JUDGMENT*compass* Report Validation

By

BX3

WHAT YOU NEED TO KNOW ABOUT VALIDATION FOR EEOC

The EEOC wants to know that an assessment has been tested in the field, that it has scientific theory backing what it says it measures, and that it can accurately and consistently produce information. Validating an instrument takes many different kinds of analysis to ensure that it meets the requirements set out by the EEOC to fulfill the Uniform Guidelines on Employment and Selection (1978).

Assessments that are used for "***hiring, promotion, demotion, membership, referral, licensing, and certification" should not have "an adverse impact on the employment opportunities of any age, race, sex, or ethnic group***." [Federal Registry, Vol. 43, NO. 166, 1978]

The information in this document will show that the JUDGMENT***compass*** assessment that has been derived from the Harman Value Profile (HVP) does not discriminate against people from different racial origins, sexes, or ages. However, it is important to note that it should be a part of a full process in an organization and that even though the assessment meets EEOC standards, an organization is still liable for its own policies, practices and use of the assessment within their organization.

WHAT YOU NEED TO KNOW ABOUT THE JUDGMENT PROFILE

The JUDGMENT***compass*** Report™ Suite is derived from the Hartman Value Profile (HVP) and is unlike most assessments on the market today. It is not a self-report type instrument that asks people to describe themselves. It is not an instrument that is compiled and then compared to a national population of people to establish some norm of performance. It is not a skills test, like the ACT or SAT, that measures aptitude or mathematical ability. It is a deductive assessment that measures a person's value judgments by making them make value judgments and then comparing their responses against a set scientific norm that is determined by the Science of Valuation, otherwise known as Axiology. For example, if I wanted to know how well someone could play the piano, I could ask them to tell me about their ability – self-report. This may contain personal biases though as they may over or under rate their ability. I could ask them to take a test that would measure their musical knowledge and understanding of how to play the piano – a knowledge skills test, or I could even ask several people including experts to rate the individual on how well they play the piano, like a 360 report, but I would still get human bias. So instead I am looking for a deductive instrument that actually measures a person playing ability against a "perfect score". They have the ability to attach a piano to a computer now and actually measure every aspect of a person's playing ability by comparing what they do to the perfect performance. You will know exactly where they have difficulty be it tempo, rhythm, pitch, or even playing the correct note.

This forced rank assessment captures the evaluative judgments people make and thus captures their judgment structure and biases. That is, it measures their innate selective attention to what goes on around them and how they process the information and prioritize what is important.

The Hartman Value Profile is based on Robert S. Hartman's theory of Formal Axiology. This theory is described at length in his book, "***The Structure of Value: Foundations of Scientific Axiology***" that was published in 1967 by Southern Illinois University Press. It was acclaimed as being one of the most significant advancements in human history and received global recognition in its day. Robert S. Hartman even received a nomination for a Nobel Peace Prize in 1973, the year that he died, for his applications of this work in solving world peace. While his book may be difficult to read by most without a PhD. Dr. Bob Smith devoted 11 years to painstaking rewrite what Hartman stated in his book in such a fashion that regular people might understand the greatness of what Robert S. Hartman actually did. Dr. Bob Smith's book is called, ***"Greater than E = MC²"***, and was published in 2014.

Another book devoted to covering Hartman's work in Value Theory and Axiology is ***Forms of Value and Valuation***, by Dr. Rem B. Edwards' and John W. Davis published in 1991.

The Hartman Value Profile has been used since 1965 in many different countries and has applications for businesses, coaches and counselors. Businesses use the information from the HVP for selection, onboarding, continued development and group selection. Coaches can use it to pinpoint an individual's strengths and limits and increase self-awareness. Psychologists and Counselors use it to understand the biases in an individual's thinking to help address corrective action and improve self-esteem and awareness.

The JUDGMENT**compass** Report™ Suite has been painstaking in sticking with Hartman's original interpretations to preserve the validity of his work and science.

HARTMAN VALUE RESEARCH STUDIES

On the pages that follow there will be brief descriptions of the different types of studies that have been performed to demonstrate that the Hartman Value Profile (HVP) that runs the JUDGMENT***compass*** Report ™ meets the following tests of validity for EEOC compliance. The studies have also met The Standards for Educational and Psychological Testing.

- For Concurrent Validity
- For Construct Validity
- For Content Validity
- For Reliability
- For Predictive Validity **(A business Requirement)*
- For Criterion Validity **(A business Requirement)*
- For Age
- For Race / Ethnicity
- For Sex

It is noted that these types of studies take thousands of hours to compile by many different researchers. Most of these studies can be found in the library at the University of Tennesse where Robert S. Hartman taught. Work is being done by the Robert Hartman Insitute to get them published again and to provide current support as well for the continued use of the HVP and other applications of Hartman's work.

CONCURRENT VALIDITY

To measure concurrent validity an assessment has to be run against other assessments that have been proven to be valid measures themselves. This form of validity helps to give strength and support for an assessment in defending its ability to predict other outcomes. If the other assessment has a great deal of validation, it can be assumed that this adds additional validity to the new instrument. Concurrent validity is often measured with correlation and linear regression of two tests being administered at the same time.

PRESENTED AT 2ND INTERNATIONAL CONFERENCE FOR THE CATTEL 16PF

In 1982 Leon Pomeroy, Ph.D. and John David, Ph.D. conducted an in-depth study that compared the HVP to the MMPI, the Cattell 16PF, the CAQ, Ellis's Personal Belief Inventory (PBI), the Cornell Medical Index (CMI), and the Auto Lethality Index (ALI). The study was conducted in two parts in just over the span of a year. Part One of the study consisted of 68 adults that were given the HVP along with the MMPI, ALI, CMI, and the PBI. Part Two of the study consisted of 72 adults that were administered the HVP and the 16PF and the CAQ.

Part One of the study showed that 36 of the specific measures of the HVP correlated with MMPI, CMI, ALI, and PBI with high degree of significance ($.05 > p < .0001$).

Part Two of the study showed that 32 different measures of the HVP correlated with the 16PF and CAQ with a high degree of significance ($< .05\ p < .0001$).

Dr. Pomeroy summarized his findings by saying **"These data clearly established a concurrent validity for the Hartman Value Profile…and that the Hartman Value Profile is a valid measure of various stress states that produce problems…"**

CONSTRUCT VALIDITY

Construct validity is proven by testing what an assessment claims to measure against what it actually measures. In this case, the HVP is claiming to measure an individual's level of valuation, or judgment, against the Science of Valuation's fixed universal order of Value. If indeed the assessment is capturing a set order of value, than the average of all rankings of a large pool of people should match the theoretical norm or model.

THE INSTITUTE FOR THE STUDY OF HUMAN VALUE STUDY

This study for construct validity was run by the Institute for the Study of Human Value in 1987 with a grant from the Dollar General Corporation. The researchers included Dr. Charles McDonald, Ph.D., Wayne Carpenter, Edward Martin, William Panak, and Gary McDonald.

The study consisted of 6,354 people. An analysis was run on the data as a whole and on the two 18 item dimensions. The null hypothesis were "that the ranking of all items would be random, that the compositional and transpositional items would be ranked randomly, and that the normative rank and median obtained rank for each item would be zero."

The test results were run using the Friedman's Two Way ANOVA by rank, and Page's Test of Ordered Alternatives. There was a 99% confidence level provided by the Kendall's Coefficient of Concordance, indicating that the ranking matched the theoretical norm and order of value. A Spearman Rank Order Correlation was also run and provided additional statistical significance that there was indeed a correlation between the research groups rank order and the order set up by the theoretical model.

"The results obtained support the contention that the Hartman Value Profile provide a valid description and explanation of the structure and dynamics of human value and human value judgments."

CONCURRENT AND CONSRUCT VALIDITY

One of the early studies run on the HVP was set up to not only measure its ability to compare to other valid assessments, but to also compare against an instrument that measured similar things to what the HVP claimed it was measuring. Since the HVP is measuring an individual's level of valuation, it is reasonable to assume that there should be both concurrent and construct validity with other value assessments.

PRESENTED AT THE NATIONAL ASSOCIATION OF SCHOOL PSYCHOLOGISTS CONVENTION MARCH 1977

In 1976, Dr. John Austin and Barbara Garwood compared the HVP to three different value-based assessments to reach a level of concurrent validation. They compared the HVP against the Rokeach Value Survey (RVS), the Allport-Lindzey Study of Values (AVL), and Kohlberg's Theory of Moral Development (KMD). The study was made up of 65 university students with an average age of 23.5 years.

A nonparametric median test was conducted on the difference between the subgroups that scored above and below the median. The results reflected the anticipated and actual mean ranking were significant with a correlation of .95 and a $p<.001$. In addition, there were no other significant differences among the individual items ($p=.911$).

This study was very significant in validating that the HVP does indeed measure what it claims to measure and that it is also a valid value / judgment instrument.

CONTENT VALIDITY

To meet content validity the assessment needs to meet the guidelines of the scientific theory that it based on, in this case The Science of Valuation, (Axiology). It has to be validated by subject matter experts to ensure that it is actually measuring what it says. Validation in this case is done by the independent experts rating the items independently and checking to make sure the different ratings are consistent for each item. In the case of the HVP, the items in the test need to be compared to the science of Valuation as defined by the late Dr. Robert S. Hartman in his work on formal Axiology in the Structure of Valuation (1967) and in his Manual on the Hartman Value Profile (1973).

THE INSTITUTE FOR THE STUDY OF HUMAN VALUE STUDY

In this study, the HVP was checked to make sure that each statement that was made accurately articulated the value defined in the Theory of Valuation. This study was conducted by a full panel of practicing Value Scientists (Axiologist) back in 1987 that were part of **The Institute for the Study of Human Value**. The study was funded by a grant from the Dollar General Corporation and the researchers included Dr. Charles McDonald, Ph.D., Wayne Carpenter, Edward Martin, William Panak, and Gary McDonald.

In this study both sets of 18 statements were checked to ensure that they were sound. Each researcher performed an independent analysis of each statement to ensure that they were truly representative of:

1. The Concept they depicted
2. The Value Dimension they represented
3. The Valuation that was intended
4. That the Concept was correct
5. That the Value Dimension was correct
6. That the Valuation was Correct

The results of this analysis matched the conclusions that Dr. Hartman provided and gave high confidence to both the structure and the order of the content contained in every statement. Both sets of 18 items statements were found to be Axiologically Valid.

RELIABILITY

To prove an assessment is reliable it is important to demonstrate that the results will come out the same although the instrument may be given at different times in different contexts, often called test/retest reliability. In many instances, test/retest results are checked with a 10-day period or more. If the results match even after a longer period of time, then the more reliable the instrument is thought to be.

UNIVERSITY OF TENNESSE STUDY

One of the first studies was conducted back in 1982 at the University of Tennessee by John Davis, Ph.D., Glenn Graber, Ph.D., and Leon Pomeroy, Ph.D. In this study 86 students were assessed with the HVP and then tested again 10 days later. The group of students involved in this study were completing a medical ethics course at the time. This ensured that the subjects were under a high stress situation in between takes to further prove the stability of the HVP.

The results showed that all 40 dimensions measured by the HVP were statistically the same between the first and second administration of the assessment. "The reliability of the Hartman Value Profile was especially noteworthy in the most complex dimensions: value quotients, balance quotients, self-quotients, integration scores, and differentiation scores." Even these more mathematically complex dimensions were shown to be the same with a confidence above 99% with $p<.01$.

VALUES INC. STUDY

Values Inc., a private company, conducted a second study between 1984 and 1987 that was much more rigorous. It was run by Wayne Carpenter and Edward Martin and consisted of 200 adults that worked for or were applying for work at the Dollar General Corporation. The test subjects were given the HVP over a three-year period and both the raw scores from the different takes and the scores ranked according to the Science of Valuation were compared.

Both sets of data were evaluated with the Spearman Rank Order Correlation Analysis and the results provided correlation at a confidence level of $p<.001$. In the raw scores analysis the correlation coefficients were greater than .549. The final rank order coefficient was .974, indicating **"an extremely high level of significance and confidence in the reliability of the instrument, which is far greater in significance than provided by a $p<.001$."**

NEW MEXICO STATE UNIVERISTY STUDY

A study on 177 students and other volunteers at the University of New Mexico, by Dr. Jim Kroger were given two different versions of the HVP for the purpose of validating a new statement set. Although this test was not given over an extend period of time, the fact that two different versions were given and the items in the world containing similar statements were found to correlate at the $p< .001$ level is significant not only for the statements themselves, but also for the test retest ability in a shorter amount of time.

PREDICTIVE VALIDITY

To obtain predictive validity a study must capture subjects before a given task and be able to predict how they will do performing it or to predict their success rate at a later point in time. In other words, can an assessment variable predict if a person will be successful or not.

There have been many independent studies conducted using the HVP in the private sector by 5 of the leading providers of the HVP. There are many different applications for predictability including sales, management, and customer service. In these studies the HVP is given to individuals either applying for, or already in, a particular position. A prediction of success is made based on the results from the HVP and then people were followed over a two to three year period to see if they succeed as predicted. While many of these have had accuracy between 85% and 90%, they are proprietary and it is not possible to republish them. Many organizations will conduct their own ongoing studies for this validation, to ensure that the assessment is accurate in the present application in their organization. It is important for companies to keep performance records in order to continue to prove the predictive validity of any assessment used.

Predictive Validity is critical criteria needed to ensure that the use of an assessment in a business setting meets EEOC standards. Note that even though an assessment has been shown to have predictive validity, in a particular position in other organizations, it is always good practice to keep track of the ongoing results within your own company. There are actually many variables that affect performance and no two companies are the same, so the same position in two different companies may require different skills sets to succeed.

Two proprietary studies conducted by Cornerstone Consulting International, one in the restaurant industry and another in the retail convenience store industry, demonstrated the predictive validity of the HVP relating to performance and longevity.

In the restaurant industry application, 26 General Managers and 54 Restaurant Managers were given the HVP and then rated 6 months later for performance and longevity in the company. It was found that a combination of HVP scores could successfully predict the top performers 75% of the time in the General Managers and 83% of the time in the Restaurant managers. A different combination of scores from the HVP could be used to predict failure 75% of the time in the general managers and 100% of the time in the Restaurant managers.

A retail convenience store chain wanted to test the predictive validity of the HVP before using it to hire new managers. A blind test was done, where 38 existing retail managers from the convenience stores, some top performers and some bottom performers, were tested using the HVP. Predictions were made as to who would be a top performer and who would be a bottom performer and why. The HVP accurately predicted 80% of the top performers and was able to predict the 85% bottom performers. The company then used the assessment to hire the next wave of managers and the HVP was accurate at predicting success of at least 80% of the managers at the 6th month mark and 76% at the year mark.

CRITERION VALIDITY

Criterion Validity is very similar to predictive validity as it is looking to use variables from one measure to predict the outcomes based on information from other variables, in other words can an assessment variable predict behavior. In order to establish criterion validity it is important to note that an assessment has to provide a set of variables that can predict outcomes based information from another set of variables usually related to performance. This type of research is important for organizations to keep as they begin using any assessment, as sometimes criterion validity from organization to organization can even vary within an organization from region to region. Criterion validity, like predictive validity is important and meets the business necessity requirement by the EEOC.

There are many proprietary studies that cannot be republished here that have been done using the HVP by many of the top producers of HVP reports. Criterion validity has been demonstrated across many different fields from sales and management, to customer services and positions in the medical field like doctors and nurses. The following is one example.

SALES STUDY BY VALUE, INC.

Wayne Carpenter and Edward Martin conducted a study of sales people in 1987. To test the criterion validity they selected three different groups of people: 100 were randomly selected from a data base of over 5,000 general employees, 87 sales people were selected that earned commissions between $50k and 100K/yr over a three-year period, and 50 sales people were selected that earned commissions between $100k-500K/yr over the same three-year period.

They picked 8 measures from the HVP and predicted that that the sales people earning a higher commission would have higher scores than the other two groups. The results were significant for all 8 variables.

HVP Variables	**Statistical Significance**
"Ego-drive" (I2/E2/S2 Val & Dims)	p<.01
"Empathy" (I1Dim & Valence)	p<.01
Common Sense (DimE1)	p<.01
Intuitive Insight (DimI1)	p<.01
Realistic Goal Setting (DimS1)	p<.01
Self-Confidence (DimE2)	p<.01
Self-Control (DimS2)	p<.01
Self-Esteem (DimI2)	p<.01

This study provided significant proof that the HVP has the ability to predict potential performance for sales excellence.

AGE DISCRIMINATION

The Employment Act of 1967 that still stands today says that an employers with 20 or more workers may not discriminate against an employee based on their age. This act used to be enforced with the stipulation that there should be no difference between how people are treated above and below the age of 40. This was amended in 1990 to include a ban on discriminatory treatment regardless of retirement benefits. In order for an assessment to meet these standards the assessment must prove that it does not show a bias between people that are older the 40 years old or younger than 40 years old

VALUE INC. AGE STUDY

1n 1987 Wayne Carpenter and Edward Martin from Value, Inc. conducted a study to prove that the HVP did not show a bias toward people above or below the age of 40.

They were able to randomly select two separate sample groups from more than 6,000 people. The groups represented people below the age of 30 and another group over 40. To measure statistical significance, a two-sample parametric interval data T-test was used.

They generated 54 different HVP scores for each participant. A reliability factor of $p<.01$ was found for all 54 items. **This demonstrated that the HVP did not discriminate anything differently between the two different age groups selected.**

THE INSTITUTE FOR THE STUDY OF HARTMAN VALUES

In 1987 another study was conducted by Wayne Carpenter, Dr. Charles McDonald, Ph.D., Edward Martin, Gary McDonald, and William Panak as members of the Institute for the Study of Hartman Values. They received a grant from the Dollar General Corporation for the validation of the HVP.

In this study they had 1,075 people who were either employed or seeking employment within a corporation take the HVP. The ages ranged from 18 to 70+ and were broke out into 4 groups as follows: <30 (421 people), 30-39 (298 people), 40-49 (200 people) and >49 (156) people. The results were analyzed both individually and by group.
The null hypothesis was: “that mean ranks for different aged persons for the following normative items will not be significantly statistically different when using the Hartman Value Profile.”

The mean ranking for all four groups proved not to be different with a statistical significance of $.0395>p<.005$.
This proved that the HVP did not discriminate between people of different ages.

RACE DISCRIMINATION

The Civil Rights Act of 1964 set out stipulation in Title VII that employers may not discriminate in hiring, conditions of employment, or promotion practice because of an individual's race. It is imperative that an assessment prove that it does not discriminate between Whites, African Americans, Native American, Hispanics, or Asian.

VALUE INC. RACE STUDY

In 1987 Wayne Carpenter and Edward Martin form Value Inc. conducted a study on two separate populations of 200 people to prove that the HVP did not discriminate between whites and African Americans.

Two groups of 200 people were randomly selected from a pool of 6,000 people that had completed the HVP. One group consisted of White Americans and the other group consisted of people of from the African American Race. To measure statistical significance a two-sample parametric interval data T-test was used.

54 scores from each participant's HVP results in the populations of the two groups were compared. It was shown that all 54 scores using the T-test had a $p<.01$.

This demonstrated that the HVP did not discriminate between Whites and African American's.

THE INSITUTE FOR THE STUDY OF HUMAN VALUE RACE STUDY

In 1987 a grant funded study by Dollar General was conducted by Dr. Charles McDonald, Ph.D., Wayne Carpenter, Edward Martin, William Panak, and Gary McDonald. In this study, they set out to prove that the HVP did not discriminate between 5 different racial groups including: Asian, African American, American Indian, Hispanic, and whites.

They gathered a sample population of 1,075 people who were either employed or seeking employment from a corporation. 36 items/variables from the HVP were studied across the five different groups. The data was analyzed using the F-ratio for variance between groups and the Eta-squared measure to test the amount of the total variability in the dependent variable that can be accounted for by knowing the values of the independent variable.

The null hypothesis was: "that mean ranks for persons of different racial origins for the following normative items will not be significantly statistically different when using the Hartman Value Profile."

The results revealed that 31 of the 36 items had no statistical significance at all and the other 5 showed that the mean ranks of the subjects were significantly different. The Eta-squared showed that less than 1% of the difference was due to racial differences (this was statistically significant with p values ranging from $<.0144$ to $<.0001$).

NEW MEXICO STATE UNIVERISTY STUDY

A study of 177 students at the University of New Mexico and other volunteers from the school, by Dr. Jim Kroger were given two different versions of the HVP for the purpose of testing the HVP and VVP (an alternate version) for discrimination against race. Of those races that had enough representative samples, none of them had statistically significant effect on the factors measured at $p<.05$. (6 African Americans, 93 Latino / Hispanic, 61 Caucasian, 3 American Indians, and 12 others)

ON GOING STUDY – BX3

BX3 continues to gather data on the HVP and VVP formats and runs analysis periodically to ensure that there is no discrimination against the following nationality groups.

- African American
- Asian
- Latino / Hispanic
- Caucasian
- American Indian

Updated information on this can be provided upon request, but will take a few days for analysis.

SEX DISCRIMINATION

The Civil Rights Act of 1964 also set out stipulations in Title VII that employers may not discriminate in hiring, conditions of employment, or promotion practice because of an individual's sex. It is imperative that an assessment prove that it does not discriminate between males and females.

VALUE INC SEX DISCRIMINATION STUDY

In 1987 Wayne Carpenter and Edward Martin from Value Inc. conducted a study on two separate populations of 200 people to prove that the HVP did not discriminate based on sex.

Two groups of 200 people were randomly selected from a pool of 6,000 people that had completed the HVP. One group consisted of males and the other group consisted females. To measure statistical significance a two-sample parametric interval data T-test was used.

54 scores from each participant's HVP results were used and the two groups were compared. It was shown that all 54 scores using the T-test had a $p<.01$.

This demonstrated that the HVP did not discriminate between males and females and is in compliance with EEOC standards.

THE INSITUTE FOR THE STUDY OF HUMAN VALUE SEX DISCRIMINATION STUDY

In 1987 a grant funded study by Dollar General was conducted by Dr. Charles McDonald, Ph.D., Wayne Carpenter, Edward Martin, William Panak, and Gary McDonald. In this study they set out to prove that the HVP did not discriminate between males and females.

They gathered a sample population of 1,075 people who were either employed or seeking employment from a corporation, there were 92 men and 983 women in the study. 36 items from the HVP results were analyzed using the F-ratio for variance between groups and the Eta-squared measure to test the amount of the total variability in the dependent variable that can be accounted for by knowing the values of the independent variable.

The null hypothesis was: "that mean ranks of men and women for the following normative items will not be significantly statistically different when using the Hartman Value Profile."

The results revealed that 29 of the 36 items had no statistical significance at all and the other 7 showed that the mean ranks of the female and male subjects were significantly different. The $E ta^2$ showed that less than 1% of the difference was due to differences in sex gender (this was statistically significant with p values ranging from <.0490 to <.0086).

NEW MEXICO STATE UNIVERISTY STUDY

A study on 177 students at the University of New Mexico and other volunteers from the school, by Dr. Jim Kroger were given two different versions of the HVP for the purpose of testing the HVP and VVP for discrimination against sex (42 males, 137 females). Both the HVP and VVP were not found to have a statistically significant effect on sex at $p<.05$.

ON GOING STUDY – BX3

BX3 continues to gather data on the HVP and VVP formats and runs analysis periodically to ensure that there is no discrimination against sex. Updated information on this can be provided upon request, but will take a few days for analysis.