

Demystifying Personality Assessment

There are at least 4 major ways to look at personality assessment. The first three are "professional" and are: 1) mathematical based linguistic analysis (i.e., factor analysis), 2) a psychological content analysis (e.g., psychological history) and 3) "clinical approach" (e.g., psychoanalytic). The fourth or the simplest and the one most often used in a business setting, is a "descriptive approach" that is seldom considered rigorous enough for a professional assessment. Factor analysis is generally used by academic psychologists whose practical products are various personality instruments (e.g., 16 PF[®] and NEO-PI-R[®]). Usually, the historical and dynamic approaches are within the domain of psychologists and psychiatrists in a clinical practice who use this as an adjunct to psychotherapy. The purpose of this paper is to give you some insight into the various models of personality assessment. No one approach of personality assessment is any better or worse than another until the criteria for seeking a particular personality assessment is established:

- 1) What do you want to do with the data collected?
- 2) What type of decisions do you need to make?

The descriptive approach is okay for a superficial understanding but is inappropriate for use in selection, promotion or diagnosis for therapy. If you want to help a single individual, a history or content analysis would be very useful. If you want to talk about culture fit or team dynamics, a factor analysis may make more sense because you can compare individuals with "more objective data." If you want to understand why a manager does something or what they might do, your best bet is to consider a dynamic approach.

Personality assessment is hard to understand because there is widespread disagreement on what a personality is (even though most people believe they have one). Additionally, there is not even a clear or professionally accepted definition of a personality. For instance, Behaviorists believe there is only overt behavior and it is a waste of time to worry about a personality. Psychoanalysts believe that one's personality develops from birth but many of their concepts are based on pathology or what goes wrong (e.g., the anal retentive personality). Personality theorists have all kinds of theories but the most common/acceptable is based on a factor analysis of overt Traits such as being extraverted or exhibiting social aggression.

To help with this difficulty of visualizing a personality, we will use the analogy of a home. Everyone has a home and understands that there are differences and some common elements in homes. You can have types of homes such as a ranch or split level (like a personality type). You can have common factors that all homes can be measured on such as the number of rooms, total square footage or type of heating. You could even have a history for a home such as when it was built, when the garage and den was added or the new roof was put on. You can't have dynamics for a home because it is static relative to its environment. That is, it doesn't change and become angry or depressed because it has ego needs that were thwarted. However, most of the above are ways of describing your home. By analogy we will look at some models to describe homes and then look at personality theories that are similar in structure. Then you can get a feel for when one description or model might be better or more useful than another.

(1) The Descriptive model

This is the simplest model and usually has a few characteristics that are used to define one's home. For instance it may be the square footage of the home and the number of rooms. If you use these two characteristics, you could produce a "Home-type" Grid like this:

Number of Rooms ->	Few rooms	Many Rooms
Square Footage		
Low Square feet	Efficiency	4 Bedroom in a High-rise
High Square feet	Studio Apartment	Mansion

Both of the measures are really continuous (i.e., rooms, square feet) so they form simple continuums but you can define the "end points" and call them a "home type". This is a simple model that categorizes homes along two major characteristics and then names the extremes.

In a similar fashion, one can suggest a personality model that selects a number of personality characteristics that are continuous measures but you could produce a similar bimodal (e.g., 2 endpoints) Grid:

Aggression ->	Passive	Aggressive
Socially Outgoing		
Introverted	Self-effacing	Egotistical
Extraverted	Compassionate	Dictatorial

This is not a "real model" but there are several on the market. Perhaps the most popular of this type is the Myers-Briggs®, which separates the personality into four characteristics (i.e., Extraverted, Perceiving, Judging and Dominant Mode) and has letters for each characteristic extreme [i.e., Extraverted is extraverted (E) and introverted (I)] which produces "16-personality types" (e.g., ENTJ). Then there is a definition for each type and several books have been written about each type and their implied characteristics.

It is helpful in the sense that it generates "types" and now you assume that each type is distinct from the other types. But are they really and how? Personality tests such as a Myers-Briggs® break people up into types such as an ENTJ and assume major differences.

This is a good "first cut" and is useful in a basic way (e.g., team building) but it is a very rough description of the personality. It is the same as telling a person that you live in a mansion. While they know that a mansion is not an efficiency apartment, it says very little about your home. Surely, you would not consider buying a home if this was the only method that you used to assess the home. You would need a more robust or sophisticated model that allowed you to compare your home options on many choices, not just 2, 3 or 4.

(2) The Trait model

The next model is the first model to really "analyze the personality" rather than describe. Returning to our home analogy, we accumulate many characteristics about a home and see that certain characteristics seem to cluster (i.e., they are correlated) and together these characteristics define what is called a Factor. (The factors are determined by factor analysis). For example, return to the characteristics of square footage and you may notice that square footage may be a Factor that is actually composed of several characteristics.

Factor I - Square Footage	Factor II - Energy Efficient
a) Number of Rooms	a) Weight of exterior (bricks vs. wood)
b) Average size of rooms	b) Thickness of insulation
c) Number of floors or levels	c) Insulation R-Factor
d) Number of bathrooms	d) Average number of panes/window
e) Number of windows	

This leads to a much better understanding of a characteristic (or in this case a Factor) because it is made up of smaller characteristics that seem to cluster and help define what we are talking about. There are other characteristics that are not correlated (e.g., type of plumbing or number of stalls in the garage) and they indicate the presence of different factors. In the first example, actual square feet and number of rooms is correlated since they contribute to the same Factor but they are different facets. For example you can have two homes with 2000 square feet where one has 5 rooms and another has 7. Therefore, the combinations of characteristics or facets that comprise each factor help to better define that Factor.

It is immediately clear that this is a better model and we can look at both Factors and their facets to get a much better feel about a home. Unlike the Type model, you can even have the same "Type" (e.g., mansion) but with very different individual facets that give you a much better feel for the actual house.

The classic personality models in psychology (typically used by professionals) use this approach and it is considered the most mathematically sophisticated. Examples are 16PF®, NEO-PIR® and the CPI® which are all used by psychologists who study the personality and seek to define it. For example, the 16PF® has five (5) factors and they are made up of some of the following facets:

5 Factors of the 16PF® and some characteristics

Factor I	Factor II	Factor III	Factor IV	Factor V
Extraversion	Anxiety	Self-control	Independence	Tough-minded
Warmth	Tension	Dominance	- (Abstractness)	
Liveliness	Apprehension	Openness		
Social Boldness	- (Ego strength)			

There will be some number of facets that correlate with a particular Factor (can be positive or negative) and define that Factor. For example, as Apprehension and Tension increase as Factor II (Anxiety) increases. As Ego strength decreases (it is negatively correlated) Factor II, Anxiety also increases. All of these Factors and the facets are psychological Traits that are measured by Trait based psychological tests.

The Content or History model

The next model is driven by the specific history or "content" of the personality. Again, returning to our home analogy, we can talk about the history of our particular home. That is, what has specifically happened to our house that makes it unique? It might look like this

History:

Built: 3 bedroom, 2 bathroom ranch completed in 1979

- (a) Added air conditioning in 1984
- (b) Built a 350 square foot den in 1986 off the back porch
- (c) Replaced the furnace and added insulation in 1991
- (d) Built an in-ground pool in 1993

Two things are happening at the same time when "one takes a history." First you are finding out how the house "developed over time" and what might have been more important at any particular time. For example, the den may have been more important than the pool. Secondly, you are specifically describing that house (e.g., it has a pool and a den) and it says what you can do at that house (e.g., swim in the pool).

What is important about any type of history is that the data you gather already implies the use. For instance we might be describing this house to a perspective buyer in terms of the improvements made and how we support our asking price relative to our purchase price. We are not talking about the historical use of heat (in that case, we may be thinking about buying energy efficient windows) and we are not talking about the history of property taxes (we may want to protest the assessed value of a recent tax increase).

In psychology, this is considered a clinical interview and it is based upon what the person wants to do with the data. It could be a family history directed at one's relationship with his mother and how his father treated his mother because the individual has current marital problems. It could be what the person majored in at college, what his first job was and what did he like about it. Now we are developing a career history to determine if the person would like the job we have at Acme. We could also ask what he liked and disliked

about each work setting, the content of his work day and his peer and superior relationships because we want to see how he fits with Acme's culture.

This assessment usually has a narrative focus (this could be professional on two different levels: Content – typical for Human Resources and Predictive – typical for Organizational Development Professionals) on particular aspects of a person's life in terms of major events that are germane to why the person is writing the narrative in the first place. If it is clinical and is used to support a diagnosis, it might be a person's history of trauma. If it was about career and a person's management style, it would cover career experiences, cultures and situations where the person was successful and unsuccessful. It might look like this:

Date	Content of Bill's Career
1968	Graduated with a BS in Engineering
	Worked at Acme as a software engineer doing
1971	Promoted to manager of "Shoot em up" software games
1974	Left to become manager at "Kill, maim and decimate" software games

You could analyze the content of each line item above and draw conclusions about what he liked and didn't like in each position relative to why you are interviewing him in the first place. For instance you may determine that he was happiest when he was working with a small group of people who were designing "blood and destruction" content games. However, he was not as happy when he had to give presentations about the money used to develop the software games to the Board of Directors.

This is similar to describing one's house but you are seldom soliciting objective data (e.g., square footage, number of windows/doors) in a personality assessment that can be easily measured and validated. However, even with subjective content data, you can draw some fairly logical conclusions about either a house or an individual relative to the criteria you solicited in the history. You cannot answer questions about content that you did not solicit (e.g., does Bill prefer dating blondes or redheads?). In contrast, in the factor model if you know a person is very aggressive you can guess (you may be wrong) that he is aggressive at both work and at home, even though you did not ask him about his home life. However, if you used only a factor model, you have no specific examples to illustrate his aggression because that comes from his specific history (e.g., he punched his boss out in 1979; he has never hit his wife of 19 years).

The DYNAMIC model

The last model includes "dynamics" or how the personality changes and what causes it to change. Returning to our home analogy, we now have a problem because homes tend to be static relative to the environment so they do not change if they function well. Even if a home changes (e.g., burns down) we do not talk about that as a factor that describes our home. However, personalities are more interesting and complex so the dynamics give the best predictability because you know WHY and under what circumstances a personality changes. It is one thing to know a person is aggressive (Trait) but it is equally beneficial to know that his self-concept is so important (as an egoist, he equates passivity with weakness) that he will defend it. Hence, he is aggressive when he feels he is being attacked/threatened but he may not be intellectually aggressive or curious. Now we understand WHY and under what circumstances his aggressive behavior may become manifest. Knowing the Trait is important but the Dynamic is a better predictor of overt behavior.

Motivations and dynamics suggest that the personality is constantly responding to the external and internal environment and changing to better adjust or achieve some purpose (teleology). A home does not have a dynamic purpose even though it can be remodeled, can burn down and will fall apart over time. However, the most important aspects of a person's behavior are illustrated when he is motivated to achieve a goal (e.g., work hard to make more money). Furthermore, global dynamics dictate much of a person's behavior (e.g., a need to control others versus a need to fit in and be liked) and describe WHY the person is likely to behave in a given fashion and what he hopes to gain. Dynamics give us a higher order of predictability.

Stretching the analogy, it would be as if a home could reorganize its rooms into a different structure to conserve heat (heat-conserving dynamic) or it may reorganize its rooms to minimize noise (noise-minimization dynamic) or move all its windows to track the sun. What is important is that if you know why it changes its behavior (rearranges its rooms in response to heat loss rather than noise) so you can predict when the behavior is likely to occur. (Gosh, those sound like great innovations for a home!)

Traits don't let us know WHY a behavior will occur. For example, looking at the Trait model (second one) consider two people who have the same trait score on introversion (i.e., both are introverted and they have an extraversion score of 23%). With this assessment, we assume they are similar from a personality perspective but we may find that they have very different underlying dynamics. One person dislikes people and finds designing circuit boards more fun, so he avoids people. The other is afraid of making social errors in front of attractive females so he has always felt uncomfortable in social settings, especially when women were present. Recall that both people have an extraversion score of 23% (i.e., they are introverted) but do you think they would exhibit a meaningful difference in managing a group with attractive female workers?

Now if both are in a room and show low social behavior (e.g., the same amount of talking to others) and we introduce a circuit board, person A's social interaction may drop even further but B's is unaffected. However, if we add a very attractive woman into the conversation, B now becomes more cautious and there may be little or no impact upon A. They had the same trait score but exhibit very different overt social behavior based upon being exposed to similar events. Actually in understanding the personality, it is just as important to know when or how an aggressive person will change (i.e., Dynamic) as it is to know how aggressive (i.e., Trait) the person is in the first place.

This is usually best understood by psychoanalysts or those who believe a "dynamic personality model" best describes and predicts behavior. They are interested in WHY people do things as well as HOW they will naturally approach a situation in the first place. Rather than having a static model (number of rooms or a given aggression score) they seek a dynamic understanding (when does the person become more or less aggressive). Usually people with a dynamic understanding want to know if a person is "typically" more or less aggressive or passive (Trait) and what precipitates, perpetuates and attenuates that aggression (Dynamics).

It is hard to imagine having a dynamic theory without having some understanding of traits. For instance the person becomes more aggressive when he feels his ego is threatened. He is very social when he feels a sense of mutual loyalty whereas his brother likes to be the center of attention and becomes more social as people watch him at parties. Dynamics seem to necessitate a trait understanding but you can still think about traits with having little or no understanding of Dynamics.

Traits on the other hand can stand alone. He is a very aggressive person since he has a trait score of 94% on dominance. What you know is that the person usually acts in a very aggressive fashion. Now if you ask if he is more aggressive when he is around friends or strangers, you cannot answer the question. Your best guess is that he is equally aggressive (which is unlikely) since he is so dominant. Now if I tell you he is very paranoid (ego defense where the egotist dynamic plays a major role) and wants to protect himself, you might guess that he is more aggressive around strangers when he feels they are verbally attacking him.

In summary you have the following models:

Model	Name	Description of Model
1	Description	Simplest - Descriptive only - Least valid and reliable
2	Factor	TRAITS - Mathematically derived with validity & reliability
3	History	Idiosyncratic and specific. Not "law like" (no generalizations)
4	Dynamic	DYNAMICS - Developmental, predictive & explanatory

This is personality theory stripped free from all its academic pedantic meanderings where there are constant debates about a nomothetic (law like approach - for example trait theory) versus idiopathic (individual approach - for example a personal clinical history) and about academic personality theory (traits) versus a clinical approach (dynamics).

Even within a single model there are ongoing debates. For example the trait theorists argue about how many factors there really are (about as beneficial as the question, "how many angles can dance on the head of a pin?"). That is, one group believes there are five, another feels there are only three and some argue there are seven. The original 16PF© derived its name from 16 personality factors. However, the Big five factor group is winning the debate in the psychological literature so the makers of the 16PF© reorganized their 16 original factors into the current 5-Factor model. The same type of silly "academic hair-splitting" goes on with clinicians who argue about underlying motivations, developmental stages and global motives and forget about the real world patients.

The most important point is not what theory or approach is best but what do you want to do with the data you collect. If it is a simple team building session, maybe a descriptive model such as the Meyers-Briggs is fine. If it is selection, management development, promotion or culture fit you will probably need to use a more professional model. As the "cost of making a mistake increases" you had better use a more robust or professional model or you will make more costly mistakes.

Regardless of the model you select, the better the instrument and the model used to build that instrument, the better you will measure the personality. In general if you use a five factor model with 4 characteristics you will have better data than if you use a two factor model with 3 characteristics. Of course a 20-factor model is probably way beyond the point of diminishing returns on predictive power or utility. Likewise, if a trained professional takes a history (one who does that for a living), you should get better results than if the interviewer has little training and no experience. Lastly, if you combine data from two models (e.g., Trait and History) you should have a better understanding than if you use a single model.

In summary, the most important factors to consider when selecting a specific type of personality assessment instrument are:

- (1) WHY do you want the information?
- (2) HOW will it help you make a better decision?

Once, these two questions are answered you should be able to screen your options in terms of what model (s) will best meet your needs. Now you should be able to evaluate your options with a much greater degree of confidence.