

## Individualism: A Valid and Important Dimension of Cultural Differences Between Nations

**Ulrich Schimmack**

*Department of Psychology  
University of Toronto, Mississauga*

**Shigehiro Oishi**

*Department of Psychology  
University of Virginia*

**Ed Diener**

*Department of Psychology  
University of Illinois, Urbana–Champaign, Gallup*

*Oyserman, Coon, and Kemmelmeier's (2002) meta-analysis suggested problems in the measurement of individualism and collectivism. Studies using Hofstede's individualism scores show little convergent validity with more recent measures of individualism and collectivism. We propose that the lack of convergent validity is due to national differences in response styles. Whereas Hofstede statistically controlled for response styles, Oyserman et al.'s meta-analysis relied on uncorrected ratings. Data from an international student survey demonstrated convergent validity between Hofstede's individualism dimension and horizontal individualism when response styles were statistically controlled, whereas uncorrected scores correlated highly with the individualism scores in Oyserman et al.'s meta-analysis. Uncorrected horizontal individualism scores and meta-analytic individualism scores did not correlate significantly with nations' development, whereas corrected horizontal individualism scores and Hofstede's individualism dimension were significantly correlated with development. This pattern of results suggests that individualism is a valid construct for cross-cultural comparisons, but that the measurement of this construct needs improvement.*

The development of cross-cultural psychology is marked by several highly influential publications over the past decades. The birth of cross-cultural psychology as a discipline is marked by the appearance of the *Journal of Cross-Cultural Psychology* in 1970 and Triandis's (1972) groundbreaking book on subjective culture. A decade later, the first *Handbook of Cross-Cultural Psychology* (Triandis, 1980) and Hofstede's (1980) highly influential book *Culture's Consequences* were published. Ten years later two publications in *Psychological Review* demonstrated that cross-cultural psychology had joined mainstream psychology (Markus & Kitayama, 1991; Triandis, 1989). Most of the research has focused on individualism and collectivism to explain cultural differences. Indeed, the constructs of individualism and collectivism were largely responsible for the explosion of cross-cultural psychology over the past three decades. Individualism

and collectivism continued to be the most prominent constructs in cross-cultural psychology in the 1990s (e.g., Kashima, Yamaguchi, Kim, & Choi, 1995; Kim, Triandis, Kagitcibasi, Choi, & Yoon, 1994; Triandis, 1995), making them "perhaps the most important dimension of cultural differences in social behavior" (Triandis, 1988, p. 60). More recently, Vandello and Cohen (1999) concur that "one of the most useful and actively researched constructs to emerge from cultural social psychology has been the dimension of individualism–collectivism" (p. 279).

Recently, however, a comprehensive 70-page review of empirical studies on individualism and collectivism challenged the importance of individualism and collectivism as explanatory constructs (Oyserman, Coon, et al., 2002). Based on a meta-analysis, the authors concluded that cultural differences in individualism and collectivism "were neither as large nor as systematic as often perceived." (Oyserman, Coon, et al., 2002, p. 40). Oyserman, Coon, et al.'s (2002) article was accompanied by several commentaries, which also suggested that individualism and collectivism are problematic constructs. For example, Fiske (2002) con-

---

Requests for reprints should be sent to: Ulrich Schimmack, Department of Psychology, University of Toronto, Mississauga, 3359 Mississauga Road North, Mississauga, Ontario L5L 1C6, Canada. E-mail: uli.schimmack@utoronto.ca

cluded that Oyserman, Coon, et al.'s (2002) "results invalidate many conclusions in the literature" (p. 80) and that "we need another way to study culture" (p. 84). M. H. Bond (2002) predicted that "the field will in fact abandon these two overfreighted constructs [individualism and collectivism] altogether and move toward narrower theories of culture based on more specific construct." (p. 76). Miller (2002) suggested that "whereas the Oyserman, Coon, et al. (2002) review argued that current limitations in cultural work may be addressed through methodological improvements of work conducted within the individualism–collectivism paradigm, I argue for the need to go beyond such a framework" (p. 104). In the same vein, Voronov and Singer (2002) noted "several flaws that have plagued I–C [individualism–collectivism] research" (p. 462).

Together, these comments suggest that cross-cultural psychology currently is facing a major crisis. After 30 years of (apparent) progress, it now seems that individualism and collectivism are questionable constructs that often fail to explain cross-cultural differences. In this article, we reexamine the existing evidence and we explain some of the inconsistent findings in Oyserman, Coon, et al.'s (2002) meta-analysis. After a careful analysis of the empirical evidence, we are convinced—and we are optimistic that most readers will agree—that individualism is a powerful explanatory construct that will continue to have a strong influence on cross-cultural psychology in future decades.

### The Crisis

Oyserman, Coon, et al. (2002) distinguish three approaches in the study of individualism and collectivism. This article focuses on the two major approaches and does not examine the cultural-priming paradigm (Trafimow, Triandis, & Goto, 1991). The first approach, which is by far the most influential research tradition, is called *applying Hofstede*. This approach originated with Hofstede's (1980) publication of a quantitative measure of individualism–collectivism (I–C). Hofstede (1980) analyzed a large multinational database of employees' work values (e.g., important to fully use skills on the job) in a multinational organization in over 40 nations (see also Hofstede, 2001). He found four dimensions of cultural differences between nations. Although all four dimensions have been validated (Hofstede, 1980, 2001), the I–C dimension had the strongest impact on cross-cultural research. Modern developed nations (e.g., United States, Canada, Netherlands) score higher on this dimension than traditional, developing nations (e.g., Guatemala, Pakistan, Thailand). Hofstede's work provided cross-cultural psychologists with an empirically derived independent variable to interpret cultural differences in dependent variables. For example, R. Bond and Smith (1996) con-

ducted a meta-analysis of cultural differences in conformity using the Asch paradigm and found, as predicted, that Hofstede's I–C scores were negatively correlated with conformity.

A second approach, which we call *measuring individualism*, was initiated in the late 1980s (e.g., Hui, 1988; Triandis, Leung, Villareal, & Clack, 1985; Triandis et al., 1986; Singelis, Triandis, Bhawuk, & Gelfand, 1995; see also Triandis, 1996). This approach focused on developing new measures of individualism and collectivism that could be used in new studies so that researchers did not have to rely on Hofstede's norms. As Hofstede's items were limited to the work context, researchers created new items that assessed individualism in the broader cultural context. Another goal of this approach was to assess individualism at the level of individuals to examine whether within-nation variability in individualism and collectivism is related to dependent variables.

An implicit assumption in the progression from Hofstede's I–C scale to newer measures of individualism and collectivism was that both measures reflect the same construct. "Ideally one wants to have convergence across rather different methods" (Triandis, 1994, p. 116). The recent meta-analysis by Oyserman, Coon, et al. (2002) challenged this fundamental assumption. Oyserman, Coon, et al.'s (2002) meta-analysis revealed that the two approaches of studying culture (i.e., applying Hofstede vs. measuring individualism) failed to produce convergent results. "At this time, it is impossible to tell the extent to which different cultural research methods ... produce the same effects" (Oyserman, Coon, et al., 2002, p. 43).

Indeed, Oyserman, Coon, et al.'s (2002) conclusion understates the problems for individualism and collectivism as explanatory constructs in cross-cultural research. A closer inspection of the meta-analysis reveals that the two main approaches, applying Hofstede and measuring individualism, lack convergent validity. If both approaches assess the same construct, then both measures should reveal convergent validity of national differences in individualism and collectivism. For example, we would not expect convergent findings if, for example, Hofstede's dimension implies that France is more individualistic than Peru, whereas newer measures of individualism suggest that Peru is more individualistic than France. More generally, convergent validity between two measures of the same construct is necessary (although not sufficient) for construct validity. If two different measures of individualism are uncorrelated, then at least one of these measures must be invalid. In a worst-case scenario, it is also possible that both measures are invalid.

Oyserman, Coon, et al.'s (2002) meta-analysis allowed a quantitative assessment of the convergent validity of the two approaches. The meta-analysis included all studies that measured individualism and

collectivism in the United States and at least one other nation. For each comparison between the United States and another nation an effect size was computed. The effect sizes represent the relative standing of all nations on individualism and collectivism and yield a new dimension of individualism and collectivism that can be compared to Hofstede's I-C dimension. For example, Oyserman, Coon, et al.'s meta-analysis shows an effect size of .40 for the comparison of Peru with the United States and an effect size of  $-.47$  for the comparison of France with the United States. These effect sizes suggest that following rank order of individualism scores: Peru (.40), United States (0), France ( $-.47$ ). Individualism scores were available for 48 nations (effect sizes for 47 nations plus 0 for the United States); collectivism scores were available for 51 nations (effect sizes for 50 nations plus 0 for United States).

Effect sizes for individualism scales and collectivism scales were reported separately because scores on the newer individualism and collectivism scales are typically independent. Indeed, Oyserman, Coon, et al. (2002) computed the correlation between individualism effect sizes and collectivism effect sizes and found that national differences in individualism and collectivism were independent. This finding is inconsistent with Hofstede's traditional conceptualization of individualism and collectivism as opposite ends of a single continuum.

However, more important is the issue of convergent validity. That is, the two main approaches of measuring culture, applying Hofstede and measuring individualism, are supposed to reflect the same national differences. Thus, Hofstede's individualism dimension should be positively correlated with meta-analytic individualism scores and negatively correlated with meta-analytic collectivism scores. Although these correlations would provide the most direct test of convergent validity, Oyserman, Coon, et al. (2002) did not report these correlations. We computed these correlations, which were small and not significant. The correlations were  $r = .23$  ( $N = 31$ ) for individualism and  $r = -.25$  for collectivism ( $N = 33$ ). This finding shows that Hofstede's I-C dimension rank orders nations differently than the meta-analytically derived individualism or collectivism dimensions. For example, Hofstede's scores suggest that France (71) is more individualistic than Peru (16). In contrast, Oyserman, Coon, et al.'s (2002) meta-analysis suggests that Peru (.40) is more individualistic than France ( $-.47$ ).

In sum, a direct comparison of national differences between Hofstede's I-C scale and more recent measures of individualism and collectivism revealed a lack of convergent validity. As a result, it is impossible for both measures to be valid measures of the same construct. The main aim of this article was to examine the reason for the lack of convergent validity and to examine the validity of both types of measures

by examining their correlations with theoretically important variables.

### **Possible Reasons for the Lack of Convergent Validity**

There are several plausible reasons for the lack of convergent validity between the two approaches. First, it is possible that Hofstede's scores are outdated. His scores are based on data that were collected in 1968 and 1972, whereas Oyserman, Coon, et al.'s (2002) meta-analysis is based on studies from the 1990s. However, the new edition of Hofstede's book (Hofstede, 2001) includes several recent replications of his dimensions in the 1990s (Helmreich & Merritt, 1998; Hoppe, 1990). More recently, Spector et al. (2001) obtained data from 6,737 employees, mostly in managerial positions, from 23 nations. These individualism scores were highly correlated with Hofstede's original individualism scores (Pearson  $r = .80$ ; Spearman rank  $r = .71$ ). Hence, it is impossible to attribute the lack of convergent validity between the different measures to cultural changes in recent years. Although individualism may have risen globally over the past decades, the rank ordering of nations on individualism has remained quite stable (Hofstede, 2001).

A second explanation could be the reliance on different samples. For example, Voronov and Singer (2002) noted that the "biggest limitation of Hofstede's (1980) study is the differential representativeness of the samples for each country" (p. 467). Biased sampling, however, fails to explain why Hofstede's I-C dimension has been replicated so frequently in other non-representative samples such as pilots (e.g., Helmreich & Merritt, 1998), and why the dimension has been successful in predicting cultural differences in student samples (e.g., R. Bond & Smith, 1996; Diener & Diener, 1995; Suh, Diener, Oishi, & Triandis, 1998). For example, Diener and Diener (1995) demonstrated that Hofstede's individualism scores predicted the correlation between self-esteem and life-satisfaction in student samples. In individualistic nations (according to Hofstede), self-esteem is a stronger predictor of life-satisfaction than in collectivistic nations. Hofstede's individualism dimension also predicts value preferences in student and teacher samples (Schwartz, 1994). Finally, Hofstede's I-C dimension is correlated with national differences in survival versus well-being values in the World Value Survey (Inglehart, 1997). As the World Value survey is based on national representative samples, this finding refutes the hypothesis that Hofstede's I-C dimension does not generalize to other populations.

Another possible explanation for the lack of convergent validity could be the low content validity of Hofstede's measure (e.g., Oyserman, Kimmelmeier, & Coon, 2002; Voronov & Singer, 2002). That is, Hof-

stede's I-C scale is based on work-values (e.g., a preference for a job that leaves time for family) that do not directly reflect core features of individualism such as independence and uniqueness. Thus, Hofstede's I-C dimension may lack construct validity despite its proven reliability and predictive validity. The recent finding that this scale does not show convergent validity with newer individualism and collectivism scales with greater content validity suggests that Hofstede's I-C scale may have been misinterpreted. That is, the meaningful relations to other indicators of national differences (e.g., wealth, conformity) show that it is an important dimension of cross-cultural differences, but perhaps Hofstede's dimension is not related to an emphasis on the individual versus the group. However, while this explanation is not as easily refuted as the previous ones, it also seems unsatisfactory because Hofstede's dimension has been so successful in predicting theoretically relevant cultural differences in behaviors that imply individuality, such as more resistance to conformity, higher divorce rates, and a greater emphasis on internal experiences (R. Bond & Smith, 1996; Diener, Diener, & Diener, 1995; Hofstede, 1980, 2001; Schimmack, Radhakrishnan, Oishi, Dzokoto, & Ahadi, 2002; Suh et al., 1998). Although each of these cultural differences can be explained by other constructs, it is difficult to find a single dimension that explains all of them better than individualism.

Finally, another explanation for the lack of convergent validity could be differences in the statistical analysis of cross-cultural data. Hofstede (1980) used within-subject standardization to control for response styles. Within-subject standardization creates ipsative scores, which have the same mean and standard deviation across a set of items for each individual. As a result, national differences on particular scales reflect the relative endorsement of one scale over another. Standardization within individuals should not be confused with standardization across individuals in a national sample. The latter form of standardization would produce mean values of zero for all nations and obliterate any cultural differences. Within-subject standardization only assumes that cultures have the same overall mean across different constructs, but the profile across scales can vary. For example, one culture can be high on individualism and low on collectivism whereas the other culture has the reverse pattern. Within-subject standardization is desirable when participants have problems anchoring their responses on a response format. As a result, response styles can introduce systematic measurement error, which is of particular concern in cross-cultural studies (Hofstede, 1980; Schwartz, 1994; Smith, 2004; Triandis, 1972, 1994; Triandis & Berry, 1980).

Hofstede (1980) argued that unstandardized scores on his work-value survey were biased by an acquiescence response style. In support of this hypothesis,

Hofstede noticed that the mean rating of all items was positively correlated with his power-distance scale; a measure of cultural differences in the importance of hierarchies in organizations. This correlation suggests that respondents in cultures with high power-distance are more likely to agree with all items independent of item content. Because individualism is negatively correlated with power distance, acquiescence would produce a strong bias in the measurement of individualism. For example, Hofstede's (2001) corrected individualism scores of France (71) and Peru (16) suggest that France is more individualistic than Peru. However, overall Peruvians rated all work values as more important ( $M = 1.71$ ) than French respondents ( $M = 2.13$ ; smaller numbers indicate higher importance; cf. Hofstede, 2001). Hence, uncorrected scores would have suggested that France and Peru score similarly on Hofstede's I-C dimension.

Schwartz (1994) also noted that response styles created problems for cross-cultural comparison of value ratings. He assessed value preferences in over 30 nations. Value preferences were assessed with importance ratings of 56 values (e.g., wealth, honesty, national security). Schwartz (1994) demonstrated that national differences in value preferences were related to Hofstede's individualism dimension (see also Hofstede, 2001). Individualism was positively correlated with valuing affective autonomy (a varied and fun life) and intellectual autonomy (curiosity) and negatively correlated with conservatism (valuing tradition). Importantly, these findings were obtained with scores that corrected for response styles. Rather than using ipsative scores, Schwartz (1994) merely subtracted the overall mean rating from each scale's mean. The difference between both procedures is that the former procedure also normalizes within-subject variability (scores are divided by the standard deviation), whereas the latter procedure does not. Both procedures yield similar, but not identical corrected scores (cf. Smith, 2004).

Like Hofstede (1980), Schwartz (1994) noticed that response styles were systematically related to cultural variables and tended to be stronger in traditional cultures. In these cultures, many respondents rated more than 20 values as "most important," although instructions explicitly asked respondents to use this category only twice. Once more, scores of traditional cultures on individualistic values were inflated by an acquiescence bias in traditional cultures.

Smith (2004) compared national differences in the mean endorsement of items. This analysis included the mean importance of work values in Hofstede's study and the mean importance of values in Schwartz's study. The two measures of response styles were significantly correlated ( $r = .66$ ), suggesting consistent national differences in response styles. Smith (2004) also confirmed that response styles have a much stron-

ger impact on ratings in traditional cultures than in modern cultures.

Given the awareness of measurement problems in cross-cultural psychology (Fischer, *in press*; Hofstede, 1980; Schwartz, 1994; Smith, 2004; Triandis, 1972, 1994; Triandis & Berry, 1980), it is surprising that recent questionnaires of individualism and collectivism have ignored the potential problem of response artifacts. For example, these questionnaires fail to include reverse-scored items, which is a standard procedure to control for simple response styles like an acquiescence bias. For example, only 1 of the 32 items of the widely used Individualism–Collectivism Scales (I–CS; Singelis et al., 1995; Triandis, 1996) is reverse scored. Furthermore, few researchers using these scales have statistically controlled for response styles. Even Oyserman, Coon, et al.’s (2002) meta-analysis is based on uncorrected data (see Data Analysis section for details), which may be biased by national differences in response styles. Although Oyserman, Coon, et al. (2002) noted that “researchers cannot easily assume common understanding of what responses such as ‘very important’ mean and that scale use can systematically differ between countries” (p. 7), they interpret the effect sizes based on uncorrected ratings as if they are valid indicators of nations’ individualism or collectivism. In contrast, prior work by Hofstede (1980) and Schwartz (1994) suggests that uncorrected scores are influenced by response styles that bias national comparisons of individualism and collectivism. Therefore, we propose that reliance on corrected or uncorrected scores is the most plausible explanation for the lack of convergence between the two approaches of measuring individualism and collectivism, namely applying Hofstede and measuring individualism.

### **Polarity of Individualism and Collectivism**

Response styles may also explain another discrepancy between applying Hofstede and measuring individualism. Hofstede conceptualized individualism and collectivism as bipolar opposites. A bipolar view assumes that the individualistic aspects and the collectivistic aspects of a culture are inversely related. Cultures in which the rights of an individual are highly valued de-emphasize obligations to groups and subordination. In contrast, Oyserman, Coon, et al.’s (2002) meta-analysis found national differences in individualism to be unrelated to national differences in collectivism. Once more, the statistical treatment of the data provides a simple explanation for these divergent findings. When scales do not have balanced keying, acquiescence response styles tend to weaken negative correlations (i.e., move them towards zero), which can lead to false evidence that two negatively correlated constructs are seemingly independent (e.g., Green, Gold-

man, & Salovey, 1993; Schimmack, Bockenholt, & Reisenzein, 2002). Hence, it is possible that response styles in uncorrected data mask a true negative correlation between individualism and collectivism.

However, it is also possible that Hofstede’s within-subject standardization procedure may have produced artificial evidence of bipolarity because within-subject standardization imposes negative correlations on the items. This effect is strong if standardization is applied to a small set of scales. Indeed, ipsative scores of two scales produce a perfect negative correlation. Thus, it is possible that Hofstede’s bipolar dimension is an artifact of within-subject standardization.

### **Validation**

Our article focuses primarily on the issue of convergent validity between Hofstede’s I–C dimension and recent measures of individualism and collectivism, whereas the issue of polarity is secondary. The reason for this emphasis is two-fold. First, the validity of individualism and collectivism measures is of central importance for the interpretation of cultural differences. Without knowing whether France is more individualistic than Peru or vice versa, it becomes impossible to interpret cultural differences in terms of individualism and collectivism. The polarity of individualism and collectivism is secondary because it assumes that both constructs can be assessed with valid measures. Furthermore, other research areas (e.g., emotion research) have thrived despite an ongoing controversy about the polarity of pleasant affect and unpleasant affect (see Schimmack, Bockenholt, et al., 2002). Finally, it is also more difficult to determine the polarity of two constructs than to examine their validity. The reason is that construct validity can be examined by testing theoretical relations to external variables.

In this article, we focus on nations’ level of development for this purpose. Development has two advantages as a validation criterion. First, development is assessed by expert ratings and objective social indicators (e.g., wealth). As a result, measures of development do not share method variance with measures of individualism and the correlation between individualism and development measures cannot be attributed to measurement artifacts. Second, numerous researchers have proposed that development is closely related to individualism, with causal links going in both directions (Hofstede, 2001; Inglehart, 1997; Triandis, 1994). “A major antecedent of individualism is affluence” (Triandis, 1994, p. 105). Development is likely to increase individualism because affluence creates choices and allows people to express their individuality by making different choices. In contrast, poverty restricts the range of options and the fulfillment of basic needs often dictates actions. Hence, a valid indicator of individualism should be correlated with nations’ level of

development unless (a) cultural theories about the relation between individualism and development are incorrect or (b) the measure of individualism is invalid (assuming that development indices are valid).

The existing evidence already suggests that Hofstede's I-C dimension is valid because numerous studies have demonstrated a link between individualism and development (Diener, Diener, & Diener, 1995; Hofstede, 1980; 2001). Furthermore, we showed that Oyserman, Coon, et al.'s (2002) meta-analytic individualism and collectivism scores failed to show convergent validity with Hofstede's I-C dimension. This pattern of correlations suggests that Hofstede's dimension is valid, whereas the meta-analytic scores are less valid indicators of individualism. However, the existing evidence fails to explain why the meta-analytic scores seem to be invalid. The following analyses test our hypothesis that the use of correction methods is responsible for the lack of convergent validity. We also examine how correction influences the relation between individualism and collectivism.

### Data Analysis

The empirical part of this article is a quantitative integration of national differences based on numerous published articles and books as well as unpublished data from a large international student survey (40 nations). To avoid redundancies, we will introduce and explain data sets along with the results. Here we only give a brief description of the main data set that provided data on individualism, collectivism, and potential response styles. The data set consists of unpublished data from Diener et al.'s international student survey in 1996 of 40 nations. Descriptions of the national samples can be found in publications that used other portions of the survey (Oishi, Diener, Lucas, & Suh, 1999; Suh et al., 1998; Schimmack, Oishi, & Diener, 2002).

Diener's international student survey included the I-CS (Singelis et al., 1995; Triandis & Gelfand, 1998). The I-CS consists of four scales with 8-items each: horizontal individualism (H-IND), vertical individualism (V-IND), horizontal collectivism (H-COL), and vertical collectivism (V-COL). Horizontal individualism reflects individuals' tendency to have an independent self-concept, to value uniqueness, and to make independent choices. Vertical individualism stresses the importance of competition. In other words, horizontal individualism implies "I am different," whereas vertical individualism implies "I am better." Similarly, horizontal collectivism implies valuing social relations with equals, whereas vertical collectivism implies valuing social relations with superiors including parents. Oyserman, Coon, and colleague (2002) proposed that horizontal individualism is the core element of individ-

ualism. Thus, their meta-analytic individualism scores are based on the horizontal individualism scale of the I-CS. Collectivism was defined more broadly and includes both vertical and horizontal collectivism. Thus, the meta-analytic collectivism scale is based on an average of both collectivism scales.

Diener's international student survey is very important for understanding Oyserman, Coon, et al.'s (2002) meta-analysis because their meta-analysis is heavily based on these data. For individualism, the meta-analysis reports 47 effect sizes. Effect sizes for 27 nations are based solely on Diener's international student survey and effect sizes for another 11 nations are partially based on Diener's survey, and only 9 effect sizes stem from other sources. The numbers for the 49 effect sizes of collectivism are 26, 12, and 11, respectively. Even effect sizes of countries that are based on additional data typically include only two or three studies. Thus, Diener's international student survey has a strong influence on the average effect size. Oyserman, Coon, and colleague (2002) do not report any correction of Diener's survey data for potential response styles. Sources for other effect sizes of the meta-analysis also do not report correction (e.g., Kimmelman et al., 2003). As a result, the meta-analysis reflects national differences in mean ratings of the I-CS scales that are not corrected for potential response styles.

### Relations between I-CS Scales

Table 1 shows the simple correlations among the four I-CS scales and the overall mean endorsement of all 32 items (below diagonal). It also shows the partial correlations among scales while controlling for the overall mean across all 32 items. The use of partial correlation is similar to Schwartz's (1994) subtraction method of controlling for response styles, but avoids some of the problems with using difference scores. Three findings are particularly important. First, the pattern of correlations changed dramatically from simple to partial correlations. This finding demonstrates that controlling for overall item-endorsement influ-

**Table 1.** Correlations Among Individualism-Collectivism Scales ( $N = 40$  Nations)

	H-IND	V-IND	H-COL	V-COL	ICX
H-IND	—	-.46**	-.18	-.16	—
V-IND	-.15	—	-.64**	-.20	—
H-COL	.39**	.12	—	-.23	—
V-COL	.42**	.32*	.80**	—	—
ICX	.51**	.42**	.90**	.93**	—

*Note:* Simple correlations below diagonal; partial correlations controlling for ICX above diagonal; H-IND = horizontal individualism; V-IND = vertical individualism; H-COL = horizontal collectivism; V-COL = vertical collectivism; ICX = mean endorsement of all 32 items.

\* $p < .05$ . \*\* $p < .01$ .

ences the pattern of correlations, but the results do not show whether simple or partial correlations are valid. The second important finding is that different scales show different correlations with the overall mean. Collectivism scales were highly correlated with the overall mean, which is consistent with previous findings of an acquiescence bias in more traditional cultures (Hofstede, 1980; Schwartz, 1994; Smith, 2004). However, this finding does not conclusively demonstrate response styles because it has not been demonstrated that a higher mean is due to response styles. Third, the results show that it is virtually impossible at this moment to examine the relation between individualism and collectivism because statistical correction has different effects on horizontal individualism and collectivism scales. Whereas statistical correction may be necessary to obtain a valid measure of individualism, statistical correction of collectivism scales is impossible because collectivism is so highly correlated with the overall mean and controlling for the overall mean will also remove most of the valid variance in collectivism. Thus, the partial correlations of collectivism and individualism do not necessarily show that horizontal individualism is independent of collectivism. Rather, the results may simply show that there is no valid variance left after the variance in overall endorsement has been removed. In sum, the main finding in Table 1 is that vertical and horizontal collectivism scales were highly correlated with the overall endorsement of all items. This finding is consistent with earlier findings and suggests that respondents in more traditional cultures have stronger response styles (Hofstede, 1980; Schwartz, 1992; Smith, 2004). However, the results in Table 1 do not conclusively demonstrate response styles.

### I–CS Scales and Oyserman’s Meta-Analytic Scales

Table 2 shows the simple and partial correlations between I–CS scales and Oyserman’s meta-analyti-

**Table 2.** Correlations of Meta-Analytic IND and COL Scores with Individualism Collectivism Scales ( $N = 38$ )

	Simple		Partial	
	Meta-IND	Meta-COL	Meta-IND	Meta-COL
H-IND	.91**	.45**	.89**	-.02
V-IND	-.23	.20	-.46**	-.34
H-COL	.29	.85**	-.16	.33
V-COL	.35	.83**	-.06	.11
ICX	.40*	.87**	—	—

Note: H-IND = horizontal individualism; V-IND = vertical individualism; H-COL = horizontal collectivism; V-COL = vertical collectivism; ICX = mean endorsement of all 32 items; Meta-IND = individualism effect sizes (Oyserman et al., 2002), Meta-COL = collectivism effect sizes (Oyserman et al., 2002)

\* $p < .05$ . \*\* $p < .01$ .

cally derived scales. Three findings are noteworthy. First, simple correlations reveal strong positive correlations for scales with the same content. That is, horizontal individualism is strongly correlated with meta-analytic individualism, which is based on a meta-analysis of horizontal, but not vertical, individualism (cf. Oyserman, Coon, et al., 2002). Vertical and horizontal collectivism are highly correlated with meta-analytic collectivism, which combines both aspects of collectivism (cf. Oyserman, Coon, et al., 2002). This finding was to be expected given the large overlap between Diener’s international student survey and the meta-analytic data set. We also examined the correlations for nations, in which the international student survey provided the only data (IND  $r = .94$ ,  $N = 27$ ; COL  $r = .94$ ,  $N = 25$ ) and for nations with additional data (IND  $r = .84$ ,  $N = 11$ ; COL  $r = .86$ ,  $N = 13$ ). In both groups of nations, we found that effect size measures corresponded highly to the mean differences in the student survey data. This finding shows that the same national differences emerge when uncorrected ratings are used.

Second, the meta-analytic scales show the same correlations with overall endorsement of I–CS items as did the I–CS scales in Table 1. Namely, collectivism is highly correlated with the mean endorsement of all items. This finding suggests that the meta-analytic scores are influenced by response styles, if overall endorsement reflects response styles. Third, partial correlations reveal that the association between horizontal individualism and meta-analytic individualism remains virtually unchanged. This finding shows that both scales share some common variance even after controlling for mean endorsement of items. In contrast, the correlations between collectivism scales are reduced to zero because mean endorsement is so highly correlated with collectivism. As a result, mean endorsement is redundant with collectivism and statistically controlling for mean endorsement also removes all valid variance in collectivism.

### Development, Individualism, Collectivism

The following analyses examine simple and partial correlations between Hofstede’s I–C dimension and indicators of development. These analyses will provide important information about the convergent and construct validity of individualism and collectivism scales. In the light of our previous findings, it is important to note that partial correlations for collectivism scales are meaningless because the overall mean is so highly correlated with collectivism. We present these correlations merely for the sake of completeness.

To create a reliable measure of Hofstede’s dimension for a maximum of nations, we combined five different measures. The first measure was Hofstede’s (1980) I–C scale, which provided I–C scores for 50 na-

tions (see Hofstede, 2001). We also included three replication studies with the work-value survey (Hoppe, 1990, in Hofstede, 2001; Merritt, 2000; Spector et al., 2001). The fifth measure was based on Triandis's expert ratings of nations' individualism reported in Diener and Diener (1995) and Suh et al. (1998). Triandis's ratings have been used to interpret cultural differences in terms of Hofstede's I-C dimension (e.g., Diener, Diener, & Diener, 1995; Schimmack, Oishi, et al., 2002; Schimmack, Radhakrishnan, et al., 2002; Suh et al., 1998). The intercorrelations among these indicators ranged from .25 to .85 and 9 of the 10 correlations were above .50. The median correlation was .70. To create a common metric, we standardized each measure (across nations). We then averaged the  $z$  scores. To avoid biases due to outliers, we checked the data for extreme scores ( $|z| > 3$ ) and found that no extreme scores were present in the data. The combined scale contained information about 80 nations' level of I-C. Subsequently, we call this measure *Conventional I-C*.

Development is reflected in numerous social indicators. A key aspect is wealth as measured by purchasing power parity (e.g., Diener, Diener, & Diener, 1995). The United Nations publish a broader measure of development, the human development index (United Nations Development Program, 2001), which is based on wealth, education, and health care. We used the 1999 human development index as a key indicator of development. We used this index because it was explicitly created to provide a broad measure of development and because it was available for the largest set of nations. Given the high correlation between wealth and human development, it was not surprising that development was highly correlated with conventional I-C was  $r = .69$  ( $N = 73$ ). This finding replicates Hofstede's (2001) results and it shows that conventional I-C is related to an important cultural dimension that is not distorted by self-report biases.

The following analyses examine the correlations of I-CS scales with conventional I-C and development. The correlation with conventional I-C can only demonstrate convergent validity. Of course, it is possible that conventional I-C itself is not a valid measure of individualism and therefore insufficient to demonstrate construct validity. However, correlations with development can reveal construct validity if one assumes that individualism is related to development. Table 3 shows four important findings. First, it shows the lack of convergent validity between conventional I-C and meta-analytic individualism, which is at the core of the current crises in cross-cultural psychology. The same finding is replicated with the horizontal individualism scale in the international student survey. Both scales also show no relation to development. Second, the partial correlations that control for mean endorsement of all items reveal significant correlations between meta-analytic individualism and horizontal individualism with both conventional I-C and development. This finding is consistent with our hypothesis that horizontal individualism scores are biased by response styles and that controlling for these biases reveals convergent validity of horizontal individualism and conventional I-C.

A third important, yet unpredicted, finding was the negative correlation between vertical individualism and conventional I-C for both simple and partial correlations. This finding is particularly puzzling because both measures are supposed to reflect individualism. Although a full discussion of this issue will be provided only later, we suggest that vertical individualism may be a misnomer. The item content of the scale is related to the valuing of power and hierarchies and seems to overlap with Hofstede's (1980) dimension of Power Distance. This interpretation can explain the negative correlation between vertical individualism and conventional I-C because Power Distance is highly negatively correlated with conventional I-C.

**Table 3.** Simple and Partial Correlations of Individualism and Collectivism Scales With Conventional I-C and Human Development ( $N = 34$  Nations)

	Simple Correlation		Partial Correlation	
	Conventional Individualism Collectivism	Human Development Index	Conventional Individualism Collectivism	Human Development Index
Meta-IND	.17	.23	.50**	.57**
Meta-COL	-.38*	-.28*	.05	.26
H-IND	.13	.16	.56**	.59**
V-IND	-.70**	-.64**	-.63**	-.56**
H-COL	-.31	-.33	.24	.18
V-COL	-.40*	-.42*	.09	.01
ICX	-.46**	-.46**	—	—

Note: Meta-IND = individualism effect sizes (Oyserman et al., 2002), Meta-COL = collectivism effect sizes (Oyserman et al., 2002), H-IND = horizontal individualism; V-IND = vertical individualism; H-COL = horizontal collectivism; V-COL = vertical collectivism; ICX = mean endorsement of all 32 items.

\* $p < .05$ . \*\* $p < .01$ .

Finally, the collectivism scales show negative simple correlations with conventional I-C, but the partial correlations are close to zero. This finding is difficult to interpret because the overall endorsement of I-CS items is also negatively correlated with conventional I-C and development. Thus, it is unclear whether this relation represents a true negative relation between conventional I-C and collectivism or merely the familiar tendency of respondents in traditional, less individualistic cultures to have a stronger acquiescence bias.

In sum, our quantitative comparison of individualism and collectivism measures provided some important new findings that need to be considered in evaluations of the validity of individualism measures. The most important finding was that controlling for overall endorsement of items on individualism and collectivism questionnaires has profound effects on the correlations of horizontal individualism with conventional individualism and development. This finding suggests that the crises caused by Oyserman, Coon, et al.'s (2002) meta-analysis may be resolved by correcting for response styles when measuring (horizontal) individualism.

### Discussion

This article examined national differences on measures of individualism and collectivism. A recent meta-analysis by Oyserman, Coon, and colleague (2002) suggested that individualism fails to show convergent validity across different paradigms. In particular, they showed that Hofstede's I-C dimension failed to show convergent evidence with more recent measures of individualism and collectivism. Some researchers proposed that the lack of convergent validity revealed fundamental problems of the I-C dimension as an explanatory construct (Bond, 2002; Fiske, 2002; Miller, 2002). Others have proposed more cautiously that the problem may be solved with the use of better measures (Oyserman, Kimmelmeier, et al., 2002). Our findings are more consistent with the latter view. By controlling for the overall endorsement of all items, it was possible to demonstrate convergent validity between different measures of individualism, including Oyserman, Coon, et al.'s meta-analytic individualism scores. Subsequently, we discuss the major implications of these findings for the future of cross-cultural research.

#### Individualism

Based on Oyserman, Coon, et al.'s (2002) meta-analysis, some researchers have questioned the usefulness of individualism as an explanatory construct for cross-cultural comparisons. Our results strongly suggest that simple measurement issues are the cause of apparently discrepant findings. Our findings reinforce

the large body of research that has used individualism to explain cultural variation in personality, behavior, emotions, and subjective well being. Although it is beyond the scope of this article to review all of the evidence (see Hofstede, 2001), it seems appropriate to provide a few examples of the diverse set of findings that strengthen the construct validity of individualism and conventional individualism scores.

McCrae et al. provided evidence that individualism influences personality. McCrae (2001) demonstrated that conventional individualism was a significant predictor of nations' average level of extraversion. Moreover, McCrae, Yik, Trapnell, Bond, and Paulhus (1998) demonstrated that acculturation from a less individualistic culture (Hong Kong) to a more individualistic culture (Canada) produced an increase in extraversion in self and peer reports. Extraversion is a more important trait in individualistic cultures than in collectivistic ones because extraversion helps people to initiate contact with strangers and create new social relationships. This skill is more important in individualistic cultures, where social relationships are formed by choice and change frequently, whereas social relations in collectivistic cultures are more stable and determined by social structure.

A second example of the validity of individualism is the repeatedly found relation between individualism and subjective well being (Basabe, Paez, Valencia, Gonzalez, Rime, & Diener, 2002; Diener et al., 1995). Individualism may foster higher life satisfaction because individualistic cultures give people more freedom to pursue a life that is consistent with their own values and personalities. In contrast, less individualistic societies often provide no opportunities to choose or choices are dictated by basic needs. The greater freedom of individualistic cultures also allows people to choose satisfying social relationships, which is reflected in the seemingly contradictor finding of higher well being and higher divorce rates in more individualistic cultures than in less individualistic cultures (Diener et al., 1995). Whereas divorce may have a strong negative impact in the short term, it may also allow people to pursue new, more satisfying relationships. Thus, the higher well being in individualistic cultures is consistent with the definition of individualism as encouraging independence and freedom of choice.

Support for the construct of individualism also stems from the finding that individualism influences the use of affective experiences in life-satisfaction judgments (Schimmack, Radhakrishnan, et al., 2002; Suh et al., 1998). Individualism stresses independence and self-reliance. One aspect of self-reliance is to take one's own internal experiences as an important source of information when making judgments and decisions. The frequency of past pleasant and unpleasant experiences is a stronger determinant of evaluations in more individualistic cultures than in less individualistic cul-

tures (see also Rozin, 1999). This finding is also consistent with Inglehart's (1997) demonstration that pleasure becomes more important with increasing development of nations, as well as with Hofstede's (1980) finding that the importance of leisure increases with individualism and affluence. Indeed, one common criticism of individualism is that it may undermine the foundations of society because the maximizing of well being may destabilize social institutions like family and undermine work ethics.

The previous examples all relied on self-report measures of psychological constructs. However, the validity of individualism measures has also been demonstrated with behavioral indicators. R. Bond and Smith (1996) conducted a meta-analysis of experimental conformity studies using the Asch paradigm. They found that people in more individualistic cultures were less likely to conform to group pressure than people in less individualistic cultures. This finding is consistent with the notion that people in individualistic cultures are more strongly influenced by internal standards than by group pressure.

These findings, and numerous others (Hofstede, 2001; Triandis, 1994), support the importance of individualism for understanding cultural differences and it refines the meaning of this construct. Individualism is best defined as a stronger emphasis on independence and on internal experiences in making judgments and decisions. It also places a greater emphasis on maximizing one's own well being (Inglehart, 1997). This greater emphasis leads to more independence, more resistance to conformity, and greater importance of emotions. The greater emphasis on independence does not mean that individualism leads to solipsism. Rather, individualism creates a need and the social skills to begin and end social relations (McCrae, 2001). To abandon individualism as an explanatory construct would imply that we have to find alternative explanations for the variation in personality, emotion, behavior, and well being across nations. In other words, cross-cultural psychology would have to start over at the point where it was in 1980 before Hofstede published the first quantitative measure of individualism. As we have demonstrated, there is no empirical justification for such a radical conclusion. It should be noted that, in contrast to some of the commentaries, Oyserman, Kimmelmeier, et al. (2002) also refrain from such a drastic conclusion. Next we discuss some modest conceptual changes that may help future research.

### **Polarity of Individualism and Collectivism**

One important issue in cross-cultural research is the relation between individualism and collectivism. Traditionally, individualism and collectivism were seen as opposite ends of a single dimension. However, empiri-

cal studies with the I-CS and related measures often failed to find negative correlations between individualism and collectivism scales in within-nation analyses with individuals as the unit of analysis. Oyserman, Coon, et al. (2002) also found independence between nations' scores on individualism and collectivism. Our results suggest that the empirical relation between individualism and collectivism scales is likely to be influenced by response styles. However, it was impossible to remove the effects of response styles from individualism and collectivism scales to examine the true relationship between these constructs. Future research with better measures needs to address this issue.

In this endeavor, cross-cultural psychologists can learn from similar debates about the polarity of psychological constructs such as Positive Affect and Negative Affect (see Schimmack, Bockenholt, et al., 2002), optimism and pessimism (Scheier & Carver, 1985), and masculinity and femininity (Marsh, Antill, & Cunningham, 1989). Often, one source of controversy is the use of misleading labels that suggest bipolarity when the underlying constructs are not opposites. For example, if masculine is defined as being assertive and feminine is defined as being emotional, one would not expect masculinity and femininity to be bipolar opposites because assertive is not the opposite of emotionality. In contrast, if masculinity is defined as assertiveness and femininity is defined as submissiveness, one would expect masculinity and femininity to be bipolar opposites. A content analysis of the I-CS scales suggests that these constructs are not really opposites. The core elements of horizontal individualism emphasize independence, uniqueness, and freedom of choice. Vertical collectivism is defined in terms of respecting parents, elders, and self-sacrifice. Some of these elements seem to be in opposition because freedom of choice can conflict with sacrificing one's own goals for others. However, other elements of horizontal individualism such as valuing uniqueness are not in opposition with aspects of vertical collectivism such as self-sacrifice. For example, Christianity teaches both uniqueness and self-sacrifice.

We also believe that vertical individualism is an unfortunate term, which suggests that individualistic nations score highly on vertical individualism. However, our analyses suggest that vertical individualism is actually negatively correlated with the conventional individualism dimension. It seems odd to say that, for example, Sweden is a highly individualistic, but not vertically individualistic country because the label vertical individualism implies that this construct is a subtype of individualism. Typically, one expects moderate positive correlations between a global construct and its subtypes. One solution to this problem is to rename the vertical individualism scale as Power Distance, which relates it to Hofstede's (1980) seminal Power Distance dimension. This approach seems reasonable because

vertical individualism and Hofstede's Power Distance dimension are positively correlated ( $r = .67$ ,  $N = 26$ ), and both scales are negatively correlated with conventional Individualism and development (see Table 3). This finding is also consistent with Kimmelmeier et al.'s (2003) finding that vertical individualism was highly correlated with the mean endorsement of authoritarianism ( $r = .71$ ,  $N = 7$ ). We also found vertical individualism to be significantly correlated with Schwartz's dimension of valuing hierarchy ( $r = .66$ ,  $N = 21$ ). In sum, vertical individualism is related to the importance of status and hierarchies, and we propose that Hofstede's original label power distance be used to describe this dimension of cultural differences.

The common negative relation between individualism and power distance also has implications for the polarity of individualism and collectivism. If individualism is highly negatively correlated with power distance, and if individualism and collectivism are opposites, then collectivism is very similar to power distance. Alternatively, collectivism is not the opposite of individualism, and power distance is a more likely candidate for the opposite of individualism. The latter alternative is consistent with a semantic analysis of individualism, collectivism, and authoritarianism (Gelfand, Triandis, & Chan, 1996), which also showed individualism to be opposed to authoritarianism and orthogonal to collectivism. Although these findings are not conclusive, cross-cultural psychologists need to pay more attention to the relation between individualism and power distance and its implications for the conceptualization of individualism and collectivism as bipolar opposites. Hofstede (1980) presented some arguments for the separation of individualism and power distance, but our analysis suggests that power distance is a better candidate for the opposite pole of individualism than collectivism measures.

The results for collectivism are more ambiguous. First, the relation to the conventional I-C dimension was negative but weak and totally confounded with potential effects of response styles. Second, collectivism was also only weakly related to development. Two problems need to be solved to make progress in the conceptualization of collectivism. First, cross-cultural psychologists may have to rethink the concept of collectivism. The assumption that collectivism is the opposite of individualism has created the belief that individualism can only exist at the expense of social relationships. However, people in individualistic cultures value social relationships (e.g., Oishi, Schimmack, Diener, & Suh, 1998) and are happier when they have fulfilling social relationships (Schimmack, Diener, & Oishi, 2002). Furthermore, marital satisfaction is a strong predictor of life satisfaction in individualistic cultures (Russell & Wells, 1994), and marriage is equally associated with higher life satisfaction in more and less individualistic cultures (Diener, Gohm,

Suh, & Oishi, 2000). Thus, individualism should not be equated with a solipsistic existence and collectivism with the loss of a unique self. Horizontal collectivism really means valuing and enjoying social relationships with equals and at present relatively little is known about the cultural causes and consequences of this construct.

Vertical collectivism has been linked to the endorsement of traditional values and conservatism (Oishi et al., 1998). Many vertical collectivism items stress self-sacrifice, which relates this dimension to Inglehart's (1997) secular versus religious dimension of cultural differences. Indeed, we found vertical collectivism to be highly correlated with this dimension, although the number of overlapping nations was small ( $r = -.78$ ,  $N = 17$ ). Although the secular versus religious dimension is slightly correlated with development, it rank orders nations differently than does development or individualism. For example, East Asian and Eastern European countries are more secular than North American cultures. Future research should examine the relation between vertical collectivism and the dominance of secular versus religious values more closely.

In sum, we propose that three of the four dimensions in the I-CS reflect important and meaningful cultural differences between nations. Horizontal individualism reflects (conventional) individualism; that is, valuing freedom, independence, and individuality. Vertical individualism reflects power distance; that is, the importance of status, and hierarchical organization of society. Vertical collectivism reflects the importance of religious (vs. secular) as well as conservative and traditional values. The status of horizontal collectivism is less clear

### **How many dimensions of cultural differences are there?**

As in other research areas (e.g., personality, emotions), there is no absolute answer to the number of important cultural dimensions. Rather, the number is determined by the strength of correlations among dimensions and by the level of analysis. Individualism is a global dimension of cultural differences that captures several related yet distinct aspects of a culture. To argue that individualism is a useful and valid construct for cross-cultural research does not imply that individualism is the only dimension of cultural differences, nor does it mean that it is the optimal construct for every cultural analysis. Thus, M. H. Bond's (2002) suggestion that cross-cultural psychology needs narrower theories and more specific constructs does not imply that cross-cultural psychology has to abandon individualism as a global explanatory construct. Rather, global and specific constructs can co-exist within a general theory of cultural differences, just like global

and specific personality traits are needed for a complete understanding of personality. To summarize, we propose that individualism is one important and valid dimension of cross-cultural differences. We do not propose that individualism is the only dimension of cultural differences, nor do we suggest that a useful global dimension renders narrower and more specific constructs useless.

### Measurement Issues

One clear message of this article is that cross-cultural psychologists have to pay more attention to measurement problems. It is surprising that simple problems like response styles have been largely ignored in the recent debate, whereas measurement of cross-cultural differences was an important topic during the early stages of cross-cultural research (Triandis & Berry, 1980). Our findings suggest that response styles have a profound influence on cross-cultural comparisons of I–CS scores. Whereas simple correlations that do not control for response styles showed no correlations between horizontal individualism and conventional individualism, partial correlations that control for response styles showed convergent validity of the two individualism scales. This finding strongly suggests that partial correlations removed measurement error from the horizontal individualism scores. Our argument may seem circular, but it is not. A circular argument would be that horizontal individualism measures individualism because it is correlated with conventional individualism after removing measurement error and that partial correlations removed measurement error because the partial correlation between horizontal individualism with conventional individualism was significant. In this argument, A is correct if we assume that B is correct, and B is correct if we assume that A is correct. However, we also demonstrated that the partial correlation between horizontal individualism and development was positive and significant. This finding implies that the partial correlation removed measurement error, if we assume that individualism is correlated with development. The same argument can be made for other correlates of conventional individualism such as conformity behavior, extraversion, well being, and the importance of internal experiences. Thus, to argue that horizontal individualism scores are not biased by measurement error, one also has to argue that conventional individualism is not a valid measure of individualism and that individualism is not correlated with development, extraversion, well being, and the importance of internal experiences. We find this a daunting task. Given the evidence for response styles in other cross-cultural investigations, it is more plausible to interpret our findings as evidence that horizontal individualism scores are biased by cultural differences in response styles.

One solution to this problem is the use of statistical methods to correct for response styles. However, this approach has its problems (Fischer, *in press*). The most salient problem is that response styles are not independent of substantive cultural dimensions. We found that collectivism scores were highly correlated with the overall endorsement of all items. This finding is consistent with previous findings that respondents in more traditional cultures have a stronger acquiescence bias (Hofstede, 1980; Schwartz, 1994). When response styles are confounded with valid variance it becomes difficult to separate measurement error from substantive variance. Thus, one important task for future cross-cultural research is to develop better measures that reduce the influence of response styles. A first step is to develop questionnaires with an equal number of directly scored and reverse scored items. Reverse scored items control for the simplest forms of response styles such as a preference for extreme or modest response categories. Another solution is to use rankings or paired comparisons (Oishi et al., 1998). Hahn, et al. (2003) used paired comparisons to avoid the problem of response styles in a comparison of value preferences in five nations. One limitation of paired comparisons is that they tend to impose negative relations among constructs. However, if the number of constructs is reasonably large, this effect is small, and the benefit of controlling for response styles outweighs the cost of this bias. In sum, we propose that cross-cultural psychology needs to develop a set of new measures with good content validity and psychometric properties.

### Individualism and Idiocentrism

Our analyses also have implications for studies of individualism at the individual level, which are better called studies of idiocentrism (Oyserman, Coon, et al., 2002; Triandis, 1995). As noted in the introduction, questionnaires such as the I–CS were predominantly created to assess individuals' level of idiocentrism (individual-level individualism) and allocentrism (individual-level collectivism). At the individual level, vertical and horizontal ideocentrism are nearly independent constructs (Singelis et al., 1995). Using Diener et al.'s International data, we replicated this finding with and without controlling for overall endorsement. Thus, the negative relation between vertical and horizontal individualism is unique to the analysis of nations. It is common for analysis with nations as units of analysis and those based on individuals to produce different results (Hofstede, 1980; Schwartz, 1994).

Ideocentrism and allocentrism measures were created in the hope of illuminating the influences of culture on the behaviors, thoughts, and feelings of individuals. For example, if individualism is a cause of higher

subjective well being in nations, then idiocentrism should also predict individual differences in subjective well being within cultures. Oyserman, Coon, et al.'s (2002) meta-analysis suggested that this is often not the case. As a consequence, idiocentrism may be a less powerful explanatory construct at the individual level than is individualism at the cultural level. However, it is possible that response styles also distort the measurement of idiocentrism within nations. For example, value ratings also have to be standardized in analyses across individuals within a single culture to remove measurement error (Oishi et al., 1998). Hence, previous failures to relate unstandardized I–CS scales to dependent variables may be due to measurement error. It is of critical importance to examine this possibility in future studies.

Even unbiased measures of idiocentrism may not reproduce the findings for individualism in cross-national analysis. It is possible that additional factors influence the dependent variable at the individual level but not at the cultural level. For example, wealth may have a much stronger influence on SWB at the cultural level than at the individual level because personality traits have a strong influence on individuals' SWB and there is less variability in personality traits across nations. It is also possible that cultural variables influence the dependent variable, but the effect is not reflected in within-culture analysis. For example, corruption is negatively related to SWB at the national level. At the same time, corruption could be positively related to SWB at the individual level within nations because corrupt individuals may benefit from corruption, while hurting the SWB of honest citizens. Of course, it is also possible that valid measures of idiocentrism show similar correlations at the individual level as measures of individualism at the cultural level. This is an important empirical question that needs to be pursued in future research.

### **Individualism and Development**

Many researchers have pointed out a close link between the level of development of a nation and individualism. Our analyses reinforce this link and showed virtually identical correlations with conventional individualism and development. Thus, one may wonder whether the construct of individualism is redundant with development. Furthermore, it may be preferable to rely on objective indicators such as purchasing power parity to measure this dimension of national differences to avoid the measurement problems of rating scales. However, development is conceptually not equivalent with individualism. Affluence or the ability to choose is not the same as valuing choice and independence. Inglehart (1997) demonstrated how changes in affluence produced changes in social attitudes. With increasing affluence, societies tend to become less materialistic

and more post-materialistic. Rather than obliterating the conceptual distinction between development and individualism, it seems more important to study how the features of society (e.g., democracy, observance of human rights, & affluence) influence individuals' personality, values, and emotional experiences.

Nevertheless, the high correlation between development and individualism poses a challenge for empirical research. In correlational studies, it is common practice to use regression analysis to identify the most immediate cause of variation in a dependent variable. However, if two conceptually separate predictors are empirically highly correlated, this approach is no longer feasible, because most of the valid variance is shared by both predictors. Hence, it is often difficult to determine whether development or individualism is more closely related to national variation in a variable of interest (see Diener et al., 1995). To disentangle these effects, it may be useful to identify specific nations with opposing deviations (e.g., a poor and individualistic nation, wealthy and collectivistic nations). As noted by Oyserman, Coon, et al. (2002) the common comparison of Japan and the United States may be useful because Japan is relatively more collectivistic than its level of development would suggest. However, exclusive reliance on Japan can also be misleading because Japan also differs on other dimensions from the United States. For example, Schimmack, Oishi, et al. (2002) demonstrated that cultural influences on the relation between pleasant and unpleasant emotions was related to Asian dialectical thinking and not to individualism. To separate the effects of individualism from the effects of other cultural dimensions, it is necessary to have more than two nations. Not surprisingly, the strongest evidence for individualism as an explanatory construct stems from multinational studies with a heterogeneous sample of nations (R. Bond & Smith, 1996; Diener, Diener, & Diener, 1995; McCrae, 2001; Suh et al., 1998).

### **Stability and Change of Individualism in the Future**

Several considerations suggest that national differences in individualism will remain in the near future. First, national differences in individualism have remained highly stable since Hofstede (1980) first measured individualism. Second, individualism is highly correlated with wealth and other indicators of development, and national differences in these indicators have also remained very stable over the past decades. However, the Human Development Index shows an absolute increase over the past two decades (United Nations Development Programme, 2001). It would be interesting to examine whether individualism also shows absolute increases. It will also be important to track individualism annually to examine the cultural factors that

produce relative changes in individualism. Will East Asian cultures continue to be relatively low on individualism despite their increasing wealth, or will wealth eventually make them more individualistic cultures? We hope that cross-cultural psychologists will routinely assess individualism in their cultures to examine these important questions.

### Conclusion

We demonstrated that individualism is a reliable and valid dimension of cultural differences. Abandoning this core dimension of cross-cultural research would be a huge mistake (see Oyserman, Kimmelmeier, et al., 2002). However, individualism is only one dimension of cultural differences. In the future, cross-cultural psychologists need to deepen the understanding of the causes and consequences of individualism and validate additional dimensions of cultural differences. The pursuit of new directions in cross-cultural psychology does not imply abandoning individualism. Indeed, new constructs in cross-cultural psychology will have to demonstrate discriminant validity with respect to this well-established dimension of cultural differences.

### References

- Basabe, N., Paez, D., Valencia, J., Gonzalez, J. L., Rime, B., & Diener, E. (2002). Cultural dimensions, socioeconomic development, climate, and emotional hedonic level. *Cognition and Emotion, 16*, 103–125.
- Bond, M. H. (2002). Reclaiming the individual from Hofstede's ecological analysis—A 20-year odyssey: Comment on Oyserman et al. (2002). *Psychological Bulletin, 128*, 73–77.
- Bond, R., & Smith, P. B. (1996). Culture and conformity: A meta-analysis of studies using Asch's (1952b, 1956) line judgment task. *Psychological Bulletin, 119*, 111–137.
- Diener, E., & Diener, M. (1995). Cross-cultural correlates of life satisfaction and self-esteem. *Journal of Personality and Social Psychology, 68*, 653–663.
- Diener, E., Diener, M., & Diener, C. (1995). Factors predicting the subjective well-being of nations. *Journal of Personality and Social Psychology, 69*, 851–864.
- Diener, E., Gohm, C. L., Suh, E., & Oishi, S. (2000). Similarity of the relations between marital status and subjective well-being across cultures. *Journal of Cross-Cultural Psychology, 31*, 419–436.
- Fischer, R. (in press). Standardization to account for cross-cultural response bias: A classification of score adjustment procedures and review of research in JCCP. *Journal of Cross-Cultural Psychology*.
- Fiske, A. P. (2002). Using individualism and collectivism to compare cultures—A critique of the validity and measurement of the constructs: Comment on Oyserman et al. (2002). *Psychological Bulletin, 128*, 78–88.
- Gelfand, M. J., Triandis, H. C., & Chan, D. K.-S. (1996). Individualism versus collectivism or versus authoritarianism? *European Journal of Social Psychology, 26*, 397–410.
- Green, D. P., Goldman, S. L., & Salovey, P. (1993). Measurement error masks bipolarity in affect ratings. *Journal of Personality and Social Psychology, 64*, 1029–1041.
- Hahn, J., Oishi, S., Schimmack, U., Radhakrishnan, P., Dzokoto, V., & Ahadi, S. (2003). *The measurement of values across cultures: A pairwise comparison approach*. Manuscript under review.
- Helmreich, R. L., & Merritt, A. C. (1998). *Culture at work in aviation and medicine: National, organizational and professional influences*. Aldershot, England: Ashgate.
- Hofstede, G. (1980). *Culture's consequences*. Beverly Hills, CA: Sage.
- Hofstede, G. (2001). *Culture's consequences* (2nd ed.). Beverly Hills, CA: Sage.
- Hoppe, M. H. (1990). *A comparative study of country elites: International differences in work-related values and learning and their implications for management training and development*. Unpublished doctoral dissertation, University of North Carolina at Chapel Hill.
- Hui, C. H. (1988). Measurement of individualism–collectivism. *Journal of Research in Personality, 22*, 17–36.
- Inglehart, R. (1997). *Modernization and post-modernization*. Princeton, NJ: Princeton University Press.
- Kashima, Y., Yamaguchi, S., Kim, U., & Choi, S. (1995). Culture, gender, and self: A perspective from individualism–collectivism research. *Journal of Personality and Social Psychology, 69*, 925–937.
- Kimmelmeier, M., Burnstein, E., Krumov, K., Genkova, P., Kanagawa, C., Hirshberg, M., et al. (2003). *Journal of Cross-Cultural Psychology, 34*, 304–322.
- Kim, U., Triandis, H. C., Kagitcibasi, C., Choi, S.-C., & Yoon, G. (Eds.) (1994). *Individualism and collectivism: Theory, method, and applications*. Newbury Park, CA: Sage.
- Markus, H. R., & Kitayama, S. (1991). Culture and self: Implications for cognition, emotion and motivation. *Psychological Review, 98*, 224–253.
- Marsh, H. W., Antill, J. K., & Cunningham, J. D. (1989). Masculinity and femininity: A bipolar construct and independent constructs. *Journal of Personality, 57*, 625–663.
- McCrae, R. R. (2001). Trait psychology and culture: Exploring intercultural comparisons. *Journal of Personality, 69*, 819–846.
- McCrae, R. R., Yik, M. S. M., Trapnell, P. D., Bond, M. H., & Paulhus, D. L. (1998). Interpreting personality profiles across cultures: Bilingual, acculturation, and peer rating studies of Chinese undergraduates. *Journal of Personality and Social Psychology, 74*, 1041–55.
- Merritt, A. (2000). Culture in the cockpit: Do Hofstede's dimensions replicate? *Journal of Cross-Cultural Psychology, 31*, 283–301.
- Miller, J. G. (2002). Bringing culture to basic psychological theory—Beyond individualism and collectivism: Comment on Oyserman et al. (2002). *Psychological Bulletin, 128*, 97–109.
- Oishi, S., Diener, E., Lucas, R. E., & Suh, E. M. (1999). Cultural variation in predictors of life satisfaction: A perspective from needs and values. *Personality and Social Psychology Bulletin, 25*, 980–990.
- Oishi, S., Schimmack, U., Diener, E., & Suh, E. (1998). On the measurement of values and individualism–collectivism. *Personality and Social Psychology Bulletin, 24*, 1177–1189.
- Oyserman, D., Coon, H. M., & Kimmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin, 128*, 3–72.
- Oyserman, D., Kimmelmeier, M., & Coon, H. M. (2002). Cultural psychology, a new look: Reply to Bond (2002), Fiske (2002), Kitayama (2002), and Miller (2002). *Psychological Bulletin, 128*, 110–117.
- Rozin, P. (1999). Preadaptation and the puzzles and properties of pleasure. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 109–133). New York: Russell Sage Foundation.

- Russell, R. J. H., & Wells, P. A. (1994). Predictors of happiness in married couples. *Personality and Individual Differences*, *17*, 313–321.
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology*, *4*, 219–247.
- Schimmack, U., Bockenholt, U., & Reizenzein, R. (2002). Response styles in affect ratings: Making a mountain out of a molehill. *Journal of Personality Assessment*, *78*, 461–483.
- Schimmack, U., Diener, E., & Oishi, S. (2002). Life-satisfaction is a momentary judgment and a stable personality characteristic: The use of chronically accessible and stable sources. *Journal of Personality*, *70*, 345–385.
- Schimmack, U., Oishi, S., & Diener, E. (2002). Cultural influences on the relation between pleasant emotions and unpleasant emotions: Asian dialectic philosophies or individualism–collectivism? *Cognition and Emotion*, *16*, 705–719.
- Schimmack, U., Radhakrishnan, P., Oishi, S., Dzokoto, V. & Ahadi, S. (2002). Culture, personality, and subjective well-being: Integrating process models of life-satisfaction. *Journal of Personality and Social Psychology*, *82*, 1313–1329.
- Schwartz, S. H. (1994). Beyond individualism and collectivism: New cultural dimensions of values. In U. Kim, H. C. Triandis, C. Kagitcibasi, S.-C. Choi, & G. Yoon (Eds.), *Individualism and collectivism: Theory, method, and applications* (pp. 85–122). Newbury Park, CA: Sage.
- Singelis, T. M., Triandis, H. C., Bhawuk, D., & Gelfand, M. J. (1995). Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. *Cross-Cultural Research*, *29*, 240–275.
- Smith, P. B. (2004). Acquiescence response bias as an aspect of cultural communication style. *Journal of Cross-Cultural Psychology*, *35*, 50–61.
- Spector, P. E., Cooper, C. L., Sanchez, J. I., O'Driscoll, M., Sparks, K., Bernin, P., et al. (2001). An international study of the psychometric properties of the Hofstede Values Survey Module 1994: A comparison of individual and country/province level results. *Applied Psychology: An International Review*, *50*, 269–281.
- Suh, E., Diener, E., Oishi, S., & Triandis, H. C. (1998). The shifting basis of life satisfaction judgments across cultures: Emotions versus norms. *Journal of Personality and Social Psychology*, *74*, 482–493.
- Trafimow, D., Triandis, H. C., & Goto, S. G. (1991). Some tests of the distinction between the private and the collective self. *Journal of Personality and Social Psychology*, *60*, 649–655.
- Triandis, H. C. (1972). *The analysis of subjective culture*. Oxford, England: Wiley.
- Triandis, H. C. (Ed.). (1980). *Handbook of cross-cultural psychology*. Boston: Allyn & Bacon.
- Triandis, H. C. (1988). Collectivism and individualism: A reconceptualization of a basic concept in cross-cultural psychology. In G. K. Verma & C. Bagley (Eds.), *Personality, attitudes, and cognitions* (pp. 60–95). London: MacMillan.
- Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, *96*, 506–520.
- Triandis, H. C. (1994). Cross-cultural industrial and organizational psychology. In H. C. Triandis, M. D. Dunnette, & L. M. Hough (Eds.) *Handbook of industrial and organizational psychology* (Vol. 4, pp. 103–172). Palo Alto, CA: Consulting Psychologists Press.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press.
- Triandis, H. C. (1996). The psychological measurement of cultural syndromes. *American Psychologist*, *51*, 407–415.
- Triandis, H. C., & Berry, J. W. (1980). *Handbook of cross-cultural psychology: Methodology* (Vol. 2). Boston: Allyn & Bacon.
- Triandis, H. C., Bontempo, R., Betancourt, H., Bond, M., Leung, K., Brenes, A., et al. (1986). The measurement of etic aspects of individualism and collectivism across cultures. *Australian Journal of Psychology*, *38*, 257–267.
- 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.
- Triandis, H. C., Leung, K., Villareal, M., & Clack, F. (1985). Allo-centric vs. idiocentric tendencies: Convergent and discriminant validation. *Journal of Research in Personality*, *19*, 395–415.
- Triandis, H. C., McCusker, C., & Hui, C. H. (1990). Multimethod probes of individualism and collectivism. *Journal of Personality and Social Psychology*, *59*, 1006–1020.
- United Nations Development Programme. (2001). *Human development report 2001*. <http://www.undp.org/hdr2001/>
- Vandello, J. A., & Cohen, D. (1999). Patterns of individualism and collectivism across the United States. *Journal of Personality and Social Psychology*, *77*, 279–292.
- Voronov, M., & Singer, J. A. (2002). The myth of individualism–collectivism: A critical review. *Journal of Social Psychology*, *142*, 461–480.