Sometimes, they are used to provide direction to the individual and/or to a trainer or counselor so that behavior can be changed and/or modified.  The ability to use instruments in these different ways is directly tied to the theoretical framework (assumptions) underlying their development.

How tightly tied are a test's constructs (scales) to a unified theory of human performance?  Does the theory lead to better understanding, prediction, and control of performance relevant behaviors.

Using the MMPI as an example, there is no performance relevant theory which underlies the inventory.  The test is useful for predicting the diagnostic label that is likely to be assigned to a patient. Because the scales which make up the test are not connected to each

other and/or to day to day performance in any logical way, however, the test has little relevance to predicting job performance, to identifying an individuals relative strengths and/or weaknesses within a job setting, and/or to designing performance enhancement or training programs.

Every inventory reflects the view (constructs) of the individual(s) who developed it. That means you need to look at the theory to determine how well it reflects the environment you work in. Some personality theorists for example have particular biases when it comes to "how people should behave" and/or "what makes a good leader." When this is the case the inventories developed tend to categorize behavior as good or bad. A theorist who believes that good managers should motivate and lead by being positive and supportive and feels that an authoritarian and/or confrontative management style is bad will design an inventory with that bias built in.

A good example of the kind of bias I am referring to can be seen in most measures of introversion. Early theorists tended to associate introversion with anti-social, withdrawn, neurotic behavior. Thus, their measures of introversion reflect those behaviors, and individuals get classified as either extroverted (seen as a positive characteristic), or introverted (seen as a negative characteristic). In contrast to this view, the theory underlying TAIS defines introversion as the enjoyment of personal space and privacy, the ability to work and function in isolation.

## TAIS Advantage Three

The theory which underlies TAIS ties cognitive or intrapersonal characteristics to inter-personal behaviors in a very straight forward, rational way. That constructs underlying that theory have been supported by a great deal of research (Nideffer, 1989; Nideffer, 1993)

> Both cognitive and interpersonal characteristics are seen as having state and trait components. Different individuals have different cognitive and interpersonal strengths or preferences. The greater the preference the more trait like that characteristic is for the individual. As pressure increases within a situation, the theory suggests individuals begin to lose control over their ability to alter their behavior to systematically fit the demands of their environment. Instead, they become dominated by their preferential styles. If they have strong control needs for example and they are under pressure, they will attempt to take control even if the situation is one where they should allow someone else to lead.

The theory doesn't see any particular behavior(s) as good or bad, instead, the appropriateness of a behavior is determined by the situational context and whether or not the behavior leads to the accomplishment of the desired objectives.

> Introversion for example is not viewed as a negative interpersonal characteristic. If an individual's desire or need for personal space and privacy prevents him or her from reaching out to others when the job requires it, there is a problem. On the other hand, there will be situations where the individual's ability to work alone is to his or her and/or the organization or teams advantage.

The theory leads to the development of intervention or training programs that emphasize identifying and modifying those situational, intrapersonal, and inter-personal variables which are interfering with desired performance.

There is some evidence suggesting that sales persons tend to be more extroverted than the average person, and that extroversion has a positive correlation with success in sales. Success in sales, however, is dependent upon much more than extrovertedness. Indeed, being too extroverted is likely to reduce success and/or to prolong the sales cycle.

Success in sales depends upon many factors. The individual must be able to develop a good sales plan (e.g., identify likely prospects and determine the best way to approach them). He or she must be able to "open the sale," establishing a relationship (e.g., engage the potential customer and create a warm receptive environment). The sales person must be able to deal with the clients questions and objections (e.g., He she must be able to think on his/her feet, make adjustments in the sales pitch, etc.). The sales person must be able to "close", or ask the person to sign on the dotted line. Finally, the sales person needs to follow-up, to make sure the customer is satisfied.

It should be obvious that extroversion is related to only a small part of the sales process. It should also be obvious that a sales person can fail, and/or may need training in any of the above areas. Developing a sales plan requires good analytical skills as does dealing with customer objections. Extroversion is helpful for opening the sale and establishing a relationship. You need focus and follow through to close, and you need a high level of self-confidence to deal with customer objections.

TAIS, better than any other inventory, lets you paint a complete picture of what is needed for success in almost any performance situation. TAIS, better than any other inventory, lets you identify those aspects of an individual's intra and inter-personal behaviors which will interfere with their success.

Because of the link between increasing emotional arousal (as a result of pressure) and the breakdown in the individual's control over their more dominant characteristics, TAIS profiles allow you to predict both the conditions most likely to lead to problems for a person, and to predict the specific behaviors which will interfere with performance. I know for example that an individual who scores high on the control and self esteem scales, who makes quick decisions, and tends to have a confrontive management style, will be stressed when he or she is feeling a sense of urgency (e.g., aware of time pressure) and is not in the drivers seat. I can predict that under these conditions, this individual will lose his/her ability to delegate and become frustrated and impatient with anyone who doesn't move as quickly as he or she does. When the development of a subordinate is more important than the immediate bottom line, this individual is going to have problems.

## Summary

Recent research has demonstrated that most well constructed multi-dimensional personality inventories measure the same five, relatively broad, personality dimensions.  Where personality tests differ is in:

- The make up of the individual scales which correlate with the five different dimensions, and the ease with which those scales can be related directly to highly specific performance situations.

- The extent to which the tests measure other performance relevant behaviors (e.g., cognitive or intrapersonal characteristics) as well as the five interpersonal dimensions of behavior.

- The extent to which the tests are based on a theory relating directly to the prediction of performance, and to the design of performance enhancement programs.

Factor analytic studies of TAIS result in the identification of scale clusters which mirror the big five dimensions of personality.  TAIS has several advantages over other personality inventories, however.

First, TAIS measures performance relevant cognitive characteristics as well as interpersonal behavior.  Since mental processes  as well as interpersonal ones are critical to successful performance, TAIS provides a more complete picture of the individual and of his/her likelihood of success.

Next, TAIS scales were developed without prejudice relative to what would be seen as desirable or undesirable behavior.  Instead, it was assumed that the situational context the individual had to perform in would determine the utility of a given behavior.  There is a time and place for confrontation and a time and place for support.  A time and place for leading, and a time and place for following.  For this reason, and in contrast to many other personality inventories, scales were not developed as polar opposites (e.g., forcing people to be either confrontive or supportive, extroverted or introverted).

Finally, TAIS is based on a performance relevant theory.  A theory specifically designed to predict an individual's ability to perform across a broad range of performance arenas.  A theory designed to identify the specific intra and interpersonal processes contributing to success and/or failure in any given area.  A theory that leads to the development of highly individualized, situation specific, intervention and/or training programs.  A theory that has been supported by a great deal of scientific research.

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