

## **VALIDITY AND RELIABILITY STUDIES FOR CORE Multidimensional Awareness Profile**

### **VALIDATION STUDY: OVERVIEW**

To determine the validity of the CORE Multidimensional Awareness Profile, researchers used criterion-related evidence and construct-related evidence to gather data over a seven-year period, using random population samples as well as samples from specific groups.

### **CRITERION-RELATED EVIDENCE OF VALIDITY**

Scored responses to questionnaires can be used as criterion for degrees of personal, professional and relational satisfaction, and these can be compared against profile scores to determine a correlation. CORE criterion-related studies used profile scores, along with questionnaires and field observation to determine how respondents' scores related to proficiencies in various individual, relational and job related functions, and in communicational and interpersonal styles. We were able to correlate CORE scores with levels of satisfaction, effectiveness and proficiency in various areas to predict how other people, with similar scores may react or perform in similar situations. We found that the CORE scores themselves could be used as a criterion to select groups of people with distinctly different profiles, and to validate inferences about how these people may react or perform on some other measure based on the behaviors and preferences inherent to specific trait sets.

Most personal and professional choices can be correlated to typical score sets and benchmarks to determine the success potential of individuals whose scores match the benchmark. The professions most closely studied to date (1998) are in the areas of management, sales, technicians, medical doctors, educators and office workers. In the personal realm, we have focused on adults who have, or lack, an overall sense of well-being, direction in life, and on those who have, or lack, good interpersonal and communicational skills. My goal is to develop benchmark profiles for every major profession, and for every major relationship type (e.g.; parent to child, spouses to spouse, sibling to sibling, salesperson to client, etc.) and to study how negative or restrictive conditioning, both from early parental and societal conditioning, and from the current environment (personal and professional) impacts the choices of individuals with different trait sets.

Criterion-related validity was used to support the construct validity of this instrument, which is, according to a study on validity testing done by Educational Testing Service, the most fundamental form of validation and the only type of evidence necessary for determining the validity of an instrument.

## **STUDY ONE: FACE VALIDITY**

Face validity refers to whether a test looks valid to the people taking it and to untrained colleagues. A test's face validity is determined by how closely the instrument, the scores and their explanations match the perceptions of the profile-taker, and by whether the final result seems correct to the user. This was determined through questionnaires, group discussions and individual interviews with subjects.

Studies of CORE profiles have resulted in the identification of three distinct groups of people, each of which can be identified by the instrument itself. One group is those who know themselves well; who do not question that their lives are on track; who feel directed and content. This group has congruent results on the CORE instrument and can easily identify with and verify their results. This group also tends to be more effective in their work and relationships, and to function at higher levels overall.

The second group profiles incongruently, but the reason for the incongruence is quickly and easily identified. The cause of the incongruence is often a currently stressful occurring situation and the individual can immediately see how the circumstance has temporarily affected and altered their normally preferred functions. This group reports that they are aware of the fact that their current mode of functioning is not their usual one, and they are certain they will return to the normally preferred function as soon as the crisis has passed.

The third group consists of those who do not know themselves well, and/or who have reached late adolescence or adulthood without a clear picture of who they are or what they should be doing with their life. This group tends to have broadly incongruent results on the CORE profile and will verify that they do not know themselves well and/or that they are not directed in, or content with the direction of their lives. This group may also be feeling discontent and/or struggling with work and relationships.

Through subsequent work by a facilitator using the CORE instrument, the second group was successfully directed in discovering and correcting perceptions, and achieving congruent outcomes in 96% of cases studied.

The third group was successfully directed in 84% of cases, and once the corrections were made to achieve congruent outcomes, subjects reported that the new awareness and direction felt "right". They report greater contentment with themselves and greater hope for a better future. Those whose progress we have continued to follow have begun and continued moving in the direction of more effective overall functioning.

Although face validity and self-validation are not used in the latest standard for Educational and Psychological Testing (Joint Standards, 1985), this form of validation is highly pertinent to instruments, such as the *CORE Multi-dimensional Awareness Profile*, which are dependent on honest self-evaluations and candid biographical reporting.

Face validity of this instrument is very high. Thousands of instruments have been validated in this manner, and CORE researchers are continuing to gather data in specific areas, such as career suitability, interpersonal compatibilities, communications styles, management, sales and other work related styles, general perceptions and expectations, happiness and contentment, and overall effectiveness.

## **STUDY TWO: CONSTRUCT VALIDITY**

Construct validity is the most generally used form of validity, and the most relevant to the CORE profile. Construct is a term that refers to theoretical concepts about certain human traits, capabilities and processes that can be observed directly. Construct is supported to the extent that persons of different types respond to different psychological measures in ways that are predictable by the theories that underlie the CORE profile.

*Internal Construct Validity* refers to the number of distinct constructs measured by an instrument. This is referred to as the dimensionality of the instrument, and is concerned with the validity of the scoring keys. In the CORE profile there are four parts, each of which measures multiple constructs. These are: (1) observed behaviors, (2) temperaments, (3) attitudes and preferences, and (4) personal effectiveness traits. For the observed behaviors section there are 12 measures or constructs, for the temperaments section there are 40 measures, for the preferences section there 21 measures, and for the personal effectiveness traits section there are 48 measures, for a total of 121 measures. Internal construct validation studies can predict which of the measures are likely to cluster together in preferred groupings in each of the temperaments, and which are likely to be avoided. Internal construct validity does not reveal anything about how CORE compares to other instruments.

*External Construct Validity* enables us to assess the validity of the multidimensional approach by comparing the measures of the constructs to measures of constructs that are external to the CORE instrument. These external constructs can be either different from or similar to the constructs underlying the CORE instrument. We can predict whether external constructs should be positively or negatively related to CORE scores, and whether they are related at all, and these predictions can be validated.

The constructs underlying the four temperaments, the preference sets and the personal effectiveness traits were formed on the basis of observations of men and women at home, in the workplace, in relationships, at play and in many other life situations, and/or on the basis of comparison to similarly devised, but single dimensional instruments. The relationship between the constructs and many important actions, reactions, preferences and decisions in almost every life circumstance can be observed and often measured. Evidence of external construct validity can validate conclusions drawn from the CORE instrument and demonstrate the usefulness of the instrument in a variety of situations. Construct validity must be an on-going process in this case, because of the many predictions or conclusions that can be drawn from a multidimensional model. The continually growing data bank of CORE scores, combined with case studies and profiles, make it possible to confirm or disprove many of the predictions in the quantitative and replicable manner required in scientific studies.

## STUDY THREE: PREDICTIVE VALIDITY

Predictive validity refers to the extent to which it can be predicted that an individual is likely to become dissatisfied with their life direction, behavioral style, work, and/or relationships. Based on the following definitions and assumptions, a set of predictions were made and tested. Subjects ranged in age from 15 to 78. Of these 84% were between the ages of 22 and 55. Females made up 52% of these subjects and 48% were male.

## DEFINITIONS, ASSUMPTIONS AND PREDICTIONS

The assumptions and definitions upon which the CORE profile is based are:

1. Common, non-technical words and phrases can be used to describe the behaviors, functions and processes of all normally functioning people. These terms and descriptions, as used on the instrument, are fully understandable to persons of average education and intelligence when used within the instrument and in communicating about its application and/or interpretation.
2. A certain percentage of individuals are conditioned, as children, to behave in ways that are contrary to their natural and naturally preferred behaviors and are, as a result, often unaware of their natural tendencies and unable to utilize them effectively as adults. In such cases, individuals are unable to recognize or report ownership of inborn traits. These individuals generally recognize, identify with and report their conditioned traits, even though these traits may be ineffective and counter-productive to the individual's functioning. **Prediction:** Such individuals can easily misrepresent themselves on single dimensional profiles and this misrepresentation cannot be detected or determined by such an instrument. The result is that single dimensional profiles describe the profiler's erroneous self-perception thereby deepening the conviction *and* the discomfort attached to it, rather than identifying it as erroneous and helping the individual move away from ineffective or harmful conditioning. The multidimensional approach will prevent this from occurring. **Result:** In 90% (84% of group one and 96% of group two) of subjects who were not self-aware enough to test congruently, further examination of the incongruence resulted in the subject being able to discover and define the source (or sources) of the conflict, thereby gaining the awareness necessary to correct the incongruence to their satisfaction. We cannot say whether the corrections were actually made in every case, only that subjects reported an awareness of what was needed to make such changes.
3. When circumstances create high stress situations, individuals may choose to draw upon functions that are not commonly used, in an effort to handle the situation or reduce the stress. During these times, the individual may report only the functions currently in use, even though these are not the functions that are used naturally in ordinary or low stress situations. **Prediction:** Should a single dimensional profile, which measures preferences and reports an overall "personality" based on the chosen preferences, be taken during such high stress periods, the result will be erroneous and can add to the confusion of the subject rather than clarify what is happening as a result of the stressful situation. The same subject could take the preferences profile after the

situation has passed and get a completely different reading on his or her “personality”. The multidimensional approach allows individuals to see where stressors have altered their functioning and enables them to consciously work through the situation, and to more purposefully use the preferences that are aiding them now in similar future situations. Furthermore, knowing their most effective and most comfortable functioning modes will enable subjects to return to the use of them more quickly thereby re-establishing a sense of equilibrium more rapidly. **Result:** 96% of all subjects tested were able to identify the circumstances or events that were altering their functioning in the moment, and to understand the effects of such an alteration. Of these, 84% reported awareness that their naturally occurring function was the one they generally used and felt sure that they would return to the natural function once the situation had passed.

4. Preferences for functions and behaviors tend to cluster together in congruent ways when an individual has developed his/her natural tendencies in a healthy manner. Such people tend to strongly prefer one or two of four identified preference clusters, and to avoid at least one. **Result:** 97% of those who profiled congruently had strong preferences in one or two areas and reported being relatively content with themselves and/or the general direction of their lives.
5. Individuals who are functioning in congruent ways will tend to be more positive and accepting of others overall, and to feel and report a sense of well-being. These people often reject the negative parts of profiles that combine both positive and negative traits as though they exist in equal measure in all people. Those who are functioning in incongruent ways will tend to be more negative and un-accepting of others, and to feel and report a sense of discomfort. These individuals will often discount the positive traits as identified on reports that combine both positive and negative traits in equal measure, or they will justify the negative ones rather than working to improve them. **Result:** 98.8% of respondents felt the results of the CORE profile described them more fully and more accurately than profiles that failed to separate positive and negative traits. 81% of those who fell into the negative range took the information more seriously and determined they needed to improve.
6. Natural patterns of preference and avoidance can be accurately predicted only when congruence between self-perception and reported preferences exist. They generally exist only when negative conditioning is either very low to non-existent or has been corrected and/or when there are no high stress circumstances currently presenting in the individual’s life.
7. An individual’s characteristic pattern of preference and avoidance can be determined by using combinations of visual cues and honest responses to words, phrases and questions relating to self-perception, behavioral and functional preferences, work and leisure preferences, and values and needs.
8. The results of an individual’s multi-dimensional profile provides a model, using numbers, graphics and visual elements, which can be defined, quantified, qualified and predicted.

## SCORES

**PHASE I RESEARCH:** The temperaments and preferences sections of the CORE Multi-dimensional Awareness Profile were given to 1,264 individuals from 1989 to 1995. Of these, 581 (46%) had congruent scores across the profile, while 683 (54%) had scores that were incongruent. Those whose scores were incongruent reported feeling “lost” or unsure of their direction in life to some degree, while those whose profile scores were congruent reported contentment and a clear sense of direction.

**PHASE II RESEARCH:** An additional 1,464 profiles were given after part three, the Personal Effectiveness Traits section, was added to the profile. The ratio stayed consistent within one percent of the earlier study (45% and 55% respectively). A comparison of the results of these two studies with those of the most frequently used single dimensional profiling systems, yielded an explanation of the differences reported in the norms and averages of these approaches to profiling.

Statistics, derived from profiles based on Hippocrates’ study of temperaments, such as Littauer’s Personality Plus Profile, differ from those based on Carl Jung’s work, such as the Myers-Briggs Type Indicator. Research results by Littauer show an average introvert to extrovert ratio of 73% introvert and 27% extrovert. Myers-Briggs Type Indicator research shows the exact converse of this, with 27% introverts and 73% extroverts. With an agreement factor of 27% at the extrovert end of the scale and 27% at the introvert end, a variant factor of 46% exists between these two forms of profiling. None of the statistics of the single dimensional profiles take into account oppositions, which on the CORE profiling system, shows up as incongruent. Oppositions account for approximately 6% of those studied in the single dimensional profiles and that 6% factor added to the 46% variant between the different approaches totals the 54% incongruence factor we have observed.

Research done by Target Training International using the DISC model, reports that 54% of the population falls within 16 basic graphs (implying that this 54% is self-aware enough to give correct and definitive answers) while the remaining 46% of the population are spread out over 368 various other graphs (which implies that these are not self-aware enough to give the correct and definitive answers that would place them within the norm). (The Universal Language DISC, 1993: Appendix B)

As in the earlier noted profiles, the DISC profile does not take into account the fact that oppositions are not authentic profiles. The discrepancies that exist between Littauer’s temperaments profile and Meyers-Briggs’ preferences profile, and the broad variant noted in the DISC profile, agrees with our studies which show that 54% of adults are not sufficiently aware of their nature to score congruently on the multidimensional profile, or to get an accurate reading on a single dimensional profile.

Our research data correlates most closely with the overall findings of the Myers-Briggs instrument on the introvert/extrovert ratio. However, we find that changes in preferences can and do occur on a regular basis, and believe that preference sets should not be used to define a person’s overall personality or to predict behaviors. Preferences are extremely useful for defining current functioning and approach and, while these do correlate closely to other personality factors, they cannot in themselves define a stable set of traits. Carl Jung himself

suggested that preferences should not be used alone to define personality types. The attitudes of introvert/extrovert are more consistent than are the functions of thinking/feeling and sensing/intuition, but even the attitudes can be affected by early conditioning or life's events and, unless the reasons for these changes are understood by the subject confusion can result. The MBTI acknowledges that preferences change from time to time. The CORE instrument seeks to explain *why* and to point the individual to his/her natural preference set, so that internal self-perception and external functions and preferences are congruent, and any alterations are *consciously* chosen for their temporary and/or permanent benefit.

## **ACCURACY REPORTS AND RELIABILITY SCORES**

The high validity rating on single dimension profiles, even in spite of the fact that their research numbers differ so widely, strongly suggests that respondents are reporting their results as accurate, when in fact they are not. They apparently report accuracy because the results match their erroneous self-perceptions. The respondent, after all is the one who took the profile. Therefore the results will predictably reflect what they report, and what they report is what they currently believe about themselves. Respondents are generally asked only if they agree with the results of the single dimension profiles, not whether they *like* the results. Even when test/re-test procedures are used, the results are likely to remain consistent and reports erroneous if the re-test is taken shortly after the original test, which is usually the case.

We have had a very high percentage of respondents agree with the results of an incongruent profile and to re-test in a similar fashion. But when asked if they *like* the results of their profile, they generally say they do not. Our research strongly suggests that when people are functioning in harmony with their nature, they *like* who they are and what they are doing with their life. When an individual says, "yes, that's me all right", and says it with some degree of dismay, it can be assumed that something is amiss. Such people almost always profile incongruently on the CORE profile. However, once an individual is self-aware enough to score congruently on the CORE profile, whether initially or after consultation, and to report high levels of self-understanding and self-satisfaction, the test-retest scores are highly stable with a reliability rating of 97.6% and a reported accuracy rating of 99.3%.

The accuracy of the CORE profile in predicting the degree of self-awareness, effectiveness in utilizing natural talents and strengths, reactionary patterns and the effective development of predictable trait clusters, and in measuring degrees of positive/negative trait development was reported at 95.4%.

Measures used in determining accuracy and reliability include introversion/extroversion, intuition/sensing, thinking/feeling, driven/relaxed, bold/timid, methodical/impulsive, people oriented/task oriented, patient/impatient, decisive/indecisive, emotional/stoic, talker/listener, positive/negative, reactive/controlled, precise/expedient, outspoken/evasive, passive/active, deliberate/spontaneous, structured/unstructured, adventurous/cautious, persistent/yielding, results oriented/process oriented, leads/follows, team-player/loner, empathetic/indifferent, flexible/inflexible, forceful/compliant and along with written questionnaires on lifestyle, work and career satisfaction, and personal interviews concerning levels of general satisfaction, and preferred relationship and communication styles.

## **CONCLUSION**

The various parts of the CORE Multidimensional Awareness Profile compared favorably against other instruments that measure the same dimension of the particular part of the profile being compared. The CORE instrument was compared against six popular psychological and personality profiling instruments and was found to compare favorably to each of them in terms of accuracy and reliability. The researchers concluded that the various elements of the CORE Multidimensional Awareness Profile displayed a high degree of similarity to the compared elements of these popular instruments and shows considerable evidence of construct validity.

The elements of part one of the instrument were developed over several millenniums, and the elements of the second part were developed around 1930 by Carl G. Jung. Neither of these theories has ever been challenged in court. The third dimension is a refinement of Hippocrates' original work and therefore has a multi-millennial historical basis. Instruments using the first dimension of the CORE Multidimensional Awareness Profile have been administered to more than 30 million people worldwide. Those that are similar to the second dimension of the multidimensional profile have been administered to over 70 million people worldwide. Research on the unique combining of these well-tested elements continues to validate the many benefits and uses of a multidimensional approach.