

# A Twenty-First Century Assessment of Values Across the Global Workforce

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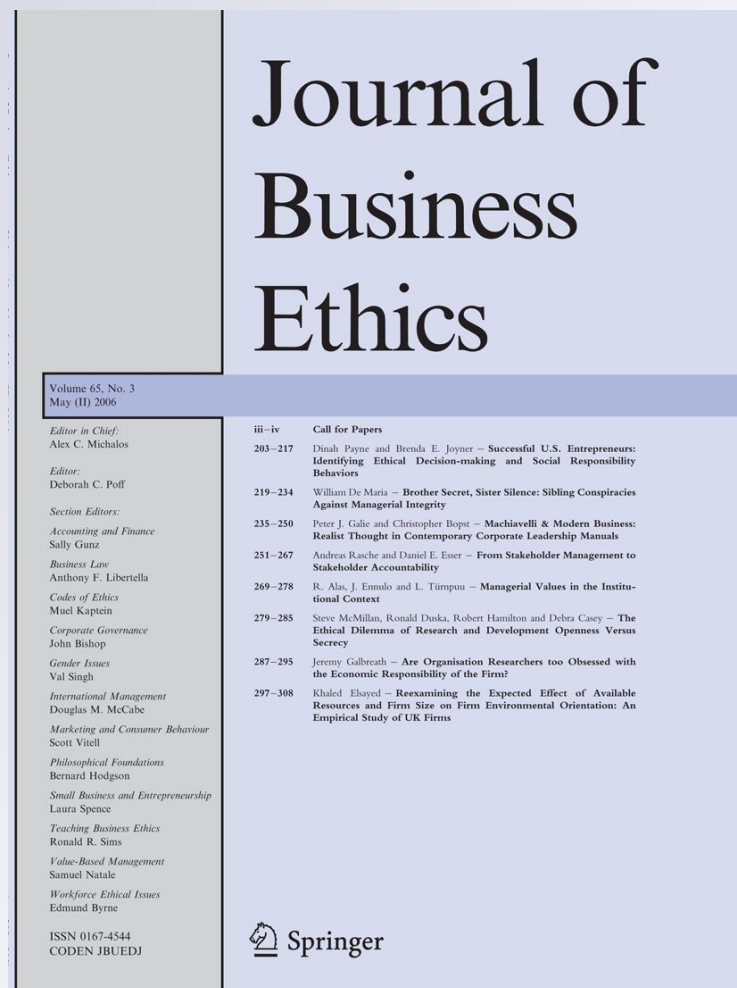
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## A Twenty-First Century Assessment of Values Across the Global Workforce

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**Abstract** This article provides current Schwartz Values Survey (SVS) data from samples of business managers and professionals across 50 societies that are culturally and socioeconomically diverse. We report the society scores for SVS values dimensions for both individual- and societal-level analyses. At the individual-level, we report on the ten

circumplex values sub-dimensions and two sets of values dimensions (collectivism and individualism; openness to change, conservation, self-enhancement, and self-transcendence). At the societal-level, we report on the values dimensions of embeddedness, hierarchy, mastery, affective autonomy, intellectual autonomy, egalitarianism, and

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harmony. For each society, we report the Cronbach's  $\alpha$  statistics for each values dimension scale to assess their internal consistency (reliability) as well as report interrater agreement (IRA) analyses to assess the acceptability of using aggregated individual level values scores to represent country values. We also examined whether societal development level is related to systematic variation in the measurement and importance of values. Thus, the contributions of our evaluation of the SVS values dimensions are two-fold. First, we identify the SVS dimensions that have cross-culturally internally reliable structures and within-society agreement for business professionals. Second, we report the society cultural values scores developed from the twenty-first century data that can be used as macro-level predictors in multilevel and single-level international business research.

**Keywords** Cultural values · International management · Schwartz Values Survey

## Introduction

The purpose of this article is to report on the Schwartz Values Survey (SVS; Schwartz 1992, 1994a, 2006) which

has become an increasingly prevalent personal and cultural values instrument in business ethics and international business research (Knafo et al. 2011). At the individual level, the SVS has been used to study the influence of personal values orientations on moral behavior (Bond and Chi 1997), attitudes toward corporate social responsibility (Shafer et al. 2007), pro-environmental attitudes and behavior (Nordlund and Garvill 2002; Schultz et al. 2005; Schultz and Zelezny 1998, 1999), fair trade consumption (Doran 2009), trust in institutions (Devos et al. 2002), diversity attitudes (Feather 2004; Sawyerr et al. 2005), and gender differences (Prince-Gibson and Schwartz 1998; Schwartz and Rubel 2005). At the societal level, SVS-based cultural values have been used to study cross-national differences in moral inclusiveness (Schwartz 2007), corporate governance (Licht et al. 2005), democratization and social attitudes (Schwartz 2006), work ideologies (Schwartz 1999), allocation of rewards in organizations (Fischer et al. 2007), and cultural distance in international trade (Ng et al. 2007).

In addition to the SVS, there are other cultural values frameworks and measures with perhaps the three best known being those developed by Hofstede (1980, 2001), the GLOBE project (House et al. 2004), and Inglehart's (1997) World Values Survey. Hofstede's cultural values

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dimensions were initially derived from 1967 to 1973 surveys of IBM employees in 40 countries and extended in 1982 to include 50 countries and three regions. Hofstede's cultural values have been used in studies on a diversity of topics such as business ethics and corruption (e.g., Husted 1999, 2000; Scholtens and Dam 2007), environmental performance (Husted 2005; Peng and Lin 2009), and personal moral philosophy and ethical attitudes (Forsyth et al. 2008; Franke and Nadler 2008). The GLOBE societal values dimensions (House et al. 2004) substantially followed the Hofstede values framework with an expanded set of seven values and practices. Based on 1995–1997 surveys of middle managers in 62 societies, GLOBE values scores for 60 societal cultures have been used in cross-national studies of corruption and bribery (e.g., Li et al. 2008; Martin et al. 2007; Parboteeah et al. 2005) and organizational commitment (Fischer and Mansell 2009). The World Values Survey societal-level cultural values are derived from general population surveys in 97 countries (Inglehart 1997) and have been used to study societal attitudes related to modernization and democratization (e.g., Inglehart and

Welzel 2005, 2010) and cross-national differences in personal moral philosophy (Forsyth et al. 2008). In the international business literature, there have been conceptual and methodological critiques of the cultural values frameworks developed by Hofstede (e.g., McSweeney 2002; Oyserman et al. 2002) and the GLOBE project (e.g., Hofstede 2010; Peterson and Castro 2006; Taras et al. 2010; Tung and Verbeke 2010).

However, our purpose is not to debate the relative merits of these alternative options to the SVS in the study of values. Instead, our purpose is to report data on the SVS which we believe is a sound theoretically grounded measure to cross-culturally assess values at the individual-level. Based on subsets of 220 samples (university students and primarily schoolteachers) in 73 countries (Schwartz 2006), Schwartz and colleagues have conducted a number of studies to validate the structure of individual-level and societal-level values models (e.g., Fischer et al. 2010; Schwartz 1992, 1994a, 2006; Schwartz and Boehnke 2004). As will be discussed later in this article, the internal consistency (scale reliability) of the derived SVS values measures for different individual samples has not been comprehensively reported, and often only pooled sample reliabilities have been published. For international business researchers considering using the SVS instrument in their studies, there are two essential questions to be addressed. First, how internally consistent are the SVS values measures for samples other than university students and primarily schoolteachers? Second, how well do the SVS values measures perform in different societal contexts? For international business researchers considering using Schwartz's societal-level cultural values scores in macro-level or multilevel research, one challenge is that country values scores have changed over time and reported differently for samples (Licht et al. 2007; Schwartz 1994a; Schwartz and Bardi 1997; Schwartz and Ros 1995).

In this article, we address these concerns by reporting scores for the individual-level and societal-level values dimensions of the SVS (Schwartz 1992) for 50 societies based on samples of managers and professionals in the workforce. All the data were collected between 2000 and 2008. In addition, all the respondents were born, raised for the majority of their childhood/adolescence (first 15 years), and live in the countries where they were sampled. Respondents who did not meet these criteria were excluded from the data set. This important cultural demographic was not considered in the development of cultural values scores by Hofstede (1980, 2001) or the GLOBE project (House et al. 2004). Thus, the respondents in our society samples clearly reflect the values of the societal culture that they are representing. For each SVS dimension, we report the raw mean scores, within-subject standardized mean scores, and rankings based on the standardized means for societies. We

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present analyses of the internal consistency of measures and the level of within-group agreement to support the use of aggregated values scores for societies. We also investigate the extent to which the internal consistency, within-society agreement, and importance of these three sets of values are related to societal context, i.e., level of socio-economic development, polity, and governance.

The contributions of this article are twofold. First, we assess the construct reliability (using Cronbach's  $\alpha$ ) of various SVS values dimensions across 50 societies for a different sampled population (businesspersons) than the samples (university students and schoolteachers) used to construct these values dimensions (Schwartz 1992, 1994a, b, 1999, 2006). As such, we provide evidence regarding the cross-cultural generalizability of various SVS values dimensions for the segment of national populations who are of most interest to international business and comparative management researchers. Second, for those SVS dimensions that *do* work well, we provide researchers with twenty-first century data to use as reference points and/or predictor variables in single-level and multilevel studies of other IB phenomena. In sum, this article contributes primarily to providing society values data that should prove helpful to an array of colleagues engaged in international business research.

In the remainder of this article, we first present a summary overview of the development of the SVS and review how it has been utilized to develop various individual- and societal-level values frameworks. Our review includes societal-context factors that may influence the measurement and importance level of the SVS values dimensions. We then describe the methodology to assess the internal consistency of the SVS values dimensions for our 50-society sample of business managers and professionals. Following the presentation of results, we provide an interpretation of findings with recommendations for future research.

#### An Overview of the Evolution and Development of the SVS

Although certainly not the first to study individual values, Rokeach (1973) has been credited with being titled the "Father of values research" because of the significant contribution that he made to this field of study. From his body of research in the area of individual values emerged the 36-item Rokeach Values Survey (RVS) measuring 18 terminal (end states) goals and 18 instrumental (means of behavior) goals (Rokeach 1967). For cross-cultural researchers, a key limitation of the RVS is that the development and validation of the RVS was confined to the U.S. In response to this limitation, Schwartz and Bilsky (1987, 1990) led the way by adapting the RVS from a U.S.-based measure to the one that can be used cross-culturally. They also drew on the study of the Chinese Culture Connection

(1987) who developed the Chinese Values Survey (CVS) to reflect the unique cultural values of East Asian societies. Their efforts ultimately resulted in the 56-item SVS, with one more item being added later. Table 1 presents the 57 SVS items, the 36 RVS items, and the 40 CVS items. The present study uses the 45 SVS items found valid for cross-cultural comparisons (Schwartz 1992, 1994b) and which are identified in *italic font* in the table. Of these 45 cross-culturally valid SVS items, 35 items came from the RVS and/or CVS, with the other ten items being unique to the SVS.

The SVS items have been used to identify values dimensions at both the individual-level (Schwartz 1992, 1994b, 2005; Schwartz and Boehnke 2004; Schwartz and Sagiv 1995) and the societal-level (Schwartz 1994a, 1999, 2006). In the remainder of this section, we describe the structures of both the individual- and societal-level SVS dimensions, and discuss previous validation studies.

At the individual-level, there are ten values sub-dimensions: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security. Using a 20-country sample and the smallest space analysis (a form of multidimensional scaling), Schwartz (1992) initially determined a modified quasi-circumplex model structure with tradition values being peripheral to conformity values. This theorized values model structure representing a motivational continuum has been generally supported in subsequent studies using multidimensional scaling and other exploratory methods with university student and schoolteacher samples from up to 67 nations (e.g., Bardi and Schwartz 2003; Fontaine et al. 2008; Schwartz 2005; Schwartz and Sagiv 1995) as well as by Schwartz and Boehnke's (2004) confirmatory factor analysis using aggregated samples from 27 countries. However, Perrinjaquet et al.'s (2007) multigroup CFA model validation study using French and Swiss general population samples found weak construct and discriminant validity for the ten values model. Further, Fontaine et al.'s (2008) 38-country study found systematic patterning of inequivalence in values model structures with structural deviations from the overall structure being smaller for student samples than for teacher samples, and negatively related to societal development level.

Schwartz and colleagues have generally reported the internal consistency of the ten SVS values scales in terms of aggregated country samples and ranges. For instance, Schwartz (2005) reported that for a data set consisting of 212 samples, the range of Cronbach's  $\alpha$  was from 0.61 (tradition) to 0.75 (universalism) with an average of  $\alpha = 0.68$ . For their 64-country sample of university students, Schwartz and Rubel (2005) reported a range of  $\alpha$  from 0.55 (tradition) to 0.73 (universalism) with an average of  $\alpha = 0.67$ . However, Spini's (2003) finding of scalar and reliability inequivalence for the ten SVS values (tested

**Table 1** Evolution of the SVS from the RVS and the CVS

SVS <sup>a</sup> (57-items)	RVS <sup>b</sup> (36-items)	CVS <sup>c</sup> (40-items)
1 <i>Equality (equal opportunity for all)</i>	Equality (brotherhood, equal opportunity for all)	–
2 <i>Inner harmony (at peace with myself)</i>	Inner harmony (freedom from inner conflict)	–
3 <i>Social power (control over others, dominance)</i>	–	–
4 <i>Pleasure (gratification of desires)</i>	Pleasure (an enjoyable and leisurely life)	–
5 <i>Freedom (freedom of action and thought)</i>	Freedom (independence, free choice)	–
6 <i>A spiritual life (emphasis on spiritual, not material matters)</i>	–	–
7 <i>Sense of belonging (feeling that others care about me)</i>	–	–
8 <i>Social order (stability of society)</i>	–	Ordering relationships by status and observing this order
9 <i>An exciting life (stimulating experiences)</i>	An exciting life (a stimulating, active life)	–
10 <i>Meaning in life (a purpose in life)</i>	–	–
11 <i>Politeness (courtesy, good manners)</i>	Polite (courteous, well-mannered)	Courtesy
12 <i>Wealth (material possessions, money)</i>	A comfortable life (a prosperous life)	Wealth
13 <i>National security (protection of my nation from my enemies)</i>	National security (protection from attack)	–
14 <i>Self respect (belief in one's own worth)</i>	Self-respect (self-esteem)	–
15 <i>Reciprocation of favors (avoidance of indebtedness)</i>	–	Reciprocation of greetings, favors, and gifts
16 <i>Creativity (uniqueness, imagination)</i>	Imaginative (daring, creative)	–
17 <i>A world at peace (free of war and conflict)</i>	A world at peace (free of war and conflict)	–
18 <i>Respect for tradition (preservation of time-honored customs)</i>	–	Respect for tradition
19 <i>Mature love (deep emotional and spiritual intimacy)</i>	Mature love (sexual and spiritual intimacy)	–
20 <i>Self-discipline (self-restraint, resistance to temptation)</i>	Self-controlled (restrained, self-disciplined)	Personal steadiness and stability
21 <i>Detachment (detachment from worldly concerns)</i>	–	–
22 <i>Family security (safety for loved ones)</i>	Family security (taking care of loved ones)	–
23 <i>Social recognition (respect, approval by others)</i>	Social recognition (respect, admiration)	–
24 <i>Unity with nature (fitting into nature)</i>	–	–
25 <i>A varied life (life filled with challenge, novelty and change)</i>	–	–
26 <i>Wisdom (a mature understanding of life)</i>	Wisdom (a mature understanding of life)	–
27 <i>Authority (the right to lead or command)</i>	–	–
28 <i>True friendship (close, supportive friends)</i>	True friendship (close companionship)	A close, intimate friend
29 <i>A world of beauty (beauty of nature and the arts)</i>	A world of beauty (beauty of nature and the arts)	–
30 <i>Social justice (correcting injustice, care for the weak)</i>	–	Sense of righteousness
31 <i>Independent (self-reliant, self-sufficient)</i>	Independent (self-sufficient)	–
32 <i>Moderate (avoiding extremes of feeling and action)</i>	–	Moderation, following the middle way
33 <i>Loyal (faithful to my friends, group)</i>	–	–
34 <i>Ambitious (hard working, aspiring)</i>	Ambitious (hardworking, aspiring)	Industry (working hard)

**Table 1** continued

SVS <sup>a</sup> (57-items)	RVS <sup>b</sup> (36-items)	CVS <sup>c</sup> (40-items)
35 <i>Broad-minded (tolerant of different ideas and beliefs)</i>	Broadminded (open-minded)	–
36 <i>Humble (modest, self-effacing)</i>	–	Humbleness
37 <i>Daring (seeking adventure, risk)</i>	–	Prudence (carefulness) {REVERSE}
38 <i>Protecting the environment (preserving nature)</i>	–	–
39 <i>Influential (having an impact on people and events)</i>	–	–
40 <i>Honoring of parents and elders (showing respect)</i>	–	Filial piety
41 <i>Choosing own goals (selecting own purposes)</i>	–	Self-cultivation
42 <i>Healthy (not being sick physically or mentally)</i>	–	–
43 <i>Capable (competent, effective, efficient)</i>	Capable (competent, effective)	–
44 <i>Accepting my portion in life (submitting to life's circumstances)</i>	–	Contentedness with one's position in life
45 <i>Honest (genuine, sincere)</i>	Honest (sincere, truthful)	Resistance to corruption/Sincerity
46 <i>Preserving my public image (preserving my "face")</i>	–	Protecting or saving your "face"
47 <i>Obedience (dutiful, meeting obligations)</i>	Obedient (dutiful, respectful)	–
48 <i>Intelligent (logical, thinking)</i>	Intellectual (intelligent, reflective)	–
49 <i>Helpful (working for the welfare of others)</i>	Helpful (working for the welfare of others)	–
50 <i>Enjoying life (enjoying food, sex, leisure, etc.)</i>	–	–
51 <i>Devout (holding to religious faith and belief)</i>	–	–
52 <i>Responsible (dependable, reliable)</i>	Responsible (dependable, reliable)	Trustworthiness
53 <i>Curious (interested in everything, exploring)</i>	–	–
54 <i>Forgiving (willing to pardon others)</i>	Forgiving (willing to pardon others)	Tolerance of others/kindness (forgiveness, compassion)
55 <i>Successful (achieving goals)</i>	A sense of accomplishment (lasting contribution)	–
56 <i>Clean (neat, tidy)</i>	Clean (neat, tidy)	–
57 <i>Self-indulgent (doing pleasant things)</i>	–	–
–	Cheerful (lighthearted, joyful)	–
–	Courageous (standing up for your beliefs)	–
–	Happiness (contentedness)	–
–	Logical (consistent, rational)	–
–	Loving (affectionate, tender)	–
–	Salvation (saved, eternal life)	–
–	–	A sense of cultural superiority
–	–	Adaptability
–	–	Being conservative
–	–	Benevolent authority
–	–	Chastity in women
–	–	Harmony with others
–	–	Having a sense of shame
–	–	Having few desires
–	–	Keeping oneself disinterested/pure
–	–	Knowledge (education)
–	–	Loyalty to superiors
–	–	Non-competitiveness
–	–	Observation of rites and social rituals
–	–	Patience



**Table 1** continued

	SVS <sup>a</sup> (57-items)	RVS <sup>b</sup> (36-items)	CVS <sup>c</sup> (40-items)
	–	–	Patriotism
	–	–	Persistence (perseverance)
	–	–	Repayment of both the good or the evil
	–	–	Solidarity with others
	–	–	Thrift

*Note:* The SVS items which are in italic font are the cross-culturally valid items used in this study

<sup>a</sup> Schwartz (1992)

<sup>b</sup> Rokeach (1967)

<sup>c</sup> Chinese Culture Connection (1987)

separately) using student samples from 21 countries indicates cross-national variation in the internal consistency of these measures. While Perrinjaquet et al. (2007) found that the tradition values measure had low scale reliabilities for French and Swiss general population samples ( $\alpha = 0.41$  and  $0.52$ , respectively), the tradition values measure had an acceptable reliability ( $\alpha = 0.62$ ) for Australian students (Feather 2004).

The SVS values sub-dimensions have been classified into two sets of individual-level higher-order values dimensions. One set of two higher-order individual-level dimensions consists of collectivism (benevolence, tradition, and conformity) and individualism (power, achievement, hedonism, stimulation, and self-direction) (see Ralston et al. 2008). The other set of four higher-order values are aligned as two bi-polar dimensions in the Schwartz values model: openness to change (stimulation and self-direction) versus conservation (conformity, tradition, and security), and self-enhancement<sup>1</sup> (power, achievement, and hedonism) versus self-transcendence (universalism and benevolence) dimensions (Schwartz 1992, 1994b). Empirical support for partitioning the Schwartz values model into alternative higher-order values dimensions has been found in model validation studies (Fontaine et al. 2008; Perrinjaquet et al. 2007; Schwartz and Boehnke 2004; Schwartz and Sagiv 1994). Cross-cultural research on business professionals using higher-order values dimensions have generally reported acceptable Cronbach's  $\alpha$  for individual countries (Ralston 2008).

At the societal-level, the SVS items have been allocated to seven types of cultural values dimensions that form three higher-order dimensions in a circumplex model (Schwartz 1994a, 1999, 2006). These societal-level values dimensions relate to the basic societal issues of relations between the

individual and group (embeddedness<sup>2</sup> versus affective autonomy/intellectual autonomy); the assurance of responsible social behavior (hierarchy versus egalitarianism); and humankind's role in the social and natural world (mastery versus harmony). The initial model validation study (Schwartz 1994a) was based on student and teacher data from 38 countries (1988–1992) and used the following procedure. First, the mean ratings for the 45 values items were calculated for each country sample, and then sample level item correlations were calculated for the MDS analyses to determine the pattern of intercorrelations among values across countries that identified the seven cultural values dimensions. To account for cultural differences in scale use, country values dimension scores were adjusted by the difference between the country mean for all SVS items and the approximate international mean (4.00). This cultural values model structure was confirmed in Schwartz's (1999) replication study with additional 1993 samples (students from 40 countries and teachers from 44 countries) that developed country cultural profiles of the relative importance of various cultural values for each country. Similar model validation procedures have been used in more recent SVS studies with larger data sets of 70 and 72 cultural groups in 67 countries (respectively, Schwartz 2006, 2009). To support the aggregation of student and teacher subsamples, Schwartz (2006) reports within-country correlation analyses between various demographic subsamples (e.g., students versus teachers, gender, and age group). Later studies have calculated country-level cultural values scores using within-subject mean-centered SVS items (Schwartz 2006), and within-group (country) mean-centered scores (Licht et al. 2007).

Schwartz and colleagues (Schwartz 1994a, 1999, 2006; Fischer et al. 2010) have consistently found support for his

<sup>1</sup> We followed the lead of Smith et al. (1996) by allocating hedonism to the self-enhancement dimension, while Schwartz (1992) suggested that it could relate to both self-enhancement and openness to change.

<sup>2</sup> Although Schwartz (1994a, 1999) initially labeled this societal-level values dimension as conservatism, he subsequently changed the label to embeddedness (e.g., Schwartz 2006). Thus, we used the term embeddedness in this article.

theorized cultural values model using MDS exploratory analytic techniques. However, the internal consistency of the societal-level dimensions at country and individual levels has not been reported. Tentative support for the aggregation of individual-level SVS data to culture values scores was provided by Fischer et al.'s (2007) six-country study that found the average interrater agreement (IRA) statistic across all items and countries was 0.57 ( $a_{wg}$ ) for employee samples. Societal-level culture values dimensions scores have been published for different subsets of student and teacher samples (Schwartz 1994a; Schwartz and Bardi 1997; Schwartz and Ros 1995) with the most inclusive being scores for teacher samples in 51 countries based on 1988–1998 data collections (Licht et al. 2007). Differences in country-level scores and relative country rankings between early and more recent publications could be attributed to changes in scale items for five of the seven dimensions (e.g., Schwartz 1999, 2006) and changes in calculating adjustments for cross-cultural differences in response style.

#### Systematic Variation in the Measurement and Importance of SVS Values Dimensions

Previous research indicates that there is systematic cross-national variation in the measurement properties of and importance accorded to various SVS values dimensions. As mentioned earlier, Fontaine et al. (2008) found that societal-development level (socioeconomic and socio-political) was positively related to the validity of the ten values sub-dimensions model. Schwartz and Sagie (2000) also showed that in general, socioeconomic development and democratization are positively related to the importance accorded to the values in the openness to change and self-transcendence dimensions (plus hedonism) but negatively related to the importance of conservation and self-enhancement values (nonsignificant for achievement).

Using reflect scores for the bipolar societal-level dimensions, Schwartz (2006) found that both socioeconomic development and democratization were positively related to autonomy versus embeddedness, and egalitarianism versus hierarchy values. While the harmony versus mastery dimension was positively related to socioeconomic development, there was no significant relationship with democratization. Licht et al. (2007) identified that societal governance (rule of law, non-corruption, voice, and accountability) is positively related to affective autonomy, intellectual autonomy, and egalitarianism; and negatively related to embeddedness and hierarchy. Only the governance facet of voice and accountability had a significant relationship with harmony (positive) and mastery (negative) values.

## Methods

### Samples

The 50 societies included in this study are identified in Table 2. We present the sample descriptive information of individual (age and gender) and organizational (respondent position, company size, and industry) demographics for each society. The society samples range in size from 70 to 350 respondents. When we had more than 350 respondents for a society, we used SPSS random sampling to select 350 respondents to have reasonably similar sample sizes across societies.

All respondents were raised in the society which they represented. All respondents were part of the business community of their country. Data were collected either through a mail survey or before management/employee development programs. While different modes of data collection were used to maintain sampling integrity and consistency across samples, all respondents were provided anonymity, were voluntary participants in the survey, and were instructed that there were no right or wrong answers.

In respect to previous SVS-based values model validation studies, for studies concerned with the individual-level values model, our sample has 27 of the 38 countries in Fontaine et al.'s (2008) study, and 17 of the 27 countries in Schwartz and Boehnke's (2004) study. For the societal-level values dimensions, we have 41 societies in common with Schwartz's (2006) 72-country validation study using combined university student and teacher data; and 34 countries in common with Licht et al.'s (2007) 51-country teacher sample scores. In respect to geographic representation, the Schwartz studies (Licht et al. 2007; Schwartz 2006) generally have more samples from countries in Europe and Africa, whereas the present study has more samples from countries in the Middle East region. Compared to other cultural values frameworks, 36 of our societies are represented in the GLOBE project (House et al. 2004), 45 societies in the World Values Survey (Inglehart and Welzel 2005), and 48 societies in Hofstede (2001).

### Instrument and Measures

All respondents completed the questionnaire in their native language, with the exception of India where the English-language survey was used, per the norm for India. We used standard translation–back-translation procedures for each society's survey questionnaire (Brislin 1970). This involved one individual translating the questionnaire from English to the other language, and then a second individual back-translating the questionnaire into English. The two translators resolved any translation differences, and employed a third party to assist when necessary.

**Table 2** Individual and organizational characteristics of the society samples

	<i>N</i>	Mean age (years)	Gender (% male)	Position	Company size	Percentage manufacturing
Algeria	98	32.8	82	2.1	1.7	15
Argentina	96	44.4	69	2.4	2.1	24
Australia	135	28.8	65	2.1	2.1	14
Austria	118	33.0	37	1.3	2.2	34
Brazil	350	40.4	61	2.1	2.5	20
Bulgaria	91	36.0	59	2.1	1.5	17
Canada	259	39.7	59	2.1	2.1	4
Chile	72	33.2	53	n/a	2.2	0
China	350	34.9	72	2.3	2.0	32
Colombia	134	37.4	57	3.1	2.2	20
Costa Rica	70	32.6	58	2.2	1.9	23
Croatia	259	38.4	46	2.1	1.8	19
Cuba	350	37.5	46	1.1	2.0	4
Czech Rep	307	38.9	44	1.8	1.7	39
Egypt	125	36.4	82	3.1	2.3	46
Estonia	269	31.7	29	1.6	1.9	8
Finland	132	47.8	72	3.3	1.8	33
France	350	37.9	50	2.7	2.2	28
Germany	326	39.1	68	2.3	1.8	37
Hong Kong	302	34.7	43	2.1	1.8	16
Hungary	126	38.4	59	2.3	1.6	22
India	132	35.0	84	2.9	2.5	34
Indonesia	132	37.1	76	2.1	2.3	33
Israel	120	33.2	71	2.1	2.4	18
Italy	294	43.1	77	2.4	2.3	26
Lebanon	96	34.1	59	3.0	1.9	25
Lithuania	312	43.6	55	2.9	1.3	29
Macau	169	35.9	68	2.3	2.0	3
Malaysia	327	34.6	61	2.1	3.0	100
Mexico	311	32.8	56	2.4	1.8	37
Netherlands	207	37.0	76	2.7	2.1	53
New Zealand	80	43.9	50	2.8	1.8	14
Pakistan	328	32.7	88	2.6	2.3	34
Peru	350	34.1	64	2.3	2.1	9
Portugal	350	34.4	54	2.2	2.1	19
Russia	224	36.8	62	2.6	2.2	45
Singapore	350	35.0	46	2.0	2.0	19
Slovenia	292	28.5	29	1.3	1.5	31
South Africa	297	40.4	59	2.2	2.5	13
South Korea	283	39.5	81	2.0	2.4	20
Spain	85	40.1	84	2.6	1.3	27
Switzerland	350	40.7	77	2.8	2.0	27
Taiwan	300	41.3	69	2.2	2.2	32
Thailand	280	37.1	43	2.3	2.0	18
Turkey	124	40.9	77	3.2	2.0	52
UAE	99	33.5	71	2.1	2.0	8
UK	244	41.5	50	3.0	2.2	16
US	350	34.5	50	1.7	2.1	10

**Table 2** continued

	<i>N</i>	Mean age (years)	Gender (% male)	Position	Company size	Percentage manufacturing
Venezuela	134	31.6	31	1.6	2.0	24
Vietnam	221	38.6	69	2.3	1.9	6
Total	11,160	37.0	59	2.2	2.0	25

*Position:* 1, professional; 2, 1st-level management; 3, middle management; 4, top management

*Company size:* 1, less than 100 employees; 2, 100–1,000 employees; 3, more than 1,000 employees

### Items

The SVS initially consisted of 56 items, of which 45 are considered cross-culturally valid (Schwartz 1992, 1994b). Although a 57th item was added later to expand the Hedonism dimension from two to three items (Schwartz and Boehnke 2004), we did not include this 57th SVS item for the sake of consistency, since some of our samples were collected before this addition to the SVS instrument (per Fischer et al. 2010). Thus, our analyses are based on the 45 cross-culturally valid items identified in the 56-item instrument (Schwartz 1992).

Per Schwartz (1994a), instructions to respondents for completing the SVS were as follows:

In this questionnaire, you are to ask yourself: “What values are important to ME as guiding principles in MY life, and what values are less important to me?” There are two lists of values on the following pages. These values come from different cultures. In the parentheses following each value is an explanation that may help you to understand its meaning. Please rate how important each value is for you as a guiding principle in your life. Use the rating scale below:

0—means the value is not at all important, it is not relevant as a guiding principle for you.

3—means the value is important.

6—means the value is very important.

The higher the number (0,1,2,3,4,5,6), the more important the value is as a guiding principle in YOUR life.

–1 is for rating any values opposed to the principles that guide you.

7 is for rating a value of supreme importance as a guiding principle in your life; ordinarily, there are no more than two such values.

In the space before each value, write the number (–1,0,1,2,3,4,5,6,7) that indicates the importance of that value for you, personally. Try to distinguish as much as possible between the values by using all the numbers. You will, of course, need to use numbers more than once.

As previously noted, the SVS items have been allocated to values dimensions in different ways for individual- and societal-level dimension scales.

### Individual-Level Values Dimensions

The individual-level Schwartz values model identifies ten sub-dimensions which are then used to form two alternative sets of higher-order dimensions (Schwartz 1992, 1994b; Schwartz and Boehnke 2004; Schwartz and Sagiv 1994). The ten individual-level values sub-dimensions consist of power (4 items), achievement (4 items), hedonism (2 items), stimulation (3 items), self-direction (5 items), universalism (8 items), benevolence (5 items), tradition (5 items), conformity (4 items), and security (5 items). Appendix Table 7 provides the description and item allocation for the ten values sub-dimensions.

The allocation of the ten values sub-dimensions to higher-order values dimensions are as follows. In the Schwartz values model, the first set of two higher-order individual-level dimensions are collectivism (benevolence, tradition, and conformity; 14 items) and individualism (power, achievement, hedonism, stimulation, and self-direction; 18 items) (Ralston et al. 2008). The second set of four higher-order dimensions are openness to change (stimulation and self-direction; 8 items), conservation (conformity, tradition, and security; 14 items), self-enhancement (power, achievement, and hedonism; 10 items), and self-transcendence (universalism and benevolence; 13 items). Appendix Table 8 provides descriptions of these higher-order dimensions.

### Societal-Level Values Dimensions

The societal-level values model consists of seven values dimensions: embeddedness (15 items), hierarchy (4 items), mastery (8 items), affective autonomy (4 items), intellectual autonomy (4 items), egalitarianism (6 items), and harmony (4 items) (Schwartz 2006). Appendix Table 9 provides the description and item allocation for the seven societal-level dimensions.

## Analyses

For each values dimension identified in the previous section, we report the raw mean score and the scale reliability (Cronbach's  $\alpha$ ) statistic by society. Systematic cross-cultural differences in scale response styles (e.g., extreme, mid-point, acquiescence, and disacquiescence response biases) may result in raw observed scores being unrelated to the true score of an individual (Fischer 2004; Harzing 2006; Johnson et al. 2005). Therefore, we also present the within-subject standardized means and identify the rank-order for each society based on the standardized means. The procedure for calculating the within-subject standardized scores (ipsatization) was as follows. For each individual respondent, the overall mean and standard deviation across all SVS items were calculated. Then, individuals' scores for each values dimension were converted to within-subject standardized scores using the following equation:

$$y' = (x - \mu_{\text{individual}}) / \sigma_{\text{individual}},$$

where  $y'$ , within-subject standardized score for a values dimension;  $x$ , individual's raw score for a values dimension;  $\mu_{\text{individual}}$ , individual's overall mean score for all SVS items; and  $\sigma_{\text{individual}}$ , individual's overall standard deviation of item scores for all SVS items. The resulting standardized score represents the relative importance of a values dimension for an individual (positive or negative) with the mean across variables averaging to zero. For the 50 societies in this study, we calculated the society rank order based on the standardized scores for each set of values dimensions (1 = highest to 50 = lowest).

The individual society data for the SVS values dimensions' means, Cronbach's  $\alpha$  statistics, standardized means, and rank-order of standardized means are provided in Appendices D, E, and F. To justify aggregating individual-level data for the use of society-level scores in research, within-group IRA needs to be established (cf. Fischer 2009; LeBreton et al. 2008). Hence, we estimated Brown and Hauenstein's (2005)  $a_{\text{wg}(J)}$  IRA statistic for the values dimensions (using scale item raw scores) for each society. We calculated the society mean, standard deviation, and range of the  $a_{\text{wg}(J)}$  statistics, as well as distribution of acceptability levels. While Brown and Hauenstein (2005) recommended an  $a_{\text{wg}(J)} \geq 0.70$  as the cutoff for acceptable level of IRA, Fischer et al. (2007) proposed that the agreement level cutoff of 0.60 or higher suggested for small group research is too stringent for nation-level samples. Further, LeBreton et al. (2008) proposed revised standards for interpreting IRA estimates with 0.71 or higher representing strong agreement, 0.51–0.70 representing moderate agreement, 0.31–0.50 representing weak agreement, and 0.30 or less representing a lack of agreement. Given this disparity in recommended IRA cutoffs,

we used the following categories for  $a_{\text{wg}(J)}$  levels: strong agreement (0.70 or higher), moderate agreement (subdivided into 0.60–0.69, and 0.51–0.59), weak agreement (0.31–0.50), and lack of agreement (0.00–0.30). Society measures with IRA levels generally viewed as unacceptable (0.50 and less) are identified in Appendices D to F with *italic* font for mean (raw) scores.

## Correlation Analyses

We conducted correlation analyses to examine relationships between societal context (socioeconomic development, polity, and societal governance) and the scale reliability, within-group agreement, and importance scores of the three sets of values dimensions. Socioeconomic development was measured by the United Nations' Human Development Index (<http://hdrstats.undp.org/>) which is a composite index based on life expectancy, educational attainment, and GDP per capita (purchasing power parity). Polity (democratization) was measured using the Polity IV composite measure (Marshall et al. 2010) which rates countries on a scale of strongly autocratic (−10) to strongly democratic (+10). Polity ratings are not provided for Hong Kong and Macau so a reduced sample ( $N = 48$ ) was used for this analysis. Societal governance was measured by the World Bank's Worldwide Governance Indicators ([www.worldbank.org/wbi/governance](http://www.worldbank.org/wbi/governance)) that consist of six dimensions (voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption). Following Globerman and Shapiro (2003), we conducted a principal component analysis for estimates for the six dimensions and used the score for the one identified factor (Eigenvalue = 5.23, 87% variance explained). For each measure, we used the scores for the year each society's data was collected.

## Results

### Internal Consistency of the Values Sub-Dimensions and Dimensions Measures

Table 3 presents the 50-society summary analyses of scale reliabilities (Cronbach's  $\alpha$ ) for the individual-level and societal-level values dimension. We present the means, standard deviations, and range of scale reliabilities, as well as the distribution of society scale reliabilities in three categories of acceptability with  $\alpha \geq 0.70$  denoting the general threshold of acceptability,  $0.69 \geq \alpha \geq 0.60$  denoting acceptable reliabilities for exploratory research, and  $\alpha \leq 0.59$  as unacceptable reliabilities (Hair et al. 1998). The individual society results of the scale reliability analysis (mean, range, and number of reliable scales using

**Table 3** Summary analysis of society scale reliabilities (Cronbach's  $\alpha$ ) for SVS individual-level and societal-level values dimensions

	Cronbach's $\alpha^a$			Society distribution ( $N = 50$ ) (%)		
	Mean	(SD)	Range	$\alpha \geq 0.70$	$0.69 \leq \alpha < 0.70$	$\alpha < 0.60$
<b>Individual-level sub-dimensions</b>						
Power	0.65	(0.08)	0.41–0.75	34	40	26
Achievement	0.66	(0.09)	0.37–0.82	30	52	18
Hedonism	0.52	(0.13)	0.12–0.70	6	26	68
Stimulation	0.65	(0.11)	0.16–0.81	42	40	18
Self-direction	0.61	(0.10)	0.23–0.78	14	48	38
Universalism	0.77	(0.05)	0.59–0.85	92	4	4
Benevolence	0.70	(0.08)	0.33–0.86	56	40	4
Tradition	0.58	(0.10)	0.32–0.74	6	46	48
Conformity	0.66	(0.09)	0.34–0.80	36	42	22
Security	0.60	(0.09)	0.29–0.78	14	38	48
<b>Individual-level dimensions</b>						
Collectivism	0.82	(0.05)	0.73–0.90	100	0	0
Individualism	0.84	(0.04)	0.69–0.90	98	2	0
Openness to change	0.74	(0.08)	0.38–0.85	74	20	6
Conservation	0.80	(0.05)	0.69–0.88	98	2	0
Self-enhancement	0.78	(0.06)	0.50–0.84	88	8	4
Self-transcendence	0.82	(0.05)	0.64–0.90	98	2	0
<b>Societal-level dimensions</b>						
Embeddedness	0.81	(0.05)	0.70–0.90	100	0	0
Hierarchy	0.51	(0.09)	0.27–0.67	0	18	82
Mastery	0.72	(0.08)	0.50–0.85	80	16	4
Affective autonomy	0.65	(0.09)	0.26–0.81	32	48	20
Intellectual autonomy	0.56	(0.12)	0.11–0.74	6	42	52
Egalitarianism	0.70	(0.08)	0.28–0.81	66	30	4
Harmony	0.72	(0.08)	0.37–0.81	74	22	4

<sup>a</sup> *Categories of acceptability:* (1)  $\alpha \geq 0.70$  denotes the general threshold of acceptability; (2)  $0.69 \geq \alpha \geq 0.60$  denotes acceptable reliabilities for exploratory research; (3)  $\alpha \leq 0.59$  denotes unacceptable reliabilities

the  $\alpha \geq 0.60$  cutoff) for the individual-level and societal-level measures are presented in Table 4. In the remainder of this section, we use both sets of data to present our findings for each set of SVS values measures.

*Individual-Level Values Sub-Dimensions*

As shown in Table 3, the average scale reliability for the 50 societies across the ten values sub-dimensions ranged from  $\alpha = 0.52$  for hedonism to  $\alpha = 0.77$  for universalism, with the remaining values dimensions averaging between  $\alpha = 0.58$  and  $\alpha = 0.70$ . The two-item hedonism scale was problematic with 68% of the societies having scale reliabilities below 0.59 and only 6% being 0.70 or higher.<sup>3</sup>

<sup>3</sup> For the 27 societies of this study that had the 57th item (self-indulgence), the two-item hedonism mean scale reliability was  $\alpha = 0.53$  (SD = 0.08) with six societies having scale reliabilities 0.60 or higher. For the three-item hedonism scale, the mean scale

Other sub-dimensions with a substantial number of unacceptable scale reliabilities were security (48%), self-direction (38%), and tradition (48%).

Examination of the individual society results in Table 4 shows that there were acceptable scale reliabilities for all ten SVS values sub-dimensions for eight societies (Canada, Germany, Lebanon, Macau, Peru, South Africa, Turkey, and UK). For an additional 32 societies, the majority of these measures were reliable (9 scales for 7 societies, 8 scales for 8 societies, 7 scales for 12 societies, and 6 scales for 5 societies). For ten societies, five or fewer sub-dimensions had acceptable scale reliabilities. None of these ten measures had acceptable scale reliabilities for Egypt,

Footnote 3 continued  
reliability was  $\alpha = 0.58$  (SD = 0.10) with 12 societies having scale reliabilities 0.60 or higher. For eight societies, the additional item increased the scale reliability to 0.60 or higher, while for two societies the scale reliability decreased to less than 0.60.



**Table 4** Summary scale reliability analysis for societies: individual-level and societal-level values

	Individual-level values									Societal-level values		
	Ten values sub-dimensions <sup>a</sup>			Collectivism and individualism			Openness to change, conservation, self-enhancement, self-transcendence			Embeddedness, hierarchy, mastery, affective autonomy, intellectual autonomy, egalitarianism, harmony		
	$\alpha$ Mean	$\alpha$ Range	Number $\alpha \geq 0.60$	$\alpha$ Mean	$\alpha$ Range	Number $\alpha \geq 0.60$	$\alpha$ Mean	$\alpha$ Range	Number $\alpha \geq 0.60$	$\alpha$ Mean	$\alpha$ Range	Number $\alpha \geq 0.60$
Algeria	0.50	(0.32–0.68)	1	0.75	(0.73–0.77)	2	0.68	(0.56–0.78)	3	0.58	(0.46–0.70)	4
Argentina	0.70	(0.58–0.85)	9	0.89	(0.88–0.89)	2	0.84	(0.79–0.89)	4	0.74	(0.58–0.86)	6
Australia	0.69	(0.53–0.82)	8	0.86	(0.85–0.87)	2	0.82	(0.79–0.84)	4	0.71	(0.62–0.83)	7
Austria	0.65	(0.51–0.74)	8	0.81	(0.77–0.84)	2	0.78	(0.75–0.81)	4	0.65	(0.46–0.79)	5
Brazil	0.64	(0.55–0.80)	7	0.82	(0.80–0.84)	2	0.78	(0.69–0.84)	4	0.67	(0.51–0.79)	5
Bulgaria	0.59	(0.40–0.82)	5	0.79	(0.74–0.84)	2	0.72	(0.69–0.76)	4	0.63	(0.36–0.76)	6
Canada	0.70	(0.64–0.79)	10	0.86	(0.86–0.86)	2	0.82	(0.77–0.84)	4	0.72	(0.60–0.85)	7
Chile	0.62	(0.27–0.83)	7	0.83	(0.77–0.88)	2	0.81	(0.76–0.85)	4	0.69	(0.45–0.86)	6
China	0.60	(0.51–0.73)	5	0.77	(0.76–0.77)	2	0.73	(0.67–0.80)	4	0.61	(0.38–0.78)	4
Colombia	0.65	(0.54–0.78)	7	0.85	(0.84–0.86)	2	0.79	(0.66–0.85)	4	0.67	(0.58–0.84)	6
Costa Rica	0.65	(0.52–0.80)	6	0.86	(0.86–0.86)	2	0.80	(0.75–0.84)	4	0.70	(0.61–0.82)	7
Croatia	0.62	(0.50–0.72)	7	0.82	(0.80–0.84)	2	0.77	(0.74–0.80)	4	0.65	(0.38–0.80)	6
Cuba	0.60	(0.43–0.78)	4	0.78	(0.78–0.78)	2	0.74	(0.69–0.82)	4	0.63	(0.35–0.78)	5
Czech Rep	0.64	(0.52–0.72)	7	0.82	(0.79–0.85)	2	0.78	(0.76–0.82)	4	0.66	(0.49–0.78)	5
Egypt	0.36	(0.12–0.59)	0	0.71	(0.69–0.73)	2	0.57	(0.38–0.70)	2	0.41	(0.11–0.73)	2
Estonia	0.63	(0.39–0.73)	7	0.82	(0.79–0.85)	2	0.76	(0.73–0.79)	4	0.67	(0.54–0.74)	5
Finland	0.65	(0.49–0.80)	7	0.83	(0.81–0.85)	2	0.78	(0.71–0.82)	4	0.65	(0.34–0.79)	5
France	0.68	(0.56–0.82)	8	0.83	(0.82–0.84)	2	0.80	(0.69–0.88)	4	0.68	(0.49–0.87)	5
Germany	0.69	(0.60–0.80)	10	0.84	(0.82–0.86)	2	0.81	(0.76–0.86)	4	0.71	(0.56–0.84)	6
Hong Kong	0.69	(0.52–0.82)	9	0.87	(0.86–0.88)	2	0.83	(0.80–0.86)	4	0.72	(0.61–0.84)	7
Hungary	0.63	(0.49–0.81)	6	0.81	(0.76–0.85)	2	0.77	(0.72–0.81)	4	0.68	(0.51–0.81)	5
India	0.62	(0.18–0.81)	7	0.83	(0.79–0.87)	2	0.80	(0.78–0.85)	4	0.65	(0.39–0.84)	5
Indonesia	0.71	(0.57–0.81)	9	0.89	(0.87–0.90)	2	0.85	(0.82–0.87)	4	0.73	(0.49–0.90)	6
Israel	0.68	(0.54–0.82)	8	0.84	(0.80–0.88)	2	0.81	(0.78–0.84)	4	0.71	(0.53–0.82)	6
Italy	0.64	(0.46–0.76)	7	0.83	(0.82–0.83)	2	0.78	(0.72–0.80)	4	0.65	(0.47–0.80)	5
Lebanon	0.67	(0.60–0.82)	10	0.85	(0.84–0.86)	2	0.81	(0.76–0.86)	4	0.67	(0.53–0.84)	4
Lithuania	0.64	(0.52–0.77)	7	0.83	(0.82–0.83)	2	0.79	(0.75–0.82)	4	0.66	(0.47–0.82)	4
Macau	0.72	(0.61–0.80)	10	0.88	(0.87–0.88)	2	0.83	(0.78–0.87)	4	0.71	(0.56–0.86)	6
Malaysia	0.51	(0.29–0.76)	2	0.81	(0.79–0.82)	2	0.73	(0.65–0.80)	4	0.59	(0.33–0.80)	4
Mexico	0.63	(0.50–0.81)	7	0.84	(0.84–0.84)	2	0.79	(0.74–0.84)	4	0.67	(0.54–0.82)	5
Netherlands	0.70	(0.55–0.80)	9	0.85	(0.83–0.87)	2	0.83	(0.81–0.84)	4	0.71	(0.55–0.86)	6
New Zealand	0.69	(0.50–0.80)	8	0.85	(0.84–0.85)	2	0.82	(0.77–0.85)	4	0.69	(0.49–0.83)	6
Pakistan	0.62	(0.43–0.78)	7	0.79	(0.74–0.84)	4	0.84	(0.84–0.84)	2	0.67	(0.46–0.83)	5
Peru	0.68	(0.60–0.79)	10	0.82	(0.79–0.86)	4	0.87	(0.87–0.87)	2	0.71	(0.61–0.86)	7
Portugal	0.67	(0.55–0.81)	8	0.79	(0.72–0.84)	4	0.83	(0.82–0.83)	2	0.68	(0.46–0.82)	5
Russia	0.62	(0.52–0.78)	6	0.79	(0.76–0.81)	4	0.81	(0.76–0.86)	2	0.65	(0.27–0.79)	5
Singapore	0.71	(0.50–0.81)	9	0.85	(0.82–0.87)	4	0.88	(0.88–0.88)	2	0.73	(0.58–0.86)	6
Slovenia	0.65	(0.55–0.77)	8	0.78	(0.69–0.83)	4	0.82	(0.80–0.84)	2	0.66	(0.47–0.82)	5
South Africa	0.72	(0.61–0.80)	10	0.84	(0.79–0.88)	4	0.88	(0.88–0.88)	2	0.73	(0.53–0.87)	6
South Korea	0.62	(0.34–0.78)	5	0.77	(0.68–0.84)	4	0.81	(0.79–0.82)	2	0.66	(0.53–0.81)	4



**Table 4** continued

	Individual-level values						Societal-level values					
	Ten values sub-dimensions <sup>a</sup>			Collectivism and individualism			Openness to change, conservation, self-enhancement, self-transcendence			Embeddedness, hierarchy, mastery, affective autonomy, intellectual autonomy, egalitarianism, harmony		
	$\alpha$ Mean	$\alpha$ Range	Number $\alpha \geq 0.60$	$\alpha$ Mean	$\alpha$ Range	Number $\alpha \geq 0.60$	$\alpha$ Mean	$\alpha$ Range	Number $\alpha \geq 0.60$	$\alpha$ Mean	$\alpha$ Range	Number $\alpha \geq 0.60$
Spain	0.62	(0.36–0.77)	4	0.77	(0.74–0.82)	4	0.81	(0.76–0.85)	2	0.64	(0.49–0.77)	5
Switzerland	0.66	(0.45–0.76)	6	0.77	(0.72–0.80)	4	0.81	(0.78–0.83)	2	0.66	(0.50–0.80)	6
Taiwan	0.74	(0.54–0.86)	9	0.86	(0.83–0.90)	4	0.90	(0.90–0.90)	2	0.74	(0.60–0.89)	7
Thailand	0.54	(0.26–0.68)	4	0.72	(0.69–0.76)	4	0.76	(0.75–0.76)	2	0.56	(0.41–0.75)	3
Turkey	0.71	(0.61–0.83)	10	0.82	(0.78–0.87)	4	0.86	(0.86–0.86)	2	0.72	(0.57–0.84)	6
UAE	0.49	(0.38–0.73)	2	0.62	(0.50–0.72)	2	0.73	(0.70–0.75)	2	0.49	(0.14–0.72)	2
UK	0.71	(0.59–0.80)	10	0.81	(0.78–0.85)	4	0.84	(0.82–0.85)	2	0.72	(0.58–0.82)	6
US	0.68	(0.57–0.75)	9	0.79	(0.77–0.82)	4	0.84	(0.83–0.85)	2	0.69	(0.56–0.80)	6
Venezuela	0.65	(0.43–0.76)	8	0.81	(0.79–0.83)	4	0.87	(0.85–0.88)	2	0.71	(0.57–0.84)	6
Vietnam	0.62	(0.45–0.80)	6	0.81	(0.74–0.86)	4	0.87	(0.86–0.87)	2	0.70	(0.58–0.84)	5
Total	0.64	(0.51–0.79)	9	0.78	(0.74–0.84)	4	0.83	(0.84–0.85)	2	0.69	(0.57–0.84)	5

<sup>a</sup> Individual-level SVS subdimensions are power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security

only one scale was reliable for Algeria, and two were reliable for Malaysia and the UAE. Three societies had four reliable measures (Cuba, Spain, and Thailand) while another three societies had five reliable measures (Bulgaria, China, and South Korea).

*Individual-Level Values Dimensions*

We assessed the scale reliabilities for two sets of individual-level values dimensions. As shown in Table 3, both collectivism and individualism were highly reliable measures across the 50 societies with average alpha values of 0.82 and 0.84, respectively. For all the societies, these two measures had acceptable scale reliabilities with the lowest being  $\alpha = 0.73$  for collectivism and  $\alpha = 0.69$  for individualism. In respect to the second set of individual-level values dimensions, the scale reliabilities for openness to change, conservation, self-enhancement, and self-transcendence are at acceptable levels across the 50 societies with average Cronbach's  $\alpha$  values of 0.74, 0.80, 0.78, and 0.82, respectively. For both conservation and self-transcendence values, all society scale reliabilities were in the acceptable range (i.e., 0.69 or higher for conservation, 0.64 or higher for self-transcendence). The large majority of societies had acceptable scale reliabilities for openness to change (94%) and self-enhancement (96%). The individual society results in Table 4 show that Egypt and the UAE had unacceptable scale reliabilities for both the openness to change and self-enhancement dimensions, and

that Algeria also had an unacceptable scale reliability for the openness to change dimension. In sum, these analyses indicate that the higher-order values dimensions are consistently much more reliable measures than the values sub-dimension measures.

*Societal-Level Values Dimensions*

There were mixed results for the seven societal-level values dimensions of embeddedness, hierarchy, mastery, affective autonomy, intellectual autonomy, egalitarianism, and harmony. As shown in Table 3, the average scale reliability for the 50 societies across these seven values dimensions ranged from unacceptable levels for hierarchy ( $\alpha = 0.51$ ) and intellectual autonomy ( $\alpha = 0.56$ ) to acceptable levels for the others. The embeddedness measure ( $\alpha = 0.81$ ) was reliable for all 50 societies ( $\alpha \geq 0.70$ ), whereas only two societies had unacceptable scale reliabilities for the egalitarianism (Egypt, UAE), mastery (Egypt, Thailand) and harmony (Egypt, UAE) measures. For the affective autonomy measure, 80% of societies (40) had acceptable scale reliabilities. The hierarchy scale was problematic with only 18% of societies having acceptable scale reliabilities. The intellectual autonomy dimension was marginal with only 48% of the societies having acceptable scale reliabilities.

Table 4 identifies that six societies (Australia, Canada, Costa Rica, Hong Kong, Peru, and Taiwan) had acceptable scale reliabilities for all seven societal-level values

dimensions. For 35 societies, the majority of these measures were reliable (6 scales for 19 societies and 5 scales for 16 societies). Marginal results were obtained for six societies which had four reliable measures. This set of dimension measures were not supported for three societies with only three reliable scales for Thailand, and two reliable scales for Egypt and the UAE. In sum, these results indicate that across the 50 societies in this study, the most reliable societal-level values dimensions are egalitarianism, embeddedness, harmony, and mastery, with affective autonomy having variable reliability. We found the hierarchy and intellectual autonomy scales to be generally unreliable measures.

In that Schwartz (2006) developed the societal-level dimensions using country-level mean item scores (within-subject centered), we also calculated scale reliabilities using society means of the within-subject standardized item scores ( $N = 50$ ). These analyses yielded scale reliabilities that were lower than the 50-society average reliabilities: embeddedness ( $\alpha = 0.60$ ), hierarchy (0.49), mastery (0.20), affective autonomy (0.33), intellectual autonomy (0.50), egalitarianism (0.67), and harmony (0.64). Examination of the item intercorrelations showed negatively correlated items for the hierarchy, affective autonomy, intellectual autonomy, and mastery measures.

#### Within-Society Agreement for the Values Sub-Dimensions and Dimensions Scores

Table 5 provides the summary results of analyses examining the within-society IRA statistics ( $a_{wg(J)}$ ) for each set of values sub-dimensions and dimensions. Per Brown and Hauenstein (2005) and LeBreton et al. (2008), acceptable levels of IRA are generally considered to be 0.60 or higher.

For the ten individual-level sub-dimensions, the 50-society average  $a_{wg(J)}$  statistics ranged from 0.53 (tradition) to 0.68 (benevolence) with the average across items and societies being 0.61. Measures that had relatively more unacceptable IRA levels (i.e.,  $a_{wg(J)} \leq 0.50$ ) were tradition (38% of societies), power (26%), stimulation (18%), security (14%), and hedonism (12%). Of the 50 societies, 52% had acceptable IRA levels ( $a_{wg(J)} \geq 0.51$ ) for all ten sub-dimensions, with an additional 42% having between six and nine sub-dimensions with acceptable IRA levels. Societies with a low number of sub-dimensions with acceptable IRA levels included Algeria (0), Bulgaria (4), and Venezuela (5).

For the first set of two individual-level values dimensions, the average  $a_{wg(J)}$  statistic was 0.61, and 90% of societies had acceptable IRA levels for both collectivism and individualism. For the second set of individual-level values dimensions, the range of  $a_{wg(J)}$  statistics was 0.58 (conservation) to 0.64 (self-transcendence). Measures with

relatively more unacceptable IRA levels were conservation (16% of societies) and self-enhancement (12% of societies). Of the 50 societies, 82% had acceptable IRA levels for all four of these dimensions, and 8% had three dimensions with acceptable IRA levels. Across both sets of values dimensions (six dimensions in total), societies with a low number of acceptable IRA levels included Algeria (0), Bulgaria (2), Mexico (2), and Venezuela (3).

For the seven societal-level values dimensions, the range of  $a_{wg(J)}$  statistics was 0.56 (hierarchy) to 0.65 (egalitarianism, intellectual autonomy) with the average across items and societies being 0.61. Measures with relatively more unacceptable IRA levels were hierarchy (24%), harmony (14%), and affective autonomy (12%). Of the 50 societies, 70% had acceptable IRA levels for all seven dimensions, and 18% had six dimensions, and 6% had five or four dimensions with acceptable IRA levels. Societies with a low number of values dimensions with acceptable IRA levels included Algeria (0), Venezuela (2), and Mexico (3).

In sum, these IRA results provide general support for the aggregation of individual-level dimension scores to the society level and other researchers' use of the scores presented in this article. However, it should be noted that scores for Algeria and to a lesser extent Bulgaria, Mexico, and Venezuela, should be regarded with caution.

#### Societal Influences on Scale Reliabilities, Within-Group Agreement, and Values Scores

Table 6 presents results of correlation analyses examining relationships between three facets of societal development (socioeconomic, polity, and governance) and the reliability, within-group agreement, and importance scores for the three sets of values dimensions. On average, the reliability of the individual-level values sub-dimension measures was positively related to socioeconomic development ( $r = 0.36$ ,  $p < 0.05$ ; five sub-dimensions significant), polity ( $r = 0.49$ ,  $p < 0.001$ ; eight sub-dimensions significant), and governance ( $r = 0.33$ ,  $p < 0.05$ ; five sub-dimensions significant). Societal development had the most influence on the scale reliabilities for the five measures of power, achievement, hedonism, stimulation, and self-direction values, and was unrelated to the reliability of the benevolence and tradition measures. For the remaining values, polity was positively related to the reliability of the universalism, conformity, and security measures, while governance was positively related to the reliability of the conformity measure. For the six individual-level values dimensions, on average, scale reliability was significantly related to polity level ( $r = 0.50$ ,  $p < 0.001$ ; five dimensions significant) but not to socioeconomic development or

**Table 5** Summary within-society IRA ( $a_{wg(J)}$  index) for SVS individual-level and societal-level values dimensions

	$a_{wg(J)}$ index			Society distribution of IRA levels ( $N = 50$ ) <sup>a</sup> (%)				
	Mean	(SD)	Range	Strong	Moderate		Weak	Lack
				0.70–1.00	0.60–0.69	0.51–0.59	0.31–0.50	0.00–0.30
<b>Individual-level sub-dimensions</b>								
Power	0.55	(0.10)	0.27–0.82	4	24	46	24	2
Achievement	0.65	(0.06)	0.49–0.79	20	60	16	4	0
Hedonism	0.59	(0.09)	0.32–0.73	10	46	32	12	0
Stimulation	0.58	(0.10)	0.27–0.79	10	42	30	16	2
Self-direction	0.64	(0.07)	0.36–0.79	18	60	18	4	0
Universalism	0.61	(0.07)	0.42–0.80	6	60	28	6	0
Benevolence	0.68	(0.06)	0.50–0.81	48	40	10	2	0
Tradition	0.53	(0.08)	0.37–0.76	2	16	44	38	0
Conformity	0.64	(0.07)	0.50–0.80	14	60	24	2	0
Security	0.59	(0.08)	0.43–0.85	8	44	34	14	0
<b>Individual-level dimensions</b>								
Collectivism	0.61	(0.06)	0.46–0.79	8	52	36	4	0
Individualism	0.61	(0.07)	0.37–0.79	6	56	30	8	0
Openness to change	0.61	(0.07)	0.41–0.79	8	52	34	6	0
Conservation	0.58	(0.07)	0.44–0.79	6	42	36	16	0
Self-enhancement	0.60	(0.08)	0.37–0.79	6	54	28	12	0
Self-transcendence	0.64	(0.06)	0.45–0.81	8	70	20	2	0
<b>Societal-level dimensions</b>								
Embeddedness	0.60	(0.07)	0.46–0.80	8	44	40	8	0
Hierarchy	0.56	(0.10)	0.25–0.84	6	34	36	22	2
Mastery	0.64	(0.07)	0.45–0.80	20	58	18	4	0
Affective autonomy	0.60	(0.09)	0.31–0.76	10	50	28	12	0
Intellectual autonomy	0.65	(0.06)	0.44–0.79	28	52	18	2	0
Egalitarianism	0.65	(0.08)	0.48–0.80	22	64	14	2	0
Harmony	0.59	(0.08)	0.35–0.79	6	46	34	14	0

<sup>a</sup> IRA level categories per Brown and Hauenstein (2005) and LeBreton et al. (2008)

governance (respectively,  $r = 0.20$ , one dimension significant;  $r = 0.20$ , two dimensions significant). For the seven societal-level dimensions, on average, scale reliability was strongly related to polity ( $r = 0.51$ ,  $p < 0.001$ ; six dimensions significant) and less strongly related to socioeconomic development and governance (respectively,  $r = 0.29$ ,  $p < 0.05$ ;  $r = 0.25$ ,  $p < 0.10$ ; both with only affective autonomy significant).

On average, within-group IRA ( $a_{wg(J)}$ ) of the individual-level values sub-dimension measures was positively related to socioeconomic development ( $r = 0.24$ ,  $p < 0.10$ ; four sub-dimensions significant) and governance ( $r = 0.41$ ,  $p < 0.01$ ; eight sub-dimensions significant), and unrelated to polity ( $r = -0.07$ ; one sub-dimension marginally significant). For both the individual- and societal-level values dimensions, within-group agreement was strongly related to governance (respectively,  $r = 0.40$ ,  $r = 0.42$ ,  $p < 0.01$ ), and unrelated to polity ( $r = -0.10$ ,  $r = -0.07$ ). Overall,

socioeconomic development was marginally related to within-group agreement for the societal-level dimensions ( $r = 0.24$ ,  $p < 0.10$ ; three dimensions significant) but not to the individual-level dimensions ( $r = 0.23$ ; two dimensions significant).

In respect to the importance attributed to various values, we found very similar results for the total sample ( $N = 50$ ) and for the reduced samples of societies that had acceptable levels of scale reliability and within-group IRA. Similar results were also found across the three facets of societal development (socioeconomic development, polity, and governance). In respect to the individual-level values sub-dimensions, societal development level is generally positively related to the importance of hedonism, self-direction, and benevolence values; negatively related to power, tradition, and conformity values, and unrelated to achievement, stimulation, universalism, and security values. Overall, these findings are consistent with those of Schwartz and

**Table 6** Correlations between societal context and SVS dimension scale reliabilities (Cronbach  $\alpha$ ) within-society IRA ( $a_{wg(I)}$  index), and standardized scores

Samples <sup>a</sup>	Socioeconomic development				Polity				Governance			
	$\alpha$		$a_{wg(I)}$		Std. score		$\alpha$		$a_{wg(I)}$		Std. score	
	Total	Valid	Total	Valid	Total	Valid	Total	Valid	Total	Valid	Total	Valid
Individual-level sub-dimensions	0.36**	0.24 <sup>†</sup>			0.49***	-0.07			0.33*	0.41**		
Power	0.43**	0.12	-0.43**	-0.68***	0.53***	-0.13	-0.46***	-0.56***	0.42**	0.30*	-0.35*	-0.66***
Achievement	0.31*	0.32*	-0.22	-0.31*	0.44**	-0.08	-0.02	-0.12	0.35**	0.46***	-0.11	-0.22
Hedonism	0.40**	0.42**	0.56***	0.80***	0.26 <sup>†</sup>	0.20	0.33*	0.08	0.23	0.49***	0.50***	0.68**
Stimulation	0.36**	0.14	0.04	-0.12	0.48***	-0.04	0.25 <sup>†</sup>	-0.05	0.34*	0.32*	0.19	-0.02
Self-direction	0.29*	0.29*	0.51***	0.41*	0.54***	0.08	0.66***	0.35 <sup>†</sup>	0.32*	0.47***	0.42**	0.33 <sup>†</sup>
Universalism	0.16	0.19	0.21	0.26+	0.48***	-0.13	-0.06	0.02	0.13	0.35*	0.02	0.06
Benevolence	0.17	0.45***	0.44**	0.40**	0.14	-0.01	0.39**	0.35*	0.16	0.56***	0.41**	0.36*
Tradition	0.01	-0.06	-0.44**	-0.60*	-0.00	-0.27 <sup>†</sup>	-0.18	-0.01	-0.01	0.07	-0.47***	-0.57*
Conformity	0.21	0.17	-0.43**	-0.50**	0.40**	-0.10	-0.25 <sup>†</sup>	-0.28 <sup>†</sup>	0.29*	0.37**	-0.29*	-0.39*
Security	0.13	0.10	-0.21	-0.01	0.34*	-0.17	-0.33*	-0.38 <sup>†</sup>	0.15	0.22	-0.22	-0.18
Individual-level dimensions	0.20	0.23			0.50***	-0.10			0.20	0.40**		
Collectivism	0.04	0.17	-0.44***	-0.42**	0.17	-0.14	-0.30*	-0.29 <sup>†</sup>	0.03	0.35*	-0.45***	-0.44**
Individualism	0.19	0.23	0.27 <sup>†</sup>	0.24	0.57***	-0.01	0.30*	0.26 <sup>†</sup>	0.21	0.43**	0.32*	0.28 <sup>†</sup>
Openness to change	0.23	0.23	0.28*	0.17	0.50***	-0.07	0.51***	0.29 <sup>†</sup>	0.26 <sup>†</sup>	0.40**	0.34*	0.26 <sup>†</sup>
Conservation	0.08	0.06	-0.56***	-0.54***	0.27 <sup>†</sup>	-0.21	-0.49***	-0.47***	0.10	0.22	-0.56***	-0.54***
Self-enhancement	0.31*	0.27 <sup>†</sup>	0.15	0.06	0.64***	-0.05	-0.03	-0.07	0.30*	0.43**	0.19	0.09
Self-transcendence	0.11	0.32*	0.41**	0.40**	0.35*	-0.11	0.32*	0.31*	0.08	0.43**	0.31*	0.30*
Societal-level dimensions	0.29*	0.24 <sup>†</sup>			0.51***	-0.07			0.25 <sup>†</sup>	0.42**		
Embeddedness	0.05	0.11	-0.55***	-0.53***	0.31*	-0.19	-0.49***	-0.48***	0.12	0.28 <sup>†</sup>	-0.52***	-0.51***
Hierarchy	0.17	0.12	-0.41**	-0.64 <sup>†</sup>	0.17	-0.11	-0.44**	-0.77*	0.17	0.29*	-0.38**	-0.59
Mastery	0.12	0.29*	-0.10	-0.28 <sup>†</sup>	0.32*	-0.04	0.08	-0.01	0.17	0.47***	0.04	-0.11
Affective autonomy	0.40**	0.30*	0.51***	0.39*	0.42***	0.05	0.45***	0.17	0.32*	0.42**	0.53***	0.46**
Intellectual autonomy	0.25	0.23	0.52***	0.43*	0.49***	0.05	0.58***	0.43*	0.18	0.41**	0.39**	0.31
Egalitarianism	0.20	0.43**	0.36**	0.39**	0.37**	-0.06	0.42**	0.27 <sup>†</sup>	0.22	0.51***	0.32*	0.33*
Harmony	0.14	0.13	0.02	0.13	0.46***	-0.11	-0.09	-0.07	0.06	0.33*	-0.05	-0.01

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ , <sup>†</sup>  $p < 0.10$

<sup>a</sup> Total  $N = 50$  societies for socioeconomic development and governance,  $N = 48$  for polity. Valid  $N$  for reduced number of societies that have acceptable levels of both scale reliability ( $\alpha \geq 0.60$ ) and IRA ( $a_{wg(I)} > 0.50$ ) for a values dimension

Sagie (2000) with the exception that they found significant positive correlations for stimulation and universalism.

For the individual-level values dimensions, societal development is positively related to the importance individualism, openness to change, and self-transcendence values; and negatively related to collectivism and conservation values. The nonsignificant correlations for self-enhancement values can be attributed to different findings for component sub-dimensions (negative correlations for power, positive for hedonism, and nonsignificant for achievement). In respect of the societal-level values dimensions, societal development level is positively related to the importance of affective autonomy, intellectual autonomy, and egalitarianism values, and negatively related to the importance of embeddedness and hierarchy values, while not significantly related to mastery and harmony values. These findings are consistent with those of

Licht et al. (2007) for three facets of societal governance with two exceptions (voice and accountability was negative related to mastery and positively related to harmony).

### Discussion and Conclusions

Although the SVS was developed and validated with samples consisting primarily of university students and schoolteachers (e.g., Schwartz 1992, 1994b, 2006; Schwartz and Boehnke 2004), the samples for this study consisted entirely of business professionals. Given the number of dimensions for which we did not find support with our business professionals data, we also note that previous research has shown substantive differences between students and business professionals that draws into question the use of students as surrogates for business professionals

in international business research (Bello et al. 2009). As such, our data and findings provide a potentially more accurate view of the SVS values dimensions for studying professional workforces around the world.

Our analyses using samples of business managers and professionals in 50 societies yielded mixed support for the internal consistency of the SVS values dimension measures articulated by Schwartz and his colleagues (e.g., Schwartz 1992, 1994a, b, 1999, 2006; Schwartz and Boehnke 2004; Schwartz and Sagiv 1994). Of the ten individual-level sub-dimensions, we found a high level of cross-national internal consistency for the universalism measure, and acceptable reliabilities for another five sub-dimensions (power, achievement, stimulation, benevolence, and conformity) for 74% or more of the societies. Consistent with previous SVS cross-national research (e.g., Perrinjaquet et al. 2007; Schwartz 2005; Schwartz and Rubel 2005), the tradition measure had low reliabilities for a substantial proportion of societies (38%). In addition, our findings indicate substantial cross-national variation in the internal consistency of the self-direction and security measures, and that the hedonism measure, in both its two- and three-item forms, is a generally unreliable measure (Spini 2003). These findings bring into question the validity of the ten-values circumplex model (Schwartz 1992) for business professionals samples that are more demographically and occupationally diverse than the student and school teacher samples that were used to develop this values model (cf. Fontaine et al. 2008). Thus, an implication of these findings for future business research is that cross-national individual-level research based on the full set of ten values sub-dimensions is a relatively high risk proposition. The individual society results showed that there were only eight societies for which all ten sub-dimensions had high enough scale reliabilities for statistical analyses. However, researchers may be interested in testing relationships for a subset of these values sub-dimensions, especially if survey questionnaire length is a concern. As such, our individual society results provide guidance as to which are the more internally consistent measures in different societal contexts. For example, our analyses showed cross-national robustness for the universalism value which has been found to be related to business ethics topics, such as attitudes toward CSR (e.g., Shafer et al. 2007) and environmental concern (e.g., Schultz and Zelezny 1998, 1999). Alternatively, our analyses identified that five values sub-dimensions (power, achievement, hedonism, stimulation, self-direction) are less often reliable, especially in countries with lower levels of socioeconomic and sociopolitical development.

In contrast, our analyses support the cross-national construct reliability of both sets of individual-level higher-order values dimensions: (1) collectivism and individualism; and (2) openness to change, conservation, self-enhancement,

and self-transcendence. Of these, the collectivism and individualism dimensional set had the stronger support, which is a finding consistent with the importance attributed to these dimensions in other cross-cultural values instruments (Oyserman et al. 2002). Interestingly, although Schwartz (1992, 1994a, b) initially conceptualized the four higher-order dimensions as a way to more simply describe the value structure, subsequent model validation studies have identified significant intercorrelations among the values within these higher-order groupings (e.g., Perrinjaquet et al. 2007; Schwartz and Boehnke 2004). One proposal from these studies is for researchers to use higher-order values dimensions that are conceptually meaningful. Our study findings provide empirical support for this recommendation in respect to the two sets of higher-order values dimensions that were examined.

In regard to the seven societal-level values dimensions, we found general support for the cross-national internal consistency of four dimensions (embeddedness, mastery, egalitarianism, and harmony), and to a lesser extent for the affective autonomy dimension. However, our analyses revealed significant internal consistency problems for the intellectual autonomy and hierarchy dimensions, with the latter also having unacceptable IRA levels for 24% of the societies. Schwartz (1999, 2006) theorized these two cultural values dimensions as anchors for two of the three higher-order values dimensions in the circumplex societal values model. As such, our findings draw into question the validity of Schwartz's societal-level values model for working adults in the business sector. These findings for the societal-level dimensions, in conjunction with the very positive findings for the individual-level higher-order values dimensions, raise the question: Is there a need for a societal-level cultural values model?

Fischer et al. (2010) addressed this question using SVS student (66 countries) and teacher (53 countries) data. While they found substantial similarity between individual- and country-level cultural values structures, the degree of overall similarity did not attain a (near-perfect) level of structural isomorphism indicating interchangeable structures at the two levels. Subsequent analyses found that some of this variation was attributable to country level sample size and structural shifts in some individual items (particularly for the teacher samples). One recommendation was that analyses with new data are needed to confirm these findings. They also proposed testing the predictive validity (and usefulness) of the individual- and societal-level values constructs by conducting analyses with country scores for both the ten individual-level values and the seven societal-level cultural values in single level and multilevel research. In this article, we support this proposal for future research by providing a full complement of values sub-dimension and dimension scores for 50 diverse



societies. In addition to testing the relative merits of each of Schwartz's (1992, 2006) values models, we encourage the use of these data to investigate a wide variety of research questions concerned with the influence of cultural values at both individual and societal levels. In this regard, we provide preliminary findings concerning relationships between societal context (socioeconomic development, polity, and governance) and the values orientations of businesspersons.

### Concluding Comments

We have presented a twenty-first century assessment of the values of business professionals across a wide range of cultures and geographic areas. We did so by investigating the internal consistency and within-group agreement of SVS dimensional sets to determine their appropriateness for 50 societies of interest to international business researchers. These analyses indicate the SVS values measures that might best be avoided when studying the values orientations of business professionals. There have been a number of issues raised regarding other cultural values

frameworks (cf. Tung and Verbeke 2010), and in respect to previously published SVS cultural values (e.g., Licht et al. 2007; Schwartz 1994a, b, 2006), we identified concerns regarding the relevance of the cultural values perspectives of students and schoolteachers for international business research endeavors. Hence, we view an important contribution of this assessment of work values to be the identification of the higher-order, individual-level dimensions as two sets of measures that can be used as referencing points and predictor variables for future multilevel, as well as single-level, cross-cultural research in international business.

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### Appendix

See Tables 7, 8, 9, 10, 11, 12, 13, 14, 15, and 16.

**Table 7** Individual-level sub-dimensions of the SVS

Power	The motivational goal of power values is the attainment of social status and prestige, and the control or dominance over people and resources. [SVS items: 3, 12, 27, 46]
Achievement	The primary goal of this type is personal success through demonstrated competence. Competence is evaluated in terms of what is valued by the system or organization in which the individual is located. [SVS items: 34, 39, 43, 55]
Hedonism	The motivational goal of this type of value is pleasure or sensuous gratification for oneself. This value type is derived from orgasmic needs and the pleasure associated with satisfying them. [SVS items: 4, 50, 57]
Stimulation	The motivational goal of stimulation values is excitement, novelty, and challenge in life. This value type is derived from the need for variety and stimulation to maintain an optimal level of activation. Thrill seeking can be the result of strong stimulation needs. [SVS items: 9, 25, 37]
Self-direction	The motivational goal of this value type is independent thought and action (for example, choosing, creating, exploring). Self-direction comes from the need for control and mastery along with the need for autonomy and independence. [SVS items: 5, 16, 31, 41, 53]
Universalism	The motivational goal of universalism is the understanding, appreciation, tolerance, and protection of the welfare for all people and for nature. [SVS items: 1, 17, 24, 26, 29, 30, 35, 38]
Benevolence	The motivational goal of benevolent values is preservation and enhancement of the welfare of people with whom one is in frequent personal contact. This is a concern for the welfare of others that is more narrowly defined than universalism. [SVS items: 33, 45, 49, 52, 54]
Tradition	The motivational goal of tradition values is respect, commitment, and acceptance of the customs and ideas that one's culture or religion imposes on the individual. A traditional mode of behavior becomes a symbol of the group's solidarity and an expression of its unique worth and hopefully its survival. [SVS items: 18, 32, 36, 44, 51]
Conformity	The motivational goal of this type is restraint of action, inclinations, and impulses likely to upset or harm others and violate social expectations or norms. It is derived from the requirement that individuals inhibit inclinations that might be socially disruptive if personal interaction and group functioning are to run smoothly. [SVS items: 11, 20, 40, 47]
Security	The motivational goal of this type is safety, harmony and stability of society or relationships, and of self. [SVS items: 8, 13, 15, 22, 56]

SVS item numbers correspond to the SVS items reported in Table 1

**Table 8** Individual-level higher-order dimensions of the SVS

Collectivism	Indicates the extent to which it is believed that people are born into groups and they are expected to look after the interest of their group. This group might be the extended family, the tribe or the village. Implicit is that the freedom to pursue one's own goals is subservient to the goals of the group. [Values sub-dimensions: Benevolence, Conformity, Tradition]
Individualism	Indicates the extent to which the person looks after self-interests and perhaps those of the nuclear family. It implies that society leaves individuals a good deal of freedom to pursue their own interests. [Values sub-dimensions: Power, Achievement, Hedonism, Stimulation, Self-direction]
Openness to change	Indicates the extent to which a person is motivated to follow his/her own intellectual and emotional interests in unpredictable and uncertain ways. [Values sub-dimensions: Stimulation, Self-direction]
Conservation	Indicates the extent to which one is motivated to preserve the status quo and the certainty that it provides in relationships with others, institutions and traditions. [Values sub-dimensions: Tradition, Conformity, Security]
Self-enhancement	Indicates the extent to which one is motivated to promote self-interest, even when they are potentially at the expense of others. [Values sub-dimensions: Power, Achievement, Hedonism]
Self-transcendence	Indicates the extent to which one is motivated to promote the welfare of others (both close friends and distant acquaintances) and nature. [Values sub-dimensions: Universalism, Benevolence]

**Table 9** Societal-level higher-order dimensions of the SVS<sup>a</sup>

Embeddedness	Indicates the extent to which a culture embraces social relationships, exhibits in-group solidarity, and strives toward attaining the goals of the group. [SVS items: 8, 11, 13, 15, 18, 20, 22, 26, 32, 40, 46, 47, 51, 54, 56]
Hierarchy	Indicates the extent to which a culture embraces the need for status differentiation through a hierarchal system based on rules and obligations, with the acceptance of unequal distribution of power being seen as legitimate [SVS items: 3, 12, 27, 36]
Mastery	Indicates the extent to which a culture embraces attaining group or personal goals through dynamic self-assertion to master and/or change the natural and social environment. [SVS items: 23, 31, 34, 37, 39, 41, 43, 55]
Affective Autonomy	Indicates the extent to which a culture embraces individuals seeking emotionally gratifying life-experiences for themselves. [SVS items: 4, 9, 25, 50]
Intellectual Autonomy	Indicates the extent to which a culture embraces individuals' independent pursuit of their own ideas and intellectual directions. [SVS items: 5, 16, 35, 53]
Egalitarianism	Indicates the extent to which a culture embraces the view that all people are moral equals and that there should be a commitment and concern for the welfare of all. [SVS items: 1, 30, 33, 45, 49, 52]
Harmony	Indicates the extent to which a culture embraces accepting the world as it is and fitting into it, rather than trying to change or take advantage of it. [SVS items: 17, 24, 29, 38]

<sup>a</sup> SVS item numbers correspond to the SVS items reported in Table 1. Dimension items are based on Schwartz (2006)

**Table 10** SVS values sub-dimensions: power, achievement, and hedonism

	Power				Achievement				Hedonism			
	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> Score	Rank
Algeria	3.53	0.52	-0.66	27	4.77	0.56	-0.05	44	3.56	0.52	-0.64	48
Argentina	2.92	0.68	-0.98	46	4.46	0.76	-0.06	45	4.99	0.58	0.23	6
Australia	3.40	0.72	-0.62	21	4.90	0.71	0.25	3	5.16	0.54	0.38	3
Austria	2.11	0.74	-1.06	49	3.98	0.66	-0.04	42	4.50	0.65	0.21	10
Brazil	2.67	0.65	-0.95	43	4.56	0.64	0.04	37	4.79	0.56	0.17	13
Bulgaria	3.01	0.65	-0.43	6	4.24	0.60	0.16	18	4.01	0.45	0.05	21
Canada	2.60	0.71	-0.94	42	4.60	0.72	0.22	10	4.55	0.65	0.19	12
Chile	3.28	0.59	-0.65	26	4.72	0.69	0.12	24	4.03	0.27	-0.25	41
China	3.15	0.51	-0.43	6	4.28	0.63	0.24	5	3.86	0.51	0.00	23
Colombia	3.52	0.73	-0.56	15	4.84	0.60	0.22	10	4.26	0.55	-0.11	31
Costa Rica	3.25	0.74	-0.75	32	4.96	0.57	0.22	10	4.83	0.58	0.13	16
Croatia	2.63	0.50	-0.83	35	4.35	0.67	0.08	30	3.76	0.67	-0.24	39
Cuba	2.19	0.58	-1.10	50	4.32	0.58	0.00	40	4.75	0.65	0.21	10



**Table 10** continued

	Power				Achievement				Hedonism			
	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> Score	Rank
Czech Rep	2.65	0.63	-0.70	29	3.78	0.67	-0.07	46	4.18	0.52	0.16	14
Egypt	5.00	0.56	-0.22	3	5.80	0.37	0.24	5	3.78	0.12	-0.94	50
Estonia	3.32	0.65	-0.61	17	4.57	0.70	0.09	28	4.32	0.39	-0.03	25
Finland	2.66	0.64	-0.81	34	3.97	0.75	-0.02	41	3.86	0.58	-0.10	30
France	2.12	0.70	-0.96	44	3.85	0.67	-0.07	46	4.62	0.58	0.32	4
Germany	3.05	0.72	-0.61	17	4.48	0.67	0.19	14	4.45	0.66	0.16	14
Hong Kong	3.38	0.69	-0.60	16	4.22	0.79	-0.07	46	4.53	0.52	0.12	17
Hungary	2.67	0.55	-0.76	33	4.21	0.55	0.09	28	3.98	0.70	-0.02	24
India	3.83	0.57	-0.44	9	4.92	0.72	0.23	8	4.14	0.18	-0.29	42
Indonesia	3.61	0.63	-0.50	14	4.63	0.75	0.14	20	3.47	0.65	-0.56	46
Israel	3.69	0.73	-0.44	9	4.90	0.82	0.28	1	4.29	0.55	-0.09	28
Italy	2.32	0.71	-0.88	41	4.10	0.67	0.10	27	2.60	0.46	-0.75	49
Lebanon	3.56	0.69	-0.68	28	5.18	0.61	0.24	5	4.04	0.60	-0.44	44
Lithuania	3.13	0.68	-0.48	12	4.14	0.60	0.07	32	2.94	0.56	-0.59	47
Macau	3.54	0.72	-0.41	5	4.40	0.79	0.13	21	4.39	0.61	0.12	17
Malaysia	3.98	0.41	-0.48	12	4.74	0.52	0.08	30	4.31	0.29	-0.22	35
Mexico	3.22	0.65	-0.73	31	4.83	0.59	0.13	21	4.25	0.50	-0.17	34
Netherlands	2.91	0.68	-0.83	35	4.41	0.75	0.05	35	5.58	0.55	0.74	1
New Zealand	2.24	0.72	-1.04	47	4.36	0.76	0.16	18	4.26	0.50	0.11	19
Pakistan	3.90	0.57	-0.43	6	4.76	0.66	0.13	21	4.43	0.43	-0.09	28
Peru	3.59	0.71	-0.61	17	4.98	0.63	0.25	3	4.20	0.60	-0.22	35
Portugal	2.49	0.66	-0.84	39	4.51	0.68	0.27	2	3.85	0.65	-0.11	31
Russia	3.90	0.52	-0.23	4	4.34	0.67	0.04	37	3.89	0.58	-0.22	35
Singapore	3.25	0.74	-0.61	17	4.32	0.69	0.06	33	4.00	0.50	-0.13	33
Slovenia	3.40	0.63	-0.62	21	4.88	0.61	0.17	16	4.99	0.70	0.23	6
South Africa	2.69	0.69	-1.04	47	4.86	0.77	0.23	8	4.10	0.61	-0.22	35
South Korea	2.99	0.68	-0.63	24	4.07	0.62	0.04	37	4.71	0.42	0.43	2
Spain	2.91	0.75	-0.70	29	4.09	0.62	-0.07	46	4.36	0.45	0.07	20
Switzerland	2.24	0.73	-0.85	40	3.91	0.68	0.06	33	4.27	0.53	0.23	6
Taiwan	3.52	0.65	-0.63	24	4.36	0.82	-0.04	42	4.51	0.54	0.05	21
Thailand	2.95	0.59	-0.62	21	3.79	0.48	-0.16	50	4.00	0.26	-0.05	26
Turkey	4.07	0.67	-0.45	11	5.03	0.67	0.11	26	4.02	0.61	-0.49	45
UAE	4.92	0.42	0.03	1	4.93	0.53	0.05	35	4.64	0.38	-0.24	39
UK	2.43	0.71	-0.83	35	4.25	0.73	0.21	13	4.27	0.70	0.22	9
US	2.81	0.67	-0.96	44	4.72	0.62	0.17	16	4.93	0.68	0.29	5
Venezuela	3.26	0.63	-0.83	35	5.00	0.66	0.12	24	4.69	0.43	-0.05	26
Vietnam	3.94	0.72	-0.21	2	4.68	0.63	0.18	15	3.79	0.45	-0.30	43
Total		0.69				0.68				0.51		

Note: Italic font for "Score(raw)" denotes an unacceptable level of IRA ( $a_{WG(I)} \leq 0.50$ ); italic font for Cronbach's  $\alpha$  score denotes an  $\alpha$  less than 0.60; society ranks are based on within-subject standardized scores

<sup>a</sup> Within-subject standardized scores

**Table 11** SVS values sub-dimensions: stimulation, self-direction, universalism, benevolence

	Stimulation				Self-direction				Universalism				Benevolence			
	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank
Algeria	3.31	0.32	-0.78	50	4.75	0.48	-0.03	48	5.07	0.68	0.14	13	5.03	0.55	0.10	48
Argentina	3.31	0.72	-0.72	48	5.17	0.64	0.35	7	4.94	0.85	0.20	5	5.21	0.80	0.38	13
Australia	4.45	0.69	-0.06	2	5.00	0.70	0.31	14	4.55	0.82	0.04	30	4.95	0.66	0.26	31
Austria	3.19	0.71	-0.49	33	4.69	0.64	0.33	11	4.31	0.70	0.12	15	4.96	0.69	0.48	1
Brazil	3.37	0.69	-0.57	39	4.98	0.55	0.26	22	4.82	0.80	0.17	9	5.37	0.71	0.46	3
Bulgaria	3.12	0.67	-0.38	21	4.32	0.55	0.22	29	3.91	0.82	-0.01	40	4.25	0.63	0.16	46
Canada	3.91	0.70	-0.17	8	4.82	0.71	0.34	9	4.22	0.79	0.00	39	4.93	0.72	0.41	11
Chile	3.58	0.74	-0.48	32	4.99	0.78	0.27	18	4.66	0.83	0.08	21	5.11	0.67	0.33	21
China	3.28	0.52	-0.35	18	4.07	0.56	0.11	42	3.95	0.72	0.05	28	4.30	0.73	0.24	35
Colombia	3.57	0.54	-0.56	38	4.92	0.57	0.27	18	4.49	0.78	0.01	37	5.18	0.67	0.45	5
Costa Rica	4.04	0.62	-0.34	16	5.16	0.59	0.29	15	4.82	0.80	0.08	21	5.27	0.69	0.33	21
Croatia	3.46	0.66	-0.41	25	4.97	0.63	0.39	4	4.52	0.72	0.16	10	4.72	0.63	0.26	31
Cuba	3.60	0.73	-0.40	23	4.81	0.49	0.24	26	4.95	0.78	0.30	1	5.07	0.69	0.37	15
Czech Rep	2.96	0.72	-0.54	36	4.40	0.62	0.27	18	3.98	0.72	0.04	30	4.38	0.71	0.26	31
Egypt	4.23	0.16	-0.68	46	4.87	0.23	-0.31	49	5.53	0.59	0.09	19	5.75	0.33	0.22	38
Estonia	3.81	0.70	-0.33	15	4.79	0.62	0.22	29	4.43	0.73	0.03	33	4.81	0.69	0.24	35
Finland	3.01	0.69	-0.62	44	4.36	0.62	0.22	29	4.25	0.80	0.18	7	4.75	0.71	0.48	1
France	3.21	0.68	-0.43	27	4.70	0.56	0.35	7	4.50	0.82	0.25	2	4.82	0.68	0.41	11
Germany	3.43	0.70	-0.42	26	4.75	0.64	0.33	11	4.21	0.80	0.03	33	4.82	0.75	0.38	13
Hong Kong	3.42	0.66	-0.57	39	4.49	0.69	0.08	44	4.49	0.78	0.07	23	4.74	0.82	0.22	38
Hungary	2.90	0.81	-0.60	43	4.48	0.65	0.25	25	4.14	0.75	0.06	26	4.59	0.70	0.33	21
India	3.88	0.76	-0.40	23	4.89	0.62	0.19	34	4.57	0.81	-0.01	40	4.91	0.71	0.22	38
Indonesia	4.33	0.68	-0.06	2	4.56	0.73	0.09	43	4.23	0.79	-0.12	47	4.95	0.81	0.35	17
Israel	4.09	0.69	-0.22	11	4.90	0.69	0.29	15	4.13	0.81	-0.15	50	4.94	0.70	0.31	26
Italy	2.96	0.75	-0.54	36	4.73	0.52	0.43	2	4.39	0.76	0.23	3	4.72	0.66	0.42	10
Lebanon	4.56	0.66	-0.14	7	5.11	0.62	0.17	37	4.96	0.82	0.12	15	5.25	0.67	0.29	27
Lithuania	3.70	0.57	-0.17	8	4.71	0.67	0.38	6	4.15	0.77	0.07	23	4.37	0.70	0.19	44
Macau	3.14	0.63	-0.67	45	4.46	0.73	0.15	38	4.28	0.79	0.04	30	4.59	0.80	0.24	35
Malaysia	4.00	0.45	-0.46	30	4.65	0.42	0.01	46	4.63	0.76	0.02	36	4.80	0.63	0.14	47
Mexico	3.68	0.63	-0.47	31	5.11	0.63	0.26	22	4.86	0.81	0.12	15	5.16	0.69	0.28	28
Netherlands	4.15	0.80	-0.13	5	5.02	0.68	0.39	4	4.40	0.78	0.03	33	5.07	0.71	0.43	8
New Zealand	4.06	0.74	-0.02	1	4.83	0.61	0.41	3	4.51	0.80	0.22	4	4.90	0.79	0.45	5
Pakistan	4.38	0.61	-0.13	5	4.80	0.61	0.15	38	4.51	0.78	-0.04	43	4.86	0.73	0.20	43
Peru	3.97	0.66	-0.38	21	4.96	0.66	0.26	22	4.68	0.79	0.07	23	5.08	0.70	0.32	24
Portugal	3.12	0.72	-0.51	34	4.54	0.55	0.28	17	4.30	0.81	0.15	12	4.86	0.70	0.46	3
Russia	3.62	0.63	-0.37	20	4.74	0.66	0.27	18	4.19	0.78	-0.04	43	4.24	0.60	-0.01	50
Singapore	3.69	0.71	-0.34	16	4.43	0.71	0.13	40	4.04	0.80	-0.12	47	4.78	0.81	0.35	17
Slovenia	3.58	0.61	-0.53	35	5.17	0.55	0.32	13	4.92	0.77	0.18	7	4.99	0.67	0.22	38
South Africa	4.02	0.71	-0.26	12	4.87	0.65	0.22	29	4.66	0.80	0.10	18	5.02	0.78	0.32	24
South Korea	3.29	0.54	-0.45	29	4.36	0.59	0.20	33	4.01	0.78	-0.02	41	4.39	0.72	0.22	38
Spain	3.12	0.58	-0.59	42	4.56	0.59	0.18	35	4.61	0.77	0.20	5	5.06	0.66	0.43	8
Switzerland	3.27	0.70	-0.32	14	4.66	0.57	0.44	1	4.15	0.76	0.16	10	4.66	0.66	0.45	5
Taiwan	4.02	0.66	-0.29	13	4.63	0.75	0.13	40	4.50	0.83	0.05	28	4.69	0.86	0.18	45
Thailand	2.79	0.68	-0.72	48	4.20	0.46	0.06	45	3.98	0.66	-0.05	46	4.58	0.63	0.28	28
Turkey	4.25	0.72	-0.35	18	5.16	0.66	0.18	35	4.98	0.83	0.09	19	5.25	0.78	0.25	34

**Table 11** continued

	Stimulation				Self-direction				Universalism				Benevolence			
	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank
UAE	4.11	<i>0.57</i>	-0.71	47	4.70	0.38	-0.17	50	4.12	<i>0.59</i>	0.14	13	4.95	0.73	0.05	49
UK	3.71	0.72	-0.10	4	4.50	0.67	0.34	9	4.74	0.80	-0.14	49	4.53	0.64	0.37	15
US	4.08	0.73	-0.21	10	4.86	0.66	0.24	26	4.39	0.75	-0.04	43	5.06	0.74	0.35	17
Venezuela	<i>3.97</i>	0.75	-0.43	27	<i>5.20</i>	0.64	0.23	28	4.90	0.76	0.06	26	5.43	0.73	0.34	20
Vietnam	<i>3.28</i>	0.63	-0.58	41	4.30	<i>0.49</i>	-0.04	47	4.40	0.78	0.01	37	4.88	0.80	0.27	30
Total		0.65				0.61				0.79				0.72		

Note: italic font for “Score(raw)” denotes an unacceptable level of IRA ( $a_{WG(I)} \leq 0.50$ ); italic font for Cronbach’s  $\alpha$  score denotes an  $\alpha$  less than 0.60; society ranks are based on within-subject standardized scores

<sup>a</sup> Within-subject standardized scores

**Table 12** SVS values sub-dimensions: tradition, conformity, and security

	Tradition				Conformity				Security			
	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank
Algeria	<i>4.69</i>	<i>0.32</i>	-0.08	1	5.29	<i>0.57</i>	0.25	8	<i>5.60</i>	<i>0.50</i>	0.39	6
Argentina	<i>4.08</i>	0.67	-0.31	10	4.65	0.71	0.03	34	4.76	0.61	0.11	29
Australia	<i>3.23</i>	0.74	-0.71	36	4.33	0.76	-0.06	41	4.35	<i>0.53</i>	-0.06	48
Austria	2.46	<i>0.51</i>	-0.87	46	3.92	0.63	-0.08	43	4.55	<i>0.59</i>	0.27	13
Brazil	<i>3.16</i>	<i>0.58</i>	-0.69	33	4.87	0.63	0.19	16	<i>4.56</i>	0.60	0.04	41
Bulgaria	2.95	<i>0.40</i>	-0.48	20	3.66	<i>0.57</i>	-0.13	45	<i>4.22</i>	<i>0.52</i>	0.17	24
Canada	<i>2.94</i>	0.64	-0.73	38	4.32	0.71	0.07	29	4.39	0.66	0.11	29
Chile	3.32	<i>0.38</i>	-0.66	31	5.03	0.64	0.29	5	4.37	0.65	-0.07	49
China	2.48	<i>0.57</i>	-0.81	41	4.01	0.61	0.08	27	4.46	0.64	0.36	7
Colombia	3.90	0.69	-0.35	13	4.46	0.72	0.01	36	4.48	0.61	0.02	42
Costa Rica	4.09	0.65	-0.33	12	4.39	0.70	-0.14	47	4.71	<i>0.52</i>	0.05	39
Croatia	<i>3.10</i>	0.65	-0.59	29	3.89	<i>0.54</i>	-0.17	48	4.60	<i>0.53</i>	0.21	22
Cuba	3.63	<i>0.43</i>	-0.37	15	3.92	<i>0.53</i>	-0.22	50	4.51	<i>0.52</i>	0.09	34
Czech Rep	2.46	<i>0.56</i>	-0.81	41	4.00	0.65	0.05	31	4.41	<i>0.56</i>	0.28	11
Egypt	5.03	<i>0.58</i>	-0.21	7	5.81	<i>0.34</i>	0.25	8	6.27	<i>0.29</i>	0.53	1
Estonia	2.79	<i>0.58</i>	-0.89	48	4.42	0.68	0.04	33	4.87	<i>0.59</i>	0.29	9
Finland	3.16	0.62	-0.51	21	3.99	<i>0.59</i>	0.02	35	4.41	<i>0.49</i>	0.28	11
France	<i>2.63</i>	0.65	-0.70	35	3.87	0.76	-0.05	40	<i>4.16</i>	0.73	0.11	29
Germany	2.94	0.60	-0.69	33	4.10	0.71	-0.03	38	4.38	0.60	0.13	26
Hong Kong	3.49	0.60	-0.54	26	4.72	0.71	0.22	11	4.91	0.66	0.34	8
Hungary	2.30	<i>0.51</i>	-0.95	49	4.19	0.61	0.08	27	4.49	<i>0.49</i>	0.26	14
India	3.84	<i>0.54</i>	-0.43	18	5.26	0.63	0.40	2	4.71	0.63	0.11	29
Indonesia	3.77	<i>0.57</i>	-0.41	17	4.95	0.78	0.36	3	4.62	0.72	0.16	25
Israel	3.23	0.62	-0.68	32	4.59	0.67	0.11	23	4.79	<i>0.54</i>	0.24	17
Italy	3.25	<i>0.57</i>	-0.38	16	4.05	0.65	0.05	31	3.94	0.65	0.00	46
Lebanon	<i>3.78</i>	0.69	-0.53	23	4.89	0.71	0.09	25	5.15	0.65	0.20	23
Lithuania	2.44	<i>0.52</i>	-0.85	45	4.30	0.69	0.16	17	4.79	0.66	0.43	5
Macau	3.24	0.65	-0.59	29	4.52	0.75	0.20	14	4.56	0.72	0.23	20
Malaysia	4.37	<i>0.57</i>	-0.16	5	4.95	<i>0.50</i>	0.26	7	4.76	<i>0.56</i>	0.12	28
Mexico	4.36	0.65	-0.15	4	4.65	0.62	0.01	36	<i>4.63</i>	<i>0.51</i>	0.02	42
Netherlands	2.65	0.64	-0.98	50	4.48	0.76	0.10	24	4.21	0.69	-0.05	47
New Zealand	2.64	<i>0.59</i>	-0.83	43	3.99	0.75	-0.06	41	4.08	0.63	0.01	45

**Table 12** continued

	Tradition				Conformity				Security			
	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank
Pakistan	4.18	0.60	-0.24	8	4.73	0.66	0.12	22	4.65	0.59	0.07	36
Peru	4.05	0.70	-0.32	11	4.65	0.69	0.06	30	4.70	0.67	0.09	34
Portugal	2.62	0.62	-0.77	40	4.27	0.69	0.14	20	4.05	0.57	0.02	42
Russia	3.00	0.56	-0.72	37	4.65	0.56	0.22	11	5.05	0.61	0.46	2
Singapore	3.65	0.60	-0.36	14	4.54	0.77	0.20	14	4.57	0.70	0.24	17
Slovenia	3.02	0.55	-0.83	43	4.32	0.63	-0.13	45	5.02	0.64	0.25	16
South Africa	3.64	0.71	-0.47	19	4.71	0.80	0.16	17	4.51	0.72	0.05	39
South Korea	3.23	0.34	-0.51	21	3.99	0.57	-0.03	38	4.42	0.65	0.24	17
Spain	3.66	0.36	-0.30	9	4.39	0.49	0.09	25	4.50	0.58	0.13	26
Switzerland	2.47	0.45	-0.74	39	3.50	0.68	-0.17	49	3.65	0.58	-0.09	50
Taiwan	3.62	0.67	-0.56	27	4.78	0.79	0.24	10	5.06	0.78	0.44	4
Thailand	3.74	0.46	-0.18	6	4.56	0.60	0.28	6	4.53	0.56	0.26	14
Turkey	3.85	0.67	-0.57	28	5.22	0.70	0.22	11	5.57	0.73	0.46	2
UAE	2.33	0.66	-0.88	47	5.36	0.58	0.42	1	5.14	0.47	0.23	20
UK	4.73	0.59	-0.13	3	3.73	0.67	-0.09	44	4.07	0.65	0.11	29
US	3.52	0.60	-0.53	23	4.70	0.70	0.15	19	4.57	0.57	0.07	36
Venezuela	4.61	0.62	-0.11	2	5.03	0.63	0.14	20	4.92	0.59	0.07	36
Vietnam	3.45	0.62	-0.53	23	4.97	0.69	0.31	4	4.90	0.58	0.29	9
Total		0.64				0.69				0.65		

Note: Italic font for “Score(raw)” denotes an unacceptable level of IRA ( $a_{WG(I)} \leq 0.50$ ); italic font for Cronbach’s  $\alpha$  score denotes an  $\alpha$  less than 0.60; society ranks are based on within-subject standardized scores

<sup>a</sup> Within-subject standardized scores

**Table 13** SVS individual-level values dimension: collectivism and individualism

	Collectivism				Individualism			
	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank
Algeria	5.00	0.73	0.09	5	3.98	0.77	-0.43	50
Argentina	4.65	0.89	0.03	13	4.17	0.88	-0.23	45
Australia	4.17	0.85	-0.17	42	4.57	0.87	0.05	1
Austria	3.78	0.77	-0.16	39	3.69	0.84	-0.21	36
Brazil	4.46	0.80	-0.02	22	4.08	0.84	-0.21	36
Bulgaria	3.62	0.74	-0.15	36	3.74	0.84	-0.08	8
Canada	4.06	0.86	-0.08	30	4.10	0.86	-0.07	5
Chile	4.49	0.77	-0.01	20	4.12	0.88	-0.20	32
China	3.60	0.77	-0.16	39	3.73	0.76	-0.09	11
Colombia	4.51	0.86	0.04	12	4.22	0.84	-0.15	22
Costa Rica	4.58	0.86	-0.05	25	4.45	0.86	-0.09	11
Croatia	3.90	0.80	-0.17	42	3.84	0.84	-0.20	32
Cuba	4.21	0.78	-0.07	30	3.93	0.78	-0.21	36
Czech Rep	3.61	0.79	-0.17	42	3.59	0.85	-0.18	27
Egypt	5.53	0.73	0.09	5	4.74	0.69	-0.38	49
Estonia	4.00	0.79	-0.21	49	4.16	0.85	-0.13	18
Finland	3.97	0.81	0.00	18	3.57	0.85	-0.27	46
France	3.77	0.84	-0.11	33	3.70	0.82	-0.16	23
Germany	3.95	0.82	-0.11	33	4.03	0.86	-0.07	5
Hong Kong	4.32	0.86	-0.03	23	4.01	0.88	-0.21	36

**Table 13** continued

	Collectivism				Individualism			
	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank
Hungary	3.69	0.76	-0.18	47	3.65	0.85	-0.21	36
India	4.67	0.79	0.06	9	4.33	0.87	-0.14	20
Indonesia	4.56	0.87	0.10	4	4.12	0.90	-0.18	27
Israel	4.25	0.80	-0.09	30	4.37	0.88	-0.03	3
Italy	4.01	0.82	0.03	13	3.34	0.83	-0.33	48
Lebanon	4.62	0.86	-0.06	28	4.57	0.84	-0.12	17
Lithuania	3.70	0.82	-0.17	42	3.73	0.83	-0.16	23
Macau	4.11	0.87	-0.05	25	3.99	0.88	-0.13	18
Malaysia	4.71	0.82	0.08	7	4.33	0.79	-0.21	36
Mexico	4.72	0.84	0.05	11	4.22	0.84	-0.20	32
Netherlands	4.06	0.83	-0.15	36	4.41	0.87	0.04	2
New Zealand	3.84	0.85	-0.15	36	3.95	0.84	-0.08	8
Pakistan	4.59	0.84	0.03	13	4.46	0.84	-0.07	5
Peru	4.59	0.87	0.02	16	4.34	0.87	-0.14	20
Portugal	3.90	0.82	-0.06	28	3.69	0.83	-0.18	27
Russia	3.97	0.76	-0.17	42	4.09	0.86	-0.10	16
Singapore	4.32	0.88	0.06	9	3.94	0.88	-0.18	27
Slovenia	4.11	0.80	-0.25	50	4.40	0.84	-0.09	11
South Africa	4.46	0.88	0.00	18	4.11	0.88	-0.21	36
South Korea	3.87	0.79	-0.11	33	3.88	0.82	-0.08	8
Spain	4.37	0.76	0.07	8	3.81	0.85	-0.22	44
Switzerland	3.54	0.78	-0.16	39	3.67	0.83	-0.09	11
Taiwan	4.37	0.90	-0.05	25	4.21	0.90	-0.16	23
Thailand	4.30	0.76	0.13	1	3.55	0.75	-0.30	47
Turkey	4.78	0.86	-0.03	23	4.51	0.86	-0.20	32
UAE	5.01	0.75	0.11	3	4.66	0.70	-0.21	36
UK	3.53	0.82	-0.20	48	3.83	0.85	-0.03	3
US	4.43	0.83	-0.01	20	4.28	0.85	-0.09	11
Venezuela	5.02	0.85	0.12	2	4.46	0.88	-0.17	26
Vietnam	4.43	0.87	0.02	16	4.00	0.86	-0.19	31
Total		0.84				0.85		

Note: Italic font for “Score(raw)” denotes an unacceptable level of IRA ( $\alpha_{WG(J)} \leq 0.50$ ); italic font for Cronbach’s  $\alpha$  score denotes an  $\alpha$  less than 0.60; society ranks are based on within-subject standardized scores

<sup>a</sup> Within-subject standardized scores

**Table 14** SVS individual-level values dimension: openness to change, conservation, self-enhancement, and self-transcendence

	Openness to change				Conservation				Self-enhancement				Self-transcendence			
	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank
Algeria	4.03	0.56	-0.41	48	5.19	0.70	0.19	1	3.95	0.68	-0.45	49	5.05	0.78	0.12	38
Argentina	4.24	0.79	-0.18	39	4.49	0.85	-0.06	19	4.12	0.82	-0.27	37	5.08	0.89	0.29	11
Australia	4.72	0.79	0.13	2	3.97	0.84	-0.28	46	4.46	0.82	0.00	1	4.75	0.83	0.15	29
Austria	3.94	0.75	-0.08	22	3.64	0.78	-0.23	44	3.53	0.81	-0.30	41	4.63	0.77	0.30	9
Brazil	4.18	0.69	-0.16	38	4.19	0.79	-0.16	34	4.01	0.78	-0.24	30	5.09	0.84	0.31	7
Bulgaria	3.72	0.69	-0.08	22	3.61	0.69	-0.14	31	3.76	0.76	-0.07	7	4.08	0.75	0.07	48

**Table 14** continued

	Openness to change				Conservation				Self-enhancement				Self-transcendence			
	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank
Canada	4.36	0.77	0.09	6	3.88	0.84	-0.18	37	3.92	0.82	-0.17	17	4.58	0.84	0.21	15
Chile	4.29	0.85	-0.11	30	4.24	0.77	-0.15	33	4.01	0.76	-0.26	33	4.88	0.85	0.21	15
China	3.67	0.68	-0.12	34	3.65	0.77	-0.12	30	3.76	0.67	-0.06	6	4.13	0.80	0.15	29
Colombia	4.25	0.66	-0.15	37	4.28	0.85	-0.11	26	4.21	0.80	-0.15	16	4.83	0.84	0.23	13
Costa Rica	4.60	0.75	-0.03	15	4.40	0.84	-0.14	31	4.35	0.79	-0.13	12	5.04	0.83	0.21	15
Croatia	4.21	0.74	-0.01	13	3.86	0.80	-0.18	37	3.58	0.77	-0.33	46	4.62	0.78	0.21	15
Cuba	4.20	0.69	-0.08	22	4.02	0.72	-0.17	36	3.75	0.73	-0.30	41	5.01	0.82	0.33	1
Czech Rep	3.68	0.76	-0.13	36	3.63	0.77	-0.16	34	3.52	0.78	-0.21	24	4.18	0.82	0.15	29
Egypt	4.55	0.38	-0.50	50	5.70	0.70	0.19	1	4.86	0.56	-0.31	43	5.64	0.64	0.15	29
Estonia	4.30	0.74	-0.06	20	4.03	0.73	-0.19	39	4.07	0.79	-0.18	20	4.61	0.79	0.13	36
Finland	3.68	0.71	-0.20	41	3.86	0.80	-0.07	21	3.49	0.79	-0.31	43	4.50	0.82	0.33	1
France	3.95	0.69	-0.04	16	3.55	0.88	-0.21	42	3.53	0.78	-0.24	30	4.66	0.85	0.33	1
Germany	4.09	0.76	-0.05	17	3.81	0.81	-0.19	39	3.99	0.82	-0.09	10	4.51	0.86	0.20	20
Hong Kong	3.96	0.80	-0.24	44	4.37	0.82	0.00	13	4.05	0.83	-0.18	20	4.61	0.86	0.15	29
Hungary	3.69	0.78	-0.18	39	3.66	0.72	-0.20	41	3.62	0.76	-0.23	27	4.37	0.81	0.20	20
India	4.39	0.79	-0.10	27	4.60	0.78	0.02	12	4.30	0.78	-0.17	17	4.74	0.85	0.10	43
Indonesia	4.45	0.82	0.02	10	4.45	0.87	0.04	6	3.90	0.84	-0.31	43	4.59	0.87	0.12	38
Israel	4.50	0.78	0.04	9	4.20	0.79	-0.11	26	4.29	0.84	-0.08	9	4.53	0.83	0.08	45
Italy	3.84	0.72	-0.05	17	3.75	0.80	-0.11	26	3.00	0.79	-0.51	50	4.55	0.79	0.33	1
Lebanon	4.90	0.76	0.05	8	4.58	0.84	-0.09	22	4.30	0.79	-0.27	37	5.07	0.86	0.19	25
Lithuania	4.21	0.75	0.10	5	3.84	0.81	-0.09	22	3.40	0.78	-0.33	46	4.26	0.82	0.13	36
Macau	3.80	0.78	-0.26	45	4.11	0.84	-0.05	18	4.10	0.84	-0.05	3	4.44	0.87	0.14	34
Malaysia	4.32	0.65	-0.22	43	4.70	0.78	0.07	5	4.34	0.69	-0.21	24	4.71	0.80	0.08	45
Mexico	4.40	0.74	-0.10	27	4.55	0.81	-0.04	17	4.10	0.78	-0.26	33	5.01	0.84	0.20	20
Netherlands	4.59	0.82	0.13	2	3.78	0.84	-0.31	49	4.30	0.81	-0.02	2	4.73	0.83	0.23	13
New Zealand	4.45	0.77	0.19	1	3.57	0.83	-0.29	47	3.62	0.82	-0.26	33	4.70	0.85	0.33	1
Pakistan	4.59	0.74	0.01	11	4.52	0.82	-0.02	14	4.37	0.77	-0.13	12	4.68	0.84	0.08	45
Peru	4.47	0.79	-0.06	20	4.47	0.86	-0.06	19	4.26	0.80	-0.19	22	4.88	0.84	0.19	25
Portugal	3.84	0.72	-0.11	30	3.63	0.81	-0.21	42	3.58	0.78	-0.24	30	4.58	0.84	0.31	7
Russia	4.18	0.76	-0.05	17	4.23	0.78	-0.02	14	4.04	0.80	-0.14	14	4.22	0.81	-0.03	49
Singapore	4.06	0.82	-0.11	30	4.25	0.86	0.03	9	3.86	0.83	-0.23	27	4.41	0.87	0.11	42
Slovenia	4.38	0.69	-0.11	30	4.12	0.80	-0.24	45	4.42	0.79	-0.07	7	4.95	0.83	0.20	20
South Africa	4.44	0.79	-0.02	14	4.28	0.88	-0.09	22	3.88	0.83	-0.34	48	4.84	0.85	0.21	15
South Korea	3.82	0.68	-0.12	34	3.88	0.77	-0.10	25	3.92	0.78	-0.05	3	4.20	0.84	0.10	43
Spain	3.84	0.74	-0.20	41	4.18	0.75	-0.03	16	3.79	0.82	-0.23	27	4.83	0.78	0.32	6
Switzerland	3.96	0.72	0.06	7	3.20	0.77	-0.33	50	3.47	0.80	-0.19	22	4.40	0.80	0.30	9
Taiwan	4.33	0.83	-0.08	22	4.49	0.88	0.04	6	4.13	0.84	-0.21	24	4.60	0.90	0.12	38
Thailand	3.50	0.69	-0.33	47	4.28	0.76	0.12	4	3.58	0.69	-0.28	39	4.28	0.75	0.12	38
Turkey	4.70	0.79	-0.09	26	4.88	0.84	0.04	6	4.37	0.78	-0.28	39	5.12	0.87	0.17	27
UAE	4.41	0.56	-0.44	49	5.08	0.72	0.17	3	4.83	0.50	-0.05	3	4.85	0.70	-0.05	50
UK	4.11	0.78	0.12	4	3.36	0.82	-0.29	47	3.65	0.80	-0.14	14	4.32	0.85	0.25	12
US	4.47	0.77	0.01	11	4.26	0.80	-0.11	26	4.15	0.78	-0.17	17	4.73	0.82	0.16	28
Venezuela	4.59	0.79	-0.10	27	4.85	0.83	0.03	9	4.31	0.80	-0.26	33	5.17	0.82	0.20	20

**Table 14** continued

	Openness to change				Conservation				Self-enhancement				Self-transcendence			
	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank
Vietnam	3.79	0.74	-0.31	46	4.44	0.83	0.03	9	4.14	0.79	-0.11	11	4.64	0.86	0.14	34
Total		0.74				0.83				0.79				0.84		

Note: Italic font for “Score(raw)” denotes an unacceptable level of IRA ( $\alpha_{WG(I)} \leq 0.50$ ); italic font for Cronbach’s  $\alpha$  score denotes an  $\alpha$  less than 0.60; society ranks are based on within-subject standardized scores

<sup>a</sup> Within-subject standardized scores

**Table 15** SVS societal-level values dimensions: embeddedness, hierarchy, and mastery

	Embeddedness				Hierarchy				Mastery			
	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank
Algeria	5.16	0.70	0.17	4	3.44	0.46	-0.69	26	4.53	0.62	-0.16	50
Argentina	4.51	0.86	-0.05	24	3.08	0.58	-0.88	41	4.35	0.78	-0.12	49
Australia	4.07	0.83	-0.22	48	3.57	0.67	-0.53	16	4.74	0.76	0.15	4
Austria	3.71	0.79	-0.19	44	2.13	0.58	-1.06	48	4.02	0.74	-0.02	37
Brazil	4.33	0.79	-0.08	35	2.74	0.51	-0.91	43	4.37	0.71	-0.06	42
Bulgaria	3.84	0.73	-0.03	20	2.68	0.36	-0.61	24	4.10	0.64	0.10	12
Canada	3.99	0.85	-0.12	40	2.81	0.60	-0.82	33	4.42	0.76	0.11	9
Chile	4.42	0.86	-0.05	24	2.98	0.45	-0.82	33	4.60	0.79	0.05	23
China	3.78	0.78	-0.05	24	3.27	0.38	-0.36	5	4.23	0.72	0.20	1
Colombia	4.34	0.84	-0.07	33	3.60	0.60	-0.52	15	4.52	0.68	0.02	29
Costa Rica	4.39	0.82	-0.14	42	3.50	0.67	-0.62	25	4.72	0.63	0.07	18
Croatia	4.19	0.80	-0.01	18	2.02	0.38	-1.16	49	4.29	0.76	0.04	26
Cuba	4.03	0.73	-0.16	43	2.55	0.35	-0.92	45	4.18	0.60	-0.08	44
Czech Rep	3.75	0.78	-0.09	36	2.52	0.50	-0.77	30	3.84	0.74	-0.04	39
Egypt	5.78	0.73	0.24	1	4.70	0.63	-0.40	9	5.29	0.46	-0.06	42
Estonia	4.30	0.74	-0.03	20	2.86	0.54	-0.87	38	4.43	0.73	0.01	33
Finland	4.02	0.79	0.04	10	2.54	0.34	-0.91	43	3.91	0.77	-0.05	41
France	3.57	0.87	-0.21	45	2.35	0.49	-0.85	36	3.80	0.71	-0.10	47
Germany	3.91	0.84	-0.13	41	2.91	0.56	-0.69	26	4.30	0.72	0.08	15
Hong Kong	4.41	0.84	0.03	14	3.60	0.61	-0.47	12	4.26	0.83	-0.04	39
Hungary	3.93	0.75	-0.06	30	1.92	0.51	-1.17	50	4.06	0.71	0.02	29
India	4.58	0.82	0.01	15	3.92	0.40	-0.40	9	4.78	0.84	0.14	5
Indonesia	4.68	0.90	0.19	3	3.55	0.49	-0.55	19	4.48	0.82	0.05	23
Israel	4.27	0.81	-0.07	33	3.80	0.53	-0.38	6	4.75	0.82	0.19	2
Italy	3.77	0.80	-0.10	38	2.52	0.48	-0.78	31	3.93	0.70	0.00	34
Lebanon	4.70	0.84	-0.03	20	3.73	0.55	-0.59	22	5.08	0.77	0.17	3
Lithuania	4.08	0.82	0.04	10	2.75	0.47	-0.69	26	4.20	0.71	0.10	12
Macau	4.18	0.86	-0.01	18	3.65	0.56	-0.34	3	4.25	0.82	0.03	28
Malaysia	4.66	0.80	0.04	10	4.17	0.33	-0.34	3	4.69	0.71	0.05	23
Mexico	4.52	0.82	-0.05	24	3.49	0.54	-0.60	23	4.63	0.70	0.02	29
Netherlands	3.95	0.86	-0.21	45	2.57	0.55	-1.05	47	4.46	0.76	0.07	18
New Zealand	3.69	0.83	-0.22	48	2.57	0.49	-0.87	38	4.29	0.77	0.11	9
Pakistan	4.55	0.83	0.00	17	3.96	0.46	-0.39	7	4.68	0.76	0.08	15
Peru	4.50	0.86	-0.03	20	3.64	0.62	-0.58	20	4.68	0.75	0.07	18
Portugal	3.82	0.82	-0.11	39	2.47	0.46	-0.86	37	4.19	0.69	0.09	14



**Table 15** continued

	Embeddedness				Hierarchy				Mastery			
	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank
Russia	4.41	0.79	0.09	5	<i>3.63</i>	<i>0.27</i>	-0.39	7	4.41	0.77	0.08	15
Singapore	4.28	0.86	0.04	10	3.55	<i>0.58</i>	-0.42	11	4.32	0.78	0.06	22
Slovenia	4.40	0.82	-0.09	36	<i>2.81</i>	<i>0.47</i>	-0.95	46	4.82	0.70	0.14	5
South Africa	4.33	0.87	-0.06	30	3.00	<i>0.53</i>	-0.87	38	4.59	0.79	0.07	18
South Korea	3.96	0.81	-0.05	24	3.19	<i>0.54</i>	-0.51	14	4.05	0.70	0.02	29
Spain	4.15	0.77	-0.05	24	3.14	<i>0.54</i>	-0.58	20	4.01	0.72	-0.11	48
Switzerland	3.31	0.80	-0.27	50	2.19	<i>0.50</i>	-0.88	41	3.81	0.71	-0.01	35
Taiwan	4.53	0.89	0.07	7	3.74	0.60	-0.49	13	4.40	0.86	-0.02	37
Thailand	4.20	0.75	0.08	6	3.10	<i>0.41</i>	-0.53	16	3.92	<i>0.55</i>	-0.09	46
Turkey	4.93	0.84	0.06	9	3.95	<i>0.57</i>	-0.53	16	5.04	0.78	0.11	9
UAE	5.14	0.72	0.23	2	4.62	<i>0.42</i>	-0.23	1	4.80	0.66	-0.08	44
UK	3.51	0.82	-0.21	45	2.53	<i>0.58</i>	-0.78	31	4.11	0.75	0.12	8
US	4.34	0.80	-0.06	30	3.02	<i>0.56</i>	-0.84	35	4.51	0.68	0.04	26
Venezuela	<i>4.82</i>	0.84	0.01	15	<i>3.51</i>	<i>0.57</i>	-0.70	29	<i>4.77</i>	0.77	-0.01	35
Vietnam	4.51	0.84	0.07	7	3.86	0.67	-0.27	2	4.59	0.75	0.13	7
Total	4.20	0.84	-0.05		3.10	<i>0.57</i>	-0.68		4.36	0.73	0.04	

Note: Italic font for “Score(raw)” denotes an unacceptable level of IRA ( $\alpha_{WG(J)} \leq 0.50$ ); italic font for Cronbach’s  $\alpha$  score denotes an  $\alpha$  less than 0.60; society ranks are based on within-subject standardized scores

<sup>a</sup> Within-subject standardized scores

**Table 16** SVS societal-level values dimensions: embeddedness, affective autonomy, intellectual autonomy, and hierarchy

	Affective autonomy				Intellectual autonomy				Egalitarianism				Harmony			
	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank
Algeria	<i>3.70</i>	<i>0.53</i>	-0.58	50	<i>4.73</i>	<i>0.51</i>	-0.04	46	<i>5.43</i>	0.60	0.31	29	4.85	0.67	0.03	8
Argentina	4.35	0.70	-0.13	23	5.23	0.65	0.39	4	5.36	0.79	0.46	10	4.55	0.80	-0.04	15
Australia	5.03	0.65	0.30	2	4.95	0.70	0.28	11	5.03	0.62	0.31	29	4.06	0.73	-0.25	41
Austria	4.14	0.66	0.02	11	4.55	<i>0.46</i>	0.25	15	5.00	0.63	0.49	7	4.12	0.68	0.03	8
Brazil	4.32	0.70	-0.08	18	4.86	<i>0.55</i>	0.19	27	5.54	0.67	0.54	2	4.55	0.78	0.03	8
Bulgaria	<i>3.78</i>	0.76	-0.05	16	3.82	0.60	-0.03	45	4.20	0.70	0.13	48	3.87	0.60	-0.05	16
Canada	4.50	0.68	0.17	4	4.70	0.67	0.27	13	4.91	0.72	0.40	16	3.76	0.78	-0.26	43
Chile	3.94	0.67	-0.29	40	4.91	0.60	0.23	17	5.23	0.68	0.40	16	4.28	0.80	-0.13	25
China	3.46	<i>0.47</i>	-0.24	34	4.07	<i>0.51</i>	0.12	35	4.35	0.73	0.28	37	3.59	0.68	-0.16	29
Colombia	4.14	0.62	-0.18	26	4.86	<i>0.58</i>	0.23	17	5.20	0.65	0.46	10	3.95	0.72	-0.33	47
Costa Rica	<i>4.59</i>	0.67	-0.02	14	5.05	0.61	0.22	22	5.32	0.73	0.36	21	<i>4.42</i>	0.78	-0.15	27
Croatia	3.76	0.71	-0.25	35	4.74	0.63	0.26	14	4.83	0.62	0.32	26	4.33	0.67	0.06	7
Cuba	4.38	0.72	0.01	12	5.00	<i>0.53</i>	0.33	8	5.09	0.67	0.38	19	4.79	0.78	0.22	1
Czech Rep	3.73	0.70	-0.10	20	4.06	<i>0.49</i>	0.08	39	4.30	0.72	0.22	43	4.05	0.70	0.08	5
Egypt	4.42	<i>0.26</i>	-0.56	49	4.51	<i>0.11</i>	-0.51	50	5.79	<i>0.28</i>	0.24	42	5.64	<i>0.37</i>	0.16	2
Estonia	4.44	0.68	0.03	10	4.80	<i>0.56</i>	0.22	22	4.75	0.73	0.22	43	4.04	0.71	-0.20	37
Finland	3.55	0.71	-0.28	37	4.37	<i>0.51</i>	0.23	17	4.72	0.69	0.47	8	4.06	0.72	0.07	6
France	4.20	0.65	0.09	8	4.91	<i>0.53</i>	0.45	3	5.04	0.75	0.53	4	4.21	0.75	0.11	3
Germany	4.19	0.72	0.01	12	4.65	0.62	0.28	11	4.82	0.77	0.38	19	3.91	0.74	-0.15	27
Hong Kong	3.99	0.63	-0.22	30	4.49	0.61	0.07	40	4.83	0.81	0.28	37	4.11	0.72	-0.16	29

**Table 16** continued

	Affective autonomy				Intellectual autonomy				Egalitarianism				Harmony			
	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank	Score (raw)	$\alpha$	Std. <sup>a</sup> score	Rank
Hungary	3.54	0.81	-0.26	36	4.42	0.57	0.22	22	4.58	0.71	0.32	26	4.04	0.73	0.01	12
India	4.05	0.61	-0.32	43	4.76	0.39	0.10	37	5.02	0.72	0.28	37	4.42	0.76	-0.10	21
Indonesia	3.95	0.63	-0.28	37	4.52	0.74	0.06	41	4.75	0.74	0.22	43	4.04	0.77	-0.23	40
Israel	4.37	0.62	-0.04	15	4.81	0.69	0.23	17	4.91	0.74	0.30	33	3.41	0.79	-0.58	50
Italy	3.09	0.68	-0.47	48	4.78	0.47	0.46	2	4.93	0.71	0.53	4	3.91	0.68	-0.03	13
Lebanon	4.31	0.55	-0.29	40	5.08	0.53	0.16	30	5.48	0.62	0.42	13	4.46	0.81	-0.16	29
Lithuania	3.45	0.58	-0.31	42	4.65	0.59	0.34	7	4.56	0.70	0.29	35	3.82	0.73	-0.10	21
Macau	3.83	0.60	-0.23	33	4.42	0.65	0.13	34	4.68	0.79	0.30	33	3.89	0.67	-0.20	37
Malaysia	4.25	0.40	-0.28	37	4.49	0.40	-0.11	47	4.90	0.75	0.22	43	4.32	0.73	-0.19	34
Mexico	4.18	0.64	-0.21	28	5.05	0.56	0.22	22	5.23	0.70	0.32	26	4.39	0.74	-0.13	25
Netherlands	5.02	0.70	0.40	1	4.98	0.65	0.37	6	5.05	0.71	0.42	13	3.98	0.73	-0.21	39
New Zealand	4.39	0.64	0.17	4	4.78	0.60	0.38	5	5.04	0.74	0.54	2	4.06	0.74	-0.05	16
Pakistan	4.46	0.60	-0.07	17	4.78	0.56	0.15	31	4.96	0.73	0.26	41	4.15	0.73	-0.28	44
Peru	4.26	0.69	-0.19	27	4.94	0.61	0.25	16	5.14	0.72	0.36	21	4.30	0.73	-0.17	33
Portugal	3.65	0.72	-0.22	30	4.56	0.57	0.30	10	5.05	0.72	0.57	1	3.84	0.75	-0.10	21
Russia	3.89	0.69	-0.21	28	4.38	0.64	0.06	41	4.29	0.64	0.01	49	4.11	0.72	-0.09	20
Singapore	3.87	0.68	-0.22	30	4.21	0.69	-0.01	44	4.71	0.75	0.31	29	3.56	0.75	-0.43	49
Slovenia	4.38	0.72	-0.10	20	4.85	0.53	0.14	33	5.15	0.70	0.31	29	4.77	0.71	0.10	4
South Africa	4.30	0.74	-0.09	19	4.76	0.62	0.15	31	5.16	0.76	0.41	15	4.15	0.78	-0.19	34
South Korea	4.08	0.58	0.04	9	4.31	0.53	0.17	29	4.52	0.70	0.29	35	3.56	0.75	-0.29	45
Spain	3.91	0.61	-0.17	25	4.66	0.49	0.22	22	5.18	0.62	0.50	6	4.14	0.73	-0.03	13
Switzerland	4.11	0.69	0.14	7	4.74	0.60	0.48	1	4.68	0.69	0.45	12	3.91	0.66	0.03	8
Taiwan	4.26	0.62	-0.13	23	4.70	0.73	0.18	28	4.70	0.71	0.19	47	4.26	0.79	-0.11	24
Thailand	3.48	0.55	-0.34	44	4.12	0.41	0.02	43	4.68	0.60	0.34	23	3.41	0.62	-0.36	48
Turkey	4.10	0.66	-0.44	45	5.03	0.62	0.10	37	5.48	0.76	0.39	18	4.71	0.80	-0.06	18
UAE	4.41	0.57	-0.45	46	4.71	0.14	-0.16	48	4.87	0.50	-0.03	50	4.57	0.44	-0.29	45
UK	4.27	0.75	0.22	3	4.43	0.63	0.31	9	4.71	0.77	0.47	8	3.63	0.77	-0.16	29
US	4.74	0.74	0.17	4	4.64	0.63	0.11	36	5.04	0.74	0.34	23	4.03	0.67	-0.25	41
Venezuela	4.56	0.72	-0.11	22	5.22	0.62	0.23	17	5.44	0.69	0.34	23	4.43	0.75	-0.19	34
Vietnam	3.54	0.58	-0.45	46	3.96	0.58	-0.22	49	4.89	0.76	0.28	37	4.24	0.69	-0.07	19
Total	4.09	0.64	-0.12		4.64	0.57	0.18		4.91	0.73	0.35		4.11	0.74	-0.12	

Note: Italic font for "Score(raw)" denotes an unacceptable level of IRA ( $\alpha_{WG(J)} \leq 0.50$ ); italic font for Cronbach's  $\alpha$  score denotes an  $\alpha$  less than 0.60; society ranks are based on within-subject standardized scores

<sup>a</sup> Within-subject standardized scores

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