

Pers Soc Psychol. Author manuscript; available in PMC 2009 September 1.

Published in final edited form as:

J Pers Soc Psychol. 2008 September; 95(3): 739-755. doi:10.1037/0022-3514.95.3.739.

### Culture, Cross-Role Consistency, and Adjustment: Testing Trait and Cultural Psychology Perspectives

**A.** Timothy Church, Cheryl A. Anderson-Harumi, and Alicia M. del Prado Washington State University

**Guy J. Curtis** 

University of Western Sydney

Junko Tanaka-Matsumi

Kwansei Gakuin University

José L. Valdez Medina

National Autonomous University of Mexico

Khairul A. Mastor

Universiti Kebangsaan Malaysia

Fiona A. White

University of Sydney

Lilia A. Miramontes and Marcia S. Katigbak

Washington State University

#### **Abstract**

Trait and cultural psychology perspectives on cross-role consistency and its relation to adjustment were examined in two individualistic cultures, the United States (N = 231) and Australia (N = 195), and four collectivistic cultures, Mexico (N = 199), Philippines (N = 195), Malaysia (N = 217), and Japan (N = 180). Cross-role consistency in trait ratings was evident in all cultures, supporting trait perspectives. Cultural comparisons of mean consistency provided support for cultural psychology perspectives as applied to East Asian cultures (i.e., Japan), but not collectivistic cultures more generally. Some but not all of the hypothesized predictors of consistency were supported across cultures. Cross-role consistency predicted aspects of adjustment in all cultures, but prediction was most reliable in the American sample and weakest in the Japanese sample. Alternative constructs proposed by cultural psychologists—personality coherence, social appraisal, and relationship harmony—predicted adjustment in all cultures, but were not, as hypothesized, better predictors of adjustment in collectivistic cultures than in individualistic cultures.

Address correspondence to: Dr. A. Timothy Church, Department of Educational Leadership and Counseling Psychology, Cleveland Hall, Washington State University, Pullman, WA 99164-2136, E-mail: church@mail.wsu.edu; Phone: (509) 335-0927; Fax: (509) 335-6961.

A. Timothy Church, Cheryl A. Anderson-Harumi, Alicia M. del Prado, Department of Educational Leadership and Counseling Psychology, Washington State University; Guy J. Curtis, School of Psychology, University of Western Sydney; Junko Tanaka-Matsumi, Department of Psychology, Kwansei Gukuin University; José L. Valdez Medina, Department of Behavioral Sciences, National Autonomous University of Mexico; Khairul A. Mastor, Pusat Pengajian Umum, Universiti Kebangsaan Malaysia; Fiona A. White, School of Psychology, University of Sydney; Lilia A. Miramontes and Marcia S. Katigbak, Department of Educational Leadership and Counseling Psychology, Washington State University.

**Publisher's Disclaimer:** The following manuscript is the final accepted manuscript. It has not been subjected to the final copyediting, fact-checking, and proofreading required for formal publication. It is not the definitive, publisher-authenticated version. The American Psychological Association and its Council of Editors disclaim any responsibility or liabilities for errors or omissions of this manuscript version, any version derived from this manuscript by NIH, or other third parties. The published version is available at <a href="http://www.apa.org/journals/psp/">http://www.apa.org/journals/psp/</a>

#### Keywords

Culture; consistency; adjustment; trait psychology; cultural psychology

"...for traits to distinguish people from one another, they must display some distinctive *consistency*." (Johnson, 1997, p. 74)

- "...an implicit promise of trait theories is to account for consistency across a range of situations." (Moskowitz, 1994, p. 921)
- "...the functional value of consistency is less clear for East Asian selves" (Heine, 2001, p. 886)
- "Interdependent selves do not prescribe or require consistency [which] may reflect, not authenticity, but a lack of flexibility, rigidity, or even immaturity" (Markus & Kitayama, 1994, p. 576)

As illustrated above, psychologists offer a range of views regarding trait-relevant consistency and its relation to adjustment across cultures. In discussing these differences in emphases or expectations, it is useful to distinguish trait and cultural psychology perspectives. While the trait concept implies a degree of consistency of behavior across relevant situations in all cultures, a number of cultural psychologists have predicted less consistency in collectivistic cultures, where behavior is thought to be more influenced by contextual factors such as roles and relationships (Markus & Kitayama, 1998; Suh, 2002; Triandis, 1995). Furthermore, whereas greater consistency or integration of identity has been described as an indicator of positive mental health in Western theories of personality (e.g., Erikson, 1950; Jahoda, 1958), some cultural psychologists have proposed that consistency is less important for adjustment in collectivistic, or at least East Asian, cultures, where the ability to flexibly adapt to situational or role requirements is highly valued (Choi & Choi, 2002; Kitayama & Markus, 1999; Suh, 2002). <sup>1</sup>

Both trait and cultural psychology perspectives would be correct if a degree of consistency is exhibited and related to adjustment in all cultures, but more so in individualistic cultures than in collectivistic cultures. In the present study, we investigated cross-role consistency in self-reported traits in two individualistic cultures and four collectivistic cultures. We had three specific aims. First, we sought to determine the universality versus culture-specificity of cross-role trait consistency. Second, we tested alternative predictors of individual differences in consistency, including self-construals, self-concept clarity, private and public self-consciousness, and self-monitoring. Third, we examined the extent to which cross-role trait consistency, and alternative constructs proposed by cultural psychologists (i.e., relationship harmony, social appraisal, and personality coherence), predict adjustment in diverse cultures. The study has implications for culture and personality theory and for our understanding of positive mental health across cultures.

#### **Theoretical Perspectives**

We use the term *cross-role trait consistency* (or, for brevity, *cross-role consistency* or *consistency*) to refer to the consistency of individuals' trait ratings across different roles. Others have referred to this construct as identity consistency (Suh, 2002), self-concept unity (Campbell, Assanand, & Di Paula, 2003), or, inversely, self-concept differentiation (Roberts

<sup>&</sup>lt;sup>1</sup>Flexibility and adaptability have also been mentioned as indicators of adjustment by some Western psychologists (e.g., Coan, 1974; Hartmann, 1960; Jahoda, 1958). However, in the present study we focus on the cultural psychology proposal that consistency is less evident and less related to adjustment in collectivistic cultures than in individualistic cultures.

& Donahue, 1994), cross-role variation (Sheldon, Ryan, Rawsthorne, & Ilardi, 1997), or intraindividual personality variability (Baird, Le, & Lucas, 2006). Our hypotheses derive from a consideration of trait and cultural psychology perspectives. From a trait perspective, we expect that people in all cultures exhibit a degree of cross-role trait consistency. This follows from (a) the cross-cultural universality, heritability, and predictive validity of trait dimensions (e.g., Jang, McCrae, Angleitner, Riemann, & Livesley, 1998; McCrae & Allik, 2002); (b) a degree of behavioral consistency that is presumed to result from traits (Funder & Colvin, 1991); and (c) a "realist" perspective on person perception (Baron & Misovich, 1993; Funder, 1995). For example, Funder's (1995) Realistic Accuracy Model contends that personality traits are real characteristics of individuals and can be accurately observed by self and others. Ultimately, then, a degree of trait-relevant consistency in actual behavior leads to some consistency in perceptions of one's traits across various roles.

Several expectations of cultural psychologists, however, lead to the prediction of reduced cross-role consistency in collectivistic, or at least East Asian, cultures. One theoretical approach draws on the distinction between individualistic and collectivistic cultures, and the associated individual-level distinction between independent and interdependent self-construals (Markus & Kitayama, 1991; Triandis, 1995). People with independent self-construals—who view the individual as an autonomous and unique entity—are thought to have a greater need to express their traits and should therefore exhibit greater cross-role consistency in trait-related behavior. In contrast, for people with interdependent self-construals, roles and relationships are expected to influence behavior more than traits, reducing consistency (Heine, 2001; Markus & Kitayama, 1998). The greater prevalence of independent self-construals in individualistic cultures, and interdependent self-construals in collectivistic cultures, leads to the prediction of greater cross-role consistency in trait-relevant behavior in individualistic cultures. From role identity theory, we can then predict that self-conceptions of traits will be more role-specific in collectivistic cultures than in individualistic cultures (Burke & Tully, 1977; Roberts & Donahue, 1994; Wood & Roberts, 2006).

A related theoretical approach leads to the prediction of reduced cross-role consistency more specifically in East Asian cultures such as China, Korean, and Japan. This approach attributes the expected lower consistency in these cultures to Asian dialectical thinking, with proposed roots in Eastern philosophical, religious, and epistemological traditions, especially Confucianism (Choi & Choi, 2002; English & Chen, 2007; Peng & Nisbett, 1999; Schimmack, Oishi, & Diener, 2002). Peng and Nisbett (1999) described dialecticalism as a broad cognitive tendency or system of thought characterized by acceptance of contradiction, expectations of complexity and change, and holistic thinking. English and Chen (2007) and Choi and Choi (2002) explicitly linked East Asians' greater self-concept variability across relationship contexts to their dialectical thinking, which makes them "more able and willing than Westerners to store incompatible and contradictory information about the self in their self-concepts" (Choi & Choi, 2002, p. 1516).

A final consideration, and arguably a prerequisite for cross-cultural comparisons of overall consistency, is whether consistency in trait ratings represents a general dimension of individual differences, or whether consistency is trait- or role-specific. For example, it would be possible for an individual to exhibit cross-role consistency for traits associated with Extraversion but not Agreeableness (i.e., trait-specificity). Similarly, an individual could describe their traits in a consistent manner across some roles but not others (i.e., role-specificity). Only Baird et al. (2006) examined the possible trait- and role-specificity of consistency. In an American sample, they found evidence of a general consistency dimension that was not trait- or role-specific. One might argue from a cultural psychology perspective that consistency will be more trait- or role-specific in collectivistic cultures, where the affordances of various roles for particular traits or behaviors might be less consistent. However, given the absence of theory and evidence

on this point, we hypothesized that consistency would be a coherent or general dimension in all cultures.

Integrating trait and cultural psychology perspectives leads to our first three hypotheses:

*Hypothesis 1*: In all cultures, cross-role trait consistency is a general dimension, rather than specific to particular traits or roles.

*Hypothesis* 2: At least moderate cross-role consistency in personality trait ratings is evident in all cultures.

*Hypothesis 3*: Cross-role trait consistency is greater for people in individualistic cultures than for people in collectivistic cultures.

#### Available evidence

Two cross-cultural studies have directly compared cross-role trait consistency across cultures. Suh (2002, Study 2) had American and Korean college students rate 20 traits for the general self and for the self in five specific roles (with parents, close friend, professor/teaching assistant, stranger, younger person). Substantial cross-role consistency was found in both cultures, supporting trait perspectives, but Americans exhibited greater consistency than Koreans, supporting cultural psychology perspectives. English and Chen (2007) found that Asian Americans exhibited less consistency in trait ratings than European Americans across relationship situations, but not across situational contexts that were based on location (i.e., discussion section, gym, party, cafeteria). In a second study, they also found that Asian Americans were less consistent across relationship contexts in the traits they viewed as most important in defining themselves and in their self-enhancement tendencies (i.e., better-than-average effect). The ethnic differences in the second study were completely mediated by ethnic differences in dialectical beliefs, which supported an interpretation in terms of dialecticalism.

Other studies may allow indirect inferences about cultural differences in cross-role trait consistency. For example, Choi and Choi (2002) showed that Koreans, more than Americans, described themselves in an inconsistent manner when asked to rate themselves on a trait or value (e.g., honest) and its opposite (e.g., dishonest). The authors concluded that Koreans have more flexible self-concepts and are more able and willing to store incompatible information about themselves, one indicator of dialectical thinking. Kanagawa, Cross, and Markus (2001) found that self-descriptions varied more for Japanese than Americans when completed in the presence of different people, again suggesting the "cross-situational fluidity of the East Asian self" (Heine, 2001, p. 887). In samples of Japanese, Hispanic, Indian, and multi-ethnic Americans in Illinois, Oishi et al. (2004) found evidence for both trait and cultural psychology perspectives. All four cultural groups exhibited relative or inter-individual consistency in positive and negative affect across situations, but the Japanese, Hispanic, and Indian samples exhibited greater within-individual variability in affect across situations than the Americans in Illinois.

Finally, several studies have shown that the relationship between positive and negative affects —which are generally inversely related in Western studies—tends to be positive in East Asian samples (Bagozzi, Wong, & Yi, 1999; Kitayama, Markus, & Kurokawa, 2000; Schimmack et al., 2002; Scollon, Diener, Oishi, & Biswas-Diener, 2005). Most of these researchers attributed this finding to the influence of Asian dialectical philosophies, which do not view emotions of opposite valence as contradictory or incompatible with each other. Particularly intriguing in the context of the present study were the findings of Schimmack et al. (2002). These researchers

<sup>&</sup>lt;sup>2</sup>Scollon et al. (2005) expressed some doubt about a dialectical interpretation of these results, however, because it may not be contradictory (i.e., dialectical) for individuals to experience both more positive and negative emotions, at least over time.

coded 38 countries in two ways, whether or not they were influenced by Asian dialectical philosophies (e.g., Hong Kong, Japan, Thailand, Nepal, China, South Korea), and whether they were individualistic or collectivistic. The relationship between the frequency of positive and negative emotions was more predictable from the Asian-dialectical-philosophies distinction than from the individualism-collectivism distinction, which led the authors to conclude that the relationship is moderated by Asian dialectical thinking, not by individualism-collectivism. Many of these findings provide only indirect inferences about cross-role trait consistency across cultures, however, so more direct comparisons in a broader range of cultures are needed.

#### **Hypothesized Predictors of Cross-Role Consistency**

Researchers have proposed several self-related constructs that may predict individual differences in cross-role consistency. For example, as noted above, people with *independent* self-construals are expected to exhibit greater cross-role consistency in trait ratings, while consistency should be reduced for people with interdependent self-construals (Heine, 2001; Markus & Kitayama, 1998). Similarly, Suh (2002) reasoned that people with greater selfconcept clarity (Campbell, 1990)—that is, with self-concepts that are clear, internally consistent, and temporally stable—will be influenced less by social cues and exhibit greater consistency. Indeed, a few studies in the United States support this contention (Campbell et al., 1996, 2003; Suh, 2002, Study 1). Fenigstein, Scheier, and Buss (1975) differentiated private self-consciousness, which involves "attending to one's inner thoughts and feelings," and public self-consciousness, which involves a "general awareness of the self as a social object that has an effect on others" (p. 523). Suh (2002, Study 1) found that public self-consciousness was negatively associated with identity consistency in an American sample. However, Campbell et al. (1996) found that both private and public self-consciousness were negatively correlated with self-concept clarity. This suggests that both private and public self-consciousness reflect a lack of confidence in one's internal attributes as guides for behavior so that both private and public self-consciousness might lead to reduced consistency. Finally, Snyder (1974) proposed that high self-monitoring individuals, because of their concern about situational appropriateness, would be relatively "trait-free" and exhibit cross-situational variability. Indeed, in an American sample, Suh (2002) found modest relationships between cross-role consistency and aspects of self-monitoring.<sup>3</sup> In the present study, we sought to determine the replicability across cultures of these self-related constructs as predictors of cross-role consistency.

*Hypothesis 4*: In all cultures, cross-role trait consistency is positively associated with independent self-construals and self-concept clarity, and negatively associated with interdependent self-construals, self-monitoring, and private and public self-consciousness.

#### **Cross-Role Trait Consistency and Adjustment**

Western theorists have argued that a consistent or integrated self-concept is important for adjustment (e.g., Jahoda, 1958; Jourard, 1965; Lecky, 1945; Loevinger, 1976; Maslow, 1954). For example, in Erikson's (1950) theory, healthy mastery of the developmental stage of identity versus role diffusion involved self-perceptions of inner sameness and continuity. Similarly, Jourard (1965) argued that a psychologically healthy individual retains a consistent self-view across social roles. Indeed, consistent with a "fragmentation view" of cross-role variability (Donahue, Robins, Roberts, & John, 1993), studies in the United States have linked

 $<sup>^3</sup>$ Suh (2002) found that cross-role consistency was positively associated with the extraversion component of self-monitoring (r = .27, p < .001), but negatively associated with the other-directedness component (r = -.21, p < .001). Several researchers have argued, however, that extraversion is not relevant to the original conceptualization of self-monitoring and should be excluded (Briggs & Cheek, 1988; John, Cheek, & Klohnen, 1996). In the present study, we used a measure of self-monitoring that is more consistent with the original focus of the construct on concern for the situational appropriateness of behavior (Church, Katigbak, del Prado, Ortiz et al., 2006).

greater cross-role variability in self-concept to anxiety and depression, lower self-esteem, and poorer academic performance (Block, 1961; Campbell et al., 2003; Donahue et al., 1993; Sheldon et al., 1997).

However, cultural psychologists have suggested that the relationship between consistency and adjustment may be weaker or nonexistent for individuals with interdependent self-construals or in collectivistic (or at least East Asian) cultures, where self-concept flexibility, or adaptability to social roles and situational contexts, are valued more than consistency (Choi & Choi, 2002; Markus & Kitayama, 1998; Suh, 2002). For example, in a monocultural study of American college students, Cross, Gore, and Morris (2003) found that the relationship between cross-role trait consistency and well-being was significantly positive only for individuals with low relational-interdependent self-construals.

Cultural psychologists have offered three alternative constructs that might be more important than consistency in predicting adjustment in collectivistic cultures: personality coherence, social appraisal, and relationship harmony. Kitayama and Markus (1999) contrasted the Western conception of consistency with the Eastern view of personality coherence, which is characterized by balance or harmony between multiple, even contradictory, aspects of self or personality. Suh (2002) defined social appraisal as "the degree to which one believes his or her life is approved by significant others" (p. 1383). Suh found that identity consistency was a better predictor of subjective well-being in the United States than in Korea, but that social appraisal was a better predictor of subjective well-being in Korea than in the United States. Finally, a number of cultural psychologists have proposed that relationship harmony or quality is a more important determinant of well-being in collectivistic or East Asian cultures than in individualistic cultures (Kang, Shaver, Sue, Min, & Jing, 2003; Kwan, Bond, & Singelis, 1997; Sheldon, Elliott, Kim, & Kassa, 2001; Uchida, Norasakkunkit, & Kitayama, 2004). For example, Kwan et al. (1997) found that life satisfaction was better predicted by self-esteem than relationship harmony in the United States, but that relationship harmony and self-esteem were equally predictive of life satisfaction in Hong Kong. In the present study, we compared the ability of cross-role trait consistency and these alternative constructs to predict adjustment.

*Hypothesis 5*: Cross-role trait consistency is a better predictor of adjustment in individualistic cultures than in collectivistic cultures.

*Hypothesis* 6: Personality coherence, social appraisal, and relationship harmony are better predictors of adjustment in collectivistic cultures than in individualistic cultures.

#### **Overview of the Present Study**

To summarize, we tested hypotheses suggested by an integration of trait and cultural psychology perspectives on consistency and its relation to adjustment. Hypotheses addressed (a) the general versus trait- or role-specific nature of consistency; (b) cultural similarities and differences in cross-role trait consistency; (c) predictors of consistency; and (d) the ability of cross-role consistency and alternative constructs (i.e., personality coherence, social appraisal, and relationship harmony) to predict adjustment across cultures. A significant strength of the study was our inclusion of American and Japanese samples, the cultural groups most frequently compared in previous cultural psychology studies, but also additional individualistic (Australia) and collectivistic (Mexico, Philippines, Malaysia) cultures (Church, 1987; Díaz-Loving & Draguns, 1999; Hofstede, 2001). In doing so, we hoped to determine whether cultural psychology hypotheses apply primarily to comparisons involving the United States and East Asia, where they have been investigated most frequently, or to individualistic and collectivistic cultures more generally.

#### Method Sample

**United States**—The United States sample included 230 students (85 men, 144 women, 1 not reporting gender) at Washington State University, a mid-sized public university whose students are fairly representative of American college students. Self-reported ethnic backgrounds were as follows: White/Caucasian (83%), Asian/Pacific Islander (4%), Bi/multiracial (7%), Chicano/Latino/Hispanic (2%), African American (0.4%), and other or not reporting (4%). Mean age was 19.57 (SD = 2.22). About 80% of the participants were first-year or second-year students, but all year levels of students were represented. Most of the students (89%) were liberal arts majors recruited in communication classes. Students received extra credit in their courses for participation.

**Australia**—The Australian sample included 195 students (45 men, 149 women, 1 not reporting) at the University of Western Sydney (n = 129) and the University of Sydney (n = 66). Both are large public universities and, taken together, their students are reasonably representative of Australian university students. Self-reported ethnic backgrounds were as follows: Anglo/European (73%), Asian or Pacific Islander (6%), Bi/multiracial (5%), Middle Eastern (3%), and other or not reporting (13%). Mean age was 20.81 (SD = 4.74). About 90% of the students were in their first or second year of study. Students were recruited from research participant pools and received research credit for participation. The majority of students were in social sciences (41%) or liberal arts (32%) majors, but a full range of majors were represented.<sup>4</sup>

**Mexico**—The Mexican sample included 199 students (93 men, 95 women, 11 not reporting) from the Autonomous University of the State of Mexico (UAEM), a large public university in Mexico City. Self-reported ethnic backgrounds were as follows: Mestizo, the majority ethnic group in Mexico (77%); indigenous (17%); and other or not reporting (6%). Mean age was 20.93 (SD = 3.45). An approximate balance of first-through fourth-year students were sampled and students were recruited in regular classes that were selected to obtain a reasonable gender balance. The majority of the students were in social sciences (46%) or computer science and engineering (42%) majors. Students received no extra credit or remuneration for participation.

**Philippines**—The Philippines sample consisted of 195 students (85 men, 110 women) at De La Salle College, a private university in Lipa City, located about 60 kilometers south of Manila. All participants who reported their ethnicity (96%) selected Filipino as their ethnic group. Mean age was 18.55 (SD = 1.53), which is lower than in the other cultural samples because the Philippine educational system does not include a middle-school level. We sampled third-year (24%) and fourth- and fifth-year (43%) students more heavily than first-year (19%) and second-year (14%) students to minimize the age differences with the other cultural samples. Students were recruited in regular classes that were selected to obtain a reasonable gender balance. The sample included approximately equal proportions of Business, Engineering, Computer Science, and Public Health/Medicine majors. Students received no extra credit or remuneration for participation.

**Malaysia**—The Malaysian sample consisted of 217 students (114 men, 102 women, 1 not reporting) at the main campus of the National University of Malaysia, a large public university located in Bangi about 30 km south of Kuala Lumpur. Self-reported ethnic backgrounds were

<sup>&</sup>lt;sup>4</sup>Because the United States and Australian samples included small percentages of participants who were not of European heritage, we conducted follow-up comparisons of cross-role consistency in which those of non-European/Anglo heritage were eliminated from the United States and Australian samples. The results of these analyses did not change our conclusions, so we retained the ethnic minorities in these two samples.

as follows: Malay (48%), Chinese (48%), and other or not reporting (4%). Mean age was 21.18 (SD=1.45) and most were first-year (23%), second-year (32%), or third-year (40%) students. Regular classes were sampled to obtain a reasonable gender balance and an approximately equal number of ethnic Malays and Chinese, the two dominant ethnic groups in Malaysia. A variety of fields of study were represented, with the largest percentages of students majoring in social sciences (32%), engineering (23%), business (18%), and natural sciences (15%). Students received no extra credit or remuneration for participation. In the tests of our hypotheses, the ethnic Malays and Chinese were analyzed together because both groups are viewed as collectivistic. However, in a follow-up analysis, we compared the cross-role consistency of the two ethnic groups.

**Japan**—The Japanese sample consisted of 180 students (65 men, 115 women) at Kwansei Gakuin University, a large private university in Nishinomiya City. Because of the anticipated ethnic homogeneity of the Japanese sample, we did not ask about ethnicity, but did verify that participants grew up in Japan and were not international students. Mean age was 20.52 (SD = 3.97). Most students were first-year (53%), second-year (26%), or third-year (16%) students. Students were sampled in psychology classes taken by students in a variety of majors, especially the social sciences (54%) and liberal arts (34%). Students received no extra credit or remuneration for participation.

Because twelve instruments were administered across two sessions, there was missing data for some instruments. Sample sizes for various analyses ranged from 213 to 229 in the United States, 185 to 195 in Australia, 156 to 199 in Mexico, 176 to 195 in the Philippines, 178 to 217 in Malaysia, and 115 to 179 in Japan.

#### Instruments

**Translation**—All instruments were translated from English into Mexican Spanish, Filipino (Tagalog), Malaysian, and Japanese using the backtranslation method. For the Australian instruments, a few items in the English version were modified slightly to reflect Australian usage.

Measurement of Cross-Role Trait Consistency—We administered a Trait-Role Questionnaire that was very similar to measures of cross-role trait consistency used in previous studies (e.g., Baird et al., 2006; Donahue et al., 1993; Suh, 2002). It contained 40 trait terms measuring the Big Five dimensions of Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness to Experience (Goldberg, 1992; Saucier, 1994). Each Big Five dimension was represented by 8 traits and 16 of the 40 traits were reverse-keyed (r), as follows: for Extraversion, talkative, extroverted, bold, energetic, cheerful, shy (r), quiet (r), and reserved (r); for Agreeableness, sympathetic, kind, generous, helpful, respectful, selfish (r), suspicious (r), and boastful (r); for Conscientiousness, organized, disciplined, industrious, thrifty, sloppy (r), careless (r), wasteful (r), and lazy (r); for Emotional Stability, relaxed, calm, self-confident, moody (r), jealous (r), touchy (r), nervous (r), and irritable (r); for Openness to Experience, creative, imaginative, intelligent, wise, artistic, open-minded, talented, and shallow (r). Using the same 40 traits, participants rated their traits in general (i.e., what you are usually or generally like) and in five specific roles: with close friends, parents, professors, younger siblings or relatives, and strangers. The separate role forms were presented in five different orders and the traits on each form were randomly ordered. Respondents rated each trait on a 5-point scale ranging from not at all descriptive of me to extremely descriptive of me. When the Big Five traits were scored as scales in the general trait condition, the a reliabilities ranged from .62 to .85 (M = .72) in the United States, .67 to .83 (M = .72) in Australia, .58 to .72 (M = .69) in Mexico, .67 to .79 (M = .75) in the Philippines, .69 to .81 (M = .77) in Malaysia, and .55 to .88 (M = .72) in Japan.

A hypothetical raw data matrix for one participant is shown in Table 1 (for brevity, only 10 of the 40 traits are shown). To quantify cross-role variability (vs. consistency) we focused primarily on a cross-role standard deviation index (for brevity, *SD* index), which was derived by computing the standard deviation of each participant's ratings for each trait across the five specific roles, then averaging these standard deviations across the 40 traits (e.g., see Baird et al., 2006). This *SD* index has face validity and has been successfully used in previous studies to investigate individual variability in affect (Eid & Deiner, 1999;Oishi et al., 2004), self-esteem (Greenier et al., 1999), traits (Baird et al., 2006), and Big Five-related behaviors (Fleeson, 2001). In the last section of the Results, we also briefly summarize results with alternative consistency indices used in the literature.

We computed the *SD* index in both original (raw) and ipsatized data. The ipsatized data were obtained by computing each participant's mean and standard deviation across all of his or her general-trait and specific-role ratings (240 ratings overall). Participants' original ratings were then standardized by subtracting their grand mean from each original rating and dividing by their overall standard deviation. Ipsatization can be beneficial in controlling for individual differences in the use of rating scales (i.e., response styles). However, as a partialing procedure, it might also partial out valid trait variance, to some extent, as well as style. Except where specifically noted, the analyses were conducted on the original data. For most of our analyses, however, we report results for the *SD* index in both original and ipsatized data to determine the impact of controlling for scale use in this manner.<sup>5</sup>

#### **Hypothesized Predictors of Cross-Role Trait Consistency**

<u>Self-construal scales:</u> Self-construals were measured with the 15-item Independent subscale of Singelis' (1994) Self-Construal Scale (e.g., "I enjoy being unique and different from others in many ways"), Cross et al.'s (2003) 11-item Relational Self-Construal Scale (e.g., "My close relationships are an important reflection of who I am"), and Yamaguchi's (1994) 10-item Collectivism scale (e.g., "I act as fellow group members would prefer"). All items were rated on a 6-point scale that ranged from *strongly disagree* to *strongly agree*. Across the six cultures, a reliabilities ranged from .64 to .79 for Independent self-construal, .61 to .84 for Relational self-construal, and .61 to .80 for Collectivism.

<u>Self-Concept Clarity</u> (SCC: Campbell et al., 1996): The 12-item SCC was used to measure self-concept clarity (e.g., "In general, I have a clear sense of who I am and what I am"). One item was dropped because it had weak factor loadings in multiple cultures in a principal-axis factor analyses. Items were rated using a 5-point agreement scale that ranged from *strongly disagree* to *strongly agree*. Alpha reliabilities ranged from .72 to .87 across the six cultural groups.

<u>Self-Consciousness Scale</u> (Fenigstein et al., 1975): The 10-item Private Self-Consciousness scale was used to assess the tendency to attend to one's personal thoughts and feelings (e.g., "I'm always trying to figure myself out"). One item was deleted because of weak factor loadings. The 6-item Public Self-Consciousness scale was used to assess the general awareness of oneself as a social entity that has an effect on others (e.g., "I'm concerned about what other people think of me"). Items were rated on a 4-point scale, ranging from *not at all like me* to a *lot like me*. Across the six cultures, a reliabilities ranged from .71 to .77 for the Private Self-Consciousness scale and from .66 to .83 for the Public Self-Consciousness Scale.

<sup>&</sup>lt;sup>5</sup>An alternative way to control for individual differences in scale use (i.e., response style) is to control only for participants' grand means, which controls for individual differences in the overall level, but not spread or variance, of participants' ratings (e.g., Hofstee, Ten Berge, & Hendriks, 1998). However, given the manner in which the *SD* indices were computed in this study, subtracting out the participant's grand mean from their original ratings does not change the value of the index.

Self-monitoring measure: Church, Katigbak, del Prado, Ortiz et al. (2006) adapted Lennox and Wolfe's (1984) measures of Self-Monitoring and Concern for Appropriateness and derived two subscales labeled Self-Monitoring and Autonomous Self-Expression. Thirty-eight items were administered in the present study. The 19 Self-Monitoring items assessed the tendency to modify self-presentation and perceived cross-situational variability (e.g., "In social situations, I alter my behavior if I feel that something else is called for"). The 19 Autonomous Self-Expression items assessed the tendencies to express one's true self and perceived trait consistency (e.g., "My behavior with others reflects my real personality, not how others think I should behave"). Items were rated using a 6-point scale that ranged from *strongly disagree* to *strongly agree*. Across cultures, a reliabilities ranged from .76 to .89 for the Self-Monitoring scale and from .72 to .87 for the Autonomous Self-Expression scale.

#### **Measures of Adjustment**

**Rosenberg Self-Esteem Scale** (**Rosenberg, 1989**): This measure contains 10 items (e.g., "On the whole, I am satisfied with myself"). One item with weak factor loadings was deleted. Items were rated on a 4-point scale ranging from *strongly disagree* to *strongly agree*. Across cultures, a reliabilities ranged from .74 to .87.

Subjective well-being: To assess the cognitive component of subjective well-being we administered the 5-item Satisfaction with Life Scale (e.g., "In most ways my life is close to my ideal"; Diener, Emmons, Larsen, & Griffin, 1985). Items were rated on a 7-point scale ranging from *strongly disagree* to *strongly agree*. To assess the affective component of subjective well-being we administered the Positive Affect (PA; 10 items) and Negative Affect (NA; 10 items) scales of the Positive and Negative Affect Schedule—Expanded Form (PANAS-X; Watson & Clark, 1994). Items were rated using a 5-point scale, ranging from *very slightly or not at all* to *extremely*. Participants were instructed to indicate how they *generally or usually feel*. Across the six cultures, a reliabilities ranged from .60 to .85 for the Satisfaction with Life Scale, .73 to .83 for the PA scale, and .78 to .85 for the NA scale.

**Social anxiety:** The 6-item Social Anxiety subscale of the Self-Consciousness Scale (Fenigstein et al., 1975) was used to measure social or interpersonal adjustment (e.g., "I get embarrassed very easily"). Items were rated on a 4-point scale, ranging from *not like me at all* to *a lot like me*. Alpha reliabilities ranged from .72 to .82 across cultures.

#### **Alternative Predictors of Adjustment**

**Relationship harmony:** The 5-item Interpersonal Relationship Harmony Inventory (IRHI: Kwan, et al., 1997) was used to measure participants' perceptions of the degree of harmony in their significant relationships. Respondents first chose the five two-person relationships that were most important to them, indicating the gender and type of relationship partner (e.g., father, mother, friend). Participants then rated the degree of harmony within each relationship on a 7-point scale ranging from *very low* to *very high*. Alpha reliabilities for the 5-item scale ranged from .60 to .80 across the six cultural groups.

<u>Social appraisal:</u> Suh (2002) used a 2-item scale to assess the degree to which participants think others approve of their lives (e.g., "People around me approve of the way I have lived my life"). We added two items to improve reliability and to balance the positive and reverse-keyed items. Items were rated on a 7-point scale ranging from *strongly disagree* to *strongly agree*. Across cultures, a reliabilities ranged from .62 to .80.

<u>Personality coherence:</u> We wrote four items to measure Kitayama and Markus' (1999) concept of personality coherence (e.g., "I have some opposite tendencies in my personality or behavior, but they fit together in a sensible whole"). Items were rated on a 7-point scale ranging

from *strongly disagree* to *strongly agree*. Alpha reliabilities ranged from .50 to .76, excluding the Mexican sample, in which the items did not cohere very well (a = .22).

**Cross-Cultural Measurement Equivalence—**We conducted multigroup confirmatory factor analyses (CFA), using AMOS 4.0, to test the structural equivalence of the measures in the study. For each instrument, the latent constructs (e.g., independent, relational, and collectivism for the self-construal measure) were each measured by three or four item parcels (Kishton & Widaman, 1994). For each instrument, the fit indices for models in which the factor loadings were constrained to equality across cultures ranged from good to excellent (GFI indices ranged from .91—.99, CFI indices ranged from .90—.99; RMSEA indices ranged from .00—.06). Thus, the constructs retained their structure and meaning across cultures.

#### **Procedure**

Participants completed the instruments in two sets, separated by one week. For the first set, participants first filled out a demographic form, then the five specific Trait-Role Questionnaires in one of five different orders. Next they filled out the Self-Construal, Self-Consciousness, Self-Esteem, Satisfaction with Life, Personality Coherence, and Social Appraisal scales in one of two orders. For the second set, participants filled out the Trait Questionnaire (General), self-monitoring measure, Self-Concept Clarity scale, Interpersonal Relationship Harmony Inventory, and PANAS-X in one of two orders. In the United States sample, questionnaires were handed out in regular classes and picked up one week later. In Australia, students were recruited from research participant pools and completed the questionnaires in proctored groups. In Mexico, the Philippines, Malaysia, and Japan, the questionnaires were filled out during two class periods separated by one week.

#### Results

#### Is Consistency a General Dimension or Trait (Hypothesis 1)?

We first examined whether it is reasonable in each culture to compute a general consistency index across traits and roles, or whether consistency is trait-specific or role-specific (Hypothesis 1). To determine whether consistency is trait-specific, we computed the SD index for each Big Five dimension separately by aggregating the SDs across the eight items (traits) for each Big Five dimension. We then conducted a multigroup CFA analysis with a latent general consistency dimension measured by the SD indices for the Big Five dimensions. We compared models with the factor loadings freely estimated, then constrained to equality across the six cultures. The fit of the freely estimated model was excellent (e.g., CFI = .996; RMSEA = .049) and in all six cultures the factor loadings were all high (range = .71 to .86) and statistically significant (p < .05). The fit of the constrained model was still excellent (CFI = .995, RMSEA = .043), although statistically worse than the model with freely estimated loadings ( $\chi^2_{\rm diff}$  [20] = 44.40, p < .01). These results support the existence of a general consistency dimension or trait in all six cultures. People who were more consistent across roles for one Big Five trait (e.g., Agreeableness) were also more consistent for the other Big Five traits (e.g., Conscientiousness).

Following Baird et al. (2006), to determine whether consistency is role-specific, we tested a multigroup CFA model with general consistency as a latent variable measured by five general-trait versus specific-role correlations (transformed to Fisher's z scores). That is, each indicator of the latent trait was a within-individual correlation relating ratings in the general-trait condition versus one of the five specific roles [i.e., in Table 1, the correlations between columns (a) and (b), (a) and (c), (a) and (d), (a) and (e), and (a) and (f)]. The fit of the freely estimated model was excellent (CFI = .98, RMSEA = .05). In all six cultures, the factor loadings were all high (range = .64 to .90) and statistically significant (p < .05). The fit of a model in which

the factor loadings were constrained to equality across cultures was also excellent (CFI = .97, RMSEA = .04), although slightly worse than the freely estimated model ( $\chi^2_{diff}$  [20] = 42.50, p < .01). In summary, these results support the existence of a general consistency dimension that is not specific to particular traits or roles. In addition, there was little evidence of meaningful cultural differences in the coherence of this general consistency dimension, because the factor loadings were of similar size across cultures. Therefore, Hypothesis 1 was supported.

#### Cultural Similarities and Differences in Cross-Role Consistency (Hypotheses 2 and 3)

We expected at least moderate cross-role consistency in all cultures (Hypothesis 2), but that consistency would be greater in the two individualistic cultures than in the four collectivistic cultures (Hypothesis 3). Following Suh (2002), the within-individual correlations between participants' general trait ratings and their ratings in specific roles provide one way to quantify consistency across cultures. Fisher's *r* to *z* transformations were used to obtain the mean correlations, but the original correlation values are presented in Table 2. For example, in the United States sample, the average within-individual correlation between general trait ratings and ratings in the stranger role was .62. In all cultures, the mean correlations were substantial for all roles, indicating a substantial degree of consistency between participants' ratings of their traits in general and their trait ratings in each role. By noting the confidence intervals in Table 2 that do not overlap, we observe that the Japanese sample exhibited significantly lower general-specific role correlations than all other cultural samples. The correlations in the Australian sample also tended to be lower than those in the remaining four cultures.

As another index of consistency, we also computed, for every participant, the pairwise (cross-role) correlations between their trait ratings in different roles. Across cultures, the mean cross-role correlations, in order of increasing size, were .52 in Japan, .60 in Australia, .65 in the United States and Mexico, .67 in Malaysia, and .68 in the Philippines. Overall, Hypothesis 2 was supported because all of the cultural groups exhibited substantial cross-role consistency.

To further examine cultural differences, we compared the SD indices, computed in both original and ipsatized data, as dependent variables in ANOVAs, with culture and gender as independent variables. In these two ANOVAs, none of the culture  $\times$  gender interaction effects were statistically significant. Gender effects were nonsignificant in the original data, and were statistically significant, but trivial in size, in the ipsatized data, F[1, 1176] = 10.79, p < .01, partial  $p^2 < .01$ . Therefore, we focused on the overall cultural means for the SD index, which are shown in Table 3.

The main effects for culture were statistically significant in both the original data (F[5, 1159] = 29.14, p < .001, partial  $\eta^2 = .11$ ) and the ipsatized data (F[5, 1176] = 27.21, p < .001, partial  $\eta^2 = .10$ ). Superscripts in Table 3 indicate which cultural means were significantly different in pairwise Scheffé t-tests. In both the original and ipsatized data, the Japanese SD index was highest. However, the Japanese differences with the Americans and Australians were only statistically significant in the ipsatized data. The ipsatized results are more consistent with the cultural differences observed for the general-specific correlations (see Table 2) and the mean cross-role correlations reported above. These three convergent results all involve data that have been standardized in some manner within individuals. Importantly, the distinction between individualistic and collectivistic cultures cannot account for the cultural differences. Although the sole East Asian culture, Japan, tended to exhibit less cross-role consistency than the other cultures, the remaining collectivistic cultures (Mexico, Philippines, and Malaysia) generally

<sup>&</sup>lt;sup>6</sup>For the *SD* index in ipsatized data, each participant's trait ratings were standardized using the participant's overall mean and standard deviation across all general and specific-role trait ratings. For the general-specific and cross-role correlations, participants' trait ratings were automatically standardized across the 40 traits within each role as the correlations were computed.

exhibited greater consistency than the individualistic Americans and Australians. Therefore, Hypothesis 3 was not supported. An interpretation in terms of East Asian or Confucian dialecticalism would be more consistent with the results.

#### **Predictors of Consistency (Hypothesis 4)**

In Hypothesis 4, we predicted that, in all cultures, consistency would be positively associated with independent self-construals and self-concept clarity, and negatively associated with interdependent self-construals, self-monitoring, and private and public self-consciousness. To avoid multicollinearity and reduce the number of predictors, we combined some variables into composites by averaging the standardized scores for each variable. Specifically, Independent Self-construals and Autonomous Self-expression, which correlated from .35 to .57 across the six cultures, were combined into an Independent composite, and Relational Self-Construals and Collectivism, which correlated from .24 to .46 across cultures, were combined into an Interdependent composite. Table 4 shows the Pearson correlations relating the hypothesized predictors to the SD indices in original and ipsatized data, and the  $\beta$  weights obtained when each SD index was regressed on all of the predictors simultaneously in a multiple regression analysis. Recall that the SD indices measure inconsistency, so that Hypothesis 4 would be supported by negative correlations and  $\beta$  weights relating the SD indices to the Independent composite and Self-Concept Clarity scale, and by *positive* correlations and  $\beta$  weights relating the SD indices to the Interdependent composite and the Self-Monitoring, Private Self-Consciousness, and Public Self-Consciousness scales. As seen in Table 4, in all cultures except Japan, the Independent composite and the Self-Concept Clarity scale predicted the SD indices in the expected direction (i.e., negative Pearson r's and  $\beta$  weights), providing partial support for Hypothesis 4. Prediction was stronger and more consistent in the ipsatized data. The other self-related variables were not reliable predictors of the SD indices across cultures. The Independent composite results are consistent with cultural psychology theory, which contends that people with independent self-construals have a greater need to express their traits, which, in turn, should lead to greater consistency. Similarly, people with greater self-concept clarity should be less influenced by social cues and thus exhibit greater consistency. Our findings extend to additional cultures previous findings in the United States by Suh (2002, Study 1) and Campbell et al. (1996, 2003).

#### Cross-Role Consistency and Alternative Predictors of Adjustment (Hypotheses 5 and 6)

We hypothesized that cross-role consistency would be a better predictor of adjustment in individualistic cultures than in collectivistic cultures (Hypothesis 5) and that personality coherence, social appraisal, and relationship harmony would be better predictors of adjustment in collectivistic cultures than in individualistic cultures (Hypothesis 6). Table 5 shows the Pearson correlations relating each predictor to five measures of adjustment: self-esteem, satisfaction with life, positive affect, negative affect, and social anxiety. In addition, the  $\beta$  weights from multiple regression analyses are summarized. In these regression analyses, the predictors of each adjustment variable was the SD index (derived in original or ipsatized data), plus the three alternative predictors (personality coherence, social appraisal, and relationship harmony). Thus, for example, in predicting self-esteem in a given culture, we conducted two multiple regression analyses, one with the SD index from the original data and the three alternative predictors. For personality coherence, relationship harmony, and social appraisal, two  $\beta$  weights are shown in Table 5, because the  $\beta$  weights generally differed by a small amount depending on whether the SD index from the original or ipsatized data was included in the

 $<sup>^{7}</sup>$ The correlations among the predictors in these analyses ranged from -.28 to .39 in the United States, -.33 to .35 in Australia, -.28 to .33 in Mexico, -.26 to .31 in the Philippines, -.39 to .41 in Malaysia, and -.21 to .33 in Japan. Inspection of collinearity statistics indicated that multicollinearity was not a problem in any of the analyses.

regression equation. For the same reason, two multiple correlations (R) are also shown for each adjustment variable.

The SD indices predicted one or more adjustment variables in all six cultures. In each case, greater cross-role variability (i.e., inconsistency) was associated with poorer adjustment. Outside the United States, prediction was better with the SD index derived in the ipsatized data than with the SD index derived in the original data. Prediction of adjustment from consistency was weakest in the Japanese sample, where it was mainly related to negative affect. Overall, there was partial support for Hypothesis 5, because the consistency indices were generally more strongly and reliably related to the adjustment variables in the American sample than in the four collectivistic cultures (with the exception of the Malaysian sample in the ipsatized data).

Turning to the alternative predictors of adjustment, the Pearson correlations in Table 5 indicate that personality coherence, relationship harmony, and social appraisal were moderately related to multiple aspects of adjustment in every culture. Judging from the  $\beta$  weights in the six cultures, the unique predictive contributions of personality coherence were usually stronger than the unique contributions of relationship harmony and social appraisal. The unique contributions of social appraisal were primarily in predicting life satisfaction, while the unique predictive contributions of relationship harmony were generally weaker and less consistent.

Regarding Hypothesis 6, there were a few isolated instances in which one of the alternative predictors was a better predictor of an adjustment measure in a particular collectivistic culture than in a particular individualistic culture. For example, relationship harmony predicted positive affect better in Mexico than in Australia, and social appraisal predicted self-esteem better in Malaysia than in the United States and Australia (z tests on correlations in independent samples, p < .05; Hays, 1973, formula 15.27.6). Overall, however, there was no reliable tendency for personality coherence, social appraisal, or relationship harmony to better predict adjustment in the collectivistic cultures than in the individualistic cultures. Rather, these alternative constructs may be universal predictors of adjustment.

#### **Summary of Results with Alternative Consistency Indices**

In this section we briefly summarize our results with alternative consistency indices. We do this, in part, so our results can be related to those of previous researchers who used different indices.

Many researchers have quantified cross-role consistency by computing within-individual correlations relating each participant's trait ratings in different roles. In principal components analyses (PCA) of these cross-role correlations, the percentage of variance accounted for by the first unrotated component has provided a summary index of consistency for each participant (Donahue et al., 1993; Suh, 2002). We conducted each of the analyses reported in the present article using this PCA index and obtained a pattern of results that was very similar to those we obtained with the SD index derived from ipsatized data, taking into account, of course, that the PCA index measures consistency, whereas the SD index measures variability. This was the case for the pattern of cultural mean differences, the successful predictors of consistency (i.e., the Independent composite and the Self-Concept Clarity scale), and the pattern of correlations and multiple regression  $\beta$  weights relating consistency and the alternative predictors to the adjustment variables. In short, use of the PCA index led to the same conclusions as the ipsatized SD index.

However, Baird et al. (2006) recently argued against the use of PCA-based indices because they may confound individual differences in trait variability across roles (a relevant source of variance for a measure of cross-role consistency) with variability across traits *within* roles (a

possibly irrelevant source of variance). Low variance in trait ratings within roles will tend to attenuate cross-role correlations and thus PCA-based consistency scores. In the present study, we found modest cultural differences in average within-role trait variability, which we derived by computing the standard deviation across all 40 traits within each role, then averaging these standard deviations across the five roles. In order of size, these mean within-role SD indices for each culture were as follows: Japan, M = 1.09; Philippines, M = 1.09; Malaysia, M = 1.13; Australia, M = 1.18; Mexico, M = 1.21; and United States, M = 1.25. However, the order of size of these within-role SD indices did not generally conform to the order of size of the consistency indices computed in the study. For example, the Japanese, Filipinos, and Malaysians exhibited almost the same average degree of within-role variability, yet the Japanese exhibited less cross-role consistency than the other two groups.

Finally, Baird et al. (2006) argued that even the *SD* index—which should be minimally confounded with within-role variability—might conflate valid cross-role variability with the mean level of participants' ratings for given traits across roles, because "the maximum possible standard deviation increases as scores approach the mid-point and decreases as scores approach either endpoint of the scale" (p. 514). Therefore, Baird et al. recommended regressing the cross-role *SD*s for each trait (item) onto the item mean and item mean-squared values to control for both linear and quadratic effects, then averaging the residuals from this analysis across all traits. The resulting index, which we refer to as a *residualized SD* index, should be unconfounded with mean-level trait information. In three studies, Baird et al. (2006) found that their PCA-based index, and to a lesser extent, their *SD* index, predicted subjective well-being scores, but that their *residualized SD* index did not.

In the present study, we also computed *residualized SD* indices using both original and ipsatized data. The *residualized SD* index derived in the original data produced results that largely replicated those of Baird et al. (2006). The index was not predictable from the Independent composite or Self-Clarity scores, and exhibited little, if any, ability to predict the adjustment variables across cultures. However, the *residualized SD* indices derived in the ipsatized data showed essentially the same pattern of relationships with the Independent composite, Self-Clarity scores, and adjustment variables as did the PCA and original (nonresidualized) *SD* indices. That is, once the trait-role data were ipsatized to remove individual differences in scale use or response style, controlling for mean trait (item) levels had no impact on the results. Indeed, the *SD* and *residualized SD* indices correlated .99 in all six cultures in the ipsatized data (whereas the correlations ranged from .86— .95 in the original data). Baird et al. did not ipsatize their trait-role data before computing a *residualized SD* index. Our results suggest that when computed in original (raw) data, the *residualized SD* index may overcorrect by removing valid individual differences in consistency or personality traits.

#### **Discussion**

Psychologists who emphasize trait perspectives expect a degree of cross-role consistency in all cultures, and consistency has been described as important for adjustment in Western theories of personality. At the same time, cultural psychologists have predicted less consistency and weaker relationships between consistency and adjustment in collectivistic cultures than in individualistic cultures (English & Chen, 2007; Markus & Kitayama, 1994; Suh, 2000; Triandis, 1995). Both theoretical perspectives would be supported if (a) cross-role consistency was evident in all cultures, but less so in collectivistic cultures, and (b) the relative ability of trait consistency versus personal coherence, relationship harmony, and social appraisal to predict adjustment differed in the hypothesized manner in individualistic versus collectivistic

<sup>&</sup>lt;sup>8</sup>The cultural means for the *residualized SD* indices are by definition zero, so they cannot be meaningfully compared across cultures unless derived in a combined-culture sample.

cultures. Our results were generally supportive of trait perspectives, and cultural similarities were more prominent than cultural differences. Support for cultural psychology perspectives was more mixed, and there was some indication that lower consistency is more characteristic of East Asian cultures such as Japan than collectivistic cultures more generally. Strengths of the study included (a) our sampling of multiple individualistic and collectivistic cultures, including some less frequently sampled cultures; (b) our efforts to control for individual differences in scale use (i.e., response styles); and (c) the inclusion of multiple predictors of consistency and diverse measures of adjustment.

#### **Consistency as a General Trait**

One important finding—and a prerequisite for tests of our hypotheses—was that cross-role trait consistency is a general dimension or trait. Consistency was neither trait- nor role-specific and the degree of coherence of the general consistency dimension was very similar across the six cultures. These results extend Baird et al.'s (2006) American findings to additional individualistic and collectivistic cultures. These results are probably more supportive of trait perspectives than cultural psychology perspectives, because they indicate that consistency is a reliable dimension of individual differences. Cultural psychologists expect cultural differences in the affordances of various roles for particular traits or behaviors (e.g., Morling, Kitayama, & Miyamoto, 2002), which should lead to greater trait- or role-specificity of consistency in collectivistic cultures.

#### **Cultural Similarities and Differences in Consistency**

Consistent with trait perspectives, cross-role consistency was evident in a range of cultures. Across the six cultures, the mean cross-role correlations (.52 to .68) and mean general-specific role correlations (.41 to .68) were comparable to those reported by previous researchers (English & Chen, 2007; Roberts & Donahue, 1994; Suh, 2002; Wood & Roberts, 2006), and we examined a much broader range of cultures. The comparison with Suh's (2002) cross-cultural study is particularly intriguing, given the similarity of our results in Japan and the United States with his results in Korea and the United States. Suh (2002) reported mean PCA values of 52.8% in Korea and 64.0% in the United States, while we obtained mean PCA values of 53.1% in Japan and 65.7% in the United States. From a "realist" perspective on person perception and from role identity theory, we can perhaps infer a degree of cross-role consistency across cultures in actual behavior as well. The realist perspective proposes that traits are real and observable (Funder, 1995) and role identity theory proposes that role identities reflect, in part, one's actual behaviors or traits in different roles (Wood & Roberts, 2006). Nonetheless, cross-cultural comparisons of consistency in actual behavior will be needed to directly test this inference.

We also identified some cultural differences in cross-role trait consistency (Hypothesis 3). However, our results—particularly in combination with Suh's (2002) comparison of American and Korean samples—suggest that cultural psychology hypotheses regarding consistency may apply in a more limited manner to comparisons of the United States with East Asian cultures such as Japan and Korea, rather than to comparisons of individualistic and collectivistic cultures more generally. Indeed, although cultural psychology hypotheses have often been formulated in terms of the individualism-collectivism distinction, there is growing evidence that this distinction is too broad to adequately capture how cultures differ in consistency, "traitedness," or other personality and self processes (del Prado et al., 2007; Church, Katigbak, del Prado, Valdez-Medina, et al., 2006; Malloy, Albright, Díaz-Loving, Dong, & Lee, 2004). For example, the Mexican and Chinese cultures are both generally viewed as collectivistic. However, Malloy et al. (2004) found that Chinese, but not Mexicans, exhibit less interobserver agreement in trait ratings—an indirect indicator of cross-situational consistency—than Americans. Similarly, Scollon et al. (2005) found that the frequency and intensity of positive

and negative moods were positively correlated among Asian Americans, Japanese, and Indians, but not among European or Hispanic Americans. In these two studies, as well as the present one, various types of inconsistency were most evident in selected Asian cultures, not collectivistic cultures generally (see also Bagozzi et al., 1999; Kitayama et al., 2000; Shimmack et al., 2002). Contrary to this pattern, however, Oishi et al. (2004) found that Asian Indians and Japanese, but also Hispanic Americans, exhibited less within-individual consistency in affect than European Americans.

If the individualism-collectivism distinction cannot account for cultural differences in consistency, what alternative explanatory variable might? A plausible theoretical alternative is the dialecticalism of East Asian or Confucian cultures (Peng & Nisbett, 1999). Indeed, this was the position taken by English and Chen (2007), who argued that East Asians' dialectical thinking—with its greater acceptance of contradiction and change—leads to greater variability in East Asians' self-concepts across relationship contexts. We conducted two follow-up analyses in hopes of augmenting the plausibility of this interpretation in the current study.

In the first analysis, we compared the cross-role consistency of ethnic Malays (n = 103) and ethnic Chinese (n = 102) in our Malaysian sample. If we assume that the ethnic Chinese have had greater exposure than the ethnic Malays to Confucian influences or Asian dialecticalism, then the ethnic Chinese should exhibit less cross-role consistency. Indeed, this was the case. In univariate ANOVAs, statistically significant (or marginally so) mean differences were found between the ethnic Malays and Chinese, respectively, for the *SD* index in the original data (M = .61 vs. .66, p < .08,  $eta^2 = .02$ ); for the *SD* index in the ipsatized data (M = .53 vs. .62, p < .001;  $eta^2 = .05$ ); for the PCA index (M = 71.6 vs. .63.7, p < .001,  $eta^2 = .06$ ); and for the residualized *SD* index in the ipsatized data (M = -.02 vs. .04, p < .001,  $eta^2 = .05$ ). For each of these indices, the means revealed lower consistency for the ethnic Chinese than for the ethnic Malays. Only the residualized *SD* index in the original data failed to show a significant mean difference (M = -.02 vs. .01, p > .05,  $eta^2 = .003$ ).

In a second follow-up analysis, we sought to replicate previous studies that found smaller inverse correlations, or even positive correlations, between positive and negative affects in East Asian cultures, as compared to Western cultures (Bagozzi et al., 1999; Kitayama et al., 2000: Schimmack et al., 2002; Scollon et al., 2005). Indeed, we found the following pattern of correlations between PANAS Positive and Negative Affect scores in the six cultures, ordered by size from negative to positive: Australia, r = -.31; United States, r = -.29; Malaysia, r = -.05; Mexico, r = .00; Philippines, r = .08; and Japan, r = .32. Only in the East Asian culture, Japan, was the correlation statistically significant in the positive direction (p < .01). Some researchers have interpreted a positive correlation between positive and negative affect as consistent with Asian dialecticalism, because it suggests the simultaneous (and arguably contradictory) experience of emotions of opposite valence (Bagozzi et al., 1999; Schimmack et al., 2002; however, see Scollon et al., 2005).

Although plausible, we believe the interpretation of our results in terms of East Asian or Confucian dialectical thinking remains tentative at his point. The nature and uniqueness of Asian dialectical thinking is still debated (e.g., Chan, 2000; Ho, 2000; Peng & Nisbett, 2000) and needs to be further investigated in additional cultures. In this regard, a limitation of the present study was our inclusion of only one East Asian culture. Interpretations in terms of Asian dialectical thinking will also be strengthened by attempts to directly measure and test the ability of participants' dialectical thinking to mediate individual and cultural differences in consistency (e.g., see English & Chen, 2007). In the meantime, the more definitive finding of our study is that the individualism-collectivism distinction does not adequately account for cultural differences in cross-role consistency.

If participants in Japan or other East Asian cultures exhibit less cross-role consistency—in either self-ratings or actual behavior—does this necessarily imply that East Asians experience a less coherent sense of self? English and Chen (2007), drawing on recent theory and research on individual differences in "if-then" profiles or behavioral signatures, have argued that this is not the case. "If-then" profiles refer to stable cross-situational profiles of behaviors (i.e., if in situation A, then behavior A, but if in situation B, then behavior B) (e.g., Mischel, Shoda, & Mendoza-Denton, 2002; Shoda, Mischel, & Wright, 1994), Indeed, English and Chen found that Asian Americans' trait ratings were less consistent across relationship contexts than those of European Americans, but just as stable over time within contexts, suggesting the existence of stable self-concepts defined in "if-then" terms. Similarly, it is possible that our Japanese participants maintain a stable self-concept within contexts across time, which might account for our finding that individual differences in consistency across role contexts were not much related to adjustment in the Japanese sample. We did not include a longitudinal component in the present study, so we could not compare within-context stability across the six cultures. However, future studies could supplement traditional trait approaches, which largely treat situational effects as "error" (Mischel et al., 2002), by examining the stability of if-then profiles across cultures.

#### **Consistency and Alternative Predictors of Adjustment**

Cross-role consistency predicted aspects of adjustment in all six cultures, particularly in the ipsatized data. These results, which are consistent with Western theories of personality and mental health (Erikson, 1950; Jahoda, 1958; Jourard, 1965; Maslow, 1954) and previous studies in the United States (Block, 1961; Campbell et al., 1996; Donahue et al., 1993; Sheldon et al., 1997), indicate that the relationship between consistency and adjustment is not limited to individualistic cultures. Prediction was most reliable in the American sample, and weakest in the Japanese sample, where consistency was primarily related (inversely) to negative affect. The more tenuous relationship between consistency and adjustment in the Japanese sample, as compared to the other collectivistic cultures, again favors an interpretation in terms of East Asian dialectical thinking, or some other aspect of East Asian or Confucian cultures, rather than individualism-collectivism.

The alternative constructs proposed by cultural psychologists—personality coherence, social appraisal, and relationship harmony—predicted adjustment in all six cultures, but were not better predictors in the collectivistic cultures than in the individualistic cultures. Suh (2002) found that social appraisal—self-perceptions of how satisfied significant others are with one's life—was a better predictor of life satisfaction in Korea than in the United States, but in the present study this relationship was equally strong in individualistic and collectivistic cultures. Similarly, Kwan et al. (1997) and Kang et al. (2003) had proposed that relationship harmony may be more important as a predictor of life satisfaction in collectivistic cultures than in individualistic cultures, but this was not the case in the present study. Rather, our results were similar to those of Chen, Chan, Bond, and Stewart (2006), who failed to find cultural differences in the predictive relationship between relationship harmony and depression in the United States and Hong Kong. Finally, Kitayama and Markus (1999) proposed that, in Eastern cultures, personality coherence —the balance or coherence of multiple, even contradictory, aspects of self or personality—is more important than trait consistency. Our new measure, which was based on the conceptualization of Kitayama and Markus, was successful in predicting adjustment, but was not uniquely predictive in the collectivistic (or Eastern) cultures in the study. The number of cross-cultural studies of this type is still small, and previous studies have been important in suggesting that the determinants of adjustment may differ across cultures (e.g., Chen et al., 2006; Kang et al., 2003; Kwan et al., 1997; Suh, 2002; Suh, Diener, Oishi, & Triandis, 1998). However, the results of the present study, which included a broader sampling of cultures, suggest that the determinants of adjustment may be more similar than

different across cultures. It is possible, of course, that alternative constructs that were not included in this study, such as self-efficacy (Chen et al., 2006), fulfillment of social norms (Suh et al., 1998), and perceived social support (Uchida et al., 2004) will exhibit greater differential prediction of adjustment across cultures.

#### **Consideration of Rival Interpretations**

Before concluding, we discuss several rival interpretations of our results, as well as some limitations of the study. We first consider possible limitations associated with the trait-role rating task itself. A number of researchers have successfully used this task to investigate consistency. The total number of trait-role ratings has ranged from 100 to 175 in studies by Suh (2002), Campbell et al. (2003), and Baird et al. (2006), 240 in Sheldon et al.'s (1997) study, and 360 in Donahue et al.'s (1993) investigation. Although only Suh (202) applied the task cross-culturally, all of these researchers obtained results with this task that seem meaningful. Nonetheless, the task is repetitive and rival interpretations of our results should be considered.

First, in any study that uses Likert-type scales, the possible impact of response styles should be considered. For example, cross-role consistency could result from a respondent using similar rating points for most of his or her traits, leading to small cross-role standard deviations (i.e., SD indices). Several considerations argue against this possibility, however. First, like most previous researchers, we attempted to reduce the impact of response sets by presenting the specific roles in different orders and by ordering the traits differently for each role. Second, the consistency indices were computed within each individual, so that individual differences in the overall level of the ratings (e.g., some respondents using the middle of the rating scale and others the extremes) should have limited impact (beyond the statistical possibility that SD indices can be larger for respondents who use the middle of the scale; Baird et al., 2006). In any case, the vast majority of respondents in each culture (from 83% in the Philippines to 98% in the United States) used the full range of the rating scales, probably due in part to our inclusion of traits associated with both the positive and negative poles of each Big Five dimension. Finally, we analyzed the trait-role data in both original and ipsatized data. In the original data, the SD indices already control for individual differences in the grand means of respondents' ratings (i.e., subtracting out the grand mean has no effect on the standard deviation of the ratings for a given trait). By ipsatizing the data, we went further by controlling for individual differences in both the overall mean and variability of participants' ratings. The overall pattern of results with the SD index in the ipsatized data suggests that this method was effective in controlling for response styles.

A second rival interpretation of our results is the following: Rather than carefully envisioning and evaluating their traits in specific roles, respondents may at times rely on their general, abstract trait representations to rate their traits in these roles. If so, this would contribute artificially to greater cross-role consistency. We offer two types of evidence to counter this interpretation. First, if cross-role consistency is largely an artifact of the general trait representations, then the cross-role consistency correlations should be insignificant when the general trait ratings are partialled out. To obtain a single estimate of the cross-role correlations for each culture, we computed pooled correlations between each pair of roles across all individuals and traits in the ipsatized data (by using the ipsatized data we eliminated artifactual covariation due to individual differences in scale use). We then computed pooled partial correlations between each role-pair, controlling for the general trait ratings. Across the six cultures, all but 1 of 60 cross-role correlations remained statistically significant (p < .01) after controlling for the general trait ratings. The size of the cross-role partial correlations ranged from .21— .47 in the United States, .12— .47 in Australia, .19— .36 in Mexico, .28— .45 in the Philippines, .31— .49 in Malaysia, and .02— .49 in Japan. These (partial) consistency

correlations probably represent an overcorrection, but they do show that cross-role consistency was not due solely to respondents' general trait representations.

As an additional demonstration that participants distinguished between the various roles in their trait ratings, we computed Big Five trait scores for each role by averaging the raw ratings for the eight traits associated with each dimension (reverse-keying where necessary). We then computed a repeated measures ANOVA with gender as a between-subjects variable and Big Five dimension and role as repeated (within-subjects) factors. The most relevant finding, in all six cultures, was that the two-way interactions between Big Five dimension and role were statistically significant (p<.001) and fairly large in size (partial  $\eta^2$  values ranging from .18 to .25; Cohen, 1988). This indicates that participants' trait ratings were responsive to the specific role contexts. In addition, more modest three-way interactions between gender, Big Five dimension, and role were statistically significant (p<.001 to .05) in all six cultures (partial  $\eta^2$  values ranging from .01 to .03). This revealed that men and women exhibited somewhat different patterns of Big Five traits across the various roles, as one would expect. In summary, these findings suggest that the results reported in the study were not substantially impacted by individual or cultural differences in response styles, and that respondents in each culture did attend to, and differentiate, the specific role contexts when making their trait ratings.

A final limitation of the study was our sampling of only college students, who are probably more individualistic, and more exposed to Western or "global culture," than more representative cultural samples. As noted in the method section, the samples were reasonably representative of the college student populations in each culture, however, and there were no marked differences in the relative prestige or eliteness of the university samples across cultures. Participants in one cultural sample, the Philippines, were a bit younger, on average, than participants in the other cultural samples because of the structure of the educational system in the Philippines (i.e., the absence of a middle-school level). However, there is no a priori reason to anticipate more or less consistency in a slightly younger sample. More importantly, the pattern of results in the Philippines did not stand out in significant ways from those in the other collectivistic cultures, with the exception of Japan. Finally, although the samples may be more individualistic or Westernized than broader samples within each culture, it should be noted that previous studies that have supported cultural psychology hypotheses have also been conducted primarily in college student samples.

#### **Concluding Remarks**

Overall, our results provided greater support for cultural similarities than differences in crossrole consistency and the prediction of adjustment. Consistent with trait perspectives, there was strong support for our hypothesis of at least moderate cross-role consistency in all cultures. Support for our cultural psychology hypotheses was more mixed, and revealed that cultural differences in cross-role consistency and the relationship between consistency and adjustment are not likely explained by the broad individualism-collectivism distinction. Rather, in combination with the results of Suh (2002), Malloy et al. (2004), and others, our findings suggest that cultural psychology perspectives on consistency may apply in a more limited manner to comparisons of the United States with East Asian or Confucian cultures such as Korea, China, and Japan. A plausible though tentative explanation of these differences is the dialecticalism of East Asian cultures. We are not the only personality or cross-cultural psychologists who have combined trait and cultural psychology perspectives in the study of personality across cultures (e.g., see Matsumoto, 2006; Oishi, 2004; Oishi, Diener, Scollon, & Biswas-Diener, 2004), although we have perhaps been more explicit about how our hypotheses draw on these two perspectives. In any case, we believe that an integration of trait and cultural psychology approaches retains heuristic value in designing studies, formulating hypotheses, and making theoretical refinements in the study of personality across cultures.

#### Acknowledgements

This research was supported by National Institute of Health grant MH59941. Portions of the paper were presented at the IV Latin American Regional Congress of Cross-Cultural Psychology, Mexico City, July, 2007, and the XXIX International Congress of Psychology, Berlin, Germany, July, 2008. We are grateful to Rick Busselle, Jesse Quintero Johnson, Gregoria Encarnacion, Von Marie Mac, Charo Mission, Melvin Mojado, and Humberto Hernandez for assistance in data collection, and to Yu Harumi, Francisco C. Mesch, Fernando A. Ortiz, Wakana Ackerman, and Nerissa Adams for translation assistance.

#### References

- Bagozzi RP, Wong N, Yi Y. The role of culture and gender in the relationship between positive and negative affect. Cognition and Emotion 1999;13:641–672.
- Baird BM, Le K, Lucas RE. On the nature of intraindividual personality variability: Reliability, validity, and associations with well-being. Journal of Personality and Social Psychology 2006;90:512–527. [PubMed: 16594835]
- Baron RM, Misovich SJ. Dispositional knowing from an ecological perspective. Personality and Social Psychology Bulletin 1993;19:541–552.
- Block J. Ego-identity, role variability, and adjustment. Journal of Consulting and Clinical Psychology 1961;25:392–397.
- Briggs SR, Cheek JM. On the nature of self-monitoring: Problems with assessment, problems with validity. Journal of Personality and Social Psychology 1988;54:663–678.
- Burke PJ, Tully JC. The measurement of role-identity. Social Forces 1977;55:881-897.
- Campbell JD. Self-esteem and clarity of the self-concept. Journal of Personality and Social Psychology 1990;59:538–549. [PubMed: 2231284]
- Campbell JD, Assanand S, Di Paula A. The structure of the self-concept and its relation to psychological adjustment. Journal of Personality 2003;71:115–140. [PubMed: 12597239]
- Campbell JD, Trapnell PD, Heine SJ, Katz IM, Lavallee LF, Lehman DR. Self-concept clarity: Measurement, personality correlates, and cultural boundaries. Journal of Personality and Social Psychology 1996;70:141–156.
- Chan SFF. Formal logic and dialectical thinking are not incongruent. American Psychologist 2000;55:1063–1064. [PubMed: 11036714]
- Chen SX, Chan W, Bond MH, Stewart SM. The effects of self-efficacy and relationship harmony on depression across cultures: Applying level-oriented and structure-oriented analyses. Journal of Cross-Cultural Psychology 2006;37:643–658.
- Choi I, Choi Y. Culture and self-concept flexibility. Personality and Social Psychology Bulletin 2002;28:1508–1517.
- Church AT. Personality research in a non-Western culture: The Philippines. Psychological Bulletin 1987;102:272–292.
- Church AT, Katigbak MS, del Prado AM, Ortiz FA, Mastor KA, Harumi Y, Tanaka-Matsumi J, Vargas-Flores J, Ibáñez-Reyes J, White FA, Miramontes LG, Reyes JAS, Cabrera HF. Implicit theories and self-perceptions of traitedness across cultures: Toward integration of cultural and trait psychology perspectives. Journal of Cross-Cultural Psychology 2006;37:694–716.
- Church AT, Katigbak MS, del Prado AM, Valdez-Medina JL, Miramontes LG, Ortiz FA. A cross-cultural study of trait self-enhancement, explanatory variables, and adjustment. Journal of Research in Personality 2006;40:1169–1201.
- Coan, RW. The optimal personality. New York: Columbia University Press; 1974.
- Cohen, J. Statistical power analysis for the behavioral sciences. 2. Hillsdale, NJ: Lawrence Erlbaum Associates; 1988.
- Cross SE, Gore JS, Morris ML. The relational-interdependent self-construal, self-concept consistency, and well-being. Journal of Personality and Social Psychology 2003;85:933–944. [PubMed: 14599255]
- del Prado AM, Church AT, Katigbak MS, Miramontes LG, Whitty MT, Curtis GJ, Vargas-Flores J, Ibáñez-Reyes J, Ortiz FA, Reyes JAS. Culture, method, and the content of self-concepts: Testing

- trait, individual-self-primacy, and cultural psychology perspectives. Journal of Research in Personality 2007;40:1119–1160.
- Díaz-Loving, R.; Draguns, JG. Culture, meaning, and personality in Mexico and in the United States. In: Lee, Y-T.; McCauley, CR.; Draguns, JG., editors. Personality and person perception across cultures. Mahwah, NJ: Lawrence Erlbaum; 1999. p. 103-126.
- Diener E, Emmons RA, Larsen RJ, Griffin S. The satisfaction with life scale. Journal of Personality Assessment 1985;49:71–75. [PubMed: 16367493]
- Donahue EM, Robins RW, Roberts BW, John OP. The divided self: Concurrent and longitudinal effects of psychological adjustment and social roles on self-concept differentiation. Journal of Personality and Social Psychology 1993;64:834–846. [PubMed: 8505712]
- Eid M, Diener E. Intraindividual variability in affect: Reliability, validity, and personality correlates. Journal of Personality and Social Psychology 1999;76:662–676.
- English T, Chen S. Culture and self-concept stability: Consistency across and within contexts among Asian Americans and European Americans. Journal of Personality and Social Psychology 2007;93:478–490. [PubMed: 17723061]
- Erikson, EH. Childhood and society. New York: Norton; 1950.
- Fenigstein A, Scheier MF, Buss AH. Public and private self-consciousness: Assessment and theory. Journal of Consulting and Clinical Psychology 1975;43:522–527.
- Fleeson W. Toward a structure- and process-integrated view of personality: Traits as density distributions of states. Journal of Personality and Social Psychology 2001;80:1011–1027. [PubMed: 11414368]
- Funder DC. On the accuracy of personality judgment: A realistic approach. Psychological Review 1995;102:652–670. [PubMed: 7480467]
- Funder DC, Colvin CR. Explorations in behavioral consistency: Properties of persons, situations, and behaviors. Journal of Personality and Social Psychology 1991;60:773–794. [PubMed: 2072255]
- Goldberg LR. The development of markers for the Big-Five factor structure. Psychological Assessment 1992;4:26–42.
- Greenier KD, Kernis MH, McNamara CW, Waschull SB, Berry AJ, Herlocker CE, Abend TA. Individual differences in reactivity to daily events: Examining the roles of stability and level of self-esteem. Journal of Personality 1999;67:185–208. [PubMed: 10030023]
- Hartmann H. Towards a concept of mental health. British Journal of Medical Psychology 1960;33:243–248. [PubMed: 13711977]
- Hays, WL. Statistics for the social sciences. 2. New York: Holt, Reinhart and Winston; 1973.
- Heine SJ. Self as cultural product: An examination of East Asian and North American selves. Journal of Personality 2001;69:881–906. [PubMed: 11767822]
- Ho DYF. Dialectical thinking: Neither Eastern nor Western. American Psychologist 2000;55:1064–1065. [PubMed: 11036715]
- Hofstede, G. Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations. 2. Thousand Oaks, CA: Sage; 2001.
- Hofstee WKB, Ten Berge JMF, Hendriks AAJ. How to score questionnaires. Personality and Individual Differences 1998;25:897–909.
- Jahoda, M. Current concepts of positive mental health. New York: Basic Books; 1958.
- Jang KL, McCrae RR, Angleitner A, Riemann R, Livesley WJ. Heritability of facet-level traits in a cross-cultural twin sample: Support for a hierarchical model of personality. Journal of Personality and Social Psychology 1998;74:1556–1565. [PubMed: 9654759]
- John OP, Cheek JM, Klohnen EC. On the nature of self-monitoring: Construct explication with Q-sort ratings. Journal of Personality and Social Psychology 1996;71:763–776. [PubMed: 8888602]
- Johnson, JA. Units of analysis for the description and explanation of personality. In: Hogan, R.; Johnson, J.; Briggs, S., editors. Handbook of personality psychology. San Diego: Academic Press; 1997. p. 73-93.
- Jourard, SM. Personal adjustment: An approach through the study of healthy personality. New York: Macmillan; 1965.
- Kanagawa C, Cross SE, Markus HR. Who am I?": The cultural psychology of the conceptual self. Personality and Social Psychology Bulletin 2001;27:90–103.

Kang S, Shaver PR, Sue S, Min K, Jing H. Culture-specific patterns in the prediction of life satisfaction: Roles of emotion, relationship quality, and self-esteem. Personality and Social Psychology Bulletin 2003;29:1596–1608. [PubMed: 15018689]

- Kishton JM, Widaman KF. Unidimensional versus domain representative parceling of questionnaire items: An empirical example. Educational and Psychological Measurement 1994;54:757–765.
- Kitayama, S.; Markus, HR. Yin and yang of the Japanese self: The cultural psychology of personality coherence. In: Cervone, D.; Shoda, Y., editors. The coherence of personality: Social-cognitive bases of consistency, variability, and organization. New York: Guilford; 1999. p. 242-302.
- Kitayama S, Markus HR, Kurokawa M. Culture, emotion, and well-being: Good feelings in Japan and the United States. Cognition and Emotion 2000;14:93–124.
- Kwan VSY, Bond MH, Singelis TM. Pancultural explanations for life satisfaction: Adding relationship harmony to self-esteem. Journal of Personality and Social Psychology 1997;73:1038–1051. [PubMed: 9364759]
- Lecky, P. Self-consistency: A theory of personality. New York: Island Press; 1945.
- Lennox RD, Wolfe RN. Revision of the self-monitoring scale. Journal of Personality and Social Psychology 1984;46:1349–1364. [PubMed: 6737217]
- Loevinger, J. Ego development. San Francisco: Jossey-Bass; 1976.
- Malloy TE, Albright L, Díaz-Loving R, Dong Q, Lee YT. Agreement in personality judgments within and between nonoverlapping social groups in collectivist cultures. Personality and Social Psychology Bulletin 2004;30:106–117. [PubMed: 15030647]
- Markus HR, Kitayama S. Culture and the self: Implications for cognition, emotion, and motivation. Psychological Review 1991;98:224–253.
- Markus HR, Kitayama S. A collective fear of the collective: Implications for selves and theories of selves. Personality and Social Psychology Bulletin 1994;20:568–579.
- Markus HR, Kitayama S. The cultural psychology of personality. Journal of Cross-Cultural Psychology 1998;29:63–87.
- Maslow, A. Motivation and personality. New York: Harper & Row; 1954.
- Matsumoto D. Are cultural differences in emotion regulation mediated by personality traits? Journal of Cross-Cultural Psychology 2006;37:421–437.
- McCrae, RR.; Allik, J., editors. The five-factor model of personality across cultures. New York: Kluwer Academic/Plenum; 2002.
- Mischel W, Shoda Y, Mendoza-Denton R. Situation-behavior profiles as a locus of consistency in personality. Current Directions in Psychological Science 2002;11:50–54.
- Morling B, Kitayama S, Miyamoto Y. Cultural practices emphasize influence in the United States and adjustment in Japan. Personality and Social Psychology Bulletin 2002;28:311–323.
- Moskowitz DS. Cross-situational generality and the interpersonal circumplex. Journal of Personality and Social Psychology 1994;66:921–933.
- Oishi S. Personality *in* culture: A neo-Allportian view. Journal of Research in Personality 2004;38:68–74.
- Oishi S, Diener E, Scollon CN, Biswas-Diener R. Cross-situational consistency of affective experiences across cultures. Journal of Personality and Social Psychology 2004;86:460–472. [PubMed: 15008649]
- Peng K, Nisbett RE. Culture, dialectics, and reasoning about contradiction. American Psychologist 1999;54:741–754.
- Peng K, Nisbett RE. Dialectical responses to questions about dialectical thinking. American Psychologist 2000;55:1067–1068. [PubMed: 11036717]
- Roberts BW, Donahue EM. One personality, multiple selves: Integrating personality and social roles. Journal of Personality 1994;62:199–218. [PubMed: 8046573]
- Rosenberg, M. Society and the adolescent self-image. Rev. Middletown, CT: Wesleyan University Press; 1989.
- Saucier G. Mini-markers: A brief version of Goldberg's unipolar big-five markers. Journal of Personality Assessment 1994;63:506–516. [PubMed: 7844738]

Schimmack U, Oishi S, Diener E. Cultural influences on the relation between pleasant emotions and unpleasant emotions: Asian dialectic philosophies or individualism-collectivism. Cognition and Emotion 2002;16:705–719.

- Scollon CN, Diener E, Oishi S, Biswas-Diener R. An experience sampling and cross-cultural investigation of the relation between pleasant and unpleasant affect. Cognition and Emotion 2005;19:27–52.
- Sheldon KM, Elliot AJ, Kim Y, Kasser T. What is satisfying about satisfying events? Testing 10 candidate psychological needs. Journal of Personality and Social Psychology 2001;80:325–339. [PubMed: 11220449]
- Sheldon KM, Ryan RM, Rawsthorne LJ, Ilardi B. Trait self and true self: Cross-role variation in the bigfive personality traits and its relations with psychological authenticity and subjective well-being. Journal of Personality and Social Psychology 1997;73:1380–1393.
- Shoda Y, Mischel W, Wright JC. Intra-individual stability in the organization and patterning of behavior: Incorporating psychological situations into the idiographic analysis of personality. Journal of Personality and Social Psychology 1994;65:1023–1035. [PubMed: 8246110]
- Singelis TM. The measurement of independent and interdependent self-construals. Personality and Social Psychology Bulletin 1994;20:580–591.
- Snyder M. Self-monitoring of expressive behavior. Journal of Personality and Social Psychology 1974;30:526–537.
- Suh EM. Culture, identity consistency, and subjective well-being. Journal of Personality and Social Psychology 2002;83:1378–1391. [PubMed: 12500819]
- Suh EM, Diener E, Oishi S, Triandis HC. The shifting basis of life satisfaction judgments across cultures: Emotions versus norms. Journal of Personality and Social Psychology 1998;74:482–493.
- Triandis, HC. Individualism and collectivism. Boulder, CO: Westview Press; 1995.
- Uchida Y, Norasakkunkit V, Kitayama S. Cultural constructions of happiness: Theory and empirical evidence. Journal of Happiness Studies 2004;5:223–239.
- Watson, D.; Clark, LA. The PANAS-X: Manual for the positive and negative affect schedule expanded form. Iowa City: University of Iowa; 1994.
- Wood D, Roberts BW. Cross-sectional and longitudinal tests of the personality and role identity structural model (PRISM). Journal of Personality 2006;74:779–809. [PubMed: 16684253]
- Yamaguchi, S. Collectivism among the Japanese: A perspective from the self. In: Lonner, WJ.; Berry, JW.; Kim, U.; Triandis, HC.; Kagitcibasi, C.; Choi, SC.; Yoon, G., editors. Cross-cultural research and methodology series: Vol. 18. Individualism and collectivism: Theory, method, and applications. Thousand Oaks, CA: Sage; 1994. p. 175-188.(Series Eds.) (Vol. Eds.)

NIH-PA Author Manuscript

**Table 1**Hypothetical Self-ratings for Traits in General and in Five Specific Roles

	igers (f)	
	With strangers (f)	881182772
	With younger siblings or relatives (e)	4-8-27488-
Specific roles	With professors (d)	& & & 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1
	With parents (c)	4000004000
	With close friends (b)	w-4000w040
	Traits in General (a)	40°°-°°0°°4-
	Trait (item)	Talkative Shy Kind Boastful Organized Lazy Self-confident Moody Open-minded Shallow

Note. For brevity, only 10 of 40 Big Five traits in the Trait-Role Questionnaire are shown.

# NIH-PA Author Manuscript Table 2 Mean General-Specific Role Correlations and Associated Confidence Intervals for Each Role and Culture NIH-PA Author Manuscript NIH-PA Author Manuscript

	Unite	United States	Aus	Australia	Ψ	Mexico	Phili	Philippines	Mal	Malaysia	Ja	Japan
Role	Mean r	95% C.I.	Mean r	95% C.L	Mean r	95% C.I.	Mean r	95% C.I.	Mean r	95% C.I.	Mean r	95% C.I.
Strangers	.62	.5965	.58	.5461	99.	.63–.69	.61	.5865	.57	.5360	.43	.3847
Parents	.63	.60–.65	.55	.51–.59	69:	.66–.71	.67	.6570	.63	9909.	.38	.3443
Younger siblings	49.	.6167	.58	.54–.61	.67	.6570	99.	.63–.68	.63	<i>L</i> 9.–09.	.40	.3544
Close friend	.67	.64–.69	99.	.61–.66	.70	.6772	.70	.6772	.65	.62–.68	.51	.47–.55
Professors	.61	.5864	.54	.51–.57	.68	.6571	99.	.63–.69	.61	.57–.64	.35	.3139
Меап	.63		.58		89.		99.		.62		.41	

Note. C.I. = confidence interval.

## Table 3 Means and Standard Deviations for (In)Consistency (SD) Indices in Six Cultures NIH-PA Author Manuscript NIH-PA Author Manuscript

NIH-PA Author Manuscript

SD index	United States	Australia	Mexico	Philippines	Malaysia	Japan	Partial eta <sup>2</sup>
Original data Mean SD	.75 <sup>c,d</sup> .20	.80 <sup>d</sup> .21	.69 <sup>b,c</sup>	.61 <sup>a</sup> .17	.63 <sup>a,b</sup>	.81 <sup>d</sup> .23	11.
Ipsatized data Mean SD	.61 <sup>a</sup> .16	.66 <sup>b</sup> .16	.59 <sup>a</sup> .16	.56 <sup>a</sup> .15	.57 a .18	.72 ° .14	.10

Note. Larger values indicate greater cross-role variability (i.e., inconsistency). For each type of data, means with the same superscripts are not significantly different in between-culture comparisons (Scheffřé post-hoc 1-tests). Partial  $\eta^2$  values are for cultural main effects in analyses of variance (ANOVAs).

**Table 4**Correlations and Standardized Beta Coefficients in Predicting SD Variability Index in Six Cultures

	Origin	al data	Ipsatiz	ed data
Predictor	r	β	r	β
	Uı	nited States		
Independent composite	27***	18**	29**	20**
Self-concept clarity	27 26***	20**	29 31**	29**
nterdependent composite	08	10	07	07
Self-monitoring	.14*	.06	.14*	.05
Private self-consciousness	.04	04	.02	08
ublic self-consciousness	.11	.08	.03	.02
edite sen consciousness		.35**	.05	.40**
		Australia		.+0
ndependent composite	21**	20*	42**	35**
elf-concept clarity	13	.01	31**	20*
	13 03	03	=.31	20 12
nterdependent composite			12	
elf-monitoring	.10	01	.19**	.03
rivate self-consciousness	.22**	.21*	.17*	.09
ublic self-consciousness	.17*	.04	.12	01
		.31**		.49**
	Origin	al data	Ipsatiz	red data
redictor	r	β	r	β
. 4 4	15*	Mexico	32**	10*
ndependent composite	15**	09	32	19*
elf-concept clarity	19***	17*	40** 40**	34**
nterdependent composite	19** 19**	19*	31**	29**
elf-monitoring	.01	04	.10	.10
rivate self-consciousness	.13	.13	.05	.09
ublic self-consciousness	.18*	.15	.15*	.08
		.36**		.57**
	P	hilippines	ale ale	**
ndependent composite	06	12	29**	27**
elf-concept clarity	08	07	26**	24**
nterdependent composite	.10	.13	21*	10
elf-monitoring	.04	01	04	.03
rivate self-consciousness	.11	.09	07	.02
ublic self-consciousness	.09	.00	.00	04
done sen-consciousness	.07	.19	.00	.41**
	Origin	al data	Insatiz	ed data
redictor	r	β	r	β
		Malaysia		
dependent composite	05	03	35**	24**
elf-concept clarity	21**	21**	37**	38**
nterdependent composite	01	.03	37** 23**	05
elf-monitoring	04	11	19**	16*
rivate self-consciousness	.02	.03	17*	04
ublic self-consciousness	.09	.07	.04	.08
ublic self-consciousness	.07	.23	.04	.53**
		Japan .23		.33
danandant aamnasita	13	12	.12	.13
ndependent composite				
elf-concept clarity	04	.04	.01	05
nterdependent composite	.02	.00	.16*	.19
elf-monitoring	.23**	.25*	.13	.16
rivate self-consciousness	.24**	.15	.00	05
ublic self-consciousness	.28**	.06	.06	01
		.37*		.29
		15.5		

<sup>\*\*</sup> p<.01;

<sup>\*</sup> p<.05.

Church et al.

Prediction of Adjustment Measures

	Self-	Self-esteem	Satisfact	Satisfaction with life	Posit	Positive affect	Nega	Negative affect	Soci	Social anxiety
Predictor		βs	,	βs	'n	ß	,	gs	,	જુ
				1	United States					
JD index Original data Insatized data	31** 36	22** 28**	25** 30**	-13* *21.	29** 36	$21^{**}$ $29^{**}$	.39**	.32**	.28**	.23**
Personality coherence Relationship harmony	. 21. * * * * * * * * * * * * * * * * * * *	.30*/.31** .11/.09	.32°. ******	.12/.12	4,82; *******	.09/.09		$21^{**}/23^{**} \\07/05$	24 06	$21^{**}/21^{**}$ .01/.03
Social appliance R (original/ipsatized)	<del>†</del> ?		<del>)</del>	.51*/.51	.23 Australia	.40****	Ç7.		01:	.33**/.37**
SD index Original data Ipsatized data	12 26	01 10	09	.02	06 27**	.05	.22**	.11	.25**	.22**
Personality coherence Relationship harmony Social appraisal		.40*/.38** .11/.10 .04/.02	.37** .28** .39**	.25**/.25 .14*/.15 .27**/.27**	.37** .20** .14**	.36**/.31** .12/.10 01/03	42** 29** 23**	33**/32*** 19*/17* 06/05	19** 05 08	12/10 01/.02 .01/.03
R (original/ipsatized)		.46**/.46**		.48**/.48	Mexico	.39**/.41**		.48**′.49		.23*/.30**
SD index Original data Ipsatized data	14* 33**	13 26***	17* 31**	08	.02	.01	.21**	.31**	.33**	.19*
Personality coherence Relationship harmony Social appraisal		.34**/.28*** .22*/.19** .05/.04	.31 .29 .36	.17*/.14* .20*/.18* .25**/.24**	.38. .38. .38.   	.22**/.17** .32*/.32 .05/.03	35** .04 21	37**/30** .07/.11 05/01	36** 09 14	39**/32** 06/01 .07/.08
R (original/ipsatized)		.48**/.52		.46**.47	Philippines	.44**		.43**/.49**		.44**
SD index Original data Inception data	07 ***	11 **-cc-	09	 		90.	.12	.10	.10	.12
Personality coherence Relationship harmony	.30 02 ***	.21**.16** 03/05	.21 .16*	.06/.04	.29 .08	.32**/.27*** .10/.08	10 12	06/.01 11/08	17* 16*	$22^{**}/17^*$ $17^*/15^*$
Social appraisal $R$ (original/ipsatized)	.21	.15 /.13 .37**/.36**	14.	.36 /.34 .42*/.42**	.07 Malaysia	07//08 .32**/.34	13	08/06 .19/.38**	03	.05/.07 .29**/.32
SD index Original data Ipsatized data	23 *** 47	09 28**	04 20**	.09 .09	09 37**	.03	.28**	.15****35***	.32***	.07
Personality coherence Relationship harmony		.23**/.17* 05/01	.33 ** ** **	.16*/.16 .08/.08 	; 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4,	.17*/.11	31** 09	18*/11 .04/.10		18*/13 .12/.17*
Social appraisal R (original/ipsatized)	04.	.54*/.29 .52**/.57**	<del>1</del> .	.3/38 .49*/.48**	.20 Japan	.34*/.40**	cc	23 /19 .41 **/.49	C7:-	.32**.39
SD index Original data	22**	08	13	02	.02	.00	.17*	.12	.13	80.
Ipsatized data Personality coherence Relationship harmony	06 .50** 50**	07 .46**/.45***	.37**	.02 .33**/.31 .14/.17*	.16 .19*	.20* .19*/.21* .04/.07	.25** 34** 26	22*** 26*/24** 20*/21*	.06 32**	06 32**/30*** 07/12
Social appraisal  R (original/ipsatized)	.31**	.21*/.20** .56**/.54**	** 24.	.31**.735** .55**.57**	80.	.06/.04	.18***	08/06 42**.44	10	02/04 .37**/.34

Note. Where two values of  $\beta$  or R are separated by a slash (/), the first value is for the original data and the second value is for the ipsatized data.

Page 29