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Validation of "Schwartz Values Scale" for Spanish Adolescents Population

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Abstract

The Schwartz value scale (SVS) has shown strong potential in assessing the value system modeled on Universal Values Schwartz in different cultures and populations. But it is necessary to know if the "SVS" meets the psychometric characteristics necessary to assess the value system of population of different ages. The objective of this research is to understand the potential of SVS to assess adolescents axiological system.

For validation of the scale has been used an incidental sample comprised 1262 adolescents of both sexes aged between 12 and 22 years old from 14 spanish secondary schools.

The reliability of the adaptation of "SVS" for spanish adolescents shows a high internal consistency of the items (Cronbach's alpha =, 892).

However, the reliability of various subscales are lower than those established in the interpretation criteria.

The adaptation of the Schwartz Values Scale for adolescents spanish population allow assess with high reliability and validity the value system of adolescents.

In addition, the subscales obtained with the ten factors allow individually measure each of the ten values Schwartz model.

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1. Introduction

Taking as starting point the theory of values Rokeach, Schwartz (1992) proposed as axis formation of the universal value system needs. Thus, Schwartz understands the values and beliefs inexorably linked to emotions that act as evaluative guide actions and judgments. These social constructs can be sorted in order of importance or priority, which forms the system's own values of each individual.

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For him the structure of the value system is based on three universal requirements. Namely: 1) the role of mankind as being in the social world and nature: submit, comply or explode; 2) the relationships established between individual and group bidding to keep the balance between autonomy and dependency group; 3) the responsible social conduct that addresses the ways to encourage individuals in respect of the welfare of others and coordination between them.

Of these three basic needs a spectrum of ten types of universal values common to all cultures arises circular arranged in a continuous, standing close together those whose achievement are related. Conversely, represented faced with those domains whose content value conflicts and whose simultaneous achievement is incompatible. Therefore, it is considered to be a dynamic system. This character is clearly reflected in the graph model representing the theory. (Lindeman and Verkasalo, 2005).

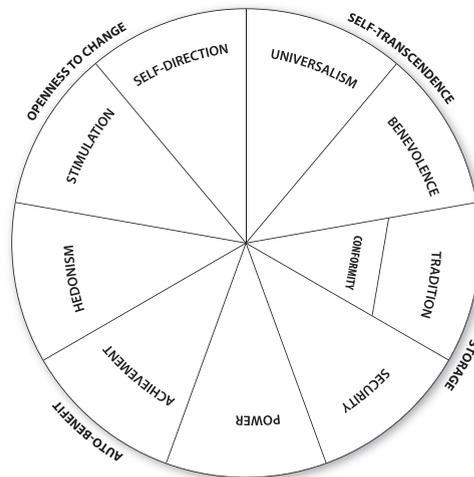


Fig. 1. Relationship between values on the Schwartz's model

This loop system is organized into four higher order values opposing each other 'two to two' (Schwartz, 1992; Musitu, 2000).

A summary of the value domains that encompass the values of higher order and motivational content of each of them gives a scheme like the one presented below (Musitu, 2000, Balaguer, Castillo, Garcia-Merita, Guallar and Pons, 2006; Cayon and Pérez, 2008)

- Openness to change:
 - Self-Direction: This value is related to independence of thought and decision-making.
 - Stimulation: Self-affirmation and the search for novelty and stimulation of vital challenges are the basic behaviors of subjects defined by this value.
 - Hedonism: It involves seeking positive affective experiences that get pleasure and personal gain.
- Storage:
 - Security: Security seeking people who abound in this value is related to harmony and social, family and physical stability, good interpersonal relations, social order accepted by common agreement.
 - Conformity: The freedom and space of the other limits the action itself, therefore the avoidance of harm to others or shared social norms guiding behavior of these subjects.
 - Tradition: The expression of group solidarity and uniqueness. It is about respect and commitment of the customs and ideas of traditional culture.
- Auto-benefit:

- Achievement: competition for resources and social approval in compliance with agreed standards is the key feature of this profile.
- Power: means having a social position and prestige and control over the people who belong to the same level micro or macro-social.
- Self-transcendence:
 - Benevolence: Part of the need to have a positive interaction with others to promote the good of the group.
 - Universalism: arises from the need to ensure the survival of individuals and groups when the resources on which life depends are scarce and shared.

The values given by Schwartz own intrinsic meet a need, therefore it is important to know the motivational content comprising each. To this end, Schwartz is empirically corroborate the structure of the ten types of values proposed in the model. This produces the "Schwartz Values Survey" (hereafter SVS) (Schwartz & Bilsky, 1987). The SVS is a tool for assessing the values and priorities of people.

In their studies, Schwartz collected samples from more than 40 countries of different cultures, finding in the empirical results support the theoretical model. Using techniques of multidimensional scaling and confirmatory factor analysis, the author obtained a spatial representation of the distribution of values.

Subsequent revisions (Ros and Grad, 1991, Feather, 1995; Schwartz & Boehnke, 2004) have been adapted both the number of items as the formulation and answer format (Castro and Nader, 2004; Gouveia, Clemente and Vidal, 1998), performing all checks of validity and reliability indices for different ages and cultures.

However, the evaluation of the potential scale of universal values has been little studied in adolescents. Balaguer, Castillo, García-Merita, Guallar and Pons (2006) performed the validation of this instrument for this age, finding empirical adequacy with the model.

However, the evolutionary characteristics of moral development in adolescence and maturation process of the value system in this age determine very specific traits to which it is important to know if the "SVS" meets the psychometric Characteristics Necessary to assess it the value system of adolescents.

Therefore, the objective of this work is to study the psychometric properties of the scale Schwartz Values for Spanish adolescents. This is to check the validity of the items that comprise well as the underlying factor structure.

Similarly it is intended to check the similarity of the results obtained with the theoretical model proposed by Schwartz.

2. Methodology

2.1. Sample

The validation was carried out with an Comprised 1262 sample (N = 1262) adolescents of both sexes (men = 52.5%, Female = 47.5%) aged between 12 and 22 years old (M = 15.55, SD = 1.62) from 14 spanish secondary schools.

There has been an incidental sampling. This scale has been applied to students in schools that agreed to participate in the study. The sample is distributed in courses as follows: 2nd ESO = 367 students (29.1%), 4th ESO = 580 students (46.0%) and 2nd Bacallaureate students = 315 (25%).

2.2. Questionaries

In carrying out the present study we have used the Spanish adaptation of the SVS by Balaguer, Castillo, García-Merita, Guallar and Pons (2006), composed of 45 items. To facilitate understanding of the items, they were accompanied by an explanatory statement of content axiológico same.

2.3. Procedure

The application of the instrument was conducted during school hours. Before applying the sample subjects were explained the purpose of the research, the voluntary nature of participation in it and the instructions to complete the items. Similarly given the opportunity to ask any questions before or during application of the instrument, so there was always this responsible in the classroom.

2.4. Data analysis

For the reliability analysis has been used to study the internal consistency of the items through Cronbach's alpha. Was performed reliability analysis of both total and individual scale values considering these independent subscales. The validity study was performed using the method of confirmatory factor analysis. This has been the underlying factors extracted by the principal components method and Varimax rotation.

The analysis of the psychometric properties of the instrument was Performed with SPSS 20.0.

3. Results

3.1. Reliability Analysis

The full scale values adapted from Schwartz has high internal consistency ($\alpha = .89$). That is, the instrument shows clearly the differences between subjects, with high discriminative power on the importance of value domains in the value system of individuals.

However the items "social power", "Wealth", "Moderate" and "Devoted" have a lower correlation to 0.2 with the total scale. The elimination of these elements increases, even slightly, the alpha value and increase the discriminatory power of the instrument. If these items were removed, to increase reliability ,890 ($\alpha = 0.898$), reaching excellent standards as proposed by George and Mallery (2003) criterion.

However, analyzing separately the reliability of the subscales of the instrument, we found that the internal consistency of the items that compose not reach high values.

Taking as a criterion the interpretation of Cronbach's alpha of George and Mallery (2003), the subscale with acceptable reliability index is "Compassion" ($\alpha = .755$). The subscales "Stimulation" ($\alpha = .689$), "Self-direction" ($\alpha = .618$), "Compliance" ($\alpha = .681$), "Achievement" ($\alpha = .636$), "Power" ($\alpha = .671$) and "Universalism" ($\alpha = .686$) are greater than 0.6, so its ability to capture individual differences is questionable according to the criteria previously used. On the lower level subscales "Hedonism" ($\alpha = .527$) and "Security" ($\alpha = .573$) are generally found, whose

discriminative power is poor. Finally, the reliability of the subscale "Tradition" ($\alpha = .473$) is unacceptable to reach such a low value on the Cronbach alpha coefficient.

Table 1. Reliability of the ten value domains

Domain value	Cronbach's alpha
Hedonism	,527
Stimulation	,689
Self-Direction	,618
Security	,573
Conformity	,681
Tradition	,473
Achievement	,636
Power	,671
Universalism	,686
Benevolence	,755

3.2. Validity Analysis

Extracting the scale factors is performed by factor analysis to obtain a ratio greater than KMO 0,9 (KMO = .918). Furthermore, analysis of significance by Bartlett's test of sphericity ($\chi^2 / df = 22941, 621/990 = 23.17$) is perfect as the level of significance is less than 0,05 ($p = .000$) so we can say that the study of the ideal factors using factor analysis.

The unrotated factor matrix can be seen that the first component explains 20.18% of the variance, but do not saturate it all items with a higher positive weight to 0.3, reaching the ninth factor to find these minimum levels saturation, so it can be considered that at this scale nine dimensions shown.

The factorial analysis by the method of principal factors Varimax rotation extracts 9 factors. However, the items making up each of the factors does not correspond exactly to the items in the factors of the original scale.

However, if we analyze the distribution of items in the original scale factors of the universal model of Schwartz values, we can see that these are distributed almost consecutively in continuous circular pattern representing said.

4. Conclusions

The overall objective of this research was to determine the adequacy of the adaptation of the scale of values by Schwartz Balaguer, Castillo, García-Merita, Guallar and Pons (2006) for assessing the value system of values from study of its psychometric properties. For this we have employed an incidental sample comprised 1262 adolescents of both sexes aged between 12 and 22 years.

The analysis of the overall reliability of the scale shows a high value of the statistic, and this implies the ability of the instrument to capture individual differences in the value system of the subjects of this age. The items that comprise the scale accurately distinguish differences in the value system of adolescents. This value is in line with that achieved by Balaguer, Castillo, García-Merita, Guallar and Pons (2006) in their adaptation to Spanish population.

However, if looking at the chart correlations of each item with the total scale, it can be seen that the items "social power", "Wealth", belonging to the domain of value "Power" and "Moderate" and "Devotee" both belonging to the domain of value "tradition" are less than 0.2 correlation, which lowers the value of the reliability index of full scale.

The disposal of such items is not a statistically significant increase, but it achieves the value 0.9 and, therefore, consider this value as excellent as assessed by George and Mallery (2003). For this reason it is considered appropriate to eliminate these elements.

In the validation work carried out by Balaguer, Castillo, García-Merita, Guallar and Pons (2006), a low correlation of item "Devoto" was found, still taking the decision to remove that item. However, the same results for the other three items eliminados in this paper were not found.

The study of the reliability of the domains of values taken individually shows the major problems. Only the "Benevolence" value reaches an acceptable level. All other domains are located below this value, finding three domains whose discriminative ability is poor or unacceptable.

However, comparison of these results with previous studies show similar to ours (Feather, 1995; Balaguer, Castillo, García-Merita, Guallar and Pons, 2006) results. Adaptation and validation conducted by values above ,7 found in five of the ten domains value and below this criterion in the remaining five domains. Similarly, the lowest value found in this previous study is for the value "tradition", which agrees with that found in our study.

Similarly, other validation work performed this instrument values found internal consistency less than ,7 in most value domains (Sagiv and Schwartz, 1995, Gouveia, Martinez, Meira and Lemos, 2001) .

These results on the internal consistency of the value domains of SVS may be due to the low number of items composing each subscale. In the same line indicate the results found by Schwartz, Melech, Lehmann, Burgess, Harris and Owen (2001) and Balaguer, Castillo, García-Merita, Guallar and Pons (2006).

The study of the validity of the instrument shows very different results proposed in the theoretical model development and subsequent validation performed (Schwartz, 1992; Gouveia, Clemente and Vidal, 1998; Knafo & Schwartz, 2003). The work done by Balaguer, Castles, García-Merita, Guallar and Pons (2006) also show differences in the outcome of the validation of the factorial structure of the SVS.

The unrotated factor matrix revealed the presence of 9 factors (one less than the theoretical model) with a communality greater than unity. These nine factors do not explain high levels of variance (s = 50,612), however equal variance shows that such items are grouped equally by what they have in common.

However, when viewed in figure 2 how the items are distributed according to the weights in the rotated matrix of the resulting nine factors, you can see that the items are located near the original factors appendages. These results are consistent with the theoretical model principle, under which lie close together those values realized and faced relate to those domains whose content value comes into conflict.

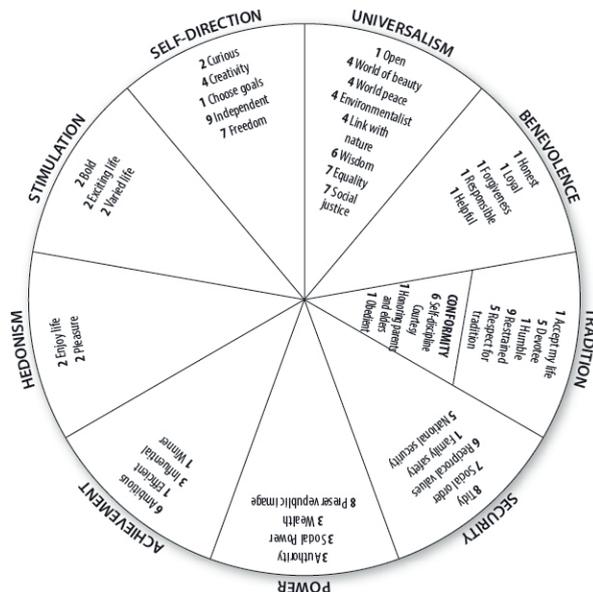


Fig. 2. Saturation of the original items in the new factors (resulting factors indicated by number before each item)

This difference structure may be marked by the maturation process of the value system of adolescents, since their value preferences are not yet definitively determined.

In conclusion, the adaptation of Spanish adolescents SVS to be assessed with a high level of system reliability values of adolescents. However, the evaluation of the instruments taken individually is not possible due to low internal consistency results obtained by these.

Similarly, the difference in the factor structure of the instrument can not determine the value preferences of adolescents according to the original theoretical model.

These results invite to replicate the study on future occasions, establishing categories for age and sex variables to pinpoint the source of the differences.

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