

# Simultaneous Administration of the Rosenberg Self-Esteem Scale in 53 Nations: Exploring the Universal and Culture-Specific Features of Global Self-Esteem

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The Rosenberg Self-Esteem Scale (RSES) was translated into 28 languages and administered to 16,998 participants across 53 nations. The RSES factor structure was largely invariant across nations. RSES scores correlated with neuroticism, extraversion, and romantic attachment styles within nearly all nations, providing additional support for cross-cultural equivalence of the RSES. All nations scored above the theoretical midpoint of the RSES, indicating generally positive self-evaluation may be culturally universal. Individual differences in self-esteem were variable across cultures, with a neutral response bias prevalent in more collectivist cultures. Self-competence and self-liking subscales of the RSES varied with cultural individualism. Although positively and negatively worded items of the RSES were correlated within cultures and were uniformly related to external personality variables, differences between aggregates of positive and negative items were smaller in developed nations. Because negatively worded items were interpreted differently across nations, direct cross-cultural comparisons using the RSES may have limited value.

*Keywords:* self-esteem, cross-cultural psychology, personality

Global self-esteem is typically defined as one's overall sense of worthiness as a person (Baumeister, 1993; Branden, 1994; Rosenberg, 1979). Among the many devices for assessing global self-esteem, the self-report version of the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) remains the most widely used measure (Byrne, 1996; Wylie, 1974). The popularity of the 10-item RSES has been due, in part, to its long history of use, its uncomplicated language, and its brevity (it takes only 1 or 2 min to complete). In addition, the RSES displays a transparent one-dimensional factor structure (Corwyn, 2000; Fleming & Courtney, 1984; O'Brien, 1985; Whiteside-Mansell & Corwyn, 2003), though some studies have found underlying subfactors within the RSES (Carmines & Zeller, 1979; Tafarodi & Swann, 1996).

The relative simplicity and accessibility of the RSES has favored a considerable number of translations, including almost all Indo-European languages (Helbing, 1982; Jerusalem, 1988; Shorkey & Whiteman, 1978; Vallieres & Vallerand, 1990) and also many languages from completely different linguistic families such as Chinese (Cheng & Page, 1989; Farruggia, Chen, Greenberger,

Dmitrieva, & Macek, 2004), Japanese (Kamakura, Jukoando, & Ono, 2001; Okada & Nagai, 1990), Persian (Shapurian, Hojat, & Nayerahmadi, 1987), and Estonian (Pullmann & Allik, 2000). Because of its presumed simplicity, the psychometric properties of the RSES have seldom been examined with demand and rigor across cultures, often leaving open questions of structural and measurement equivalence.

The current study addressed this concern by simultaneously administering the RSES, alongside other questionnaires, to college student and community samples from 53 nations. More specifically, the current study had five main objectives. First, we evaluated the structural equivalence of the RSES across cultures, focusing on internal reliability and factor structure invariance. Second, we examined the external equivalence of the RSES by looking at its universal links with personality traits and attachment styles across cultures. Third, we determined whether positive self-evaluation (i.e., an average score above the midpoint of the RSES) prevailed across all cultures, particularly non-Western cultures. Fourth, we tested for differential responding to positively and negatively coded self-esteem items and investigated the possibility of a negative item bias across cultures. Fifth, we explored whether cultures systematically differed in the self-competence and self-liking facets of global self-esteem.

## Structural Equivalence of Global Self-Esteem

Our first objective was to evaluate the structural equivalence of the RSES across a large number of cultures. Structural equivalence refers to whether a measure possesses similar psychometric properties across cultures (van de Vijver & Leung, 1997). At present, there is no simple method that allows researchers to confidently establish whether personality constructs such as global self-esteem

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have structural equivalence across cultures. One proposal to address this problem is the *metatrait hypothesis*. Baumeister and Tice (1988) defined *metatrait* as the trait of having or not having a particular trait. This means that not all trait constructs are equally applicable to all individuals or, as in the present case, to all cultures. According to Baumeister and Tice, metatraitness can be operationalized in terms of interitem response variance. Low variance of responses on an internally consistent scale indicates that the person responded comparably to all items, whereas high variance indicates that the person responded erratically and inconsistently to different items of the scale (see also Tice, 1989).

Unfortunately, metatraitness variance is strongly influenced by a participant's tendency to use the extremes rather than the middle of response scales. Because the concept of metatraitness is not clearly separable from response style, it is insufficient for fully evaluating the structural equivalence of personality trait scales. Other methods are often needed, such as replicating the factor structure of personality scales and demonstrating that scales possess robust internal reliability across cultures. If these psychometric features were replicated in all or nearly all cultures, this would provide evidence of the structural equivalence of self-esteem as assessed by the RSES. Such evidence would not, however, provide definitive evidence that translations of the RSES have complete full metric or scalar equivalence (see Brislin, 2000; Church, 2001; van de Vijver & Leung, 2001).

#### External Equivalence of Global Self-Esteem

External equivalence is a form of structural equivalence in which a measure is related to external variables in a consistent way across languages and cultures (van de Vijver & Leung, 1997). Our second objective was to compare the responses with the RSES—both within and across cultures—with other personality measures and test the external equivalence of the RSES. Previous findings have indicated that scores on the RSES correlate strongly with two of the Big Five dimensions: Neuroticism and Extraversion (Costa, McCrae, & Dye, 1991; Kwan, Bond, & Singelis, 1997; Pullmann & Allik, 2000; Robins, Tracy, & Trzesniewski, 2001). The universality of this relationship has been questioned by an opposing view that self-esteem is a culturally specific construct that only sometimes provides a protective barrier against neuroticism. In this view, the main anxiety-buffering function of high self-esteem may exist in only a limited number of cultures (Singelis, Bond, Sharkey, & Siu Yiu Lai, 1999). If this theoretical position were correct, the relationship between high self-esteem and low levels of neuroticism would not occur in all societies. In contrast, if the links between self-esteem and neuroticism were pervasive, this would serve as evidence of the external equivalence of global self-esteem and the RSES in particular.

Attachment styles are also thought to have universal associations with self-esteem (Bowlby, 1988). Childhood experiences that include responsive, supportive, and consistent caregiving leave children with an abiding sense of positive self-regard and a lasting feeling that the self is worthy of love. These thoughts and feelings eventually crystallize into an internal working model or cognitive-emotional "model of self" rooted in high self-esteem. Unresponsive, abusive, or inconsistent caregiving experiences, in contrast, are thought to leave children with a negative or dysfunctional internal working model. Eventually, this model of self becomes a

stable part of the child's core personality and subsequently affects relationships throughout the life span (Bartholomew & Horowitz, 1991). If models of self were universally related to RSES responses across all cultures, this would lend further support to the external equivalence of global self-esteem (see also Farruggia et al., 2004).

#### A Universal Trend Toward Positive Self-Evaluation?

Our third objective was to determine whether, and to what degree, people across different cultures have generally positive self-evaluations. Even within a single country, various ethnic or cultural groups may exhibit considerable differences in the distributions of self-esteem scores. For example, African Americans in the United States score consistently higher than European Americans on measures of global self-esteem (Bachman & O'Malley, 1984), whereas European Americans score higher than other ethnic groups, including Asian Americans and Native Americans (Twenge & Crocker, 2002). Differences in mean scores do not necessarily indicate that one cultural group has a reduced or even absent sense of positive self-evaluation, however. Relatively low values may still reside above the midpoint of scales, and the conceptual meaning and functional impact of positive scores may differ across cultures (Church, 2001; van de Vijver & Leung, 1997).

In the case of global self-esteem, there are reasons for questioning whether most people maintain positive self-evaluations. Consider, for example, that a self-critical focus, rather than positive self-evaluation, may be characteristic of individuals from Japan. It has been claimed that in collectivistic cultures, to which Japan is usually classified, individuals are primarily concerned with how to fit in, belong, and become part of relevant social relationships (Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997; Sedikides, Gaertner, & Toguchi, 2003). One's feelings of worth in Japan may depend less on generally positive self-evaluations and more on self-criticism as a functional means of achieving social harmony. Heine and his colleagues have serious reservations on this issue, noting that ". . . self-esteem research, by and large, has been conducted by North American researchers at North American universities with North American participants using methodologies that were developed in North America" (Heine, Lehman, Markus, & Kitayama, 1999, p. 768). Such criticisms evoke serious concerns with the generalizability of positive self-evaluations and attest to the necessity of replicating self-esteem findings from North America across diverse forms of human culture.

Empirical studies have documented that mean scores on global self-esteem scales in Japan are from one to two standard deviation units lower than in English-speaking and prototypically individualistic countries such as Canada (Campbell et al., 1996) and Australia (Feather & McKee, 1993). Even more compelling, overall positive self-evaluations tend to increase among Japanese people as their exposure to North American culture increases (Heine et al., 1999). Measures of self-esteem have yielded comparable differences between the individualistic United States and collectivist Hong Kong (Kwan, Bond, & Singelis, 1997) and between the individualistic United Kingdom and collectivist Spain (Tafarodi & Walters, 1999).

Previously, the largest cross-cultural study of self-esteem, based on a single-item measure of self-satisfaction, covered 31 countries

on five continents (Diener & Diener, 1995). Rather surprisingly, there was no correlation between the culture-level self-satisfaction and culture-level individualism–collectivism. However, individualism–collectivism did moderate the relationship between general life satisfaction and self-specific satisfaction, with the correlation being higher in individualistic countries. Although single-item measures of self-esteem have been shown to be reliable within one culture (Robins, Hendin, & Trzesniewski, 2001), they still have limited applications in the cross-cultural research. Beyond the obvious problems with internal consistency, it is very difficult to evaluate whether the original meaning of a single-item measure perseveres across multiple translations. Moreover, it is impossible to counter against the *acquiescence bias*, a tendency to agree with a statement regardless of its content, with single-item measures. In this respect, the RSES, a well balanced measure containing an equal number of positively and negatively worded items, would more fully address the links among individualism–collectivism, global self-esteem, and generally positive self-evaluation.

#### Positive and Negative Item Responding: The Negative Item Bias

Our fourth objective was to determine whether people from certain regions of the world respond differently to the positive and negative items of the RSES. Although psychometric studies have generally supported the unidimensionality of the RSES (Carmines & Zeller, 1979; Corwyn, 2000; Dunbar, Ford, Hunt, & Der, 2000; Fleming & Courtney, 1984; Marsh, 1996; O'Brien, 1985), when multiple factors have been reported, the tendency is for the positively and negatively coded items of the RSES to form two separate factors. A tendency for positive and negative items to group into two factors does not necessarily reflect a substantively important distinction between positive and negative self-esteem, however (Greenberger, Chen, Dmitrieva, & Farruggia, 2003; Spector, Van Katwyk, Brannick, & Chen, 1997). The differential behavior of positively and negatively worded items may mirror a substantively irrelevant method effect (Marsh, 1996). Carmines and Zeller (1979) reasoned that if the distinction is substantively meaningful the two sums, formed from positively and negatively worded items, should be differentially related to external constructs. They correlated sums of the positive and negative items with several external criteria and found no significant differences, at least among American samples. Thus, the two factors that seem to arise from the RSES may be an artifact of differential responses to positively and negatively worded items. Additional studies have also concluded that these two factors are largely a consequence of method effects associated with negatively worded items (Corwyn, 2000; Dunbar et al., 2000; Marsh, 1996).

Previous studies have found that some individuals respond differently to negatively coded questions (Benson & Hocevar, 1985; Marsh, 1986). If people from certain types of cultures respond differently to the phrasing of negative items, this would indicate that direct cross-cultural comparisons on the RSES are confounded by a negative item bias. In this study, we were able to test for this negative item bias across a wide variety of languages and cultures, and we were able to relate the degree of negative item bias to other sociocultural indicators (e.g., Hofstede, 2001).

#### Self-Competence and Self-Liking as Facets of Self-Esteem

Our fifth objective was to explore whether cultures systematically differ in the self-competence and self-liking facets of global self-esteem (Tafarodi & Milne, 2002; Tafarodi & Swann, 2001). Self-competence is the instrumental feature of the self as causal agent, the sense that one is confident, capable, and efficacious. Self-liking is the intrinsic feature of the self as a social object, the sense that one is a good person, is socially relevant, and contributes to group harmony. Tafarodi and his colleagues argue that there is an inherent tradeoff between these competing components of global self-esteem. In individualistic cultures (such as the United States), self-confidence, independence, and the priority of the instrumental self take precedence over group harmony, resulting in higher levels of self-competence but lower levels of self-liking. In collectivistic cultures (such as China), the individual needs for self-confidence and efficacy are subordinated to the social needs of others, resulting in overall higher self-liking but lower self-competence.

In one study, Tafarodi and Swann (1996) found that Chinese college students score higher on self-liking than American students but lower in self-competence. Similar results have been documented in comparisons of Spanish (i.e., collectivistic) and British (i.e., individualistic) college students (Tafarodi & Walters, 1999) and in comparisons of Malaysian (i.e., collectivistic) and British samples (Tafarodi, Lang, & Smith, 1999). Confirming this trend across a large number of cultures would provide support for the notion that individualism–collectivism plays a key role in moderating the psychological experience of self-evaluation (see also Crocker & Luhtanen, 1990; Markus & Kitayama, 1991).

#### Method

##### *Samples*

The research reported in this article is a result of the International Sexuality Description Project (ISDP), a collaborative effort of over 100 social, behavioral, and biological scientists from 56 nations (Schmitt, Alcalay, et al., 2004; Schmitt et al., 2003). As seen in Table 1, RSES data were obtained from 53 nations of the ISDP. Most samples were composed of college students, though some included general members of the community. All samples were convenience samples. Most samples were recruited as volunteers, some received course credit for participation, and others received a small monetary reward for their participation. All samples were administered an anonymous self-report survey; most surveys were returned via sealed envelope and/or the usage of a drop box. Return rates for college student samples tended to be relatively high (around 95%). Return rates for community samples were around 50%.<sup>1</sup> Further details on the sampling and assessment procedures are provided elsewhere (Schmitt, Alcalay, et al., 2004; Schmitt et al., 2003) and are available from the first author.

##### *Measures*

*Translation procedures.* Researchers from nations where English was not the primary language used a translation–back-translation procedure and administered the ISDP survey in their native language. This procedure

<sup>1</sup> The results reported in this article were unaffected by differences in return rates and the percentage of college students across samples.

Table 1  
*Sample Sizes and Languages of 53 Nations From the International Sexuality Description Project (ISDP)*

Nation	Men	Women	<i>n</i>	Language
Argentina	110	136	246	Spanish
Australia	201	284	485	English
Austria	207	259	466	German
Bangladesh	83	62	145	Bangla
Belgium	163	351	514	Dutch (Flemish)
Bolivia	91	88	179	Spanish
Botswana	97	116	213	English
Brazil	38	55	93	Portuguese
Canada	370	662	1,032	English/French
Chile	99	211	310	Spanish
Congo, Dem. Rep. of	123	60	183	French
Croatia	113	109	222	Croatian
Cyprus	23	36	59	Greek
Czech Rep.	105	129	234	Czech
Estonia	77	106	183	Estonian
Ethiopia	138	91	229	English
Fiji	78	81	159	English
Finland	31	89	120	Finnish
France	57	73	130	French
Germany	291	491	782	German
Greece	47	182	229	Greek
Hong Kong	100	100	200	English
India	100	100	200	Hindi
Indonesia	52	52	104	Indonesian
Israel	178	211	389	Hebrew
Italy	92	108	200	Italian
Japan	157	102	259	Japanese
Latvia	89	103	192	Latvian
Lebanon	119	138	257	English
Lithuania	47	47	94	Lithuanian
Malaysia	49	87	136	Malay
Malta	133	194	327	English
Mexico	105	106	211	Spanish
Morocco	86	87	173	English
Netherlands	114	125	239	Dutch
New Zealand	115	157	272	English
Peru	106	100	206	Spanish
Philippines	118	159	277	English
Poland	301	511	812	Polish
Portugal	110	142	252	Portuguese
Romania	123	128	251	Romanian
Serbia	100	100	200	Serbian
Slovakia	82	98	180	Slovak
Slovenia	73	107	180	Slovenian
South Korea	194	293	487	Korean
Spain	93	178	271	Spanish
Switzerland	81	127	208	German
Taiwan	116	93	209	Mandarin
Tanzania	92	43	135	English
Turkey	205	204	409	Turkish
United Kingdom	136	344	480	English
United States	996	1,786	2,782	English
Zimbabwe	96	97	193	English
Worldwide ISDP Total	7,100	9,898	16,998	28 Languages

Note. Dem. = Democratic; Rep. = Republic.

typically involved the primary collaborator translating the measures into the native language of the participants and then having a second bilingual person back-translate the measures into English. Differences between the original English and the back-translation were discussed, and mutual agreements were made as to the most appropriate translation.

*The RSES.* The RSES (Rosenberg, 1965) was translated into 28 different languages (see Table 1). The 10 items of the RSES assess a person's

overall evaluation of his or her worthiness as a human being (Rosenberg, 1979). Responses were coded on a 4-point scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). The RSES contains an equal number of positively (e.g., people feeling satisfied with life) and negatively (e.g., people feeling they are failures) worded items. To characterize the RSES more completely, we computed the mean score, standard deviation, Cronbach's alpha, and other indicators. The *Metatraitment Index* was defined



as the inverse value of the interitem variance of each respondent. We also computed separate scores for the five positively worded and the five negatively worded items of the RSES. The absolute value of this difference index, *Pos–Neg*, provided a measure of whether answers to positively worded items were congruent with answers to negatively worded items. The larger the difference, the larger the discrepancy between positively and negatively worded items. Finally, we computed scores for the self-esteem subcomponents of self-competence and self-liking based on the work of Tafarodi and Milne (2002). Self-competence consists of the first five items of the RSES (e.g., people feeling they do things as well as most people); self-liking consists of the last 5 items (e.g., people saying they take positive attitudes toward themselves).

*The Big Five Inventory (BFI).* We administered the BFI (a basic measure of personality traits; Benet-Martinez & John, 1998) to all samples. The 44-item English BFI was constructed to allow quick and efficient assessment of five personality dimensions—Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness—when there is no need for more differentiated measurement of personality facets. Example items from the BFI include: “I see myself as someone who is outgoing, sociable” (i.e., Extraversion), “I see myself as someone who is helpful and unselfish with others” (i.e., Agreeableness), “I see myself as someone who is a reliable worker” (i.e., Conscientiousness), “I see myself as someone who worries a lot” (i.e., Neuroticism), and “I see myself as someone who is curious about many different things” (i.e., Openness). Self-report ratings on the BFI are made on a scale from 1 (*disagree strongly*) to 5 (*agree strongly*) for each of the 44 items.

*Romantic attachment models of self and other.* All samples of the ISDP were administered a two-dimension, four-category measure of adult romantic attachment called the Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991). This measure has one secure attachment item: “It is easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I do not worry about being alone or having others not accept me.” Participants use a 7-point Likert-type scale to rate the secure item, ranging from 1 (*does not describe me*) to 7 (*very accurately describes me*), with 4 as the midpoint of the scale. High scores on the secure scale indicate a participant possesses internal working models representing a positive model of self and a positive model of other.

The RQ has three items that measure insecure romantic attachment styles. The first is the Dismissing romantic attachment item, “I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.” High scores on the Dismissing item indicate a positive model of self and a negative model of other. High scores on the Preoccupied romantic attachment item, “I want to be completely emotionally intimate with others, but I find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others do not value me as much as I value them,” correspond to a negative model of self and a positive model of other. Finally, scoring high on the Fearful romantic attachment item, “I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will get hurt if I allow myself to get too close to others,” indicates a negative model of self and a negative model of other.

An overall Model of Self scale can be created by adding together a participant’s Secure and Dismissing scores and then subtracting the combination of Preoccupied and Fearful scores (Griffin & Bartholomew, 1994). Adding together the Secure and Preoccupied scores and subtracting the combination of the Dismissing and Fearful scores provides a Model of Other scale. It has been shown that the Model of Self scale is positively correlated with the RSES in North American samples (Griffin & Bartholomew, 1994).

*Culture-level indicators.* To characterize different cultures, we used dimensions developed by Hofstede (1980). In his original study of more

than 50 countries and 3 regions (i.e., Arab countries, East Africa, and West Africa), Hofstede (1980) identified 14 work goals that can be factored into four underlying dimensions of cultural values: Power Distance, Uncertainty Avoidance, Individualism (vs. Collectivism), and Masculinity (vs. Femininity). In his later research, Hofstede provided index-score estimates for 16 additional countries that were not included in the initial IBM study (Hofstede, 2001, Exhibit A5.3) as well as nine index scores by language area for multilingual countries (Hofstede, 2001, Exhibit A5.2). In total, there were 46 overlapping countries with the current ISDP study.

The Human Development Index (HDI) is a composite measure developed by the United Nations for characterizing human development in three principal areas: health, education, and economy (United Nations Development Programme, 2001). In addition to the HDI itself, we were interested in its three separate components: life expectancy at birth, adult literacy rate, and standard of living as measured by Gross Domestic Product (GDP) per capita. These data were not available for the ISDP nations of Serbia or Taiwan.

*Cultural levels of analysis.* It is necessary to distinguish at least two different levels of cultural analysis (McCrae, 2000). *Intracultural analyses* examine the interindividual variation of self-esteem and its relation to other personality measures obtained from the same individual participants within one nation. *Intercultural analyses* compare nations on aggregate trait characteristics (typically means) and examine their relations to other culture-level indicators. On this level of analysis, nations are typically the unit of analysis.

## Results

### *Structural Equivalence: Intracultural Factor Structure and Internal Reliability*

Because the RSES was administered to several of the ISDP nations for the first time, we used principal-components analysis to investigate the intracultural structure of the RSES. In most nations, responses to the 10 items of the RSES when factored using principal-components analysis produced a one-dimensional structure, with all items loading highly or at least moderately on the first principal component. The proportion of the explained variance by the first principal component varied from 24.6% in the Democratic Republic of the Congo to 54.4% in Israel, with 41.4% of the variance accounted for across all 53 nations. The loadings of items on the first principal component within all individual nations of the ISDP are shown in Table 2.

Although almost all RSES item loadings were positive, an occasional exception occurred with the eighth item of the RSES (i.e., an item in which people rate whether they could have more respect for themselves). Contrary to expectations, five countries (i.e., Bangladesh, the Democratic Republic of the Congo, Indonesia, Malaysia, and Tanzania) had negative loadings on this item, indicating that in these countries agreement with this reversed statement was associated with high, not low, self-esteem. Factor loadings of the same item were relatively low in some other countries as well (e.g., Bolivia, Botswana, Japan, Mexico, Romania, and Zimbabwe). Similar findings regarding the troublesome nature of RSES Item 8 have been reported in other cross-cultural studies (e.g., Farruggia et al., 2004), including samples from the Czech Republic (in the ISDP, Item 8 had a .41 loading) and South Korea (in the ISDP, Item 8 had a .25 loading). Altogether, these findings seem to indicate that Item 8 of the RSES contains a degree of ambiguity that may cause it to be easily misinterpreted in some cultures. The item should be interpreted as indicating low self-esteem, but in some cultures, people may interpret it egotistically

Table 2  
*Factor Structure, Internal Reliability, and Metatraitdness of the Rosenberg Self-Esteem Scale Within 53 Nations*

Nation	Principal component loadings										% variance explained	Cronbach alpha	Guttman split-half	Metatraitdness Index
	Q1	Q2	Q3 <sup>a</sup>	Q4	Q5 <sup>a</sup>	Q6	Q7	Q8 <sup>a</sup>	Q9 <sup>a</sup>	Q10 <sup>a</sup>				
Argentina	.48	.63	.67	.63	.37	.67	.69	.53	.65	.73	36.6	.79	.69	1.55
Australia	.69	.71	.73	.62	.76	.79	.75	.69	.73	.73	52.1	.89	.82	1.78
Austria	.56	.60	.69	.67	.64	.71	.69	.64	.68	.68	43.1	.85	.76	1.84
Bangladesh	.85	.84	.54	.79	.65	.89	.79	-.48	.37	.14	45.6	.79	.70	1.27
Belgium	.75	.66	.75	.61	.76	.82	.80	.69	.68	.71	52.5	.89	.86	1.77
Bolivia	.46	.64	.54	.66	.36	.69	.65	.08	.61	.49	30.0	.70	.65	1.31
Botswana	.55	.64	.64	.41	.66	.52	.63	.29	.50	.51	29.8	.72	.64	1.29
Brazil	.69	.68	.74	.48	.79	.54	.66	.37	.45	.53	37.0	.79	.67	1.65
Canada	.68	.66	.67	.47	.58	.73	.52	.59	.35	.70	36.6	.80	.79	1.57
Chile	.60	.67	.74	.60	.24	.74	.73	.53	.66	.75	41.4	.80	.67	1.66
Congo, Dem. Rep. of	.54	.61	.35	.49	.16	.56	.67	-.58	.31	.47	24.6	.45	.53	1.09
Croatia	.52	.55	.66	.54	.62	.75	.71	.63	.73	.73	42.1	.84	.71	1.85
Cyprus	.57	.65	.79	.63	.71	.83	.77	.69	.71	.67	49.6	.88	.82	1.57
Czech Rep.	.66	.58	.58	.66	.70	.77	.69	.41	.59	.62	40.1	.83	.76	1.67
Estonia	.64	.69	.80	.68	.80	.81	.78	.50	.60	.67	49.5	.87	.86	1.72
Ethiopia	.40	.48	.48	.55	.37	.45	.60	.33	.57	.74	26.0	.64	.64	1.35
Fiji	.58	.69	.41	.56	.53	.65	.57	.40	.54	.68	31.9	.76	.64	1.42
Finland	.76	.69	.73	.68	.70	.78	.61	.65	.55	.60	46.1	.86	.77	2.05
France	.64	.57	.60	.37	.68	.75	.75	.48	.62	.71	39.4	.82	.76	1.66
Germany	.66	.64	.74	.60	.61	.78	.74	.72	.75	.76	49.3	.88	.81	2.04
Greece	.58	.68	.77	.65	.52	.76	.73	.67	.72	.66	45.9	.86	.73	1.67
Hong Kong	.45	.59	.60	.60	.53	.76	.66	.31	.69	.65	35.7	.79	.73	1.81
India	.45	.55	.69	.64	.62	.72	.63	.37	.71	.71	38.3	.81	.73	1.59
Indonesia	.51	.66	.77	.58	.62	.68	.51	-.12	.75	.63	38.0	.78	.72	1.56
Israel	.76	.75	.80	.72	.72	.80	.81	.53	.73	.70	54.4	.90	.83	1.86
Italy	.64	.69	.48	.57	.50	.75	.73	.52	.70	.66	39.6	.82	.68	1.57
Japan	.70	.74	.58	.57	.70	.64	.52	.04	.78	.73	39.9	.81	.75	1.60
Latvia	.59	.57	.67	.47	.55	.82	.69	.49	.64	.66	38.8	.82	.72	1.77
Lebanon	.54	.53	.66	.58	.69	.65	.66	.61	.62	.61	38.0	.82	.72	1.63
Lithuania	.50	.48	.72	.41	.56	.68	.69	.48	.65	.40	32.2	.75	.66	1.52
Malaysia	.47	.62	.50	.63	.72	.73	.56	-.34	.61	.72	36.1	.74	.64	1.33
Malta	.66	.64	.72	.68	.70	.79	.75	.60	.68	.71	48.2	.88	.80	1.62
Mexico	.68	.59	.73	.65	.38	.66	.53	.22	.57	.50	32.4	.73	.60	1.27
Morocco	.36	.38	.55	.57	.58	.62	.67	.41	.67	.64	31.0	.74	.68	1.55
Netherlands	.68	.68	.73	.61	.72	.74	.74	.70	.56	.72	47.6	.87	.83	1.92
New Zealand	.65	.69	.74	.65	.64	.79	.70	.60	.60	.71	45.9	.86	.80	1.60
Peru	.62	.72	.74	.64	.48	.82	.73	.43	.71	.70	44.7	.83	.78	1.67
Philippines	.46	.53	.68	.74	.66	.70	.62	.45	.63	.65	36.8	.80	.69	1.64
Poland	.65	.64	.72	.59	.54	.77	.74	.56	.68	.65	43.0	.84	.71	1.72
Portugal	.62	.53	.72	.57	.67	.75	.74	.60	.72	.76	45.5	.86	.79	1.88
Romania	.59	.59	.73	.62	.64	.79	.68	.15	.51	.61	37.6	.79	.65	1.39
Serbia	.49	.56	.66	.52	.70	.78	.75	.66	.79	.75	45.4	.86	.74	1.78
Slovakia	.61	.46	.69	.55	.65	.68	.70	.34	.62	.72	37.5	.81	.78	1.53
Slovenia	.77	.70	.73	.63	.59	.80	.72	.61	.65	.76	48.8	.88	.77	1.68
South Korea	.57	.65	.72	.60	.70	.74	.69	.25	.68	.68	41.0	.83	.80	1.51
Spain	.43	.58	.71	.64	.49	.78	.71	.54	.61	.62	38.5	.80	.65	1.72
Switzerland	.24	.53	.53	.49	.57	.83	.80	.78	.80	.78	43.3	.83	.67	1.74
Taiwan	.71	.76	.67	.62	.59	.73	.74	.55	.70	.67	45.6	.86	.83	1.69
Tanzania	.78	.84	.04	.76	.18	.82	.61	-.50	.12	.17	32.4	.61	.61	1.21
Turkey	.62	.67	.79	.64	.69	.79	.74	.58	.73	.70	48.9	.88	.80	1.76
United Kingdom	.73	.70	.76	.68	.77	.81	.77	.69	.71	.73	54.1	.90	.85	1.96
United States	.70	.70	.71	.61	.68	.80	.75	.66	.71	.75	50.3	.88	.80	1.82
Zimbabwe	.65	.60	.56	.55	.55	.58	.57	.29	.62	.64	32.4	.75	.66	1.40

Note. Q = question; Dem. = Democratic; Rep. = Republic.

<sup>a</sup> Negatively worded items (3, 5, 8, 9, and 10) of the Rosenberg Self-Esteem Scale were reversed such that higher scores indicate higher levels of global self-esteem.

as though they are worthy of having even more positive views of themselves than they already have.

To evaluate the generalizability of the one-dimensional factor structure of the RSES, we computed a coefficient of factorial

similarity between each factor solution and the United States factor structure as a target. The choice of the United States as a target was motivated by two considerations. First, the RSES was developed and initially tested in the United States. Second, the United States

sample contained 2,782 participants, a sufficiently large enough number to have confidence in the stability of the obtained United States factor structure. The average Tucker's congruence coefficient was .987. Among 52 nations, only 5 (i.e., Bangladesh, the Democratic Republic of the Congo, Indonesia, Malaysia, and Tanzania) had congruence coefficients below .95—the level usually regarded as a threshold for the replication of a factor structure. When we removed the eighth item as a deviant from these analyses, only Tanzania's congruence coefficient (.850) remained below the threshold for factor structure replication. Thus, except for one nation and one aberrant item, the factor structure of the RSES was fairly well replicated across the nations of the ISDP.

The internal reliabilities (Cronbach alphas) of the RSES scale within 53 nations are listed in Table 2. The mean reliability across all nations was substantial ( $\alpha = .81$ ). The lowest internal reliability was found in the Democratic Republic of the Congo ( $\alpha = .45$ ), and the highest was shared by Israel and the United Kingdom ( $\alpha = .90$ ). After removing the eighth item of the RSES, alpha levels generally increased for those nations in which it was troublesome (Bangladesh = .85, Bolivia = .73, Botswana = .73, the Democratic Republic of the Congo = .58, Indonesia = .82, Japan = .84, Malaysia = .79, Mexico = .75, Romania = .82, Tanzania = .85, and Zimbabwe = .76). Adequate internal reliability of the RSES was also apparent using Guttman split-half reliabilities, which ranged from .53 in the Democratic Republic of the Congo to .86 in both Belgium and Estonia, with an overall Guttman split-half reliability of .73. Overall, the internal structural equivalence of the RSES across nations appeared sufficient for proceeding to additional analyses.

### *The Metatraitenedness of Self-Esteem*

The last column in Table 2 displays the Metatraitenedness Index for each of the 53 nations of the ISDP. According to Baumeister and Tice (1988), metatraitenedness can be operationalized in terms of interitem response variance (see also Tice, 1989). Low variance of responses on an internally consistent scale (such as the RSES as noted above) indicates that the person responded comparably to all items. High variance indicates that the person responded erratically and inconsistently to different items of the scale. By taking the inverse of interitem response variance for each individual, we were able to calculate national levels of self-esteem metatraitenedness.

The overall mean level of metatraitenedness was 1.62, with a standard deviation of .21. To illustrate the geography of self-esteem metatraitenedness, the 10 nations that had a Metatraitenedness Index above 1.8 were Austria, Croatia, Finland, Germany, Hong Kong, Israel, the Netherlands, Portugal, the United Kingdom, and the United States. Presumably, global self-esteem is highly relevant and tangible to people in these nations because individuals responded comparably across all 10 items of the RSES. In contrast, the Metatraitenedness Index was below 1.4 in nine nations, including Bangladesh, Bolivia, Botswana, the Democratic Republic of the Congo, Ethiopia, Malaysia, Mexico, Romania, and Tanzania. Self-esteem, at least in its global form, appears to be a less cohesive concept to people in these nations because individuals responded less consistently to the RSES. Still, the Metatraitenedness Index of all nations was above 1.0, which, alongside the internal reliability and factor structure findings described earlier, appears to support

the conceptual equivalence of global self-esteem as measured by the RSES.

### *External Equivalence: Intracultural Correlates of Self-Esteem*

One of the most firmly established findings in the self-esteem literature is that RSES scores negatively relate to neuroticism, positively relate to extraversion, and weakly or are not at all related to openness to experience (Costa et al., 1991; Kwan et al., 1997; Pullmann & Allik, 2000; Robins, Tracy, et al., 2001). The results presented in Table 3 allowed us to evaluate the generalizability of these associations across a large number of diverse cultures. As expected, in all 53 nations global self-esteem was negatively correlated with neuroticism and positively correlated with extraversion (controlling for gender). Only three of these correlations were not statistically significant. In Bangladesh, the correlation between self-esteem and neuroticism was nonsignificant, and in the Democratic Republic of the Congo neither extraversion nor neuroticism correlated significantly with self-esteem. It was perhaps not surprising that these nonsignificant correlations occurred in nations that had relatively low internal reliability of the RSES. For example, the Democratic Republic of the Congo had a Cronbach's alpha of .45. When attenuation due to the unreliability of the self-esteem measure in the Democratic Republic of the Congo was taken into account, the correlation between the RSES and the two personality dimensions, extraversion and neuroticism, reached the .05 level of statistical significance. Scores on the RSES were either weakly or not at all related to scores on openness across most nations, providing some support for the discriminant validity of the RSES. That is, within most cultures, responses to the RSES did not correlate with variables that should be unrelated to self-esteem.

Confirming previous studies (Bartholomew & Horowitz, 1991; Griffin & Bartholomew, 1994), we found evidence that the RSES was systematically related to the model of self dimension of romantic attachment and was largely unrelated to the model of other dimension. Among the 53 correlations between self-esteem and the model of self, 51 were in the positive direction, and 49 were statistically significant. Only a few countries demonstrated a significant correlation between self-esteem and model of other, providing further cross-cultural evidence of the discriminant validity of the RSES. Overall, the external equivalence findings support the view that self-esteem functions in a similar manner across cultures, consistently relating to low levels of neuroticism, high levels of extraversion, and positive models of self within romantic attachment contexts.

### *Positive Self-Evaluation Across Cultures*

The nation-level mean scores and standard deviations of the RSES are displayed in Table 4. These mean values represent the average score for each nation after controlling for gender of participant. A mean value of 30.85 ( $SD = 4.82$ ) was obtained across all 53 nations of the ISDP. All individual nations scored, on average, above the theoretical midpoint of the scale (i.e.,  $M = 25.00$ ), but many national means came close to this mark. Japan came closest with a mean value of 25.50, as did several other Asian countries. However, several European countries, such as the

Table 3  
 Convergent and Discriminant Validity of the Rosenberg Self-Esteem Scale Within 53 Nations

Nation	Convergent validity			Discriminant validity	
	Extraversion	Neuroticism	Model of Self	Openness	Model of Other
Argentina	.19**	-.31***	.28***	.10	.01
Australia	.43***	-.55***	.43***	.07	.09
Austria	.38***	-.48***	.32***	.12*	.20***
Bangladesh	.17*	-.08	-.09	.09	.00
Belgium	.41***	-.50***	.32***	.22***	.13**
Bolivia	.32***	-.35***	.16*	.14	.04
Botswana	.23***	-.30***	.23***	.19**	.07
Brazil	.40***	-.39***	.22*	.24*	.01
Canada	.40***	-.47***	.37***	.19***	.13***
Chile	.32***	-.46***	.33***	.13*	.11
Congo, Dem. Rep. of	.07	-.16	.10	.15	.05
Croatia	.43***	-.42***	.33***	.45***	-.03
Cyprus	.44***	-.50***	.43***	.24	.33*
Czech Rep.	.42***	-.53***	.36***	.21**	.23***
Estonia	.30***	-.33***	.40***	.17*	.00
Ethiopia	.24***	-.22**	-.02	.20**	-.07
Fiji	.26**	-.25**	.32***	.19*	-.04
Finland	.49***	-.40***	.56***	.39***	.03
France	.32***	-.28**	.19*	.09	.11
Germany	.45***	-.54***	.41***	.17***	.09*
Greece	.36***	-.40***	.30***	.27***	.25***
Hong Kong	.28***	-.36***	.20**	.10	.00
India	.32***	-.52***	.33***	.20**	-.15*
Indonesia	.40***	-.44***	.06	.31**	.12
Israel	.29***	-.38***	.29***	.24***	.05
Italy	.44***	-.40***	.29***	.16*	.19**
Japan	.37***	-.36***	.28***	.19**	.17**
Latvia	.48***	-.47***	.30***	.35***	.08
Lebanon	.34***	-.34***	.33***	.19**	.00
Lithuania	.33***	-.47***	.27**	.23*	.02
Malaysia	.21*	-.43***	.25**	.12	-.05
Malta	.38***	-.58***	.40***	.24***	.06
Mexico	.30***	-.34***	.25***	.03	.06
Morocco	.29***	-.25***	.20**	.31***	-.12
Netherlands	.27***	-.56***	.42***	.09	.17**
New Zealand	.51***	-.59***	.40***	.10	.33***
Peru	.27***	-.35***	.38***	.13	.00
Philippines	.29***	-.52***	.32***	.37***	-.09
Poland	.34***	-.43***	.34***	.24***	.15***
Portugal	.37***	-.42***	.36***	.09	.01
Romania	.41***	-.42***	.29***	.29***	.21***
Serbia	.56***	-.42***	.33***	.30***	.23***
Slovakia	.50***	-.51***	.35***	.24***	.12
Slovenia	.30***	-.47***	.27***	.25***	.14
South Korea	.22***	-.35***	.21***	.25***	.07
Spain	.27***	-.39***	.28***	.23***	.06
Switzerland	.46***	-.52***	.51***	.18*	.12
Taiwan	.43***	-.49***	.36***	.27***	.01
Tanzania	.25**	-.31***	.31***	.25**	-.04
Turkey	.37***	-.42***	.43***	.26***	.14**
United Kingdom	.46***	-.54***	.37***	.05	.09*
United States	.36***	-.54***	.40***	.15***	.08***
Zimbabwe	.33***	-.32***	.24**	.24***	.14

Note. All correlations represent partial correlations between self-esteem and personal attributes controlling for gender. Dem. = Democratic; Rep. = Republic.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Czech Republic ( $M = 28.47$ ), Switzerland ( $M = 29.16$ ), France ( $M = 29.86$ ), and Belgium ( $M = 29.66$ ), also scored near the midpoint of the RSES. Overall, generally positive self-evaluations appeared to be universal, at least across the limited cultures of the ISDP.

As expected, participants from the United States scored relatively high ( $M = 32.21$ ,  $SD = 5.01$ ) and Japanese participants scored relatively low on the RSES ( $M = 25.50$ ,  $SD = 4.37$ ), a significant difference,  $t(3039) = 20.32$ ,  $p < .001$ . Moreover, these mean values were very close to those reported in previous studies.



Table 4  
*Mean Levels on the Rosenberg Self-Esteem Scale Within 53 Nations*

Nation	RSES	SD	Pos	Neg	Pos-Neg	$r_{\text{PosNeg}}$
Argentina	31.24	4.36	16.3	14.9	1.4	0.46
Australia	31.07	5.15	16.3	14.8	1.6	0.70
Austria	31.78	4.68	16.0	15.8	0.3	0.63
Bangladesh	27.80	5.20	15.2	12.6	2.6	0.26
Belgium	29.66	5.28	15.5	14.1	1.4	0.70
Bolivia	31.24	3.82	17.3	14.0	3.3	0.27
Botswana	30.85	4.11	16.7	14.1	2.6	0.35
Brazil	30.34	4.08	15.8	14.5	1.3	0.57
Canada	30.22	4.69	15.8	14.4	1.4	0.67
Chile	33.12	4.27	17.3	15.8	1.5	0.58
Congo, Dem. Rep. of	31.28	2.93	17.1	14.2	2.9	0.20
Croatia	31.94	4.12	16.6	15.4	1.2	0.61
Cyprus	31.17	5.39	16.5	14.7	1.7	0.62
Czech Rep.	28.47	4.14	15.3	13.1	2.2	0.50
Estonia	32.63	5.14	16.8	15.8	1.0	0.69
Ethiopia	29.24	3.69	15.7	13.5	2.3	0.26
Fiji	28.91	4.15	16.0	12.9	3.1	0.32
Finland	31.76	4.09	16.5	15.3	1.2	0.56
France	29.86	4.16	15.5	14.3	1.2	0.58
Germany	31.73	4.71	15.9	15.9	0.0	0.68
Greece	31.29	4.76	16.4	14.9	1.6	0.65
Hong Kong	27.54	3.67	14.7	12.9	1.8	0.50
India	30.44	4.27	16.2	14.3	1.9	0.52
Indonesia	29.88	3.78	15.7	14.2	1.5	0.40
Israel	33.03	5.46	17.0	16.0	0.9	0.73
Italy	30.56	4.51	16.2	14.4	1.8	0.51
Japan	25.50	4.37	13.1	12.4	0.8	0.60
Latvia	29.88	4.18	15.6	14.2	1.4	0.61
Lebanon	30.52	4.38	16.0	14.5	1.6	0.52
Lithuania	29.60	3.67	16.0	13.6	2.4	0.41
Malaysia	29.83	3.42	16.4	13.5	2.9	0.44
Malta	29.53	5.24	15.7	13.9	1.8	0.69
Mexico	32.04	4.26	17.7	14.3	3.4	0.40
Morocco	29.13	4.00	15.4	13.8	1.6	0.44
Netherlands	31.60	4.48	16.1	15.5	0.5	0.59
New Zealand	30.24	4.68	16.1	14.1	2.0	0.65
Peru	33.01	4.56	17.4	15.7	1.7	0.58
Philippines	29.98	4.02	16.2	13.8	2.4	0.52
Poland	30.34	4.47	16.0	14.4	1.6	0.62
Portugal	31.30	4.66	16.2	15.1	1.2	0.58
Romania	29.54	3.99	16.1	13.5	2.6	0.51
Serbia	33.59	4.99	17.4	16.2	1.3	0.57
Slovakia	28.94	4.15	15.7	13.3	2.4	0.58
Slovenia	31.74	4.72	16.8	14.9	1.9	0.59
South Korea	29.17	4.05	15.8	13.3	2.5	0.64
Spain	31.52	4.04	16.6	15.0	1.6	0.53
Switzerland	29.16	4.57	14.6	14.5	0.1	0.63
Taiwan	28.77	4.50	15.5	13.2	2.3	0.65
Tanzania	29.52	3.95	15.9	13.7	2.2	-0.07
Turkey	32.14	4.97	17.0	15.2	1.8	0.65
United Kingdom	30.55	4.95	15.8	14.7	1.1	0.73
United States	32.21	5.01	16.7	15.5	1.2	0.68
Zimbabwe	30.77	4.07	16.7	14.0	2.7	0.36

*Note.* RSES = Rosenberg Self-Esteem Scale; Pos = positively worded items; Neg = negatively worded items; Pos-Neg = the difference between sums of the positively and negatively worded items;  $r_{\text{PosNeg}}$  = correlation between positively and negatively worded items—all correlations are significant ( $p < .01$ ) except in Tanzania; Dem. = Democratic; Rep. = Republic.

RSES data collected from college students in the United States in the late 1990s had a mean value of about 32 (Twenge & Campbell, 2001). In three independent studies, the mean score on the RSES among Japanese samples was also slightly over scale midpoints (Campbell et al., 1996; Feather & McKee, 1993; Heine et al.,

1999). Thus, the self-esteem disparity between Japan and the United States reliably observed in previous studies was replicated in the ISDP.

In addition to these comparisons between select pairs of nations, there is some research on mean levels of self-esteem across large

numbers of nations. Diener and Diener (1995) published single-item data about satisfaction with self across 31 countries. Although a single-item rating of the self-satisfaction is not identical to how global self-esteem is conceptualized by the RSES, it is logical to expect that these two measures would be associated. There were 21 overlapping countries that were included in both studies (i.e., Austria, Bangladesh, Brazil, Canada, Chile, Finland, Germany, Greece, India, Israel, Japan, Mexico, the Netherlands, New Zealand, the Philippines, Serbia/Yugoslavia, South Africa, Spain, Tanzania, Turkey, and the United States). The cross-instrument correlation between the RSES and self-satisfaction in this set of countries was positive and significant,  $r(19) = .46, p < .05$ . Thus, the two independent measures converged at the intercultural level when assessing general self-evaluation.

### *Positive and Negative Items of the RSES: Evidence of a Negative Item Bias?*

The third and fourth columns in Table 4 show sums of positively and negatively worded items. In the last two columns, Pos–Neg and  $r_{\text{PosNeg}}$ , the difference and correlation between the sums of the positively and negatively worded items, are displayed. In all nations, except Tanzania, the sums of positively and negatively worded items were significantly correlated ( $p < .01$ ). This indicates that, in almost all nations, participants who scored high on the positively worded items also tended to score high on the negatively worded items, attesting to the internal structural reliability of the RSES.

High scores on the positive subscale of the RSES were also associated, at the national level, with high scores on the negative subscale. Across the 53 nations of the ISDP, the correlation between the nation-level mean scores of positively and negatively worded items was significant,  $r(51) = .61, p < .001$ . Together, the current findings seem to support the contention that two subscales of the RSES, assembled from positively and negatively worded items, are very similar and measure the same basic psychological construct.

There was, however, a trend to score somewhat higher on positive items than negative items (i.e., Pos–Neg scores above 0.0), though in Germany, Pos–Neg was 0.0. This may reflect a negative item bias, in that people are generally less likely to endorse negatively phrased items. It is important to note that the size of the negative item bias displayed systematic patterns across cultures. For example, the larger the national difference between sums of the positively and negatively worded items (i.e., Pos–Neg), the smaller a nation's Cronbach's alpha,  $r(51) = -.55, p < .001$ , split-half reliability,  $r(51) = -.52, p < .001$ , and proportion of the explained variance by the first principal component,  $r(51) = -.56, p < .001$ . Additional culture-related features of the negative item bias will be discussed later.

The results displayed in Table 5 allow us to evaluate the generalizability of associations between external variables and the positively and negatively worded items of the RSES. As expected, all 106 correlations of the positive and negative subscales of the RSES were negatively related to neuroticism and positively related to extraversion. However, some of these correlations were not statistically significant, with 4 of 106 correlations with neuroticism and 6 of 106 correlations with extraversion below the .05 threshold of statistical significance. Again, these nonsignificant correlations

occurred in nations that had relatively low internal reliability of the RSES. When attenuation due to the unreliability of the self-esteem measure was taken into account in the Democratic Republic of the Congo, for example, the correlation between the RSES positive subscales and the two personality dimensions, extraversion and neuroticism, became statistically significant.

The Hotelling  $t$  test for the difference between two correlation coefficients from one sample that share a variable (Hotelling, 1940) showed that the differences between correlations of the positive and negative subscales of the RSES and extraversion were significant for only three nations (i.e., Argentina, Estonia, and the United States). Thus, in 94% of cases the positively and negatively worded items were identically related to an external validity measure. The differences in correlation were more numerous in the case of neuroticism. Although all 53 pairs of correlations agreed in their sign, there were 11 statistically significant differences in the magnitude of correlation. Some of these differences were due to the sensitivity of the Hotelling test to sample size (Canada and the United States, for instance). In general, there was little evidence that the two subscales of the RSES, composed from positively and negatively worded self-esteem items, were differentially related to the external constructs of extraversion and neuroticism. Also as expected, the correlations between openness and self-esteem were relatively weak or nonexistent across most cultures. Together, these findings provided evidence of the external equivalence of the positive and negative subscales of the RSES across cultures.

In previous studies (Bartholomew & Horowitz, 1991; Griffin & Bartholomew, 1994), the RSES was shown to systematically relate to the model of self dimension of romantic attachment and to be largely unrelated to the model of other dimension. Among the 106 correlations between the positive and negative subscales and the model of self in the ISDP, 101 were in the positive direction and 91 were statistically significant. Only a few countries demonstrated a significant correlation between self-esteem and model of other. This provided further evidence of the cross-cultural equivalence of the positive and negative RSES subscales.

### *Nation-Level Correlates of Self-Esteem*

Table 6 displays the correlations between various psychometric features of the RSES (i.e., mean scores, standard deviations, Cronbach alphas, Metatrainedness Indexes, and the differences between the sums of the positively and negatively worded items) and several external nation-level indices. These include nation-level scores based on the BFI (Benet-Martinez & John, 1998; Schmitt, Allik, et al., 2004), the Revised NEO Personality Inventory (NEO-PI-R; McCrae, 2002), Hofstede's value-based dimensions of culture (Hofstede, 2001), and United Nations data on human development indicators (United Nations Development Programme, 2001).

As expected, RSES scores at the national level were negatively correlated with Neuroticism,  $r(51) = -.31, p < .05$ , and positively correlated with Extraversion,  $r(51) = .42, p < .01$ . However, national RSES scores also correlated with national levels of Openness,  $r(51) = .48, p < .001$ , and Conscientiousness,  $r(51) = .46, p < .01$ . Recently, McCrae (2002) reported NEO-PI-R data from 36 cultures. From these 36 cultures, 26 overlapped with nations that were involved in the ISDP. As seen in Table 6, the national mean scores on the RSES were correlated with two of the NEO-

Table 5  
 Convergent and Discriminant Validity of the Positive and Negative Subscales of the Rosenberg Self-Esteem Scale Within 53 Nations

Nation	Convergent validity						Discriminant validity			
	Extraversion		Neuroticism		Model of Self		Openness		Model of Other	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
Argentina	.26***	.09	-.27***	-.28***	.20***	.27***	.14*	.04	.08	-.05
Australia	.41***	.38***	-.48***	-.54***	.35***	.43***	.10*	.03	.12***	.05
Austria	.31***	.37***	-.38***	-.47***	.23***	.35***	.16***	.07	.18***	.19***
Bangladesh	.08	.22**	-.02	-.12	-.09	-.05	.07	.09	.01	-.02
Belgium	.37***	.38***	-.44***	-.48***	.25***	.33***	.24***	.18***	.11**	.14**
Bolivia	.23**	.29***	-.18*	-.36***	-.05	.26***	.21**	.02	.10	-.01
Botswana	.13	.21**	-.24***	-.26***	.14*	.22***	.28***	.08	.00	.10
Brazil	.39***	.33**	-.38***	-.32**	.08	.28**	.36***	.12	.04	-.01
Canada	.35***	.37***	-.37***	-.47***	.31***	.36***	.22***	.14***	.13***	.10***
Chile	.31***	.26***	-.42***	-.37***	.29***	.30***	.16**	.08	.11*	.10
Congo, Dem. Rep. of	.08	.06	-.08	-.17*	.10	.05	.12	.16	.04	.09
Croatia	.44***	.34***	-.34***	-.40***	.26***	.32***	.44***	.38***	.00	-.05
Cyprus	.34**	.43***	-.37**	-.50***	.37**	.38**	.20	.18	.22	.32*
Czech Rep.	.38***	.32***	-.46***	-.46***	.29***	.31***	.20**	.15*	.20**	.19**
Estonia	.20**	.32***	-.22**	-.36***	.30***	.40***	.19**	.14	-.04	.03
Ethiopia	.22**	.20**	-.16*	-.19**	.00	-.03	.19**	.16*	-.05	-.04
Fiji	.24**	.21**	-.11	-.28***	.23**	.29***	.17*	.17*	.01	-.04
Finland	.42***	.47***	-.27**	-.43***	.43***	.52***	.48***	.24**	.06	.04
France	.30***	.24**	-.22*	-.27**	.14	.16	.19*	.01	.00	.15
Germany	.40***	.43***	-.45***	-.50***	.34***	.40***	.23***	.11**	.10**	.07*
Greece	.32***	.33***	-.33***	-.38***	.24***	.30***	.33***	.18**	.23***	.23***
Hong Kong	.32**	.16*	-.33***	-.29***	.19**	.16*	.13	.06	.00	.00
India	.30***	.26***	-.40***	-.49***	.27***	.30***	.19**	.15*	-.13	-.12
Indonesia	.29**	.38***	-.32**	-.42***	-.15	.28**	.30**	.21	.09	.11
Israel	.29***	.24***	-.30***	-.41***	.28***	.27***	.22***	.21***	.05	.03
Italy	.41***	.36***	-.31***	-.38***	.15*	.33***	.19**	.10	.16*	.17*
Japan	.37***	.32***	-.29***	-.36***	.26***	.25***	.26***	.10	.16**	.15*
Latvia	.45***	.41***	-.33***	-.51***	.21**	.33***	.39***	.25***	.08	.06
Lebanon	.27***	.32***	-.30***	-.30***	.29***	.27***	.13*	.19**	.01	-.02
Lithuania	.22*	.33***	-.28**	-.46***	.14	.27**	.20*	.18	.10	-.05
Malaysia	.19*	.13	-.24***	-.47***	.11	.25**	.22	-.01*	.05	-.06
Malta	.37***	.32***	-.47***	-.58***	.36***	.38***	.29***	.16**	.02	.08
Mexico	.32***	.19**	-.27***	-.30***	.21**	.22***	.05	.03	.07	.07
Morocco	.24**	.25***	-.18*	-.28*	.10	.23**	.30***	.24**	-.11	-.06
Netherlands	.29***	.20**	-.45***	-.54***	.32***	.41***	.16*	.02	.19**	.11
New Zealand	.46***	.48***	-.53***	-.55***	.35***	.38***	.13*	.07	.31***	.30***
Peru	.23***	.24***	-.32***	-.30***	.37***	.31***	.14*	.09	.02	.00
Philippines	.26***	.26***	-.44***	-.48***	.30***	.27***	.36***	.29***	-.09	-.06
Poland	.29***	.32***	-.35***	-.42***	.28***	.33***	.28***	.17***	.18***	.11**
Portugal	.34***	.33***	-.37***	-.38***	.23***	.37***	.18**	.01	.02	.01
Romania	.37***	.34***	-.36***	-.35***	.25***	.23***	.28***	.22***	.20***	.17**
Serbia	.52***	.49***	-.26***	-.44***	.22**	.36***	.32***	.23***	.31***	.13
Slovakia	.50***	.41***	-.45***	-.47***	.34***	.28***	.26***	.17*	.20**	.02
Slovenia	.29***	.21**	-.39***	-.43***	.21**	.25***	.29***	.16*	.08	.14
South Korea	.20***	.19***	-.28***	-.35***	.17***	.22***	.25***	.20***	.02	.09*
Spain	.23***	.24***	-.26***	-.40***	.24***	.24***	.28***	.13*	.05	.06
Switzerland	.37**	.43***	-.36***	-.54***	.40***	.52***	.21**	.11	.15*	.07
Taiwan	.37***	.41***	-.40***	-.48***	.30***	.36***	.32***	.19**	-.03	.04
Tanzania	.29***	.11	-.22**	-.21*	.09	.35***	.37***	-.01	-.04	.02
Turkey	.33***	.34***	-.36***	-.40***	.38***	.40***	.24***	.23***	.12**	.13**
United Kingdom	.44***	.42***	-.49***	-.51***	.35***	.34***	.11*	.00	.12**	.07
United States	.35***	.31***	-.47***	-.51***	.35***	.38***	.18***	.10***	.09***	.07***
Zimbabwe	.31***	.23**	-.28***	-.26***	.12	.21**	.33***	.09	.10	.15*

Note. All correlations represent partial correlations between self-esteem and personal attributes controlling for gender. Dem. = Democratic; Rep. = Republic.  
 \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

PI-R dimensions, Extraversion,  $r(24) = .52, p < .01$ , and Conscientiousness,  $r(24) = .40, p < .05$ . The correlation between NEO-PI-R Neuroticism and RSES was negative but was only marginally significant,  $r(24) = -.31, p < .10$ . This is not com-

pletely surprising in that correlations that emerge from aggregated data do not always replicate individual-level correlations (Ostroff, 1993). Nevertheless, as a whole, these findings provide some support for the construct validity of nation-level scores on the RSES.

Table 6  
Correlations Between Nation-Level Properties of Self-Esteem and Other National Indices

National Level Index	Rosenberg Self-Esteem Scale				
	<i>M</i>	<i>SD</i>	Cronbach alpha	Meta-traitedness	Pos-Neg
The Big Five Inventory (Schmitt, Allik, et al., 2004; <i>N</i> = 53)					
Neuroticism	-.31*	.23	.34*	.31*	-.24
Extraversion	.42**	-.04	.03	.04	-.01
Openness	.48***	.42**	.28*	.07	-.01
Agreeableness	.24	.04	-.36**	-.45**	.33*
Conscientiousness	.46**	-.11	-.41**	-.35*	.14
<i>SD</i>	.30*	.59***	.50***	.45***	-.40**
NEO-PI-R (McCrae, 2002; <i>N</i> = 26)					
Neuroticism	-.31	-.19	-.10	.02	-.07
Extraversion	.52**	.67***	.51**	.31	-.40*
Openness	.13	.45*	.47*	.50**	-.74***
Agreeableness	-.23	-.50**	-.40*	-.41*	.52**
Conscientiousness	.40*	-.26	-.35	-.31	.43*
<i>SD</i>	.20	.36	.38	.30	-.35
Value-Based Dimensions of Culture (Hofstede, 2001; <i>N</i> = 46)					
Power Distance	-.22	-.50***	-.51***	-.55***	.64***
Uncertainty Avoidance	.23	.31*	.24	.13	-.15
Individualism	.02	.41**	.51***	.43**	-.45**
Masculinity	-.45***	-.03	-.07	-.15	.04
Human Development Indices (United Nations Development Programme, 2001; <i>N</i> = 51)					
Life expectancy at birth	.09	.46**	.70***	.70***	-.53***
Adult literacy rate	.25	.21	.48***	.58***	-.33*
GDP per capita	.13	.50***	.74***	.71***	-.56***
Human Development Index	.17	.46***	.72***	.72***	-.54***

Note. Pos-Neg = the difference between sums of the positively and negatively worded items; GDP = gross domestic product.  
\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Contrary to the hypothesis that people in individualistic cultures score higher on self-esteem (e.g., Feather & McKee, 1993; Heine et al., 1999), the correlation between national RSES scores and Hofstede's Individualism Index (Hofstede, 2001) was negligible,  $r(44) = .02$ . These results may be constrained, however, as most of Hofstede's Indexes originate from studies of the 1970s and 1980s (see Hofstede, 1980, 2001). Still, we did find the cultural dimension of Masculinity was significantly related to national self-esteem,  $r(44) = -.45$ ,  $p < .001$ . In cultures in which the value placed on men and women is more equal, people's self-esteem tended to be higher. We also found that national self-esteem levels had no relation to the HDI nor to its three principal components: life expectancy at birth, adult literacy rate, and standard of living as measured by GDP per capita (United Nations Development Programme, 2001).

Other psychometric properties of the RSES were strongly related to cultural and socioeconomic indicators. Unlike national mean-levels, the variability about the mean for each nation (standard deviation) was significantly related to Power Distance, Uncertainty Avoidance, Individualism, life expectancy, and GDP per capita. Nations with the larger within-cultural variability in self-esteem tended to have smaller levels of Power Distance and higher levels of Uncertainty Avoidance, Individualism, life expectancy, and wealth.

Consistent with results from McCrae (2002), which suggested that individual differences in personality are most pronounced among Europeans and least pronounced in Asian and African cultures, we found with few exceptions the same geographical distributions with RSES scores. More specifically, the magnitude of individual differences in self-esteem (expressed in national self-esteem standard deviations) was more prominent in individualistic cultures and cultures in which power is distributed more equally in society. Europeans are generally lower in Power Distance and higher in Individualism than Asians and Africans (Hofstede, 2001), and the within-culture variability in self-esteem was distributed accordingly (see also Allik & McCrae, 2004).

One explanation for this trend is that Asian and African participants might avoid the use of extreme ends of rating scales. It has been suggested that collectivists, which may include many Asian cultures, tend to avoid extremes and prefer the midpoints of scales (Cheung & Renswold, 2000; Hui & Triandis, 1989). Although the tendency to use extreme ratings is not identical to scale standard deviations, it is likely to be highly correlated with it. Indeed, the standard deviations of the RSES were significantly and positively correlated with the average interitem variance or Metatraitdness,  $r(51) = .51$ ,  $p < .001$ . Thus, in cultures in which people differ considerably from one another in their self-esteem (i.e., high nation-level standard deviations), there is a tendency for individ-



uals to respond less similarly to all items (i.e., high interitem variance within each person). This Metatraitendness finding also suggests that people from Asian and African countries may have lower self-esteem clarity (Heine et al., 1999). Perhaps because people from these regions are not used to thinking about their self-esteem or do not have a clear sense of what self-esteem means, they are less likely to confidently endorse endpoints on the RSES.

As expected, the Cronbach alphas and Metatraitendness Indexes were similarly related to the culture-level correlates. Particularly strong correlations were observed with life expectancy, GDP per capita, and the composite Human Development Index (all correlations  $> .70$ ). The internal consistency of the RSES scale, therefore, tended to increase as the average achievement in the basic dimensions of human development—a healthy life and a good standard of living—also increased. These countries also have lower levels of Power Distance and higher levels of Individualism.

A considerable proportion of response consistency may be attributed to the difference between positively and negatively worded items (see Table 6, last column). The larger the national difference between sums of the positively and negatively worded items, the smaller a nation's Cronbach's alpha, split-half reliability, and proportion of the explained variance by the first principal component. In which countries are the differences between positively and negatively worded items minimized? Table 6 shows that in countries with lower positive–negative differences, people tend to live longer; be economically more prosperous; and support individualistic values and equality in rights, wealth, and power. Indeed, the strongest correlation with Power Distance among psychometric indices of the RSES was with the difference between sums of positively and negatively worded items,  $r(44) = .64, p < .001$ .

### *Self-Competence and Self-Liking Across Cultures*

Tafarodi and Milne (2002) have suggested that self-esteem, including global self-esteem as measured by the RSES, can be decomposed into subcomponents of self-competence (i.e., feeling you are confident, capable, and efficacious) and self-liking (i.e., feeling you are good, socially relevant, and maintain group harmony). Tafarodi and his colleagues also have contended that these subcomponents are differentially prevalent across cultures (Tafarodi et al., 1999; Tafarodi & Swann, 1996; Tafarodi & Walters, 1999). Specifically, they have proposed a “trade-off hypothesis” in which self-competence is thought to be nurtured in individualistic cultures at the expense of self-liking, whereas self-liking is thought to be inherent in collectivistic cultures at the expense of self-competence. Table 7 displays the national raw scores of self-competence and self-liking across the 53 nations of the ISDP. We also present in Table 7 the intracultural correlation between these components as well as the significance and magnitude of national differences in self-competence versus self-liking.

Typically, Tafarodi and his colleagues have found support for the trade-off hypothesis in that individualistic cultures (e.g., the United Kingdom) score higher on self-competence than do collectivistic cultures (e.g., Malaysia), whereas collectivistic cultures score higher on self-liking than do individualistic cultures (Tafarodi et al., 1999). We did not replicate this finding when we contrasted the United Kingdom with Malaysia in the ISDP. There was no difference in self-competence between the United King-

dom ( $M = 16.36$ ) and Malaysia ( $M = 16.24$ ),  $t(618) = -.55$ , and the United Kingdom ( $M = 14.10$ ) was significantly higher in self-liking than Malaysia ( $M = 13.30$ ),  $t(618) = -3.01, p < .01$ . When comparing scores within cultures, it also was not the case that self-liking was higher than self-competence in Malaysia. Indeed, in all nations of the ISDP (with the exception of Switzerland) the average individual scored significantly higher on self-competence than on self-liking.

However, as noted by Tafarodi et al. (1999), self-competence and self-liking share a large amount of covariance. As a result, comparing raw scores is perhaps not the best way to test the trade-off hypothesis. A better method, they argue, is to hold variation in one dimension constant while testing for national differences in the other. A series of regressions can accomplish this goal, and Tafarodi and his colleagues have done this for pairs of countries including the United Kingdom and Malaysia, the United Kingdom and Spain, and the United States and China (Tafarodi et al., 1999; Tafarodi & Swann, 1996; Tafarodi & Walters, 1999). They have repeatedly found, after controlling for covariance, that individualistic cultures scored higher in self-competence than collectivistic cultures, whereas collectivistic cultures scored higher in self-liking than individualistic cultures.

Performing this same procedure across all possible pairs of the 53 ISDP nations would result in a daunting number of comparisons requiring two regressions to be performed on over 1,000 pairs of individual nations. Instead, we chose to more efficiently test the trade-off hypothesis in three ways. First, we took the 10 most individualistic cultures of the ISDP according to Hofstede (2001), which included Australia, Belgium, Brazil, France, Italy, the Netherlands, New Zealand, Switzerland, the United Kingdom, and the United States. We contrasted the overall self-competence and self-liking levels of these nations with the 10 most collectivistic cultures, which included Bangladesh, Botswana, Chile, the Democratic Republic of the Congo, Hong Kong, Indonesia, Malaysia, Peru, Serbia, and South Korea.

Using this analysis strategy, we found some support for the trade-off hypothesis. After controlling for self-liking and gender, the 10 most individualistic cultures had significantly higher levels of self-competence than the 10 most collectivistic cultures,  $\beta = .04, t(8588) = 4.90, p < .001$ . In contrast, after controlling for self-competence and gender, the 10 most individualistic cultures had lower levels of self-liking than the 10 most collectivistic cultures,  $\beta = -.01$ , though this difference only approached marginal significance,  $t(8588) = -1.46, p = .14$ .

We also compared the five most individualistic nations in our sample (Australia, Brazil, the Netherlands, the United Kingdom, and the United States) with the five most collectivistic cultures (Bangladesh, Botswana, Indonesia, Peru, and South Korea). As expected by the trade-off hypothesis, the effects of individualism–collectivism were more pronounced among these more extreme cultural subgroupings. After controlling for self-liking and gender, the five most individualistic cultures had significantly higher levels of self-competence than the five most collectivistic cultures,  $\beta = .05, t(6183) = 5.49, p < .001$ . In contrast, after controlling for self-competence and gender, the five most individualistic cultures had marginally lower levels of self-liking than the five most collectivistic cultures,  $\beta = -.02, t(6183) = -1.85, p < .10$ .

Finally, we compared the most individualistic culture in the ISDP, the United States, with the most collectivistic culture in the

Table 7  
*Means, Standard Deviations, and Associations of Self-Competence (SC) and Self-Liking (SL) Within 53 Nations*

Nation	SC <i>M</i>	SC <i>SD</i>	SL <i>M</i>	SL <i>SD</i>	<i>r</i>	<i>t</i>	<i>d</i>
Argentina	16.74	2.05	14.52	2.88	.55***	14.20***	0.91
Australia	16.84	2.46	14.22	3.12	.70***	25.63***	1.16
Austria	16.04	2.55	15.76	2.67	.61***	2.58**	0.12
Bangladesh	14.85	3.40	13.06	2.49	.55***	7.43***	0.62
Belgium	15.74	2.54	13.85	3.09	.76***	20.93***	0.92
Bolivia	17.11	2.02	14.20	2.39	.49***	17.35***	1.30
Botswana	16.45	2.26	14.43	2.50	.49***	12.20***	0.83
Brazil	16.19	2.36	14.14	2.37	.49***	8.33***	0.86
Canada	16.07	2.45	14.11	2.72	.64***	28.57***	0.89
Chile	17.42	2.15	15.63	2.76	.51***	12.66***	0.72
Congo, Dem. Rep. of	16.34	1.94	15.11	1.65	.32***	7.95***	0.59
Croatia	16.93	2.02	15.07	2.62	.57***	12.44***	0.84
Cyprus	16.83	2.50	14.32	3.30	.73***	8.49***	1.11
Czech Rep.	15.41	2.21	13.08	2.40	.61***	17.33***	1.13
Estonia	16.76	2.64	15.87	2.85	.75***	6.12***	0.45
Ethiopia	15.08	2.08	14.28	2.35	.39***	4.88***	0.32
Fiji	15.26	2.32	13.70	2.61	.42***	7.33***	0.58
Finland	16.87	2.15	14.78	2.41	.61***	11.28***	1.03
France	16.08	2.03	13.79	2.57	.63***	12.81***	1.12
Germany	16.41	2.25	15.29	2.86	.69***	14.99***	0.54
Greece	16.81	2.24	14.34	3.06	.61***	15.27***	1.01
Hong Kong	14.41	1.76	13.19	2.34	.59***	8.99***	0.64
India	16.09	2.11	14.42	2.66	.59***	10.70***	0.76
Indonesia	15.66	2.22	14.27	2.03	.58***	7.23***	0.71
Israel	17.50	2.78	15.55	3.12	.71***	17.06***	0.86
Italy	16.51	2.19	14.08	2.92	.54***	13.54***	0.96
Japan	13.33	2.51	12.30	2.36	.61***	7.64***	0.47
Latvia	15.68	2.10	14.22	2.60	.57***	9.09***	0.66
Lebanon	16.34	2.26	14.21	2.71	.55***	14.31***	0.89
Lithuania	16.15	2.05	13.51	2.18	.50***	12.07***	1.25
Malaysia	16.42	1.99	13.38	2.01	.46***	16.99***	1.45
Malta	16.01	2.60	13.51	3.12	.68***	19.31***	1.07
Mexico	17.76	2.40	14.32	2.69	.40***	17.85***	1.23
Morocco	15.54	2.13	13.64	2.51	.49***	10.58***	0.81
Netherlands	16.69	2.24	14.95	2.62	.71***	14.20***	0.92
New Zealand	16.58	2.29	13.66	2.81	.68***	22.93***	1.39
Peru	17.49	2.20	15.59	2.80	.66***	12.77***	0.89
Philippines	16.02	2.09	13.97	2.49	.54***	15.26***	0.92
Poland	16.36	2.32	13.95	2.75	.55***	28.33***	0.99
Portugal	16.33	2.18	14.98	2.92	.66***	9.77***	0.62
Romania	16.62	2.13	12.97	2.47	.50***	24.84***	1.57
Serbia	17.60	2.18	16.05	3.32	.63***	8.45***	0.60
Slovakia	15.83	2.21	13.14	2.40	.62***	17.98***	1.35
Slovenia	17.13	2.37	14.60	2.88	.62***	14.51***	1.08
South Korea	15.90	2.13	13.25	2.31	.67***	32.15***	1.46
Spain	16.69	2.04	14.79	2.63	.50***	13.06***	0.79
Switzerland	14.30	2.03	14.84	3.13	.54***	-2.90**	-0.20
Taiwan	15.43	2.22	13.44	2.63	.72***	15.65***	1.08
Tanzania	15.30	2.58	14.40	2.19	.37***	3.86***	0.33
Turkey	17.09	2.38	15.11	3.03	.68***	17.71***	0.88
United Kingdom	16.36	2.34	14.10	2.93	.76***	26.12***	1.19
United States	17.21	2.33	14.96	3.12	.68***	51.75***	0.98
Zimbabwe	16.40	2.14	14.42	2.61	.47***	11.06***	0.80

*Note.* Cohen's *d* is considered small when exceeding  $\pm 0.20$ , medium when exceeding  $\pm 0.50$ , and large when exceeding  $\pm 0.80$ . Dem. = Democratic; Rep. = Republic.  
 \*\*  $p < .01$ . \*\*\*  $p < .001$ .

ISDP, Indonesia. As expected, the effects of individualism-collectivism were highly pronounced in this extreme contrast. After controlling for self-liking and gender, the United States had significantly higher levels of self-competence than Indonesia,  $\beta = .09$ ,  $t(2883) = 6.92$ ,  $p < .001$ . After controlling for self-competence and gender, the United States had significantly lower

levels of self-liking than Indonesia,  $\beta = -.04$ ,  $t(2883) = -2.89$ ,  $p < .01$ .

We also correlated raw nation-level scores on self-competence and self-liking with Hofstede's (2001) dimension of Individualism (vs. Collectivism). If self-competence is more accentuated (and self-liking more attenuated) in individualistic cultures, it might be

expected that national levels of these self-esteem facets would correlate in opposite directions with Individualism. We did not find this to be the case. Neither self-competence,  $r(44) = .01$ , nor self-liking,  $r(44) = .00$ , were significantly related to Individualism at the national level. Through partial correlations, after controlling for national self-liking, self-competence was significantly correlated with Cultural Masculinity,  $r(44) = -.25$ ,  $p < .05$ , and marginally related to Power Distance,  $r(44) = .23$ ,  $p < .10$ , and Uncertainty Avoidance,  $r(44) = .20$ ,  $p < .10$ , but national self-competence was unrelated to Individualism. National self-liking, after controlling for self-competence, was related to Power Distance,  $r(44) = -.40$ ,  $p < .05$ , but was unrelated to other features of culture, including Individualism. Overall, it appeared that cultural power disparities were most closely associated with national variations in self-competence and self-liking, with greater power disparity associated with more self-competence and less self-liking.

### Discussion

This study accomplished five primary objectives. First, the internal reliability and factor structure of the RSES largely replicated across a large and diverse sample of human languages and cultures. This finding provides evidence of the structural equivalence of global self-esteem across cultures, supporting the notion that a person's overall evaluation of self-worth is a universally quantifiable human characteristic. Second, within nations, the RSES strongly correlates with two of the Big Five dimensions, Neuroticism and Extraversion (Costa, McCrae, & Dye, 1991). The universality of the inverse relationship with Neuroticism supports the view that self-esteem naturally functions as an anxiety buffer (Greenberg et al., 1992). Third, relatively high scores on the RSES are prevalent across cultures. In most ISDP nations, the average level of global self-esteem is well above the theoretical midpoint of the RSES scale. Fourth, most cultures possess a negative item bias, tending to report lower levels of self-esteem on negatively phrased items than would be expected given their responses to positive items. Fifth, the subcomponents of global self-esteem (i.e., self-competence and self-liking) systematically vary across cultures. Collectivistic cultures tend to have lower levels of self-competence and higher levels of self-liking than individualistic cultures, whereas individualistic cultures tend to have higher levels of self-competence and lower levels of self-liking (after controlling for covariance). This provides support for the notion that individualism–collectivism plays a role in moderating the psychological experience of self-evaluation (see also Crocker & Loh-tanen, 1990; Farruggia et al., 2004; Heine et al., 1999). Each of these findings, along with associated limitations, is more fully discussed below.

#### *The Global Structure and Function of Global Self-Esteem*

This study provided the first concurrent evidence that the RSES can be useful for measuring global self-esteem across dozens of languages and cultures. Although it has been argued that self-esteem may be less meaningful, tangible, and important outside Western cultures (Heine et al., 1999), this study demonstrated that the factor structure of the RSES is generally replicable across a diverse sample of human cultures, including many Asian and

African nations. With few exceptions and the elimination of one occasionally ambiguous item (i.e., Item 8, in which people rate whether they could have more respect for themselves), the factor structure was largely invariant across nations, providing support for the structural equivalence of the RSES. The ISDP findings do highlight some equivalence problems with the RSES (e.g., a negative item bias in some cultures), but overall it appears that most people have an internally consistent conception of self-worth and can rate, both in the West and in the East, their position on this personality dimension. The finding that people with high self-esteem tend to score lower on Neuroticism across all cultures further suggests that self-esteem may demonstrate functional equivalence across cultures, possibly serving as a natural buffer against anxiety (Greenberg et al., 1992).

#### *Positive Self-Evaluation as a Cultural Universal*

We examined whether there is a trend toward positive self-evaluation as postulated by many influential thinkers (see Brown, 1998). In a review of self-esteem studies, Baumeister and his colleagues (1989) found that the distributions of self-esteem scores are almost invariably centered on the side of positive self-worth. Regardless of sample attributes and measuring instruments, typical self-esteem scores are almost always higher than the theoretical midpoint of the scales (Baumeister, Tice, & Hutton, 1989). However, on the basis of this review alone it is premature to conclude that people regardless of their cultural origin enhance their self-esteem (cf. Sedikides et al., 2003) because all reviewed studies were carried out in North America. Studies carried out in Japan, for example, often show that mean self-esteem scores approach the theoretical midpoint of the scale (Diener & Diener, 1995; Heine et al., 1999). On the basis of strong contrasts between North America and Japan, Heine and colleagues (1999) advanced the notion that positive self-evaluation is far from universal. The prevalence of positive self-evaluation, they argued, is a culture-restricted phenomenon that is relatively uncommon in non-Western nations. The results of the ISDP can be considered as a substantial advance in the debate between these *universalist* and *relativist* viewpoints on self-esteem.

We found in the ISDP that overall positive self-evaluations are, indeed, culturally universal. The nation-level mean score on the RSES was above the midpoint of the scale in all cultures of the ISDP. However, we also found support for the relativist view that the self-esteem concept is somewhat less meaningful, tangible, or important in some nations. For example, in many African and Asian cultures the Metatraitenedness Index was lower than in more individualistic cultures. Even so, responses to the RSES were generally on the positive side of the rating scale and were reasonably consistent even across African and Asian nations. For example, Japan scored lowest on the RSES scale but had an exemplary internal reliability ( $\alpha = .75$ ) and had a factor structure that was highly congruent to that of the United States (Tucker's congruence = .952). This would seem to refute the idea that self-evaluation, particularly positive self-evaluation, is primarily a Western phenomenon (Markus & Kitayama, 1991).

In previous studies, comparisons of cultures on the extremes of the RSES, such as Japan and United States, may have led to an inflated sense that cultures vary tremendously in self-evaluation. The contrast between these two cultural extremes on the self-

esteem dimension also has led to a generalization about positive self-evaluation being more typical of individualistic and Western nations and neutral or even negative self-evaluation as being more frequent among collectivistic and Eastern cultures. Several collectivistic cultures, such as Malaysia, Indonesia, and the Philippines, score very close to the neutral midpoint of the RSES. However, many individualistic countries, such as Belgium, France, and Switzerland, also score near the neutral midpoint of the RSES.

Moreover, we did not find, as many researchers have expected, that people in collectivistic countries express much lower levels of global self-esteem than people in individualistic countries (see also Diener & Diener, 1995). Nor did we find particularly positive self-esteem is a unique characteristic of individualistic countries. As much as one can rely on Hofstede's (2001) measure of Individualism (vs. Collectivism), there is no significant correlation between the RSES and individualism. In summary, the contention that there is a clear and wide division between Western (i.e., positive) and Eastern (i.e., neutral or negative) self-esteem is not empirically justified on the basis of the ISDP findings.

During the last 2 decades, cross-cultural psychologists have advanced many sound arguments about the way in which selfhood is constructed fundamentally differs across regions of the world (Markus & Kitayama, 1991; Nisbett, 2003). For example, there are reasons to expect that the main function of positive self-evaluation is to buffer and protect its holder from frustration and anxiety but that this characteristic applies only to some cultures (Singelis et al., 1999). Therefore it was unexpected when Singelis et al. (1999) found that self-esteem in Hong Kong, Hawaii, and the United States was similarly related to personality measures. The current ISDP study allows us to generalize this research conclusion to over 53 cultural environments; the relationship between self-esteem and personality traits was quite consistent across all studied nations. Higher levels of self-esteem are almost always associated with lower levels of anxiety. In light of these findings, the theoretically relativistic position that self-esteem is a socially constructed phenomenon, which primarily depends on cultural norms, values, and practices, may be overstated. The evidence seems more favorable for the theoretical position holding that self-esteem is a universal phenomenon that stems from common human motivations.

### *The Negative Item Bias*

Our findings endorse the universalist stance that global self-esteem, at least as it is operationalized by the RSES, is composed of a one-dimensional structure that is, to a large degree, similarly understood around the world. Even so, there remain serious measurement concerns with the RSES, particularly with the way in which the valence of items is formulated. The current ISDP findings suggest that in many cultures the answers to negatively worded items are systematically different from the answers to positively worded items—what may be called a negative item bias. This bias is different from the acquiescence bias, which is a tendency to agree with a statement regardless of its content (cf. Smith, 2004; van Herk, Poortinga, & Verhallen, 2004). Developmental psychologists have demonstrated that young students have difficulty responding appropriately to negatively worded items (Benson & Hocevar, 1985). Students who have consistently responded “true” to positively worded items will sometimes give apparently inappropriate “true” responses to negatively worded

items as well. These responses after the reverse coding will indicate the opposite of a respondent's genuine intention (Marsh, 1986). This may be what happened to the eighth item of the RSES, with a few nations displaying a negative loading of this item on the first principal component (see also Farruggia et al., 2004).

This type of inappropriate response to negatively worded items can be interpreted as a method artifact and may be responsible for the appearance of separate factors associated with positively and negatively worded items in previous exploratory factor analyses (Spector et al., 1997). Marsh (1986) showed that the size of the negative item bias varied substantially with age among several student samples. For example, the correlation between aggregates of positively and negatively worded items varied from close to zero for the youngest students to about .60 for the oldest students. When measurement unreliability was taken into account, the corrected correlation between aggregates of positively and negatively worded items reached the .80 level. Although the negative item bias diminishes with the age, it is still clearly evident in 10th-grade high school students and is detectable in the responses by university students (Marsh, 1996). The size of the negative item bias may also be related to verbal ability (Marsh, 1986), a concern that may be relevant to cultures that completed the ISDP in their nonnative language of English (e.g., in most African nations).

At the intercultural level of analysis, the correlation between the positive and negative subscales was respectably high, indicating a substantial agreement between positively and negatively worded items within nations. However, the correlation between positive and negative subscales alone cannot ensure that these two subscales are in fact measuring the same underlying concept. Carmines and Zeller (1979) proposed, we think correctly, that the two subscales formed from the positively and negatively worded items can be regarded as identical if they are similarly related to some external convergent measures. The ISDP data provide evidence that the positively and negatively formulated self-esteem items of the RSES are similarly related to external variables, particularly to two of the Big Five dimensions: Neuroticism and Extraversion.

The results of this study suggest that comparing the raw scores of the RSES across cultures has somewhat limited value, unless the inherent bias related to the different functioning of positively and negatively worded items has been taken into account. Because of the negative item bias, care needs to be taken when comparing the simple mean scores on the RSES across different nations. In this study, we found that the psychometric properties of the RSES (internal and split-half reliability, metatraitdness, and so forth), more than the mean-levels, were significantly related to national indices characterizing the level of human development or type of culture. Because a certain proportion of measurement imprecision was attributable to the difference between the aggregate of the positively and negatively worded items, the differential functioning of reversed and nonreversed items was identified as one of the major sources of RSES measurement error.

Although the aggregate scores of positive and negative items were correlated both on intracultural and intercultural levels of analyses, the difference score between positive and negative items was systematically and strongly related to several national level indicators. It is suggestive that the smallest differences between the means of positive and negative items were observed in the three German speaking samples of the ISDP: Austria, Germany, and Switzerland. Language, it appears, may be one of the moderating



factors of negative item bias. In addition to language, however, there was a strong general tendency for countries whose people live a longer and healthier life, and have higher literacy rates, to treat negatively and positively worded items more equally. The wording of positive and negative items appeared much more influential in poorer countries, where people also tend to be more collectivistic and separated from one another by stronger barriers of power.

The intercultural dependence on wording paralleled the within-national variability of self-esteem. Like personality traits themselves (McCrae, 2002) and their gender differences (Costa, Terracciano, & McCrae, 2001), the magnitude of dissimilarity in self-esteem was largest in the developed (predominantly European) countries and the smallest in Asian and African countries. One obvious reason for this difference is that in less developed countries people avoid the use of the extremes of the scale (i.e., display a “neutral response bias”) with the result that their individual scores are more tightly packed around the theoretical midpoint of the scale.

How can future investigators mitigate the effects of the negative item bias? One possible approach, as suggested by Marsh (1996), is to give the negatively worded items different weights than the positive items. In particular, he proposed to weight positive items more heavily than negative items. An unresolved question, though, is how to determine appropriate weight for particular negative items. The requirement that these weights should be different for different nations would certainly complicate cross-cultural comparisons. Another possibility for avoiding the negative item bias, as proposed by Marsh (1996), is to use only positively worded items. Though in some ways attractive, this is still far from an ideal solution because the reliance only on the positively worded items would result in loss of control over the acquiescence bias, a tendency to agree with a statement regardless of its content. A recent study demonstrated, for example, that nations that are high on family collectivism and on uncertainty avoidance also have a stronger acquiescence bias (Smith, 2004). Provided that it is impossible to neutralize all forms of biases simultaneously, it is perhaps more realistic to take them into account in more sophisticated forms using multilevel factor analysis (e.g., Muthén, 1991).

### *The Trade-Off Hypothesis: Self-Competence and Self-Liking as Components of Self-Esteem*

Global self-esteem can be decomposed into subcomponents of self-competence (i.e., feeling one is confident, capable, and efficacious) and self-liking (i.e., feeling one is good, socially relevant, and contributes to group harmony). According to the trade-off hypothesis, when cultures accentuate one of these subcomponents it often comes at the cost of attenuating the other (Tafarodi & Milne, 2002). Tafarodi and his colleagues have found support for this hypothesis in that individualistic cultures score higher in self-competence than collectivistic cultures, whereas collectivistic cultures score higher in self-liking than individualistic cultures (Tafarodi et al., 1999; Tafarodi & Swann, 1996; Tafarodi & Walters, 1999).

We contrasted the overall self-competence and self-liking levels of the collectivistic and individualistic subgroupings of ISDP cultures. In most cases, we found support for the trade-off hypothesis. For example, after controlling for self-liking, the five most individualistic cultures have significantly higher levels of self-

competence than the five most collectivistic cultures. After controlling for self-competence, the five most individualistic cultures have lower levels of self-liking than the five most collectivistic cultures. When we compare the most individualistic culture in the ISDP, the United States, with the most collectivistic culture in the ISDP, Indonesia, the contrasts in self-competence and self-liking are even more evident. The trade-off hypothesis, therefore, is largely supported by our ISDP findings.

### *Concluding Remarks*

In summary, it appears that the internal reliability and factor structure of the RSES is psychometrically sound across the many languages and cultures of the ISDP. Both within and across nations, RSES scores correlate in expected ways with the key personality traits of neuroticism and extraversion, as well as with the model of self dimension from attachment theory. The robust nature of these findings would seem to support the structural equivalence of self-esteem as measured by the RSES. Several cautions against this universalist conclusion are warranted, however. First, some cultures possess a negative item bias. Without correcting for cross-cultural variability in responses to negative items, comparisons of national mean values on the RSES remain somewhat problematic. Second, the variance in responses to the RSES shows systematic patterning across cultures, with higher standard deviations present in more individualistic, power differentiated, and wealthier cultures. This suggests a tendency for people from collectivist cultures to exhibit a neutral response bias and avoid the extreme ends of self-esteem rating scales. Third, solid evidence suggests that the subcomponents of global self-esteem (i.e., self-competence and self-liking) systematically vary across cultures, again showing links to individualism–collectivism. Future cross-cultural research on self-esteem will benefit from more fully exploring the complex associations of the negative item bias, the neutral response bias, individualism–collectivism, and the many subcomponents of global self-esteem.

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(Appendix follows)



## Appendix

## Membership of the International Sexuality Description Project

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