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Abstract

Schwartz's theory of the content and structure of human values has been validated mostly with adult (teacher and university student) samples. The present study examines the content and structure of values of middle adolescents in Singapore, the Philippines, Indonesia, and Australia. The 40-item version of the Portrait Values Questionnaire was administered to 230 adolescents in each country (total N=920; boys and girls were equal) and smallest space analysis was performed. Consistent with theory, the 10 first-order values and the four second-order values, organized in two bipolar dimensions, were identified in all samples. In support of the developmentally modified value model for young people, there was some evidence for the periphery of power to achievement. Interestingly, the location of benevolence and universalism were reversed across all cultural groups, and tradition values separated into self-restriction and faith. Overall, the findings support the claim that Schwartz's theory of values is neither restricted to adults nor solely based on a particular instrument and is generalizable across diverse national contexts.

Keywords

Schwartz theory, values content, values structure, adolescence, PVQ

Early support for the content and structural aspects of the theory of basic human values relied on the use of the Schwartz Values Survey (SVS) with samples of teachers and university students (Schwartz, 2005). Studies using the SVS with children and adolescents, however, failed to provide support for the theory. It was suspected that the SVS format was cognitively too complex

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and abstract for young people, and this was the reason for the development of the Portrait Values Questionnaire (PVQ; see Schwartz, 2005; Schwartz et al., 2001). As reviewed below, studies using the PVQ with children and adolescents (e.g., Bubeck & Bilsky, 2004) suggested clearer support to the theory than those using the SVS. However, the findings led to a speculation that young people's value structure might be different from that of adults (Bilsky, Niemann, Schmitz, & Rose, 2005).

The present investigation aims to examine the content and structure of basic values of middle adolescents in Singapore, the Philippines, Indonesia, and Australia. Findings that exhibit congruencies, or dissimilarities, in the content and structure of values of adolescents across cultures and with those postulated by theory (Schwartz, 2005) hold theoretical implications suggesting possible antecedents of values development. That is, cross-cultural congruencies may suggest commonly shared sociopsychological functioning rooted in universal requirements of human existence (Schwartz, 2005). Cross-cultural dissimilarities, on the other hand, might imply environmental or cultural influences on adolescents' values. Furthermore, a lack of congruencies between adolescents' values and those postulated by theory provides crucial information that enriches, or even redefines, the theory.

Schwartz's Values Theory

Schwartz (2005) defines values as motivational beliefs that represent transsituational desirable goals and modes of conduct that serve as guiding principles in an individual's life. Based on values' underlying motivational goals, he postulates 10 substantively distinct types of values (see Table 1). This distinctiveness of values represents the content aspect of the theory. Schwartz also theorizes that the 10 value types are organized in a circular structural relation portraying the pattern of conflict and compatibility of the motivational goals underlying values (see Figure 1). That is, the nearer any value type is around the circle, the more compatible its motivational goals are. The further the distance between value types is, the more antagonistic their motivational goals are. As shown in Figure 1, the 10 value types can be abstracted into four second-order values organized in two bipolar dimensions—opposing self-transcendence (universalism, benevolence) from self-enhancement (power, achievement), on the one dimension, and opposing conservation (tradition, conformity, security) from openness to change (self-direction stimulation), on the other dimension. Hedonism shares motivational elements with self-enhancement and openness to change and thus is located between the two.

Studies on Values With Children and Adolescents

Schwartz et al. (2001) provided the first evidence for the validity of the PVQ for use with adolescents. Analyzing 13- to 14-year-old Ugandan girls' responses to the PVQ, Schwartz et al. found the distinction of self-direction, stimulation, hedonism, achievement, and power values. Items representing other value types scattered in one side of the SSA projection forming two second-order values, self-transcendence and conservation. Administering the PVQ to German children (10 to 12 years old), early adolescents (13 to 14 years old), and middle adolescents (15 to 17 years old), Bubeck and Bilsky (2004) identified eight distinct value types in children's and early adolescents' value structures and all 10 value types in middle adolescents' value structure. More recently, Bilsky et al. (2005) administered the PVQ to German, Chilean, and Portuguese children ages 10 to 12 and found that for the German and Chilean children, nine value types were clearly differentiated. For the Portuguese children, eight basic value types and one second-order value type, self-transcendence, were identified.

The studies by Bilsky et al. (2005) showed that the locations of several value types deviated from the theorized prototype. This led Bilsky et al. to propose a modified value structure for

Value Type (Number of Items and the Item Code)	Defining Motivational Goals (Examples of Items That Represent Each Value Type)
Security (5 items—se5, se14, se21, se31, se35)	Safety, harmony, and stability of society, of relationship, and of self. ("It is very important to him that his country be safe from threats from within and without. He is concerned that social order be protected.") as = .76, .72, .61, .64
Conformity (4 items—co7, co16, co28, co36)	Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms. ("He believes that people should do what they're told. He thinks people should follow rules at all times, even when no one is watching.") $\alpha s = .72, .75, .71, .78$
Tradition (4 items—tr9, tr20, tr25, tr38)	Respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provide the self. ("It is important to him to be humble and modest. He tries not to draw attention to himself.") $\alpha s = .46$, .59, .35, .45
Benevolence (4 items— be I 2, be I 8, be 27, be 33)	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact. ("It is important to him to be loyal to his friends. He wants to devote himself to people close to him.") $\alpha s = .73, .71, .66, .70$
Universalism (6 items— un3, un8, un19, un23, un29, un40)	Understanding, appreciation, tolerance, and protection for the welfare of all people and for nature. ("He believes all the world's people should live in harmony. Promoting peace among all groups in the world is important to him.") $\alpha s = .81, .77, .66, .80$
Self-direction (4 items—sd1, sd11, sd22, sd34)	Independent thought and action—choosing, creating, and exploring. ("Thinking up new ideas and being creative is important to him. He likes to do things in his own original way.") as = .68, .62, .60, .57
Stimulation (3 items— st6, st15, st30)	Excitement, novelty, and challenge in life. ("He likes surprises. It is important to him to have an exciting life.") as = .67, .72, .67, .64
Hedonism (3 items— he10, he26, he37)	Pleasure and sensuous gratification for oneself. ("He seeks every chance he can to have fun. It is important to him to do things that give him pleasure.") $\alpha s = .72, .70, .85, .69$
Achievement (4 items—ac4, ac13, ac24, ac32)	Personal success through demonstrating competence according to social standard. ("It's very important to him to show his abilities. He wants people to admire what he does.") $\alpha s = .78, .75, .71, .77$
Power (3 items—po2, po17, po39)	Social status and prestige, control or dominance over people and resources. ("It is important to him to be rich. He wants to have a lot of money and expensive things.") $\alpha s = .60, .71, .62, .69$

Table 1 Definitions of 10 Value Types Pased on Their Respective Underlying Mativational Coals

Based on Schwartz (2005); alpha coefficients are presented in the following order: Singapore, Filipino, Indonesia, and Australia.

children and adolescents. Unlike the prototypical model (Figure 1), universalism is placed peripheral or behind benevolence, power behind achievement, and stimulation behind self-direction. Following the prototypical model, hedonism and security remain to occupy wedge-like regions and tradition remains peripheral to conformity. In sum, although these studies demonstrated the presence of second-order values and their opposing relations, they also raised a speculation that children and adolescents' value structure is different from that of adults. As such, the present study seeks to investigate this further with middle adolescent samples in four countries.

The Present Study

The overarching aim of the present study was to examine the extent to which the content and structure of values of Singaporean, Filipino, Indonesian, and Australian middle adolescents (at 16 years of age) correspond to those postulated in Schwartz's (2005) theory of values. While

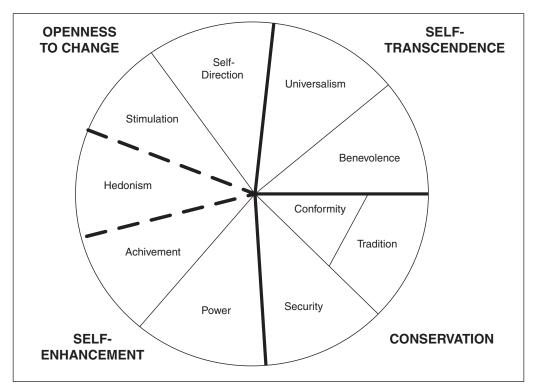


Figure 1. Circular Model of Basic Human Values Adapted from Schwartz (2005).

prior studies of values with young people used the 21-item (e.g., Bilsky et al., 2005) and 29-item (e.g., Bubeck & Bilsky, 2004; Schwartz et al., 2001) versions of the PVQ, this study used the 40-item version of the PVQ. Specifically, we addressed two research questions cross-culturally: (a) Are the 40 value items projected in an arrangement that can be partitioned as four second-order values and 10 first-order value types? (b) Are the identified value types arranged in the order that corresponds to the prototypical model (Schwartz, 2005) or the proposed modified model (Bilsky et al., 2005)? Answers to these questions not only provide substantive evidence for the basic value theory but also evidence for the within-construct validity of the PVQ-40 as a measure of basic values of adolescents in the four countries.

Method

Participants

A total of 920 16-year-old adolescents in Singapore, the Philippines, Indonesia, and Australia participated in this study (N = 230 for each sample; boys and girls were equally represented). These participants were drawn from public (government) schools in Singapore, Jakarta, Manila, and Sydney. The Singaporean and Filipino samples were ethnically homogenous, comprising only Chinese and Filipino adolescents, respectively. While the Filipino adolescents were all Catholic, the Singaporean sample was not homogenous in terms of religious background (60% Buddhists, 9% Christians, 22% nonreligion adherents, and 9% adolescents of other religious backgrounds). The Indonesian and Australian samples were not homogenous in terms of their

ethnicity and religion. That is, the Indonesian sample comprised 89% Malay-Indonesians and 11% Chinese-Indonesians, and 70% Muslims, 27% Christians, and 3% Buddhists. The Australian sample comprised 70% Anglo-Saxon Caucasian and 30% non-Anglo-Saxon Caucasian adolescents, and 51% Christians, 29% nonreligious adherents, and 20% adolescents of other religious backgrounds. Notwithstanding this heterogeneity, all participants were citizens of the country that they represented in this study.

Measure

The 40-item PVQ or PVQ-40 was used in the present study. The PVQ-40 comprises 10 subscales that measure the 10 value types. Each PVQ item comprises a two-sentence short verbal portrayal of a person's goals or aspirations that refer implicitly to the importance of a motivational goal underlying each value type (see Table 1 for examples of PVQ items). To respond to PVQ items, participants were asked, "How much like you is this person?" and were provided with six response options ranging from "very much like me" (scored 6) to "not like me at all" (scored 1). As shown in Table 1, the 10 value types are operationalized by different numbers of items depending on their conceptual breadth (Schwartz, 2005). The 10 subscales had cross-culturally acceptable Cronbach's alpha internal consistency ($\alpha \ge .60$; Nunnally, 1968) except for the 4-item tradition subscale (see Table 1). This pattern has also been reported previously with adult samples (Schwartz, 2005).

Procedure

The PVQ-40 was administered in individual classrooms or school halls as deemed appropriate by the schools. The English version of the PVQ-40 was administered to the Australian sample as well as to the Singaporean and Filipino samples, as English is the medium of instruction at schools in Singapore and the Philippines—hence, Singaporean and Filipino students are proficient in English. However, Bahasa Indonesia (BI) is the mother tongue for the Indonesians. As such, we developed the BI version of the PVQ through a translation and back-translation procedure with close and iterative consultation with the PVQ author (S. H. Schwartz, personal communication, February 1, 2002; see also Liem, 2006; Schwartz, 2005).

Statistical Analysis

Intercorrelations of the 40 single value items for each sample were subjected to smallest space analysis (SSA) performed using the Hebrew University Data Analysis Package (Amar & Toledano, 2001). The main SSA output is coordinated points representing the observed variables projected in a geometrical space. The points are located in such a way that the greater the correlation between two variables, the smaller the distance between the two points representing them. To evaluate the presence of the hypothesized value types, we partitioned coordinated points using two a priori criteria proposed by Schwartz et al. (2001):

A set of items is defined as forming a region indicating the existence of a value type if it includes at least 50% of the items designed a priori to measure that type, and no more than 50% of the items designed to constitute any other single value. (p. 525)

As part of SSA outputs, coefficient of alienation (k) is a measure that indicates "the extent to which some distances between pairs of points in a two- (or three-dimensional) space do not adhere to the rule regarding the monotone relationship between input coefficients and output

distances" (Amar & Toledano, 2001, p. 149), with k = .15 considered satisfactory. However, since the size of global fit measures is a function of the number of points mapped in an SSA projection and the number of dimensions in space, k > .15 can be considered acceptable if the number of points is much larger than the dimensionality (Bubeck & Bilsky, 2004).

Results and Discussion

Figures 2a to 2d show SSA projections of the 40 value items for the Singaporean, Filipino, Indonesian, and Australian samples, respectively. These SSA projections were two-dimensional, except one in Figure 2c is three-dimensional. The coefficients of alienation were k = .24, k = .20, k = .17, and k = .20 for Figures 2a, 2b, 2c, and 2d, respectively. As indicated in the regions separated by bold lines, the two orthogonal dimensions opposing self-transcendence from self-enhancement and openness to change from conservation were found (cf., Figure 1). Furthermore, partitioning the SSA space according to the a priori criteria described earlier indicated 10 substantively distinct regions reflecting the 10 first-order value types. These findings provide evidence that the four second-order values and the 10 first-order value types are clearly identified in our adolescent samples' value structures. A number of value items projected in a region of another value type theorized to be under the same second-order value were underlined. This is not surprising and suggests the compatibility of their underpinning motivational goals (Schwartz,

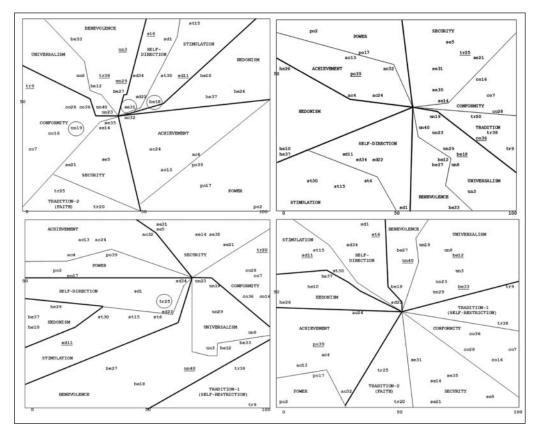


Figure 2. Smallest space analysis (SSA) projections of the PVQ-40 items for Singaporean adolescents (Figure 2a - upper left), Filipino adolescents (Figure 2b - upper right), Indonesian adolescents (Figure 2c - lower left), and Australian adolescents (Figure 2d - lower right).

2005). Several value items projected in a region of another value type theoretically located more than two wedge-like regions away from its hypothesized region were circled. This possibly indicates sampling or chance fluctuations (Schwartz, 2005).

Figures 2a to 2d also show that, for three of the four samples, tradition value items were projected in two distinct regions called self-restriction and faith (Schwartz, 2005). Self-restriction, comprising tr9 (accepting my portion in life) and tr38 (humble), was identified in the Indonesian sample (Figure 2c), whereas faith, comprising tr20 (devout) and tr25 (respect for tradition), was found in the Singaporean sample (Figure 2a). Both tradition value subtypes emerged in the Australian sample's value structure (Figure 2d). For the Filipino sample, tr20 emerged together with tr9 and tr38, whereas tr25 was projected in security (Figure 2b). Conceptually, the motivational goal of tradition values is to submit one's self to religious beliefs and cultural customs (Schwartz, 2005). Given this underlying goal is associated with individuals' religious beliefs, the expression and pursuit of tradition values are likely to be influenced by the religions adhered to by the individuals. This suggests that the separation of tradition value items into self-restriction and faith for the Singaporean, Indonesian, and Australian samples is likely to be partly associated with the fact that participants in these three samples were of different religious backgrounds (and some did not adhere to any religion). Huismans and Schwartz (1992) showed that the extent to which individuals' religiosity was related to tradition—which covered self-restriction—differed across religious backgrounds and between religious and nonreligious adherents. In the PVQ, religion-related value, devout (tr20), was operationalized by the following item: "Religious belief is important to him. He tries hard to do what his religion requires." Substantively, this item resembles the religiosity concept—that is, the extent to which individuals' religion impacts on their daily, secular lives and ritual practices (see Rohrbaugh & Jessor, 1975). Thus, it appears that the extent to which "devout" was correlated to self-restriction might have been affected by the diversity of religious denominations adhered to by participants in each cultural group. For the Filipino sample, which comprised only adolescents of Christianity background, "devout" was projected together with self-restriction. However, this is a tentative explanation that requires further and future investigations.

Figures 2a to 2d also show that the locations of several value types were slightly different from the theoretical prototype in Figure 1. That is, power was projected behind achievement for the Singaporean and Australian samples and the positions of benevolence and universalism were reversed in all SSA projections. Although Schwartz (2005) noted the periphery of power to achievement in some of the adult (university student) samples, the prevalence of this finding among children and adolescents (see also Bilsky et al., 2005) might suggest a developmentspecific meaning that is idiosyncratic to young people, especially in relation to their role as students. Methodologists (e.g., Levy, 1985) claimed that differences between central and peripheral locations of constructs in a circle of multidimensional space correspond to differences between the constructs in the degree of abstractness, closeness to one's self-concept, or prevalence in one's daily interactions. Following this reasoning, the periphery of power to achievement in our samples' value structures might reflect adolescents' daily exposure to academic expectations as students. While both achievement and power are concerned with the pursuit of superiority and social esteem, achievement focuses on demonstrating concrete superiority in one's everyday situations whereas power focuses on pursuing more abstract dominance over others in one's social system (Schwartz, 2005). In an academic setting, achievement values may be expressed and pursued through outperforming peers in examinations, whereas power values may be expressed and pursued through striving to become a class or group leader. In their role as a student, adolescents are required to focus in their daily activities on goals aligned with achievement values, such as doing well academically, but not so much so on goals aligned with power values, such as becoming a class leader. Thus, it is reasonable to believe that, relative to their power values, adolescents' achievement values are closer to their self-concepts.

With regard to the reversed locations of benevolence and universalism, Bubeck and Bilsky (2004) argued that this finding seems to be attributable to a methodological artifact associated with the use of PVQ as it was not found in studies using the SVS. Item content analysis indicated that three of the six universalism value items (i.e., un19: "should care for..."; un23: "should live..."; un40: "should not change...") have phrases similar to those of two conformity value items (i.e., co7: "should do..."; co28: "should always show..."). This shared element in terms of item wording might have resulted in a conceptual proximity, implying a normative obligation to perform certain behaviors, shared by universalism and conformity values measured by the PVQ. This proximity, in turn, led to closer projection of universalism to conformity and the reversed locations of universalism and benevolence. Indeed, SSA results for the Singaporean and Filipino samples showing that, compared with other universalism value items, the universalism items in which "should" is embedded (un19, un23, un40) were projected closer to conformity (see Figures 2a and 2b). Item un19 was even projected together with conformity values for the Singaporean sample (Figure 2a).

Conclusion

Although our adolescent samples were drawn from countries with diverse cultural, societal, and economic backgrounds, the results suggested a remarkably similar cross-cultural pattern of value configuration. Consistent with Schwartz's (2005) value theory, we found the presence of the 10 first-order value types and four second-order values arrayed in two bipolar dimensions, projecting self-transcendence in the opposite side of self-enhancement and conservation in the opposite side of openness to change. By extending the generalizability of the values theory to adolescents in Southeast Asia and Oceania regions, our findings provide construct validity of the PVQ and support the claims that Schwartz's (2005) theory of basic human values is not restricted to adults, can be extended beyond the SVS, and is relevant to young people from diverse nations and cultures.

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Declaration of Conflicting Interests

The authors declared that they had no conflicts of interests with respect to their authorship or the publication of this article.

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Note

1. The 10 value types could not be clearly identified in the Indonesian sample's two-dimensional projection. This is not uncommon. For the same reason, Schwartz (2005) used three- or four-dimensional projections to map out 10% of his samples' value structures. There are no decisive criteria for selecting the number of dimensions to be used in SSA. Adding dimensions is usually done to attain a coefficient of alienation k ≤ .15 or to reach an interpretable solution (see Schwartz, 2005).

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Bios

Gregory Arief D. Liem holds a doctorate from the National University of Singapore. He is presently on a research fellowship at the University of Sydney. Prior to this, he was an assistant professor at Nanyang Technological University, Singapore. His research interest is in the area of social psychology in education, with the main substantive foci on values, motivation, learning, social comparison in educational settings, and psychological aspects of civic behaviors.

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