



Computing Scores for the 10 Human values

This system of computing scores for the Human Values scale has been approved for inclusion on the ESS data website by the CCT.

All such scales and systems of computation are subject to academic criticism and all users considering this information should critically evaluate it prior to its use.

Title/ Description:

Computing Scores for the 10 Human values

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Summary of documentation:

This describes how to compute scores on the Human Values Scale, which forms part of the ESS Supplementary Questionnaire. Individuals and cultural groups often differ in their use of the response scale. Scale use differences often distort findings and lead to incorrect conclusions. For most purposes, it is necessary to make a correction for individual differences in use of the response scale before performing analyses. Failure to make the necessary scale use correction typically leads to mistaken conclusions.

Link to full documentation:

Please see document under “Coding guide”

Instructions for Computing Scores for the 10 Human Values and Using them in Analyses

To compute a score for each of the ten values for an individual use the items that index it, from the table below.

| Values | Items in Index |
|----------------|-----------------------|
| Conformity | 7,16 |
| Tradition | 9,20 |
| Benevolence | 12,18 |
| Universalism | 3,8,19 |
| Self-Direction | 1,11 |
| Stimulation | 6,15 |
| Hedonism | 10,21 |
| Achievement | 4,13 |
| Power | 2,17 |
| Security | 5,14 |

The score for each value is the mean of the raw ratings given to the items listed above for that value. For most purposes, it is necessary to make a correction for individual differences in use of the response scale before performing analyses. Below are instructions for making the correction that is appropriate to various types of analyses.

Failure to make the necessary scale use correction typically leads to mistaken conclusions!

Individuals and cultural groups differ in their use of the response scale.¹ Scale use differences often distort findings and lead to incorrect conclusions.² To correct for scale use:

- (A) Compute scores for the 10 values by taking the means of the items that index it (above). If you wish to check internal reliabilities, do so for these value scores.
- (B) Compute each individual's mean score over all 21 value items. Call this MRAT.³
- (C) Compute the centered scores¹ of the 10 values by taking the mean of the items that index it where the scores on the items are first centered by subtracting from the individual scores the MRAT score.

¹ SPSS Syntax is provided for this at the end of this document.

1. For correlation analyses: Use the centered value scores (C).
2. For group mean comparisons, analysis of variance or of covariance (t- tests, ANOVA, MANOVA, ANCOVA, MANCOVA): Use the centered value scores as the dependent variables.
3. For regression:
 - a. If the value is your dependent variable, use the centered value score.
 - b. If the values are predictor variables:
 1. Enter **up to 8** centered values as predictors in the regression.
 - a' If all 10 values are included, the regression coefficients for the values may be inaccurate and uninterruptible due to multicollinearity.
 - b' Choose the values to exclude as predictors *a priori* on theoretical grounds because they are irrelevant to the topic.
 2. If you are interested **only** in the total variance accounted for by values and not in the regression coefficients, you may include all 10 values as predictors. The R^2 is meaningful but, because the 10 values are exactly linearly dependent, the coefficients for each value are not precisely interpretable.
 - c. In publications, it is advisable to provide a table with the correlations between the centered values and the dependent variables in addition to any regression. These correlations will aid in understanding results and reduce confusion due either to multicollinearity or to intercorrelations among the values.
4. For multidimensional scaling, canonical, discriminant, or confirmatory factor analyses: Use raw value scores for the items or 10 value means.⁴
5. Exploratory factor analysis is not suitable for discovering the theorized set of relations among values because they form a quasi-circumplex, which EFA does not reveal. Factors obtained in an EFA with rotation will only partly overlap with the 10 values and will exploit chance associations. The first unrotated factor represents scale use or acquiescence. It is not a substantive common factor. A crude representation of the circular structure of values can be obtained using EFA by plotting the value items in a two-dimensional space according to their loadings on factors 2 and 3 of the unrotated solution.

Footnotes

1. For a discussion of the general issue, see Saris (1988). Schwartz, et al. (1997) examine meanings of such scale use as an individual difference variable. Smith (2004) discusses correlates of scale use differences at the level of cultures.

2. Two critical assumptions underlie these corrections.

(1) The set of ten individual level values is reasonably comprehensive of the major motivationally distinct values recognized across individuals and cultural groups. Empirical evidence supports this assumption (Schwartz, 1992, 2004).

(2) Studies of value priorities are concerned with the importance of particular values as part of the value system of a person or group. This is because the way values affect cognition, emotion, and behavior is through a trade-off or balancing among multiple values that are simultaneously relevant to action. The relevant values often have opposing implications for the action. The absolute importance of a single value across individuals or across groups ignores the fact that values function as a system (Schwartz, 1996, 2004a,b). The scale use correction converts absolute value scores into scores that indicate the relative importance of each value in the value system, i.e., the individual's value priorities.⁵

3. When centering, do not divide by individuals' standard deviation across the 21 items. This is because individual differences in variances of value ratings are usually meaningful. Even if, on average, individuals attribute the same mean importance to the set of values, some individuals discriminate more sharply among their values and others discriminate less sharply. Standardizing that makes everyone's variance the same (i.e., 1) would eliminate these real differences in the extent to which individuals discriminate among their values.

4. Centering creates linear dependence among the items [and at least one variable will be removed from the regression equation as redundant by SPSS and other programs.

References:

- Saris, W. E. (Ed) (1988). *Variation in response functions, A source of measurement error in attitude research*. Amsterdam: Sociometric Research Foundation.
- *Schwartz, S. H. (1992). Universals in the content and structure of values: Theory and empirical tests in 20 countries. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25) (pp. 1-65). New York: Academic Press.
- *Schwartz, S.H. (1996). Value priorities and behavior: Applying a theory of integrated value systems. In C. Seligman, J.M. Olson, & M.P. Zanna (Eds.), *The Psychology of Values: The Ontario Symposium, Vol. 8* (pp.1-24). Hillsdale, NJ: Erlbaum.
- *Schwartz, S.H., Verkasalo, M., Antonovsky, A., & Sagiv, L. (1997). Value priorities and social desirability: Much substance, some style. *British Journal of Social Psychology*, 36, 3-18.
- *Schwartz, S. H. (2003). A Proposal for Measuring Value Orientations across Nations. Chapter 7 in the Questionnaire Development Package of the European Social Survey. Website: www.Europeansocialsurvey.org.
- *Schwartz, S. H. (2004a). Basic human values: Their content and structure across countries. In A. Tamayo & J Porto (Eds.), *Valores e trabalho* [Values and work]. Brasilia: Editora Universidade de Brasilia.
- *Schwartz, S. H. (2004b). Robustness and fruitfulness of a theory of universals in individual human values. In A. Tamayo & J. Porto (Eds.), *Valores e trabalho* [Values and work]. Brasilia: Editora Universidade de Brasilia.
- Smith, P. B. (2004). Acquiescent response bias as an aspect of cultural communications style. *Journal of Cross-Cultural Psychology*, 35, 50-61.

Syntax for centering:

The SPSS syntax below creates the 10 values by taking the means of the items that index them and subtracting the mean rating. You will note that the variables have been renamed as v1 to v21.

Some users may wish to reverse the coding of all items so that 1 is not at all like me and 6 is very much like me. Then higher scores signify that the value is more important. However, this is not necessary as long as users keep in mind the direction of scoring.

Syntax for creating the 10 values

```
rename var  
(ipctiv=v1)  
(imprich=v2)  
(ipeqopt=v3)  
(ipshabt=v4)  
(impsafe=v5)  
(impdiff=v6)  
(ipfrule=v7)  
(ipudrst=v8)
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(ipmodst=v9)
(ipgdtim=v10)
(impfree=v11)
(iphlpl=v12)
(ipsuces=v13)
(ipstrgv=v14)
(ipadvnt=v15)
(ipbhprp=v16)
(iprspot=v17)
(iplylfr=v18)
(impenv=v19)
(imptrad=v20)
(impfun=v21).

missing values v1 to v21 (7,8,9).

```
COMPUTE mrat = MEAN(v1 to v21) .  
EXECUTE .  
COMPUTE SEcenter = MEAN(v5, v14) - mrat .  
EXECUTE .  
COMPUTE COcenter = MEAN(v7, v16) - mrat .  
EXECUTE .  
COMPUTE TRcenter = MEAN(v9, v20) - mrat .  
EXECUTE .  
COMPUTE BEcenter = MEAN(v12, v18) - mrat .  
EXECUTE .  
COMPUTE UNcenter = MEAN(v3, v8, v19) - mrat .  
EXECUTE .  
COMPUTE SDcenter = MEAN(v1, v11) - mrat .  
EXECUTE .  
COMPUTE STcenter = MEAN(v6, v15) - mrat .  
EXECUTE .  
COMPUTE HEcenter = MEAN(v10, v21) - mrat .  
EXECUTE .  
COMPUTE ACcenter = MEAN(v4, v13) - mrat .  
EXECUTE .  
COMPUTE POcenter = MEAN(v2, v17) - mrat .  
EXECUTE .
```