MEASURING CHILDREN'S VALUES FROM AROUND THE WORLD: CROSS-CULTURAL ADAPTATIONS OF THE PICTURE-BASED VALUE SURVEY FOR CHILDREN (PBVS-C)

ANNA K. **DÖRING**



University of Westminster, United Kingdom

ABSTRACT

The Picture-Based Value Survey for Children (PBVS-C; Döring et al., 2010) assesses children's values through self-report and thereby depicts Schwartz's theory of universal human values at an early age (approximately six to eleven years). Recently, the original German version has been adapted for application in Poland, Bulgaria, the Ukraine, France, Italy, Switzerland, the UK, New Zealand, Australia, the USA, Brazil, Turkey, Israel, and Estonia, and it is currently adapted for application in Ireland, Russia, and Portugal. In this manuscript, we accompany the PBVS-C on its journey around the world and systematically explore culture-specifics in the adaptation process with a particular focus on the meaning of the value pictures, as the PBVS-C's core elements. Integrating findings from these adaptations of the PBVS-C, we aim to share best practice and draw a roadmap for future adaptations in other cultures. This article further serves as a resource to locate existing studies with the PBVS-C.

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INTRODUCTION

HUMAN VALUES:

Schwartz's circular model

Human values have been extensively researched in psychology (and other disciplines such as sociology, anthropology, and philosophy), where the most researched theory of personal values was developed by Schwartz (1992). Schwartz's theory was confirmed in hundreds of studies in every inhabited continent (i.e., except for Antarctica), in over 200 samples from more than 70 cultures (see Sagiv & Roccas, 2017). Findings showed that human values are organized alongside a motivational continuum on a circle (see Figure 1). Specifically, Schwartz (1992) found that single values that exist around the world (e.g., tolerance, following the rules, independent thought, leadership) can be subsumed under the heading of ten basic values: universalism, benevolence, tradition, conformity, security, power, achievement, hedonism, stimulation, and self-direction. Pursuing each two of these basic values can be either motivationally compatible or potentially trigger a conflict. For example, striving for stimulation and self-direction – both entailing an openness to change – is motivationally compatible. Both are hence placed next to each other in the circle. However, this may be incompatible with striving for tradition, conformity, and security, all of which entail a motivation to preserve the status quo. Therefore, these three basic values are placed at the opposite side of the circle (see Figure 1). The closer each two values are on the circle, the more compatible they are in terms of their underlying motivation, and the further apart each two values are on the circle, the more incompatible and potentially conflicting they are in terms of their underlying motivation. Schwartz (1992) further grouped the ten basic values into four higher-order values (see Figure 1): 1) Self-Transcendence, which comprises universalism and benevolence, 2) Conservation, which comprises tradition, conformity, and security, 3) Self-Enhancement, which comprises power and achievement, and 4) Openness to change, which comprises stimulation, self-direction, and in most studies also hedonism.

Values tend to be structured alongside the circle within persons (Borg, Bardi, & Schwartz, 2015), and they also tend to change alongside the circle (Bardi & Goodwin, 2011). If for example values of benevolence become more important to a person, the neighboring values of universalism tend to become more important as well, and the values at the opposite side of the circle, power and achievement, tend to become less important. Schwartz's model thereby lends itself to research developmental dynamics of stability and change over time and with age, after significant life events and experiences (e.g., Döring & Cieciuch, 2018; Döring, Daniel, & Knafo-Noam, 2016). However, this type of research only started recently.

For a long time, research primarily focused on values of adults and to a smaller degree values of adolescents, possibly because it was thought that children cannot report on their values. This changed with the development of the first self-report values instrument for children: The Picture-Based Value Survey for Children (PBVS-C; Döring, Blauensteiner, Aryus, Drögekamp, & Bilsky, 2010). Studies with the PBVS-C have revealed that children's values are structured as clearly as adults and alongside the Schwartz (1992) circlular model, that children's values direct their behavior, that children's values have a genetic component, but are also affected by social contexts and significant life events, and many more. The originally German PBVS-C has since been adapted for application in fourteen more countries: Poland, Bulgaria, the Ukraine, France, Italy, Switzerland, the UK, New Zealand, Australia, the USA, Brazil, Turkey, Israel, and Estonia, and more adaptations are ongoing for Portugal, Ireland, and Russia.

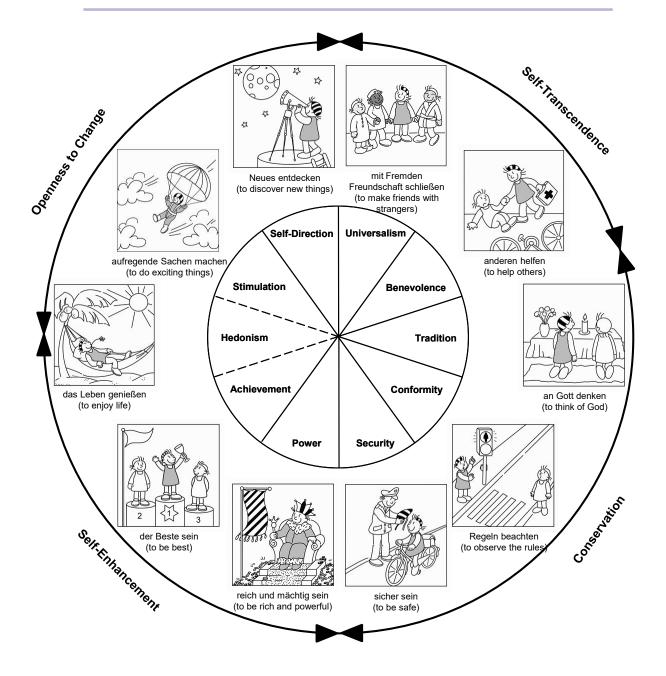


Figure 1. Schwartz's (1992) model of universal human values and its representation in the PBVS-C (sample items). © The pictures were drawn by Andrea Blauensteiner. The ideas for the pictures were developed by Anna K. Döring.

This manuscript outlines the adaptation process, illustrates key steps of the adaptation process, and provides a roadmap for future adaptations.

THE PICTURE-BASED VALUE SURVEY FOR CHILDREN (PBVS-C)

As the name suggests, the PBVS-C uses pictorial items. Pictures of human values surround children in their everyday lives; in children's books, in movies, on television, and in school, to name just a few examples. Building on pictures as carriers of value-related meaning, the PBVS-C was developed. The PBVS-C provides access to values at an early (i.e.

elementary-school) age and thus has opened brand new options for research. For the very first time, it was possible to study value development within the framework of Schwartz's (1992) model "through the eyes of the child" (cf. La Greca, 1990).

In the PBVS-C, each of Schwartz's (1992) value types – universalism, benevolence, tradition, conformity, security, power, achievement, hedonism, stimulation, self-direction – is depicted in two pictures (see sample items in Figure 1). There are hence twenty pictures in total. In each picture, a leading character is performing a value-relevant action. In this respect, the PBVS-C takes into account children's concrete thinking, which is tightly connected with concrete actions. Furthermore, the PBVS-C mirrors the circular structure of Schwartz's model, which is rooted in the central motivational goal underlying each value types and its potential compatibilities and conflicts with the central motivational goals underlying the other value types. For this purpose, each picture in the PBVS-C is accompanied by a brief, rather abstract caption, which is intended to direct children's focus to the relevant motivational goal (see Figure 1). An introduction to the values theme is provided, and then children are requested to rank the twenty pictorial items according to what is important to them in their lives. In this respect, the PBVS-C explicitly builds on Schwartz's definition of values as desirable, transsituational goals, varying in importance, that serve as guiding principles in people's lives. The PBVS-C employs a Q-sort response format, wherein children choose two pictures that are very important, four pictures that are important, eight pictures of mean importance, four pictures that are not important, and two pictures that are not at all important. Data collected with the original German version of the PBVS-C yielded highly differentiated value structures in elementary-school age, which closely resembled Schwartz's prototypical model (see Figure 1, Table 1 gives an overview of studies with the original German version). This extremely surprising finding triggered questions about children's values in a cross-cultural context. Thus, adaptations for other countries were needed.

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The Picture-Based Value Surevy for Children (PBVS-C)

Table 1. Overview of studies that have employed the original German version of the PBVS-C

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Reference	N	Age		
Bilsky et al. (2013)	515	8-12 years		
Cieciuch, Döring, & Harsimczuk (2013)	119	10-11 years		
Döring (2008)	575,	6-11 years		
Döring, Blauensteiner, Aryus, Drögekamp, & Bilsky (2010)	421	8-12 years		
Döring, Kärtner, & Bilsky (2018)	127	6-11 years		
Döring, Makarova, Herzog, & Bardi (2017)	157	6-11 years		
Döring et al. (2015)	1,167	7-11 years		

ADAPTATION OF THE PBVS-C FOR APPLICATION IN OTHER COUNTRIES

The adaptation of the PBVS-C follows established procedures in cross-cultural research (e.g., Brislin, 1970): The pictures are adapted, the wording is adapted, and the validity of the adapted version is investigated (see Figure 2). These steps involve both values experts and children. The ultimate goal of the adaptation is to ensure values are measured in the same way across countries.

Step 1: Step 2: Step 3: Step 4: **Adapting the pictures** Adapting the wording **Checking structural validity Checking construct validity** The adapted version of the **Expert ratings** Translation and The adapted version of the • Focus groups with back-translation PBVS-C is employed in a PBVS-C is employed together with children from the of captions and insample of children from Schwartz's PVQ in a sample of the target culture target culture (cf. structions (cf. Brislin, 10-11-year-old children from the Morgan et al., 2002; 1970) MDS analysis of value target culture Vogt et al., 2004) structure MTMM analysis of validity

Figure 2. Roadmap for the adaptation of the PBVS-C.

Pictures of human values are the PBVS-C's core elements, and therefore the first step of the adaptation addressed the pictures' suitability for the target culture (see Figure 2). The PBVS-C's original pictures were inspired by drawings from all around the world and were designed as universal as possible. Still, pictures as rather concrete depictions of value scenes necessarily portray culture-specific objects, sceneries, and actions. In the original German version, priority was given to typical European aspects. The central question at the beginning of each adaptation process for one specific culture was: Would the pictures need to be changed? As presented in Figure 3, the answer to this question heavily depended (1) on the value-relevant aspect that was depicted in each picture, and (2) on the cultural context involved. For example, the value-relevant aspect portrayed in the picture Benevolence 1 (to help others) is rather universal. In order to adjust the picture to the cultures involved so far, changing a single element – the cross on the first-aid kit into a Star of David (Israel) and a crescent (Turkey) - was sufficient. In contrast, other value-relevant aspects call for a culture-specific picture. For example, religion is a central aspect of tradition in terms of Schwartz's model and is thus incorporated in the PBVS-C. In line with the prevailing religious affiliation of the children studied so far, we developed three pictures in addition to the original German picture Tradition 1 (Christian, see Figure 3): An Orthodox version (employed in Bulgaria and the Ukraine), a Jewish version (employed in Israel), and a Muslim version (employed in Turkey). The necessity for these changes was immediately raised by adult researchers from the respective culture. There were also pictures, such as picture Self-Direction 1 for example (see Figure 3) that did not need any change in any of the completed adaptations.

STEP 1:

Adapting the pictures

b) Adapting the scene a) Adapting single elements b) No adaptations of the picture required Item Benevolence 1 **Item Tradition 1** Item Self-Direction 1 to think of God to help others to discover new things anderen helfen (original German) an Gott denken (original Neuese entdecken German) pomagać innym (Polish) odkrywać coś nowego (Polish) German) aiutare gli altri (Italian) myśleć o Bogu (Polish) scoprire cose nuove (Italian) aider les autres (French) découvrir de nouvelles choses pensare a dio (Italian) to help others (British) practiquer une religion (French) (French) to help others (US-American) to think of God (British) to discover new things (British) to help others (New Zealandi) to think of God (US-American) to discover new things (USto help others (Australian) to think of God (New Zealand) American) Да помагам на другите to think of God (Australian) to discover new things (New (Bulgarian) pensar em Deus (Brazilian) Zealand) Помогать другим (Russian to discover new things caption for the Ukraine) (Australian) ajudar os outros (Brazilian) Да откривам нови неща (Bulgaria) Делать новые открытия (Russian caption for the Ukraine) fazer descobertas (Brazilian) ומלל (Israeli) מישדח חירבד דבל דומלל ללפתהל Allah'ı yeni şeyler keşfetmek (Turkish) düsünmek חיהולאל (Israeli) (Turkish) םירחאל רוזעל başkalarına (Israeli) yardım etmek (Turkish) Да мисля за Бог (Bulgaria) Думать о боге (Russian caption for the Ukraine)

Figure 3. The different versions of the pictures (top: original, bottom: adaptations) and their captions. © The pictures were drawn by Andrea Blauensteiner. The ideas for the pictures were developed by Anna K. Döring.

For the adaptation of the pictures, a specific source of information seemed particularly relevant to us: As suggested by many (e.g., Vogt, King, & King, 2004), we aimed to enhance each picture's content validity through consultation with the target population – i.e. children – in the respective culture. In a focus group discussion (see Morgan, Gibbs, Maxwell, & Britten, 2002;), each picture was presented to a group of elementary-school aged children, and the children were asked to find answers to the following questions: What do you see in the picture? What is happening? Why is the leading character doing this? What is important to the leading character? In this way, we aimed to assess children's understanding of both the scene (i.e. the objects and persons presented and their relation to one another) and the underlying motivational goal. Additionally, children were asked to find a title for each picture; that is to condense the concrete information given to an abstract concept. Table 2 exemplarily presents findings from a focus group with Brazilian children (Rottmann, 2010) and outlines how we derived adaptations from these findings: An adult person from the

target culture who was well-acquainted with Schwartz's model, but who had never seen the original pictures, tried to reconstruct each picture's content and each picture's underlying value type, relying exclusively on children's statements, as obtained in the focus group in the target culture. If the task was solved successfully, that is if the reconstructed picture closely resembled the original and if the reconstructed value type was identical with the intended one, the picture was kept. Else, it was adapted in line with children's statements (see Table 2 for details). Table 3 gives an overview of adaptations of the PBVS-C that have been completed so far, along with references and samples researched. It shows that in most countries, the pictures from the original version could be used; in Estonia, Bulgaria, the Ukraine, and Israel between one and three pictures needed adaptation, and in Turkey and Brazil four to six pictures needed adaptation.

Table 2. Adaptation of the pictures based on consultation with children from the target culture: Exemplary findings from a focus group in Brazil (nine 6-11-year-old children from Cantanhêde, North-Eastern region)

The original picture

Brazilian children's statements: Excerpts from the transcripts of the focus group Rating by a Brazilian adult who was well-acquainted with Schwartz's model, but had never seen the original pictures: Reconstruction of the original picture, reconstruction of the underlying value type (and confidence rating)

Need for adaptation

Benevolence 1:



I see Laila helping a girl who fell on the ground [...] She helps this person, because he/she had an accident with his/her bicycle [...] I think she acts this way, because she likes humans and doesn't want to see them like this... hurt and such things... I think she has empathy. [...] It is important that she saves the person's life.



Benevolence

none

Universalism 1:



Laila and the others are holding hands. They are happy. [...] This child (person at the right) wears a bathrobe. [...] I think this woman (second person from left) is a grandma. [...] She wears a pyjama, and the baby (person at the left) as well [...] I think Laila loves these people. She is a very good friend. [...] Laila and her friends.



Benevolence (very confident)

(very confident)

Depicting persons who differ with respect to their appearance (color of skin, hair, physique, clothes etc.), this picture is intended to portray children from different countries. Brazilian children, however, grow up in a multi-ethnic society. Therefore they attributed differences in the characters' appearance to age ("baby". "grandma") and were wondering why some characters were wearing unusual clothes ("bathrobe", "pyjama"). In order to emphasize the different cultural and geographic roots of the children portrayed in this picture, we added a globe:



STEP 2:

Adapting the wording

The second step of the adaptation process (see Figure 2) concerns the adaptation of the picture's captions and the instruction. For this purpose, they were translated by a bilingual person from the source (German) to the target language, aiming to find child-appropriate expressions (as employed for example in children's books and in dictionaries for children). Then another bilingual person who did not know the original German instruction and captions conducted a back-translation. This procedure ensures an accurate translation which (1) preserves the original meaning and (2) provides an adaptation to the target culture (Brislin, 1970; see Figure 2 for details). The adaptation of the wording also needs to consider specifics of the society wherein research is conducted. For example, in France as a laicist state, the title of one Tradition item ('to think of God') could not be translated literally and presented to primary school children, as this implies God exists (and there is one). Instead, the title was change to 'to practice a religion'.

Table 3. Completed Adaptations of the PBVS-C (ordered by the extent to which the pictures needed to be adapted), with reference and information about the sample researched

Degree of change of the pictures			
	No change	1-3 pictures changed	4-6 pictures changed
	Italy Döring et al. (2015) n=380, age: 7-11 years	• Bulgaria Döring et al. (2015) n=411, age: 7-11 years	• Turkey Kapikiran & Gündoğan (2018) n=573, age: 7-12 years
•	France Bilsky et al. (2013) n=306, age: 7-12 years	 Ukraine Manuscript in preparation n=355, age: 5-13 years 	• Brazil Roazzi, Döring, Gomes, Souza, & Bilsky (2011) n=185, age: 6-12 years
•	Switzerland Döring, Makarova, Herzog, & Bardi (2017) n=261, age: 7-9 years	• Estonia Tulviste, Harro, & Tamm (2018) n=333, age: 7-14 years	,
٠	Poland Cieciuch, Davidov, & Algesheimer (2016) n=801, age: 8-13 years Cieciuch, Döring, Harasinczuk (2013) n=164, age: 11-13 years Cieciuch, Harasimczuk, & Döring (2013) n=910, age: 8-12 years Döring et al. (2015) n=984, age: 7-11 years	• Israel Abramson, Daniel, & Knafo-Noam (2018) n=243, age: 5-12 years Berson & Oreg (2016) n~20,000, children in grades 1 and 2 Uzefovsky, Döring, & Knafo-Noam (2016) n=348, 7 years	
•	UK Manuscript under revision n=128, age: 5-13 years		
•	USA Döring et al. (2015) n=66, age: 7-11 years		
•	Australia Manuscript in preparation n=140, age: 5-11 years		
•	New Zealand Döring et al. (2015) n=83, age: 7-11 years		

In the third and fourth step of the adaptation, the validity of the adapted version of the PBVS-C was examined. Step 3 speaks to the structural validity: The adapted PBVS-C version

is completed by children of elementary-school age in the target country, and the researcher investigates, if children's values are structured according to Schwartz's circular model. The technique employed is Multidimensional Scaling (see Döring et al., 2010, for details on the statistical procedure and its justification). Finally, step 4 speaks to construct validity: The researcher employs the adapted version of the PBVS-C alongside the Portrait Values Questionnaire (PVQ), an established questionnaire for adolescents and adults, in a sample of 10-11-year-old children from the target culture (who are typically able to complete the PVQ, see Döring, 2010). In a multitrait-multimethod (MTMM) approach, the researcher can then examine, if the measurement of the four higher-order values self-transcendence, conservation, self-enhancement, and openness to change correlates significantly across the two instruments, and if the four higher-order values occur as distinct constructs (see Cieciuch, Döring, & Harasimczuk, 2013 for an example).

STEP 3 AND 4:

Checking validity

A ROADMAP FOR FUTURE ADAPTATIONS

We propose the process outlined in Figure 2 as a roadmap for future adaptations, as it builds on best practice from past studies: The first step considers whether and to what extent the pictures need adaptation and builds on input from both experts (researchers of human values) and children (as the target population). Our experience from past adaptations shows that the more different the target country is from Germany (the original version) in terms of culture and life context, the more adaptations are required. The second step focusses on the wording – picture captions and PBVS–C instructions – and it follows the established translation and back-translation procedure (Brislin, 1970). Finally, steps three and four establish the validity of the adaptation of the PBVS–C. Data are collected from a substantially large sample of children from the target country, and the researcher investigates structural and MTMM validity. As the ultimate goal of the adaptation is to ensure values are measured in the same way across countries, future research may further explore measurement invariance of the PBVS–C in data sets from children in various countries (see Cieciuch, Davidov, Vecchione, Beierlein, Schwartz, 2014, for an investigation of measurement invariance of instruments to measure adults' values).

We are looking forward to future adaptations of the PBVS-C to enhance our understanding of children's values around the world. Interested researchers are welcome to contact the author.

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