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Gerard SAUCIER
University of Oregon

Judith KENNER

Kathryn IURINO

Philippe Bou MALHAM

Zhuo CHEN

See next page for additional authors

Citation

Author

Gerard SAUCIER, Judith KENNER, Kathryn IURINO, Philippe Bou MALHAM, Zhuo CHEN, Amber Gayle
THALMAYER, Markus KEMMELMEIER, William TOV, Lay See ONG, and Angela K. Y. LEUNG

Cross-Cultural Differences in a Global "Survey of World Views"

Gerard Saucier[1], Judith Kenner[1], Kathryn Iurino[1], Philippe Bou Malham[1], Zhuo Chen[1], Amber Gayle Thalmayer[1], Markus Kemmelmeier[2], William Tov[3], Rachid Boutti[4], Henok Metaferia[5], Banu Çankaya[6], Khairul Anwar Mastor[7], Kung-Yu Hsu[8], Rongxian Wu[9], M. Maniruzzaman[10], Janvier Rugira[11], Ioannis Tsaousis[12], Oleg Sosnyuk[13], Jyoti Regmi Adhikary[14], Katarzyna Skrzypińska[15], Boonmee Poungpet[16], John Maltby[17], Maria Guadalupe C. Salanga[18], Adriana Racca[19], Atsushi Oshio[20], Elsie Italia[21], Anastassiya Kovaleva[22], Masanobu Nakatsugawa[23], Fabia Morales-Vives[24], Victor M. Ruiz[25], Ricardo A. Braun Gutierrez[26], Anindita Sarkar[27], Tripti Deo[27], Lenah Sambu[28], Elizabeth Huisa Veria[29], Marilia Ferreira Dela Coleta[30], S. G. Kiama[31], Soraj Hongladoram[32], Robbin Derry[33], Héctor Zazueta Beltrán[34], T. K. Peng[35], Matthias Wilde[22], Fr. Arul Ananda[36], Sarmila Banerjee[37], Mahmut Bayazit[38], Serenity Joo[39], Hong Zhang[40], Ekaterina Orel[41], Boris Bizumic[42], Seraphine Shen-Miller[43], Sean Watts[44], Marcos Emanoel Pereira[45], Ernesto Gore[46], Doug Wilson[1], Daniel Pope[1], Bekele Gutema[5], Hani Henry[47], Jovi Clemente Dacanay[48], Jerry Dixon[49], Nils Köbis[50], Jose Luque[51], Jackie Hood[52], Dipti Chakravorty[37], Ananda Mohan Pal[37], Laysee Ong[3], Angela Leung[3], and Carlos Altschul[53]

Abstract

We know that there are cross-cultural differences in psychological variables, such as individualism/collectivism. But it has not been clear which of these variables show relatively the greatest differences. The Survey of World Views project operated from the premise that such issues are best addressed in a diverse sampling of countries representing a majority of the world's population, with a very large range of item-content. Data were collected online from 8,883 individuals (almost entirely college students based on local publicizing efforts) in 33 countries that constitute more than two third of the world's population, using items drawn from measures of nearly 50 variables. This report focuses on the broadest patterns evident in item data. The largest differences were not in those contents most frequently emphasized in cross-cultural psychology (e.g., values, social axioms, cultural tightness), but instead in contents involving religion, regularity-norm behaviors, family roles and living arrangements, and ethnonationalism. Content not often studied cross-culturally (e.g., materialism, Machiavellianism, isms dimensions, moral foundations) demonstrated moderate-magnitude differences. Further studies are needed to refine such conclusions, but indications are that cross-cultural psychology may benefit from casting a wider net in terms of the psychological variables of focus.

Keywords

cultural psychology, family/child rearing, personality, religion/morality, values, attitudes, beliefs, gender/sex roles, ethnic identity

[1]University of Oregon, Eugene, USA
[2]University of Nevada, Reno, USA
[3]Singapore Management University, Singapore
[4]Ibn Zohr University, Agadir, Morocco
[5]Addis Ababa University, Ethiopia
[6]Koç University, Istanbul, Turkey
[7]Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia
[8]National Chung Cheng University, Taiwan
[9]Soochow University, Suzhou, China
[10]Jahangirnagar University, Dhaka, Bangladesh
[11]Mount Meru University, Arusha, Tanzania
[12]University of Crete, Rethimno, Greece
[13]Taras Shevchenko National University of Kyiv, Ukraine
[14]Kathmandu University, Nepal
[15]University of Gdańsk, Poland
[16]Mahidol University, Bangkok, Thailand
[17]University of Leicester, UK
[18]De La Salle University, Manila, The Philippines
[19]Universidad Nacional de Rosario, Argentina
[20]Waseda University, Tokyo, Japan
[21]Central Philippine University, Iloilo City, The Philippines
[22]University of Bielefeld, Germany
[23]Otaru University of Commerce, Japan
[24]Universitat Rovira et Virgili 3, Tarragona, Spain
[25]University of Malaga, Spain
[26]University of Lima, Peru
[27]University of Delhi, India
[28]Rift Valley Technical Training Institute, Eldoret, Kenya
[29]Universidad Nacional Mayor de San Marcos, Lima, Peru
[30]Universidade Federal de Uberlândia, Brazil
[31]University of Nairobi, Kenya
[32]Chulalongkorn University, Bangkok, Thailand
[33]University of Lethbridge, Canada
[34]Autonomous University of Sinaloa, Culiacán, Mexico
[35]I-Shou University, Kaohsiung City, Taiwan
[36]St. Xavier's College, Kathmandu, Nepal
[37]University of Calcutta, India
[38]Sabanci University, Istanbul, Turkey
[39]University of Manitoba, Winnipeg, Canada
[40]Suzhou University of Science and Technology, China
[41]Moscow State University, Russian Federation
[42]The Australian National University, Canberra, Australia
[43]Belmont University, Nashville, USA
[44]Yonsei University, Seoul, Korea
[45]Universidade Federal da Bahia, Salvador, Brazil
[46]Universidad de San Andrés, Victoria, Argentina
[47]American University in Cairo, Egypt
[48]University of Asia and the Pacific, Pasig City, Philippines
[49]Institute of Technology, Carlow, Ireland
[50]VU University Amsterdam, The Netherlands
[51]National Autonomous University of Mexico, Mexico City, Mexico
[52]University of New Mexico, Albuquerque, USA
[53]University of Buenos Aires, Argentina

Corresponding Author:
Gerard Saucier, Department of Psychology, 1227 University of Oregon, Eugene, OR 97403, USA.
Email: gsaucier@uoregon.edu

We know that psychological variables sometimes show cross-cultural differences. Indeed, large bodies of scientific literature have arisen around those variables presumed to best represent important cross-cultural differences. Such variables include dimensions such as individualism and collectivism (Oyserman, Coon, & Kemmelmeier, 2002; Triandis & Gelfand, 1998), tightness and looseness (Gelfand et al., 2011; Triandis, 1989), and multidimensional research domains such as values (Schwartz & Bilsky, 1990), social axioms (Leung & Bond, 2004), and normative practices (House, Hanges, Javidan, Dorfman, & Gupta, 2004). The focus of these variables corresponds to consensual definitions of culture in terms of shared beliefs, values, and norms. Investigations of such key cultural variables are a major focus of cross-cultural psychology.

But which of these variables show the greatest magnitude of differences between populations? Do all of them show sizable differences? Do other variables than these show even greater differences, and thus need more attention? Answers to these questions remain unclear, for at least two reasons. First, there have been few studies that compare many of these variables with respect to magnitude of cross-cultural differences. Second, there have not been clearly framed comparisons to distinguish large magnitudes of difference from smaller ones.

Among the studies relevant to addressing these questions, there have been significant limitations. One is the modest range of variables: It has been typical for each study to include at most roughly a dozen psychological variables. Moreover, the representation of countries typically gives an unfaithful picture of relative contributions to total world population: Western countries along with, in some cases, East Asian countries tend to be over-represented, with the rest of the world under-represented; even where the range of countries is unusually wide, one often sees a much denser sampling of European nations. For example, about 69% of the national happiness data found in the World Database of Happiness (Veenhoven, 2010) were collected from European and North American samples (Tov & Au, 2013). These tendencies might derive from how cross-cultural psychology projects are often organized, with participants found mainly in those countries with the largest concentrations of psychologists. The outcome is understandable, but leads to our having only a patchwork representation of populations as well as variables.

The Survey of World Views project was designed with the aim of overcoming limitations in addressing the crucial questions identified above: In what variables does one find greater or lesser between-population differences, and how does this correspond to common variable-selection preferences in cross-cultural psychology? To provide an incrementally clearer answer than previous studies have provided, this project differed from them in two crucial ways. It included a very large range of item-content: several dozen variables which might be compared with respect to degrees of similarity and difference across samples. And it featured a stronger proportional representation of the "global south" (Africa, south/southeast Asia, Latin America) than has been typical in these studies, so as to represent a majority of the world's population by its selection of countries. Items predominantly referred to beliefs, some of which could be considered values and statements as to what are or should be norms. The categories of content are heterogeneous, and difficult to summarize in a concise label for the data set. Because these categories all involve "views" held by individuals, the label "Survey of World Views" seemed to fit: The project elicited a diverse range of views about the world, as reflected in many psychological variables, as experienced by respondents from many parts of the world.

Method

Participants

Data were collected online: 8,883 individuals in 33 countries provided some input data for this Survey of World Views in 2012. About 90% of them provided sufficient responses—given

whatever challenges they faced with computer hardware, internet access, and various distractions that conduce to not finishing a survey—to be usable for analyses here.

The aim was to sample students from institutions of higher education, from some diversity of fields of study. College students were sought so as to enable recruitment within a short time frame and to enable standardized online administration. Recruiting students minimized between-population differences in level of education; fully representative populations from each country would have large between-population differences in education level. For some research purposes, it might be useful to remove a potential confound of country with education level (perhaps related to reading level, thus having an effect on understanding of the questionnaire items). Students with ample secondary education may show less response-bias (acquiescence) variance than do representative samples (Rammstedt, Kemper, & Borg, 2013). Diener, Diener, and Diener (1995) found, with reference to subjective well-being, that college-student samples give moderately accurate estimates of the between-country differences one finds with more representative surveys that are more difficult to obtain.

In every country, the method of recruitment was the same, and carried out locally, not over the worldwide web. Cooperating instructional faculty distributed flyers to students in as wide a variety of classes and fields of study as they could arrange. Each student received one flyer, containing information about the study, the compensation to be earned by participating, the online address of the data-collection website, and a login code unique to that flyer. Recipients could then elect whether to participate on their own time, through any internet access point available to them. In countries where it was practical to order from Amazon.com or an affiliate, participants were issued an Amazon gift certificate upon completion of the survey; this gift coupon was approximately US $20 in value, except in a few of the relatively affluent countries the value was set very slightly higher to provide needed incentive. In countries where an Amazon gift coupon was not practical, participants were sent $20 via Western Union money transfer.

For each country, a separate data-collection portal was constructed. In most cases, the survey and all materials appeared in the major national language, following translation (using back-translation checks) conducted under the auspices of the project. The languages used included English (Kenya, India, Singapore, United Kingdom, Ireland, Australia, Canada, United States), Spanish (Spain, Mexico, Peru, Argentina), Chinese (China, Taiwan), Arabic (Morocco, Egypt), plus the following languages that were country-specific for this project: Kiswahili (Tanzania), Amharic (Ethiopia), Turkish (Turkey), Bengali (Bangladesh), Nepali (Nepal), Malay (Malaysia), Filipino/Tagalog (Philippines), Thai (Thailand), Korean (Korea), Japanese (Japan), Russian (Russia), Ukrainian (Ukraine), Polish (Poland), Greek (Greece), German (Germany), Dutch (Netherlands), and Portuguese (Brazil).

Where feasible, to contribute to diversity in sampling, participants were recruited from more than one site (i.e., educational institution) in each country. Moreover, we sought to have participating students within any one institution come from diverse fields of study (e.g., business, education, humanities, social science). A large proportion (nearly 60%) of the cooperating faculty were not in psychology departments.

A population-sampling strategy was set out in advance. Countries were included in an attempt to represent the world, both in terms of demographic footprint and of economic impact. The first and second authors created a ranking of the countries of the world based on their relative contributions to world population and to the aggregated world gross domestic product (GDP). The larger the average of these ranked contributions, the higher the priority placed on identifying and coordinating with instructional faculty within the country. We did not succeed in locating cooperating faculty in some high-priority countries (e.g., Iran, Pakistan, Nigeria), but in most cases potentially cooperating faculty could be identified.

Those 33 countries sampled have aggregated populations amounting to some 67.3% (4.7 billion) of the world's population; and when the GDP of these 33 countries is aggregated, the total makes

up some 76.2% of the gross aggregate domestic products of all countries in the world (Central Intelligence Agency, 2012). It is fair to say that young people from most of the world (whether in terms of demographic footprint or economic impact) are represented in the 33 countries in this project. Henrich, Heine, and Norenzayan (2010) have pointed to the predominance of "WEIRD" samples (from Western, Educated, Industrialized, Rich Democracies) in psychological and even much cross-cultural research. The countries sampled here are clearly *not* biased in favor of Western industrialized democracies, though the method of online survey administration did make it more practical to recruit rather educated samples that are probably richer than average for their country.

The recruitment goal was roughly 300 participants (plus or minus 100) per country, a sample size sufficient for multivariate analyses within each country was desirable. Variation in sample size by country arose due to local, practical factors (e.g., numbers of flyers distributed).

Table 1 displays demographic characteristics for samples from the 33 countries, grouped into geographic regions for easier understanding of how world populations were sampled. Table 1 includes sample size, gender, mean age, and mean-percent-missing data. There is substantial variation between countries in degree of missing data, much of this clearly due to country-specific challenges in our online surveys. In some countries, the data-collection portal sometimes operated more fitfully due to slow connection speeds, and at times the U.S. computer server was slowed when too much data were arriving all at once. Thus, mean-percent-missing should not be interpreted as a substantive country or cultural characteristic.

Materials

The survey used items drawn from measures of nearly 50 variables drawn from 17 distinct sources, each involving in some way shared beliefs, values, and norms that might be shared across persons (thus fitting a rather consensual definition of "cultural"). The goal was to be as comprehensive as possible within a moderate-length questionnaire. Cross-cultural psychology has no unified theory to guide selection of variables, and a heterogeneous selection, representing diverse theoretical approaches, might provide the most fuel for future theoretical development. These sources are described here in brief summary form.

GLOBE normative practices. There were 43 items drawn from House et al. (2004), indexing dimensions of performance orientation, future orientation, humane orientation, gender egalitarianism, assertiveness, collectivism, power distance, and uncertainty avoidance (the last four substantially related to scales of Hofstede, 2001). Items referred to as-is societal practices (not values) with a "referent-shift" format—respondents described characteristics of people in their country rather than of themselves, with items usually beginning "In this society . . . "

Cultural tightness–looseness. Six items, drawn from Gelfand et al. (2011), also had a referent-shift format, all beginning "In this country . . . " Except as indicated, for all other sources described below, item presentation did not involve a referent-shift format.

Social axioms. Thirty core items (defined based on most consistent univocal associations with the intended dimension) were drawn from Leung et al. (2002). Social-axiom dimensions include cynicism, fate control, religiosity, social complexity, and reward for application.

Individualism and collectivism (idiocentrism and allocentrism). The 16 items of Triandis and Gelfand (1998) were included: 4 items each for vertical (hierarchical) individualism, vertical collectivism, horizontal (egalitarian) collectivism, and horizontal individualism.

Table 1. Demographic Characteristics for 33 Countries, Grouped by Region.

Country/territory/region	n	% Female	Mean age	Mean-%-missing
Africa (sub-Saharan)				
Tanzania	256	32	24.8	5.38
Kenya	288	33	24.6	2.99
Ethiopia	381	29	24.0	3.71
North Africa/Middle East				
Morocco	441	50	25.6	4.75
Egypt	38	35	21.9	2.62
Turkey	416	54	21.1	3.79
South Asia				
Bangladesh	272	22	21.7	3.15
India	390	62	21.1	10.15
Nepal	346	59	21.0	6.68
Southeast Asia				
Malaysia	324	66	20.5	6.05
Philippines	425	68	20.0	10.68
Thailand	350	72	21.6	3.92
Singapore	304	55	21.7	7.38
East Asia				
China (Mainland)	350	73	20.8	15.62
Taiwan	395	64	22.6	5.69
Korea	58	43	26.2	6.84
Japan	429	63	20.9	8.67
East/Southeast Europe				
Russia	69	83	22.3	1.25
Ukraine	244	64	20.2	6.78
Poland	225	88	21.2	0.71
Greece	246	70	21.8	2.21
Western Europe				
Spain	379	64	22.7	7.29
Germany	349	52	23.6	3.21
Netherlands	30	60	24.1	1.33
United Kingdom	229	62	22.7	1.79
Ireland	33	68	32.0	12.80
North America/Australia				
Australia	67	65	20.3	0.35
Canada	220	61	21.8	2.03
United States	425	57	21.9	4.26
Latin America				
Mexico	157	65	26.6	10.65
Peru	309	61	21.8	12.83
Argentina	243	56	24.3	11.99
Brazil	195	79	22.2	1.17

Note. Mean-%-missing is the mean percent of missing responses across 281 prime survey items.

Values. The full 10 items of the Short Schwartz Values Survey (SSVS; Lindeman & Verkasalo, 2005) were included. Each of the 10 values-clusters proposed by Schwartz (Schwartz & Bilsky, 1990) is represented on this brief form by one item.

Family values. There were eight items from a measure of family values (Georgas, 1989), with four selected (based on van de Vijver, Mylonas, Pavlopoulos, & Georgas, 2006, Table 7.8) for each of two dimensions: hierarchy (focused on gender roles) and relationships (i.e., cohesiveness reputation, obligations).

Isms dimensions. Forty-six items represented factors (Saucier, 2000, 2013) defined from the domain of dictionary terms ending in –ism: Tradition-Oriented Religiousness, Subjective Spirituality, Unmitigated Self-Interest, Communal Rationalism, and Inequality-Aversion.

Moral foundations. Included was the 22-item short form of the Moral Foundations Questionnaire (Graham et al., 2011), which assesses five major criteria used to distinguish right from wrong: Harm/Care, Justice/Fairness, Loyalty, Authority, and Purity/Divinity.

Religiousness and devout behaviors. The five items of the Duke Religion Index (DRI; Koenig, Patterson, & Meador, 1997) reference not only the value accorded to religion, but also religious experiences, practices, and meeting-attendance.

Materialism. Four items drawn from a synthesis of the empirical literature on materialist values (Shen-Miller, Saucier, & Pan, 2013) were included.

Machiavellianism. Five items drawn from studies of core content in measures of Machiavellianism (Saucier, Chen, & Bettenhausen, 2014) were included.

Nationalism. There were four items capturing ethnonationalism as in the theory of Anthony D. Smith, and two items capturing a multiculturalist civic nationalism (Saucier, 2014).

Extremist thinking patterns. Seventeen items came from a very brief overall measure of extremist thinking styles (from Saucier, Akers, Shen-Miller, Stankov, & Knezevic, 2009; Stankov, Saucier, & Knezevic, 2010).

Proneness to aggress. Three items from previous work (Henry, 2009) captured readiness to aggress vengefully to insults or slights to honor (within a "culture of honor" syndrome).

Amoralism. Fourteen items based on the construct as defined by Stankov and Knezevic (2005).

Personality. Although it does reflect norms, values, and beliefs to some degree, personality was not expected to generate strong population differences (Poortinga, van de Vijver, & van Hemert, 2002), making it an interesting domain for comparison. As benchmarks for this domain, there were 40 items referencing individual behavioral dispositions in the Big Six model (Saucier, 2009), including all of the items in the 36QB6 measure (Thalmayer, Saucier, & Eigenhuis, 2011). The Big Six model is akin to the HEXACO model of personality structure but is based on a broader range of studies of personality-language.

Regularity-norm behaviors. The selection of variables detailed above tends to omit content oriented to a type of social norms that sociologists describe, distinct from the more restrictive norms about what one ought or ought not to do. These norms involve "behavioral regularities that generate social expectations without any moral obligations," although deviations from common practice can still lead to costs being imposed (Hechter & Opp, 2001, p. xiii). The literature in anthropology (e.g., Levinson & Malone, 1980) and cultural psychology (e.g., Heine, 2008) suggested six kinds of regularity-oriented social norms differing across populations (involving

alcohol, sex, sleeping arrangements, and beliefs about ancestors, spirit-possession, and sorcery and witchcraft); these were represented in referent-shift items beginning "In this society . . . "

Analyses

The present analyses are conducted entirely at the item level, treating each item as a variable on its own (as in Funder, Furr, & Colvin, 2000; Westen & Shedler, 2007). This approach allows for a look at big-picture patterns in the data without delving into the relative strengths and weaknesses of various scales that are composed of aggregated items. Thus, these analyses leave aside the issue of whether various collections of items function similarly together as scales measuring one or another intended construct; indeed, it would be impossible to report all required analyses around this issue (for nearly 50 intended scales) in a reasonably sized paper. The present analyses also leave aside the issue of whether there are between-population differences in response biases, operating on the assumption that these differences are no more than moderate in size and tend to operate rather similarly across a large range of content. Given the likelihood that studies of response biases and of specific scales in these data will provide some refinements to exact estimates provided here, the focus here is only on those relatively large and dramatic effects least likely to be affected by such refinements.

To assess how well individual items discriminate between different country samples, we report eta-squared coefficients, which reflects the "proportion of the variation in Y that is associated with membership of the different groups defined by X" (Richardson, 2011, p. 136). In other words, eta-squared reflects how well a particular item differentiates between respondents from different countries, referencing the proportion of variance that occurs between groups/samples. Similarly, we generated intraclass correlations (ICC[1]) as the ratio of the intercept to the total (intercept + residual) variance via Restricted Maximum Likelihood (REML) estimation (of covariance parameters) under the Mixed procedure in SPSS. Although eta-squared is generally thought to include some upward bias not present in ICC estimates, particularly when group/ sample sizes are small (Bliese & Halverson, 1998), some recent work indicates that it may be *less* biased at low effect sizes (Shieh, 2012). Both indices (eta-squared and ICC) reward variables for having either low variation within groups or high variation between groups; a variable with large variation (i.e., disagreement) within groups can only achieve a large index value by showing *extraordinarily* large variation between groups. The focus being on directionless effect size measures, that is, the raw magnitude of effect, squared coefficients are reported. The caution of Matsumoto, Grissom, and Dinnel (2001) is pertinent: Squared coefficients give an illusory smallness, an eta-squared of .10 is not a small effect.

The aforementioned coefficients were generated for 281 items, using the maximum sample sizes available for each item. To observe results under conditions in which response biases are summarily removed, the same analyses were repeated with data that had been ipsatized (standardized within-subject to eliminate individual differences in use of response scales) after rescaling all responses scales to the same 1-to-6 range. Some analyses grouped the 281 items in the total item-pool into 18 categories based on their provenance (i.e., the various sources described above).

In the present analyses, data from only 30 countries were utilized. The de-selection of small-sample data from Australia, Ireland, and the Netherlands removed only 1.5% of the participants (i.e., 130 cases), but lessened the tendency toward an over-representation of European-origin populations. It reduced the proportion of countries from Europe (plus United States, Canada, and Australia) to one third of the total set of countries, rather than nearly 40% if these three countries had been included. For reference, some 16% of the global human population resides in Europe, United States, Canada, and Australia combined; the countries comprised therein have more than a 50% share of globally aggregated GDP (Central Intelligence Agency, 2012).

The analyses reported here excluded all of those relatively few participants who indicated they were not a student at any higher education institution.

Results

Unsurprising given the sample size, all items had statistically significant country effects.

Table 2 presents the items showing the largest cross-population differences across 30 countries. The 42 items with the largest eta-square values are shown, and include all items that had either an eta-square or an ICC value of at least .20 (a large effect for country-of-origin). Eta-square and ICC tended to be quite similar, although eta-square was more often the higher of the two. Ipsatizing lowered the coefficients more markedly, most often by .04 to .07 in Table 2 (whether eta-square or ICC). For each item, the source (among the 17 described above) is indicated in the table by a single-letter code.

We believe that the 30-country selection has the strongest rationale. But results were indistinguishable whether one used the selected 30 countries, all 33 countries, or just those 27 countries that had sample sizes above 150. Across the 281 items, the eta-squared values from these three varying selections of countries correlated .9995 or higher with each other, and no eta-squared value differed by more than .007 across these three ways of computing the values.

Violating expectation, the largest differences were not on those contents most frequently emphasized in cross-cultural psychology (e.g., social axioms, cultural tightness, individualism and collectivism, Schwartz values). None of the items from these sources had eta-squared values exceeding .20. For normative practices (from GLOBE), large differences arose for only three items referencing how children are reared or relate to their parents. Overall, for contents from any source country-of-origin typically accounted for only about 10% of variance in the item. According to conventional standards (J. Cohen, 1992), these are *medium*-sized effects.

The larger differences were in contents involving religion, regularity-norms, and ethnonationalism. These were *large* effects: Country-of-origin accounted for 20% to 40% of the variance in the item. Four of the five items with the highest eta-squared were from the DRI, the remaining DRI item had the 16th highest, and the 3rd highest eta was for a non-DRI item involving the importance of religion. All four of the ethnonationalism items had coefficients near to or above .20, and five of the six regularity-norm items did. No other source had more than one third of its items beyond this .20 threshold.

Table 3 provides the mean of eta-squared values for the items derived from each source. It documents the correspondence between item-content and cross-cultural differences in a summary way, ranking the sources based on average eta-squared value of items in their part of the item pool. Consistent with the portrayal just offered based on individual items, the DRI, ethnonationalism, and the regularity-norm items showed markedly more between-population differences than did items from any other source.

Not shown in Table 3 are the average eta-squared values for dimensions within each item-pool source, three of which deserve a brief mention. First, within the "isms" source, eight items are intended to measure beliefs associated with Tradition-Oriented Religiousness, four of which appear in Table 2; the average eta-squared across the eight items was .21 (.20 with ipsatized data). This provides further support for religious behaviors/beliefs as a key location for cross-cultural differences. Second, four of the "family values" items measure hierarchy, that is, traditional gender roles. These four items had an average eta-squared of .20 (although only .14 with ipsatized data). Third, four of the GLOBE normative-practices items measure in-group (or family) collectivism, and the four together had an average eta-squared of .20 (again, .14 with ipsatized data). Their content concerns differing generations, closeness between generations within the family, as did two regularity-norm items (those involving parent–child sleeping arrangements and the impact of ancestors). This family-oriented collectivism (Vandello & Cohen, 1999), as

Table 2. Items Showing the Largest Cross-Population Differences Across 30 Countries.

η^2	η^2_{ips}	ICC	ICC_{ips}	Item in full
.39	.31	.37	.29	How often do you spend time in private religious activities, such as prayer, meditation, or study of religious scriptures? (d)
.39	.27	.38	.27	How often do you attend church, mosque, temple, or other religious meetings? (d)
.36	.29	.35	.27	I try hard to carry my religion over into all other dealings in life. (d)
.33	.28	.32	.27	Religion should play the most important role in civil affairs. (i)
.33	.26	.32	.25	My religious beliefs are what really lie behind my whole approach to life. (d)
.31	.26	.30	.25	In this society, children generally live at home with their parents until they get married. (g)
.31	.25	.31	.24	At a critical moment, a divine power will step in to help our people. (e)
.30	.23	.31	.24	In this society, a mother sleeps with her child until well past the child's second birthday. (r)
.30	.25	.28	.23	I adhere to an organized religion. (i)
.28	.21	.28	.21	We need tough leaders who can silence the troublemakers and restore our traditional values. (i)
.27	.20	.26	.19	Men and women each have different roles to play in society. (m)
.26	.20	.24	.18	If you are protecting what is sacred and holy, anything you do is moral and justifiable. (e)
.26	.18	.28	.17	In this society, aging parents generally live at home with their children. (g)
.26	.19	.24	.17	[What's right vs. wrong can be decided based on] Whether or not someone's action showed love for his or her country. (m)
.26	.20	.23	.19	I honor the glorious heroes among my people who sacrificed themselves for our destiny and our heritage. (n)
.25	.19	.23	.17	In my life, I experience the presence of the Divine. (d)
.24	.20	.25	.21	Respect for authority is something all children need to learn. (m)
.23	.16	.23	.16	In this society, individuals occasionally become possessed by a spirit, who temporarily takes possession of that individual's body. (r)
.23	.19	.22	.18	My first loyalty is to the heritage of my ancestors, their language, and their religion. (n)
.23	.17	.23	.17	I can always trust the government to do what is right. (i)
.23	.18	.23	.18	My honor is worth defending, even aggressively. (p)
.23	.16	.22	.15	In this society, people fear that if they break social rules then others will use sorcery or witchcraft against them. (r)
.22	.17	.21	.16	I believe in predestination—that all things have been divinely determined beforehand. (i)
.22	.15	.22	.15	The mother should accept the decisions of the father. (f)
.22	.17	.21	.17	In this society, people believe that the spirits of dead ancestors are active and can affect events in everyday life. (r)
.22	.16	.22	.16	The father should be the head of the family. (f)
.22	.18	.23	.19	The homeland of my people is sacred because of its monuments to our ancestors and heroes. (n)
.21	.14	.19	.13	I am proud of my country's history. (m)
.21	.17	.21	.17	I believe in the superiority of my own ethnic group. (i)
.21	.16	.22	.16	In this society, boys are encouraged more than girls to attain a higher education. (g)
.20	.18	.20	.18	In this society, teen-aged students are encouraged to strive for continuously improved performance. (g)
.20	.16	.20	.16	My ancestors once lived in a golden age with glorious and beautiful achievements. (n)

Table 2. (continued)

η^2	η^2_{ips}	ICC	ICC_{ips}	Item in full
.20	.15	.20	.15	Foreigners have stolen land from our people and they are now trying to steal more. (e)
.20	.14	.20	.14	The father should handle the money in the house. (f)
.20	.15	.21	.16	Going to war can sometimes be sacred and righteous. (e)
.19	.12	.19	.12	Religious faith contributes to good mental health. (a)
.19	.15	.21	.16	It is always smart to be completely truthful. (h)
.19	.24	.22	.28	In this society, alcohol is consumed frequently and occasionally in great quantities. (r)
.19	.13	.20	.14	Parents and children must stay together as much as possible. (c)
.18	.17	.17	.16	What is good can be judged only by the gratification of the senses. (i)
.18	.14	.18	.13	[What's right vs. wrong can be decided based on] Whether or not someone was good at math. (m)
.18	.22	.23	.23	My own race is not superior to any other race. (i)

Note. n ranges from 7,268 to 7,871 depending on the item. η^2 and ICC indicate the proportion of between-individual variance in the item accounted for by between-country differences. Letters in parentheses indicate the item-pool source: (a) social axioms, (c) collectivism, (d) Duke Religion Index, (e) extremist thinking patterns, (f) family values, (g) GLOBE normative practices, (h) Machiavellianism, (i) isms, (m) moral foundations, (n) ethnonationalism, (p) proneness to aggress (culture of honor), (r)—added "regularity norm" items derived from anthropological literature. See supplementary document for similar analyses conducted across all 33 nations, and for other supplementary notes. η^2 = eta-squared; ICC = intraclass correlation (ICC[1]); ips = in ipsatized data.

distinct from the collectivism captured in survey measures of Triandis and Gelfand (1998), is another possible content area with substantial cross-cultural differences.

In sum, the largest cross-cultural differences were found to reflect four kinds of content: behaviors and beliefs indicating devotion to religion, ethnonationalism, hierarchical family values, and aspects of family-oriented collectivism. The other sources of items showed average eta-squared values in the vicinity of .10. In Table 3, the content most often studied cross-culturally—GLOBE normative practices, social axioms, Triandis individualism and collectivism, Schwartz values, and tightness–looseness—is found intermixed with content such as personality, isms, and moral foundations that have attracted far less interest for capturing differences between populations. This is in line with cultural effect-size estimates for values and personality in previous studies (see, for example, Fischer & Schwartz, 2011, Table 1; van Hemert, 2011, Table 5.1; Fischer and Schwartz likewise observed elevated effect sizes for values related to religiosity).

Discussion

Major Implications

The central message of these findings is quite clear. If a cross-cultural psychologist wishes to focus on variables that generate strong differences between populations, one good strategy is to focus on beliefs connected to religion (or the metaphysical), and especially on practices and behaviors that reflect the everyday impact of religion on persons. The central message here resonates with recent arguments by others (Tarakeshwar, Stanton, & Pargament, 2003; also Fischer & Schwartz, 2011; Georgas, van de Vijver, & Berry, 2004). Religiousness tends to have high within-country variation (see, for example, Fischer & Schwartz, 2011) but the between-country variation is so great as to yield high ICC values nonetheless.

Such a psychologist should include in the high-priority list "regularity-norms" (Hechter & Opp, 2001): ways of doing things that are widespread, conventional, only partly moralized,

Table 3. Comparison of Item-Pool Sources: Average Eta-Squared Values Across Items From Each Source.

Mean η^2			
Original	Ipsatized	Item source	No. items
.34	.26	Duke Religion Index	5
.23	.18	Nationalism (ethnonationalism only)	4
.22	.18	Regularity-norm behaviors, derived from anthropological literature	6
.16	.15	Family values	8
.14	.12	Proneness to aggress (culture of honor)	3
.14	.11	Extremist thinking patterns	17
.13	.12	Isms	46
.12	.11	Moral foundations	22
.12	.10	GLOBE normative practices	43
.12	.10	Machiavellianism	5
.10	.10	Social axioms	30
.10	.08	Individualism–collectivism	16
.09	.09	Materialism	4
.08	.07	Values (short Schwartz)	10
.07	.09	Cultural tightness–looseness	6
.07	.08	Nationalism (multiculturalist civic nationalism only)	2
.07	.07	Personality (Big Six)	40
.07	.06	Amoralism	14
.12	**.10**	**Total pool of Items**	**281**

Note. Means computed across eta-squared values derived from analyses with *N* ranging from 7,268 to 7,871. "No. Items" refers to the number of items in each source, across which the respective mean is computed.

distinct to one culture versus another, and less systematized than those associated with religion. Culture might be conceived as mainly a rather loose association of multitudinous conventions (Poortinga, 2011). The contrast between religious- and regularity-norms is potentially quite strong, as the former involves explicit and the latter more implicit cultural models. These may be two quite different levels of culture of nearly equal importance.

In addition, ethnonationalist sentiments should make that priority list. But this may be due to their quasi-religious character. Anthony D. Smith, on whose work the present ethnonationalism items are based (Saucier, 2014), has characterized it as a "political religion" or a "surrogate religion" (Smith, 2001, p. 35). Ethnonationalism has appeal and endurance based on "deep-rooted, enduring religious beliefs and sentiments, and a powerful sense of the sacred" requiring "absolute loyalty" (Smith, 2003, p. vii). Ethnonationalism is important beyond cross-cultural psychology, as it seems to play a large and creative role in the formation of independent nation-states while also creating some risk for conflict and violence (e.g., ethnic cleansing).

Values related to family roles and regularity-norms for family living arrangements—those aspects most associated with tradition (e.g., tendencies toward three generations in one household, and toward families with institutionalized father-dominance, that is, "patriarchal")—should also have a higher profile in cross-cultural psychology. These tend to show between-population differences above what is typical for psychological variables. Cultural contexts in which parents and children are more likely to live—and sleep—together appear to be those in which transmitted culture takes place proportionally more across-generations rather than peer-to-peer—what Margaret Mead (1970) called postfigurative (rather than cofigurative) cultures.

These results might provide a spur to theoretical development. What theory of culture can best make sense of the high profile of religion, regularity-norms, and ethnonationalism, and perhaps also traditional hierarchical family values, in how populations differ? Such a theory might have more power than many of the theoretical frames current in cross-cultural psychology.

These results argue against insularity. They highlight the overlap of cultural psychology with the psychology of religion, political psychology, and family sociology. These disciplines may be artificially compartmentalized and separated from one another. Such an observation has been made before. Renshon (2002) argued that political psychology rests on cultural foundations. A. B. Cohen (2009; see also Geertz, 1973) argued that definitions of culture and of religion are interrelated, and both involve shared beliefs and values that are transmitted across generations. Durkheim (1982, p. 129) postulated that a "religion is a unified system of beliefs and practices," which would be shared and thus partially cultural in nature.

Possible Rival Hypotheses

The conclusions just presented derive from rather substantial differences in effect size: what emerges when emphasis is placed on large as contrasted with medium effects. However, there are various potential objections. These might potentially offer important qualifications or nuance to the basic conclusions just reviewed. Even if not resolved here, they provide a stimulus to further research inquiries. The possible objections are as follows:

1. Poor translations could affect effect-size estimates. Standard back-translation procedures were employed, so we do not consider this a likely story. But interested readers can judge for themselves after reviewing the translations (http://psychometriglossia. uoregon.edu/).
2. It may be that various kinds of content are differentially easy to translate; those easier to translate might yield items and data with less measurement error and higher effect sizes. Thus, a plausible (though we think unlikely) rival hypothesis deserves some consideration: Items regarding religious practices and family roles and living arrangements are particularly easy to translate, whereas those regarding values, social axioms, and so on, are less easy to translate.
3. Table 2 provides coefficients both for original and ipsatized ratings. If results are about the same for ipsatized as for original ratings, it indicates that individual differences in use of the rating scale (acquiescent, middle, or extreme responding) are probably not affecting results in a major way. Ipsatization usually overshoots the mark in correcting for response bias: It forces all individuals to have the same response mean and variance, even though some portion of the variation in response means and variances is probably valid—reflecting that some people have naturally more or less to agree with in a selection of survey items, and some have naturally more versus less intensity in this agreement. Here, coefficients with and without ipsatization typically differed little, suggesting that findings cannot be attributed to response-bias differences between populations. But further studies are needed to confirm and evaluate this conclusion. Response biases clearly contribute to statistical differences between populations (van Hemert, 2011). Precise estimates of effect sizes will be impossible until the response-bias component is isolated.
4. Reference-group effects (Heine, Lehman, Peng, & Greenholtz, 2002), which arise from subjective standards in use of rating scales that differ across populations, can wash out real effects. This would provide a reasonable account of findings presented here if high-cultural-difference items (e.g., religious behaviors and beliefs) were more behaviorally concrete or used less subjective rating scales than the lower-difference items. Indeed, here, the only two items involving a behavior-count (never, once a week, etc.) were those

two DRI items that showed the very largest differences between populations. However, other DRI items had large differences while referring to beliefs regarding and valuing of religion rather than concrete behaviors, and while using rather subjective rating scales (how true, on a 5-point scale). Generally, the items on the survey differed very little in how subjective the rating scale was, yet had wide variance in size of effects. It seems that concrete-behavior reference and a non-subjective rating scale both contribute to larger cross-population differences, but content is also a powerful contributor. A more comprehensive research design, systematically varying concreteness and rating scale (as well as standard vs. referent-shift format) for each kind of content, would be needed to draw conclusions as to the relative power of these contributors to difference.

5. The present study drew participants from institutions of higher education. This no doubt has *some* impact on effect-size estimates. Arguably, college students are relatively cosmopolitan, and are located within institutions patterned in Western academic models, and so would tend to be *similar* across countries, to a greater degree than general populations would be; this might attenuate country differences on some or all variables. Another argument would be that college students in societies with lower average levels of education are a high-status elite, unlike in countries with more-educated people (see, for example, Bourdieu & Wacquant, 1999); this argument does not seem to account well for differences in religiousness (here "elite" students from less-educated countries scored as much more religious generally than the presumably more plebeian students from more-educated countries), but it could conceivably account for unexpectedly small country differences in individualism/collectivism. A third possibility: Students might be prone to vary *more* than general populations do on some variables (e.g., religious practices and beliefs?) and vary less than general populations do on other variables (e.g., individualism/collectivism?). This would make sense if general populations are generally quite religious (and/or prone to vary highly on collectivism/individualism), but contrastingly student populations in some though not all countries are distinctly non-religious (and/or if student populations were all about equally individualistic). While plausible, this scenario is not one supported by Study 3 of Fischer and Schwartz (2011), in which a 62-nation set of representative samples gave generally similar results to those reported here (e.g., ICC of .30 for an item referencing the importance of God in one's life, lower ICC for other types of content). These are difficult issues: "It is almost impossible to select a subgroup in one cultural population so that it will precisely match a subgroup in another culture . . . matching on one variable almost inevitably leads to mismatching on other variables" (Berry, Poortinga, Breugelmans, Chasiotis, & Sam, 2011, p. 22). The best remedy may be replication across studies using varying selection rationales.

6. Perhaps certain kinds of content are very easy to measure in a survey format, whereas others are not. And, those that are easy to measure generate more apparent cross-population differences. Ease-to-measure would be reflected in higher internal consistency in groups of items scored together, but a better index is probably retest stability because it can be investigated at the single-item level, and for truly easy-to-measure variables a single item might be a sufficient measure. The data used here had no retest component. It is possible that, for reasons beyond accuracy of translation or response biases, religious behaviors and beliefs are uniquely easy to measure (perhaps because people have more easily retrievable schemas for them). This possibility cannot be evaluated with the present data, but deserves attention in future research.

7. Perhaps conventional cross-cultural psychology variables reflect where important differences were found a generation or two ago, but such things are fluid: *Now*, the clearly biggest differences are in religious behaviors and beliefs, etc., even if this was not the case at the founding of cross-cultural psychology. By this account, the present results are

just a snapshot of 2012, and may not generalize to other periods. This account would seem quite strong if our standard for comparison were the last 100 years: Many countries now relatively indifferent to religion were more highly religious a century ago. Religion has been declining in some countries while remaining strong in others (Inglehart & Baker, 2000). Cross-cultural psychology is not quite that old, but historical change may account for some portion of the findings presented here, given historical trends that have seen religion decline in some but not all locations on the globe.

Suggestions for Future Studies

As noted earlier, the populations sampled in this study were not predominantly from Western industrialized democracies as in most psychology studies, but were more educated (and probably rich) than nationally representative samples would have been. It would be useful to repeat this approach in data sets that have more representative samples, particularly where the variable selection is very wide as here. It would also be useful to extend this approach to a truly wide diversity of human cultures, such as those represented in the often much smaller-scale societies sampled in the Human Relations Area Files (Ember, 1997).

Analyses here focused entirely on the item level, and so are most directly relevant to a particular situation, not atypical in large-N surveys where participant time is expensive and precious, where one might wish to capture large-magnitude cross-cultural differences with a few items. For that situation, Tables 2 and 3 give information about what to expect if differing kinds of content are selected. The tables do not enable inferences regarding the measurement properties of any scales from which the items come; these would require a different, larger set of analyses.

Moreover, present analyses focused entirely at the individual level, using country only as an independent grouping variable to demarcate differing populations. It would be useful to examine the isomorphism of these individual-level results with what might be found at the country level. This would be in keeping with lines of research (e.g., Minkov, 2012) that regard culture as mainly a collective-level phenomenon, not optimally approached with individual-level data. One must acknowledge of course the limitations of letting "nation" stand for "culture."

Specifically, further studies should address the degree to which the items studied here can be meaningfully grouped into the originally intended scales, preferably demonstrating partial or full measurement invariance. Non-invariance might affect the estimates presented here, which are preliminary and broad-brush. Studies of measurement invariance will allow more precise estimates and interpretations, and identify areas in which assessment tools need improvement.

The largest cross-cultural differences were found to reflect four kinds of content (behaviors and beliefs relating to religion, ethnonationalism, hierarchical family values, and aspects of family-oriented collectivism). It would be useful to examine the structure of these kinds of content, their degree of intercorrelation both between and within populations. There are indications of some common threads among them: According to Inglehart, Norris, and Welzel (2002), traditional attitudes including religion are associated with inegalitarian gender roles.

Finally, this study emphasized the relative effect sizes of cross-cultural difference. Ideally, the field would "strike a balance between similarities and differences in such a way that we can interpret differences against a background of similarities (or the other way around)" (van de Vijver, Chasiotis, & Breugelmans, 2011, p. 15). Studies of cross-cultural similarities are potentially complementary to the approach taken here, which emphasized differences.

Conclusion

Survey of World Views data is unique in its combination of diverse sampling of countries with extensive sampling of variables. First, analyses of the data seem to point quite clearly

to particular paths—roads usually not taken—with respect to research and theory in the field. Cross-cultural psychology would do well to cast a wider net in terms of the psychological variables of focus. Consistent with some other studies, we found that the most popular variables in cross-cultural psychology show only *medium*-sized effects for nation/culture; there are clearly numerous other psychological variables showing effects of this magnitude. But with a *large* effect size, cultures differ in religious/supernatural beliefs and especially in religious behaviors. They differ in the intensity of ethnonationalist sentiments (which are, arguably, quasi-religious). They differ in what sociologists call regularity norms, including some involving family living arrangements. And they differ in their views of appropriate family roles, especially perhaps as related to gender. These findings suggest that the now-standard compartmentalization—by which the psychology of culture is separated from psychology of religion, family sociology, and political psychology—may hinder both empirical discovery and theoretical integration.

References

Berry, J. W., Poortinga, Y. H., Breugelmans, S. M., Chasiotis, A., & Sam, D. L. (2011). *Cross-cultural psychology: Research and applications*. Cambridge, UK: Cambridge University Press.

Bliese, P. D., & Halverson, R. R. (1998). Group size and measures of group-level properties: An examination of eta-squared and ICC values. *Journal of Management*, *24*, 157-172.

Bourdieu, P., & Wacquant, L. (1999). On the cunning of imperialist reason. *Theory, Culture & Society*, *16*, 41-58.

Central Intelligence Agency. (2012). *The world factbook*. Retrieved from https://www.cia.gov/library/publications/the-world-factbook/rankorder/2119rank.html

Cohen, A. B. (2009). Many forms of culture. *American Psychologist*, *64*, 194-204.

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*, 155-159.

Diener, E., Diener, M., & Diener, C. (1995). Factors predicting the subjective well-being of nations. *Journal of Personality and Social Psychology*, *69*, 851-864.

Durkheim, E. (1982). *Emile Durkheim: On morality and society, selected writings* (K. Thompson, Ed.). Chicago, IL: University of Chicago Press.

Ember, M. (1997). Evolution of the human relations area files. *Cross-Cultural Research*, *31*, 3-15.

Fischer, R., & Schwartz, S. (2011). Whence differences in value priorities? Individual, cultural, or artifactual sources. *Journal of Cross-Cultural Psychology*, *42*, 1127-1144.

Funder, D. C., Furr, R. M., & Colvin, C. R. (2000). The riverside behavioral Q-sort: A tool for the description of social behavior. *Journal of Personality*, *68*, 451-489.

Geertz, C. (1973). *The interpretation of cultures*. New York: Basic Books.

Gelfand, M. C., Raver, J. L., Nishii, L., Leslie, L. M., Lun, J., Lim, B. C., . . .Yamaguchi, S. (2011). Differences between tight and loose cultures: A 33-nation study. *Science*, *332*, 1100-1104.

Georgas, J. (1989). Changing family values in Greece: From collectivist to individualist. *Journal of Cross-Cultural Psychology*, *20*, 80-91.

Georgas, J., van de Vijver, F. J. R., & Berry, J. W. (2004). The ecocultural framework, ecosocial indices, and psychological variables in cross-cultural research. *Journal of Cross-Cultural Psychology*, *35*, 74-96.

Graham, J., Nosek, B. A., Haidt, J., Iyer, R., Koleva, S., & Ditto, P. (2011). Mapping the moral domain. *Journal of Personality and Social Psychology*, *101*, 366-385.

Hechter, M., & Opp, K.-D. (2001). Introduction. In M. Hechter & K.-D. Opp (Eds.), *Social norms* (pp. xi-xx). New York, NY: Russell Sage.

Heine, S. J. (2008). *Cultural psychology*. New York, NY: Norton.

Heine, S. J., Lehman, D. R., Peng, K., & Greenholtz, J. (2002). What's wrong with cross-cultural comparisons of subjective likert scales? The reference-group effect. *Journal of Personality and Social Psychology*, *82*, 903-918.

Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world. *Behavioral and Brain Sciences*, *33*, 61-83.

Henry, P. J. (2009). Low-status compensation: A theory for understanding the role of status in cultures of honor. *Journal of Personality and Social Psychology*, *97*, 451-466.

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). Thousand Oaks, CA: Sage.

House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (2004). *Culture, leadership, and organizations: The GLOBE study of 62 societies*. Thousand Oaks, CA: Sage.

Inglehart, R., & Baker, W. E. (2000). Modernization, cultural change, and the persistence of traditional values. *American Sociological Review*, *65*, 19-51.

Inglehart, R., Norris, P., & Welzel, C. (2002). Gender equality and democracy. *Comparative Sociology*, *1*(3/4), 321-345.

Koenig, H. G., Patterson, G. R., & Meador, K. G. (1997). Religion index for psychiatric research: A 5-item measure for use in health outcome studies. *American Journal of Psychiatry*, *154*, 885-886.

Leung, K., Bond, M. H., de Carrasquel, S. R., Muñoz, C., Hernández, M., Murakami, F., Yamaguchi, S., Bierbrauer, G., & Singelis, T. M. (2002). Social axioms: The search for universal dimensions of general beliefs about how the world functions. *Journal of Cross-Cultural Psychology*, *33*, 286-302.

Leung, K., & Bond, M. H. (2004). Social axioms: A model for social beliefs in multicultural perspective. *Advances in Experimental Social Psychology*, *36*, 119-197.

Levinson, D., & Malone, M. J. (1980). *Toward explaining human culture: A critical review of the findings of worldwide cross-cultural research*. New Haven, CT: HRAF Press.

Lindeman, M., & Verkasalo, M. (2005). Measuring values with the Short Schwartz's Value Survey. *Journal of Personality Assessment*, *85*, 170-178.

Matsumoto, D., Grissom, R. J., & Dinnel, D. L. (2001). Do between-culture differences really mean that people are different? A look at some measures of cultural effect size. *Journal of Cross-Cultural Psychology*, *32*, 478-490.

Mead, M. (1970). *Culture and commitment*. Garden City, NY: Natural History Press.

Minkov, M. (2012). *Cross-cultural analysis: The science and art of comparing the world's modern societies and their cultures*. Los Angeles, CA: Sage.

Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, *128*, 3-72.

Poortinga, Y. H. (2011). Research on behavior-and-culture: Current ideas and future projections. In F. J. R. van de Vijver, A. Chasiotis, & S. M. Breugelmans (Eds.), *Fundamental questions in cross-cultural psychology* (pp. 545-578). Cambridge, UK: Cambridge University Press.

Poortinga, Y. H., van de Vijver, F. J. R., & van Hemert, D. A. (2002). Cross-cultural equivalence of the Big Five: A tentative interpretation of the evidence. In R. R. McCrae & J. Allik (Eds.), *The five-factor model of personality across cultures* (pp. 281-302). New York, NY: Kluwer Academic.

Rammstedt, B., Kemper, C. J., & Borg, I. (2013). Correcting Big Five personality measurements for acquiescence: An 18-country cross-cultural study. *European Journal of Personality*, *27*, 71-81.

Renshon, S. A. (2002). Lost in plain sight: The cultural foundations of political psychology. In K. R. Monroe (Ed.), *Political psychology* (pp. 121-139). Mahwah, NJ: Lawrence Erlbaum.

Richardson, J. T. E. (2011). Eta squared and partial eta squared as measures of effect size in education research. *Educational Research Review*, *6*, 135-147.

Saucier, G. (2000). Isms and the structure of social attitudes. *Journal of Personality and Social Psychology*, *78*, 366-385.

Saucier, G. (2009). Recurrent personality dimensions in inclusive lexical studies: Indications for a Big Six structure. *Journal of Personality*, *77*, 1577-1614.

Saucier, G. (2013). Isms dimensions: Toward a more comprehensive and integrative model of belief-system components. *Journal of Personality and Social Psychology*, *104*, 921-939.

Saucier, G. (2014). *Ethnonationalism: Concept and measurement*. Manuscript submitted for publication.

Saucier, G., Akers, L. G., Shen-Miller, S., Stankov, L., & Knezevic, G. (2009). Patterns of thinking in militant extremism. *Perspectives on Psychological Science*, *4*, 256-271.

Saucier, G., Chen, Z., & Bettenhausen, C. (2014). *Machiavellianism: A brief measure of core components*. Unpublished manuscript.

Schwartz, S. H., & Bilsky, W. (1990). Toward a theory of a universal psychological content and structure of values: Extensions and cross-cultural replications. *Journal of Personality and Social Psychology*, *53*, 550-562.

Shen-Miller, S., Saucier, G., & Pan, H.-H. (2013). *Materialism as a multi-faceted construct: Broader than usually operationalized*. Manuscript submitted for publication.

Shieh, G. (2012). A comparison of two indices for the intraclass correlation coefficient. *Behavior Research Methods*, *44*, 1212-1223.

Smith, A. D. (2001). *Nationalism: Theory, ideology, history*. Cambridge, UK: Polity Press.

Smith, A. D. (2003). *Chosen peoples*. Oxford, UK: Oxford University Press.

Stankov, L., & Knezevic, G. (2005). Amoral social attitudes and value orientations among Serbs and Australians. *Australian Journal of Psychology*, *57*, 115-129.

Stankov, L., Saucier, G., & Knezevic, G. (2010). Militant extremist mindset: Pro-violence, vile world, and divine power. *Psychological Assessment*, *22*, 70-86.

Tarakeshwar, N., Stanton, J., & Pargament, K. I. (2003). Religion: An overlooked dimension in cross-cultural psychology. *Journal of Cross-Cultural Psychology*, *34*, 377-394.

Thalmayer, A. G., Saucier, G., & Eigenhuis, A. (2011). Comparative validity of brief- to medium-length Big Five and Big Six questionnaires. *Psychological Assessment*, *23*, 995-1009.

Tov, W., & Au, E. W. M. (2013). Comparing well-being across nations: Conceptual and empirical issues. In S. A. David, I. Boniwell, & A. Conley Ayers (Eds.), *The Oxford handbook of happiness* (pp. 449-464). New York, NY: Oxford University Press.

Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, *96*, 506-520.

Triandis, H. C., & Gelfand, M. J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, *74*, 118-128.

Vandello, J. A., & Cohen, D. (1999). Patterns of individualism and collectivism across the United States. *Journal of Personality and Social Psychology*, *77*, 279-292.

van de Vijver, F. J. R., Chasiotis, A., & Breugelmans, S. M. (2011). Fundamental questions of cross-cultural psychology. In F. J. R. van de Vijver, A. Chasiotis, & S. M. Breugelmans (Eds.), *Fundamental questions in cross-cultural psychology* (pp. 9-34). Cambridge, UK: Cambridge University Press.

van de Vijver, F. J. R., Mylonas, K., Pavlopoulos, V., & Georgas, J. (2006). Results: Cross-cultural analyses of the family. In J. Georgas, J. W. Berry, F. J. R. Van de Vijver, Ç. Kagitçibasi, & Y. H. Poortinga (Eds.), *Families across cultures: A 30-nation psychological study* (pp. 126-185). Cambridge, UK: Cambridge University Press.

van Hemert, D. A. (2011). Frameworks for explaining cross-cultural variance: A meta-analytic examination of their usefulness. In F. J. R. van de Vijver, A. Chasiotis, & S. M. Breugelmans (Eds.), *Fundamental questions in cross-cultural psychology* (pp. 115-134). Cambridge, UK: Cambridge University Press.

Veenhoven, R. (2010). *World Database of Happiness: Continuous register of scientific research on subjective enjoyment of life*. Rotterdam, The Netherlands: Erasmus University Rotterdam.

Westen, D., & Shedler, J. (2007). Personality diagnosis with the Shedler-Westen Assessment Procedure (SWAP): Integrating clinical and statistical measurement and prediction. *Journal of Abnormal Psychology*, *116*, 810-822.