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Culture, method, and the content of self-concepts: Testing trait, individual–self-primacy, and cultural psychology perspectives ☆

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Abstract

Three theoretical perspectives on cultural universals and differences in the content of self-concepts were tested in individualistic (United States, $n = 178$; Australia, $n = 112$) and collectivistic (Mexico, $n = 157$; Philippines, $n = 138$) cultures, using three methods of self-concept assessment. Support was found for both trait perspectives and the individual–self-primacy hypothesis. In contrast, support for cultural psychology hypotheses was limited because traits and other personal attributes were not more salient, or social attributes less salient, in individualistic cultures than collectivistic cultures.

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The salience of some aspects of self-concept depended on the method of assessment, calling into question conclusions based on monomethod studies.

Keywords: Culture; Self-concept; Traits; Individualism–collectivism; Cultural psychology; Implicit theories

1. Introduction

Ethnographic and cross-cultural studies of self-concept continue to interest anthropologists and psychologists. Ethnographic accounts, particularly in Asian and Pacific Island cultures, have contrasted the more relational, collectivistic, or sociocentric conception of self in these cultures with the more individualistic or idiocentric conception of self in Western cultures (Lebra, 1994; Mageo, 1998; Rosenberger, 1994). Similarly, cultural psychologists argue that the self is a cultural construction, and that we can expect significant cultural differences in both content and processes associated with the self (Heine, 2001; Markus & Kitayama, 1991). A number of cross-cultural studies of the content of self-concepts have been conducted, but they have sampled a limited range of cultures, relied almost exclusively on a single method of data collection, and have failed to directly measure and test the explanatory variables that are hypothesized to underlie individual and cultural differences in self-concept content. In this study, we sought to address these limitations, while testing three theoretical perspectives on cultural universals and differences in self-concept content.

1.1. Theoretical perspectives on self-concept content across cultures

1.1.1. Trait psychology

Trait psychologists have argued that certain trait dimensions are evolved, heritable, and universal across cultures (MacDonald, 1998; McCrae, 2000). The existence of heritable traits with adaptive significance, in combination with an ecological-realist perspective on person perception (Baron & Misovich, 1993), leads to the prediction that trait attributes will be an aspect of self-concept in all cultures. The ecological-realist perspective postulates that traits can be perceived directly through certain evolved indicators (e.g., facial expression, gait, vocal qualities, etc.), particularly if one is able to observe oneself or others in the context of trait-relevant activities. Similarly, from Funder's (1995) Realistic Accuracy Model, we can expect that people in all cultures interpret behavior in terms of traits to some degree, and thus develop an awareness of their traits as part of their self-concepts. Indeed, even anthropologists who have emphasized the sociocentric nature of the self in some cultures have observed that personality traits are still used to describe people in these cultures, at least under appropriate conditions (Lutz, 1985; Mageo, 1998; White, 1985; Whiting, 1996). The apparent existence of trait terms in all languages (Dixon, 1977; Saucier & Goldberg, 1996) also suggests that trait concepts are a universal aspect of self-concept. For the purpose of this study, trait psychology perspectives will be considered supported if participants in all cultures describe themselves in terms of trait attributes with at least moderate frequency.

1.1.2. Individual–self-primacy hypothesis

Gaertner, Sedikides, Vevea, and Iuzzini (2002, p. 574) defined the individual self as consisting "of those attributes that render the person unique from fellow in-group members"

and the collective self as composed "of attributes that are shared with in-group members." While acknowledging that both the individual and collective self are important components of a person's self-concept, Gaertner, Sedikides, and Graetz (1999) and Gaertner et al. (2002) argued that theoretical and empirical considerations support the motivational primacy of the individual or personal self. The *individual–self-primacy* hypothesis is consistent with evolutionary theory, which posits that natural selection acts on the individuals of each species rather than the group. From this perspective, the individual self is seen as an adaptive human trait that has evolved in response to the ecological and social pressures experienced by the human species (Sedikides & Skowronski, 1997).

Based on a recent meta-analysis, Gaertner et al. (2002) concluded that people react more strongly to threats or enhancements to the individual self than to the collective self, supporting the individual–self-primacy hypothesis over the *collective–self-primacy* hypothesis. In an open-ended self-description task, Gaertner et al. (1999, Study 4) also found that respondents listed more aspects of their individual self than their collective self, regardless of their level of individualism or collectivism, and cited this result as additional support for the individual–self-primacy hypothesis. Gaertner et al. (2002) also addressed the question of whether the motivational primacy of the individual self might vary across cultures. If individual–self-primacy is limited to individualistic cultures only, it would support a *contextual-primacy* hypothesis. The contextual-primacy hypothesis posits that neither the individual nor the collective self is inherently primary. Rather, the primacy of the individual or collective self varies as a function of contextual influences such as culture. Gaertner et al. (2002) reviewed evidence, however, that the primacy of the individual self is relatively immune to cultural variation, and thus concluded that the contextual-primacy hypothesis is not supported.

Some researchers have argued that it is important to distinguish the collective self from the relational self, which involves the salience in self-concept of one's close relationships (Cheek, Smith, & Tropp, 2002; Cross, Bacon, & Morris, 2000; Kashima & Hardie, 2000). However, in doing so, it is not entirely clear how to treat the relational self in tests of the individual–self-primacy versus collective–self-primacy hypotheses. Some researchers view the relational self as an aspect of the collective or interdependent self (Cross et al., 2000; Singelis, 1994). However, some studies indicate that relational identity may be more strongly associated with personal identity than collective identity (Cheek et al., 2002; Kashima & Hardie, 2000), perhaps because relational identities involve a connection between separate individuals (i.e., personal selves), not between the individual and a group or collective. Furthermore, some research indicates that the importance of relational selves is more a function of gender than culture (Cross et al., 2000; Kashima & Hardie, 2000). Thus, relational identities may not exhibit the differences between individualistic and collectivistic cultures that are expected for individual and collective identities. Indeed, Cross et al. (2002) noted that memberships in groups or collectives are relatively unimportant for Americans, as compared to East Asians, but that close relationships *are* an important aspect of self-concept for Americans.

Sedikides and Gaertner (2001, p. 9) acknowledged that the scope of their theory did not enable them to address the importance of the relational self relative to the individual and collective self. However, they did speculate that dyadic relationships "become important only to the extent to which they are psychologically glued to," or reduced to, the level of the individual self, for example, through attachment processes. This leaves open the possibility that the relational self might rival the individual self in importance if relational selves are closely integrated with the individual self.

For the purpose of this study, the individual–self-primacy hypotheses will be considered supported if participants in all cultural groups (a) generate a greater proportion of individual or personal attributes (e.g., traits, values, preferences, emotions) than social or collective attributes in their spontaneous self-descriptions; and (b) average higher on measures of personal identity than social and collective identity (but not necessarily relational identity). On the other hand, if the relative importance of personal versus social and collective aspects of the self depends on the culture, it will be viewed as support for the contextual-primacy hypothesis.

1.1.3. Cultural psychology

Cultural psychologists view the self as socially constructed and hence variable across cultures (Heine, 2001; Markus & Kitayama, 1991). In more extreme versions, the very idea of the individual person as a separate psychological entity with a distinct sense of self is questioned. However, in a detailed critique of the conceptual reasoning and empirical evidence for this extreme view, Spiro (1993) concluded that such a lack of self-other differentiation in non-Western or collectivistic cultures is dubious and that some authors may have conflated the distinction between interpersonal autonomy and intrapsychic autonomy.[2] The more typical view of cultural psychologists, however, is that cultures vary in the relative salience of different aspects of self-concept or identity. Traits and other personal attributes are expected to be more salient in individualistic cultures than in collectivistic cultures, whereas social and collective attributes are expected to be more salient in collectivistic cultures than in individualistic cultures (e.g., Kanagawa, Cross, & Markus, 2001; Rhee, Uleman, Lee, & Roman, 1995).

Cultural psychologists have most often attributed individual and cultural differences in the content of self-concepts to differences in independent versus interdependent self-construals (Kanagawa et al., 2001; Markus & Kitayama, 1991). Independent self-construals (i.e., the conception of self as an autonomous and unique entity) are thought to be most prevalent in individualistic or Western cultures, whereas interdependent self-construals (i.e., the conception of self as connected to ingroups) are thought to be most prevalent in collectivistic cultures such as those in Asia, Africa, Latin America, and many southern European countries (Heine, 2001; Markus & Kitayama, 1991, 1998). Cultural psychologists expect traits and other personal attributes to be less salient elements of self-concept for individuals and cultures with predominantly interdependent rather than independent self-construals. Rather, for people with interdependent self-construals, ''the fundamental relatedness of the self to others may be the primary unit of the self rather than abstracted and internalized attributes or attitudes'' (Kanagawa et al., 2001, p. 91).

In addition to self-construal explanations, several theorists have attributed the expected emphasis on traits in individualistic cultures to implicit theories of social causality that emphasize trait explanations (Dweck, Hong, & Chiu, 1993; Morris & Peng, 1994). Such ''implicit trait theories'' may be more prevalent in individualistic cultures because it is more instrumental to infer dispositions in those cultures (Church et al., 2005; Krull, 1993; Markus & Kitayama, 1991). Both self-construal and implicit theory explanations of self-concept differences seem plausible. However, a limitation of previous studies is that these potential

[2] Spiro (1993) pointed out, for example, that the meaning of Markus and Kitayama's (1991) assertion that, in non-Western cultures, ''others are included within the boundaries of the self'' is ambiguous; if it is meant to imply that other-representations are included in one's self-representations, then it would suggest severe psychopathology.

explanatory variables have not been directly assessed or tested. In this study, cultural psychology perspectives will be considered supported if (a) personal attributes or identities are more important aspects of self-concept, and social and collective attributes or identities less important, for participants in individualistic cultures, as compared to collectivistic cultures; and (b) self-construals and implicit theories have some explanatory value in predicting individual differences in these aspects of self-concept or identity in all cultures.

Finally, we note that these three theoretical perspectives—trait psychology, individual–self-primacy, and cultural psychology—are not necessarily inconsistent with each other. Indeed, all three perspectives would be simultaneously supported if we found that: (a) trait attributes are a salient aspect of self-concept in all cultures, supporting trait perspectives; (b) personal attributes are more salient than social and collective attributes in all cultures, supporting the individual–self-primacy hypothesis; and (c) people in individualistic cultures emphasize traits and other personal attributes more, and social and collective attributes less, than people in collectivistic cultures. We turn now to the available empirical evidence.

1.2. Empirical evidence

Table 1 presents a summary of cross-national studies of self-concept content, nearly all of which have employed the Twenty Statements Test (TST: Kuhn & McPartland, 1954). In administering the TST, researchers have asked participants to respond to the statement "I am. . .," or the questions "Who am I?" or "Who are you?" up to 20 times by filling in 20 blank lines. For each study, the first three columns of Table 1 describe the sample, data collection method and coder reliability, and relevant findings for specific self-concept categories. The last two columns are particularly important for an evaluation of trait, individual–self-primacy, and cultural psychology perspectives on self-concept content. In the fourth column we report the proportion of pure trait (T), personal attribute (PA), and social or collective attribute (S) responses. The personal attribute (PA) category includes pure traits, but also personal values, interests, beliefs, goals, and so forth. The proportions were computed by combining relevant categories or subcategories using the data provided in the original articles.[3]

As seen in Table 1, trait psychology perspectives were supported in most studies. Respondents usually provided at least a modest to moderate proportion of pure trait responses. The most striking exception was the study by Dhawan, Roseman, Naidu, Thapa, and Rettek (1995). Apparently, none of the 306 Asian Indians in that study listed pure traits as an aspect of self-concept. In addition, trait use was very modest in the Korean sample studied by Rhee et al. (1995), the Japanese sample studied by Kanagawa et al. (2001), and the less educated Kenyan samples studied by Ma and Schoeneman (1997). The extremely small sample sizes in the Ma and Shoeneman study reduces confidence in their results, however. It is also difficult to make sense of the widely varying percentages of traits

[3] The judgments of which subcategories in these studies represent pure traits (T), personal attributes (PA), and social or collective attributes (S) were generally straightforward and were based on the original authors' definitions and examples of each category. In some studies, the proportion of pure traits could not be determined from the data reported and are not listed separately. For the Bond and Cheung (1983) study it was necessary to estimate the PA and S categories because not all of the subcategories were reported by these researchers. Given the pattern of results in Table 1 it is unlikely that our conclusions would be significantly affected by minor differences in the category definitions used by a few researchers.

Table 1
Cross-national studies of self-concept content

Study Cultures (*n*)	Method and coder reliability	Relevant findings for specific categories	Proportions of pure traits (T), personal attributes (PA), and social/collective attributes (S)	Conclusions
Bond and Cheung (1983)	TST (20 responses to the question "Who am I?")	Hong Kong and United States > Japanese in general psychological attributes and family subcategory; Japanese > Hong Kong and United States in choices (preferences), aspirations, personal facts, social identities with a self-reference, and sex and age subcategories.	Hong Kong: T .44 PA .57 S .38 Japan: T .26 PA .47 S .41	Trait perspectives supported by moderate use of traits in all cultures Individual–self-primacy hypothesis probably supported by greater proportion of personal than social attributes in all cultures, although PA and S proportions had to be estimated from reported information
United States (169) Hong Kong (137) Japan (327)				
College students	Coder reliability on 16 protocols per culture: range = .70–.97, mean = .85; two subcategories discarded because agreement less than .70	Authors interpreted results in terms of Japanese tendency toward concrete and context-specific social perception and thought	United States: T .41 PA .53 S .46 PA and S proportions estimated because not all subcategories reported by authors	In United States–Japanese comparisons, support for CP hypotheses for general psychological attributes and some social identities (not family); however, Japanese greater than United States on other personal attribute categories (e.g., preferences, aspirations) CP hypotheses were not supported because United States and Hong Kong were similar in most categories

Cousins (1989)	TST (5 most important responses to "I am . . ." stem); plus open-ended contextualized descriptions of self at home, school, and with close friends	For TST: United States > Japanese in pure psychological attributes; Japanese > United States in social and universal (e.g., human being) attributes, but also physical attributes, preferences, wishes, and activities	For TST: United States: T .58 PA .76 S .09 Japan: T .19 PA .57 S .27	Trait perspectives supported by moderate use of traits in both cultures (for Japanese, more so in contextualized descriptions) Individual–self-primacy hypothesis supported by greater proportion of personal than social attributes in both cultures
United States (111) Japan (159)				
College students	Coder reliability on unspecified number of random protocols: United States, .86; Japan, .88.	In contextualized self-descriptions, some patterns reversed: United States > Japanese in preferences, wishes, and qualified attributes; Japanese > United States on pure psychological attributes	For contextualized descriptions: United States: T .26 PA .87 S .03 Japan: T .41 PA .83 S .05	For TST, support for CP hypotheses for pure psychological and social attributes, but Japanese > United States on other personal attribute categories (e.g., physical, preferences, etc). Completion of open-ended contextual descriptions immediately after TST might have induced subjects to use alternative categories of response in contextualized descriptions.
Triandis et al. (1990)	TST (20 responses to "I am. . ." stem)	Proportions of social entity responses: China: .52 Hawaii, Chinese: .29 Hawaii, Japanese: .28 Hawaii, European: .21 Hong Kong: .20 United States (Illinois): .19 Greece: .15	Only social entity responses analyzed, see previous column.	Although pure traits and other personal attributes were not coded, the generally modest proportions of social entity responses (except in the China sample) strongly suggests that the proportion of personal attribute responses was substantially greater, thus supporting the individual–self-primacy hypothesis
United States (Illinois) (561) United States (Hawaii, European) (28) United States (Hawaii, Chinese) (19) United States (Hawaii, Japanese) (37) Greece (118) Hong Kong (118) China (39)	Coder reliability for percentage of social entity responses was .97			

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Table 1 (*continued*)

Study Cultures (*n*)	Method and coder reliability	Relevant findings for specific categories	Proportions of pure traits (T), personal attributes (PA), and social/collective attributes (S)	Conclusions
College students, except university graduates in China				Little support for CP hypotheses, except for China results. However, China sample was very small and older, reducing confidence in results
Bochner (1994)	TST (10 responses to "I am . . ." stem given; 7 responses scored, weighted by order of response)	Malaysians > Australians, British in group responses (i.e., social identities)	Australia: PA (idiocentric) .68 S (group) .19	Use of global idiocentric category did not allow separate consideration of pure traits vs. other personal attributes
Great Britain (20) Australia (32) Malaysia (26)	All cultures responded in English	Malaysians < Australians in idiocentric responses (i.e., personal attributes, including traits, states, attitudes, beliefs, etc.)	Britian: PA (idiocentric) .61 S (group) .18	Individual–self-primacy hypothesis supported by greater proportion of personal (idiocentric) than social (group) attributes in all cultures
Adult, middle-class, white-collar workers	"First-round" coder reliability was .85	No cultural differences in allocentric responses (similar to relational identities), which author judged less relevant to hypotheses	Malaysia: PA (idiocentric) .48 S (group) .41	CP hypotheses supported by cultural differences in group and idiocentric responses Small sample sizes reduce confidence in results. Uncertain impact of using English language, a language of instruction, in Malaysian sample

Dhawan et al. (1995)	TST (20 responses to question "Who am I?")	United States > India for self-evaluations and most of its subcategories (e.g., psychological attributes); India > United States on social identities (except self-identity subcategory), interests, and ambitions (both self and other)	United States males: T .22 PA .74 S .26	Trait perspectives not supported because Indian students gave no pure trait (psychological attribute) responses.
United States (317) India (306)			United States females: T .21 PA .73 S .26	Individual–self-primacy hypothesis supported by greater proportion of personal than social attributes in all cultures
College students	Coder reliability: range = .70–.97, mean = .86		Indian males: T .00 PA .55 S .34 Indian females: T .00 PA .66 S .28	CP hypotheses supported for most self-evaluation categories, including pure psychological attributes, and for most social identity categories, but Indians > United States on other personal attribute categories (interests, ambitions) Possible rival interpretation: 75% of Indian participants, but only 47% of United States participants, were living with parents, which might account for greater individuation in United States participants
Lalljee and Angelova (1995)	Open-ended narrative "Please tell us in depth what sort of person YOU are"	No significant cultural differences in use of unqualified traits across self and other descriptions, but all cultural groups used traits less in self descriptions than in other descriptions	In self and other descriptions combined:	Trait perspectives supported by moderate use of traits in all cultures
England Bulgaria India	Narrative descriptions of short and long term acquaintances also obtained.	Indians > British and Bulgarians in references to other people in self descriptions, but gave more references to self in descriptions of others	India: T .31 PA .37 S .20	Individual–self-primacy hypothesis supported by greater proportion of personal (idiocentric) than social (group) attributes in all cultures

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Table 1 (*continued*)

Study Cultures (*n*)	Method and coder reliability	Relevant findings for specific categories	Proportions of pure traits (T), personal attributes (PA), and social/collective attributes (S)	Conclusions
Sample sizes not reported.	Both British and Indian samples responded in English	Bulgarians < British and Indians in use of spatio-temporal qualifiers	England: T .33 PA .34 S .17	CP hypotheses not supported because no cultural differences in references to unqualified traits and personal attributes in general. Also contrary to CP expectations: Bulgarian sample responded in the most individualistic manner, giving marginally more unqualified traits and fewer spatio-temporal qualifiers
All female college students	Coder reliability for 10–17% of data exceeded 92% in England, 90% in India, and 80% in Bulgaria	Greater Indian reference to others in self-descriptions and reference to self in other descriptions interpreted as support for greater interconnectedness among Indians	Bulgaria: T .38 PA .39 S .12	Confidence in results reduced by failure to report sample sizes
Rhee et al. (1995)	TST (20 responses to the stem "I am...")	In general, European American self-descriptions were both more abstract and autonomous than Koreans, with Asian Americans intermediate as a function of extent of Asian identification	European Americans: T .29 PA .65 S .21	Trait perspectives supported, although pure trait use was modest in Koreans and Asian Americans with high Asian identification
United States European American (97) United States Asian American (151) Korea (105)	Coder reliability for general categories, based on 20% of all responses, ranged from .76 to1.00	For specific categories, European Americans used more overall traits, pure traits, and emotional states than Koreans, and fewer specific attributes (preferences, aspirations, activities) and global descriptions (e.g., human being)	Unidentified Asian Americans: T .39 PA .72 S .12	Individual–self-primacy hypothesis supported because personal attributes far exceeded social attributes in all groups

College students		Contrary to authors' predictions, European Americans used more social identities and physical descriptions than Koreans, perhaps because of the salience of ethnic diversity in New York City	"Singly identified" Asian Americans: T .25 PA .61	CP hypotheses only partially supported: Koreans used fewer traits than European Americans, but social identities were used more by European Americans than Koreans and Koreans used non-trait personal attributes more than European Americans
		Results for Asian Americans varying in Asian identification were generally consistent with expectations, with more Asian identified participants resembling Koreans and unidentified being even more extreme than the European Americans (e.g., in the use of traits)	"Doubly identified" Asian Americans: T .17 PA .57 S .30	Authors interpreted greater use of specific attribute category (preferences, aspirations, activities) to Korean tendency toward more specific or concrete (vs. abstract) responding
			Koreans: T .12 PA .66 S .16	
Ip and Bond (1995)	TST (20 responses to "I am . . ." stem)	No significant cultural differences in prevalence of pure traits, which were by far the predominant response in both cultures	United States: T .50 PA .85 S .11	Trait perspectives supported by preponderance of traits in both cultures
United States (93) Hong Kong (89)	Category reliabilities for 15 protocols in each culture ranged from .68 to 1.00.	Hong Kong Chinese > Americans in social roles and global identities, but also preferences and attitudes	Hong Kong: T .55 PA .75 S .19	Individual–self-primacy hypothesis supported because personal attributes far exceeded social attributes in all groups

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Table 1 (*continued*)

Study Cultures (*n*)	Method and coder reliability	Relevant findings for specific categories	Proportions of pure traits (T), personal attributes (PA), and social/collective attributes (S)	Conclusions
College students		Americans > Hong Kong Chinese in physical characteristics, hopes, and future planning Measures of values did not predict proportion of responses in the self-concept categories		CP hypotheses partially supported: Greater prevalence in Hong Kong of social roles and global identities, but also preferences and attitudes Failure of value measures to predict self-concept categories raises questions about method effects and weakens cultural value explanations of self-concept content
Ma and Schoeneman (1997)	TST (15 responses to question "Who am I?")	United States and Kenyan college students did not differ significantly and made frequent reference to "personal characteristics" (psychological and interpersonal traits), whereas Maasai and Samburu tribal members rarely referred to traits. Kenyan urban workers were intermediate	United States: T .48 PA .74 S .12 Kenya college students: T .38 PA .67 S .16	Trait perspectives not supported for rural tribal members Individual–self-primacy hypothesis supported for college students but not for urban workers or rural tribal members
United States international students in Kenya (17) Kenya college students (15) Kenya urban adults (10) Kenya Maasai (21) Kenya Samburu (18)	Coder reliability for 25 random profiles was .95 for overall percentage of social responses, .85 across all general coding categories	Maasai and Samburu tribal members gave primarily social responses, which included ascribed characteristics and especially roles and memberships; United States and Kenyan college students gave few social responses	Kenyan urban workers: T .12 PA .35 S .57 Maasai: T .02 PA .14 S .76 Samburu: T .01 PA .15 S .84	CP hypotheses generally supported, particularly for comparisons involving less educated and more rural participants Results suggest strong impact of urbanization, education, and Westernization on individuation of self-concept Small samples reduce confidence in results. Oral administration to illiterate Maasai and Samburu may have primed social responses

Watkins and Gerong (1997)	TST (20 responses to the question "Who am I?")	As in Ip and Bond (1995), the largest proportion of responses referred to personality traits	Philippines: T .55 PA .21 S .01	Trait perspectives supported by predominance of trait attributes
Philippines (157) Comparisons made with United States and Hong Kong data reported by Ip and Bond (1995)	Coder reliability for 50 random protocols exceeded .85 for all categories	Filipinos < Hong Kong and United States in social roles; Filipinos > Hong Kong on global identities (e.g., I am a human being)		Individual–self-primacy hypothesis supported by much higher proportion of personal than social attributes
College students				CP hypotheses not supported: these was a higher proportion of traits in the Philippines than in the United States comparison sample and a very low proportion of social roles in this collectivistic culture Responding in English, rather than a native language, may have influenced results. For example, Filipinos may have "accommodated" to the American cultural values associated with the English language
Watkins et al. (1997)	TST (20 responses to question "Who am I?")	Only college students in Sweden and Ethiopia were formally compared; in 24 *t*-tests comparing the two cultures for scores based on 7, 10, or 20 unweighted and weighted responses, only one significant difference: Ethiopia > Sweden for large group responses when 20 unweighted responses scored.	Based on 20 unweighted responses: Ethiopia: PA (idiocentric) .72 S .27 Sweden: PA .76 S .23 Hong Kong males: PA .61 S .37 Hong Kong females: PA .56 S .42	Individual–self-primacy hypothesis supported by large majority of idiographic responses, which includes traits and other personal attributes, in all cultural groups

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Table 1 (*continued*)

Study Cultures (*n*)	Method and coder reliability	Relevant findings for specific categories	Proportions of pure traits (T), personal attributes (PA), and social/collective attributes (S)	Conclusions
Hong Kong high school students (165) Sweden college students (100) Ethiopia college students (100)	Coder reliability on half of responses in each culture: .89 in Hong Kong; .90 plus in Sweden and Ethiopia.	No cultural differences in idiographic, small group, or allocentric (interpersonal, relational) responses	S responses combine large group, small group, and allocentric (relational) responses	CP hypotheses were not supported because Ethiopian and Swedish participants failed to show cultural differences
Watkins, Adain, Akande, Gerong, et al. (1998)	TST (20 responses to the question "Who am I?")	In all cultures and both genders, the greatest proportion of responses (50–80%) were idiocentric (personal qualities, attitudes, traits, states, beliefs, etc.)	Combined individualistic cultures: PA (idiocentric) M = .66; F = .55 S M = .34; F = .44	Individual–self-primacy hypothesis supported by predominance of personal (idiocentric) attributes over social attributes
Australia (207) Canada (206) New Zealand (152) South Africa, White (179) China (177) Ethiopia (165) Philippines (157) Turkey (156) South Africa, Black (171)	Coder reliability for 50 protocols in one collectivist and one individualistic culture exceeded .90 for all categories	Contrary to expectations, idiocentric responses tended to be less frequent and large group responses more frequent in individualistic cultures than collectivistic cultures	Combined collectivistic cultures: PA (idiocentric) M = .70; F = .73 S M = .30; F = .27	CP hypotheses not supported because personal attributes less frequent and large group responses more frequent in individualistic than collectivistic cultures
1st and 2nd year college students		Small group (4–5%) and allocentric (interpersonal, relational) (10–11%) responses were elicited with similar frequency across individualistic and collectivistic cultures There was considerable variability among the individualistic and among the collectivistic cultures		

Kanagawa et al. (2001)	TST (20 responses to the question "Who are you?" presented orally by the experimenter or by audiotape)	Combining all four experimental conditions, United States > Japan in use of abstract, internal attributes such as qualified psychological attributes, pure psychological attributes, and attitudes, but also relationships (friends and family)	United States: T .18 PA .68 S .20	Trait perspectives received only modest support, given limited proportion of traits in Japanese sample
United States (128) Japan (128)	Authority, group, peer, and solitary experimental conditions	Japanese > United States on physical attributes and appearance, activities, short-term activities, individuating self-references (e.g. human being), immediate situation, possessions, and miscellaneous	Japan: T .07 PA .56 S .15	Individual–self-primacy hypothesis supported by predominance of personal over social attribute responses in both cultures CP hypotheses only partially supported: Greater use of psychological attributes (traits) by United States respondents supportive, but greater United States reference to relationships and lack of cultural differences in social memberships and roles not supportive
All female college students	Coder reliability, computed across all protocols, ranged from .97 to 1.00 across categories	No cultural differences in social memberships and roles, preferences or interests, goals or aspirations, abilities, or others' judgments Japanese responses were more variable across experimental conditions than American responses		Cultural differences better understood in terms of United States tendency to use abstract psychological attributes and greater Japanese tendency to use actions and behaviors rather than dispositions Use of only female samples a limitation

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Table 1 (*continued*)

Study Cultures (*n*)	Method and coder reliability	Relevant findings for specific categories	Proportions of pure traits (T), personal attributes (PA), and social/collective attributes (S)	Conclusions
Watkins et al. (2003) Study 1: Hong Kong (105) India (214) Nepal (73) Nigeria (107) Zimbabwe (302) 1st and 2nd year college students Study 2: Taiwan (136) Hong Kong (60) Seniors in high school	TST (20 responses to the question "Who are you?") In both studies, coder reliability for 20 protocols per country exceeded .90 for all four categories	Study 1: Significant country and country × gender effects for all four categories of response (idiocentric, large group, small group, and allocentric), revealing variability among collectivistic cultures. Nonetheless, idiocentric responses were most prevalent in all cultures, followed by large group responses Study 2: Culture effects found for idiographic (Taiwan > Hong Kong) and large group responses (Hong Kong > Taiwan)	Study 1: PA (idiographic) responses ranged from .40 to .52 for men and women in Hong Kong, India, and Zimbabwe, and from .61 to .65 in Nepal and Nigeria. PA > S (small/large group responses) for all groups except Hong Kong males Study 2: PA (idiographic) : Hong Kong, M = .55, F = .48 Taiwan, M = .60, F = .63 PA > S for all groups	Cultural variability indicated that collectivism does not have uniform impact on content of self-concepts Largest proportion of idiocentric responses in all collectivistic cultures consistent with primacy of individual self Use of global categories (idiocentric, large group, small group, and allocentric) was a disadvantage because researchers could not differentiate traits from other types of personal attributes. Allocentric category included some interpersonal traits (e.g., I am a sociable person), so it was excluded from PA and S proportions
Ross et al. (2005, Study 1)	Open-ended self-descriptions for present and when 16 years old	In both cultures, private self-statements exceeded relational self-statements for descriptions of self presently and at age 16	Number of self-statements in present self-descriptions: Canada: PA (private) Favorable, M = 4.44 Unfavorable, M = 1.06 S (relational) Favorable, M = .82 Unfavorable, M = .17	Use of global private self-statement category did not allow separate consideration of pure traits vs. other personal attributes

Canada (125) Japan (186)	Coder reliability for 40 random protocols per country: $\alpha = .95$ for favorable private self-statements; $\alpha = .96$ for unfavorable private self-statements; $\alpha = .75$ for favorable relational self-statements; $\alpha = .54$ for unfavorable relational self-statements	Other findings addressed cultural differences in self-enhancement and revealed a culture × valence × type of self-statement interaction. For example, Canadians reported more favorable and fewer unfavorable private self-appraisals than Japanese, and Canadians reported more favorable relational self-statements than Japanese and about the same number of unfavorable relational self-statements	Japan: PA (private) Favorable, M = 2.34 Unfavorable, M = 2.58 S (relational) Favorable, M = .36 Unfavorable, M = .16	Individual–self-primacy supported by greater numbers of private than relational self-statements in both cultures
College students in introductory psychology courses				CP hypotheses regarding self-enhancement supported (i.e., more favorable self-statements in Canada than Japan); however, overall cultural differences in private vs. relational self-statements did not support CP hypotheses

Note. Findings summarized for each article are those that are most relevant to the present study. TST, Twenty Statements Test. M, male; F, Female; CP, cultural psychology.

reported in different studies, even for the same cultures. For example, in Table 1, the proportions of pure trait responses in United States samples range from .18 to .58. Japanese, Korean, and Indian samples have made consistently less use of traits (range = .00–.31), but participants in some other collectivistic cultures, including Hong Kong (.44, .55) and the Philippines (.55) have made frequent use of pure traits in their self descriptions (Bond & Cheung, 1983; Ip & Bond, 1995; Watkins & Gerong, 1997). The use of a broad idiocentric or private self-appraisal category by some researchers, encompassing not only traits but also other personal attributes, precludes testing trait perspectives in those studies (e.g., Bochner, 1994; Ross, Heine, Wilson, & Sugimori, 2005; Watkins, Adair, Akande, Gerong, et al., 1998; Watkins et al., 2003).

The individual–self-primacy hypothesis was supported in virtually all of the studies. Indeed, in many studies the proportion of personal attributes listed by respondents was substantially greater than the proportion of social and collective attributes. The sole exception involved the very small sample of less educated Kenyans studied by Ma and Schoeneman, 1997, whose respondents listed mainly social and collective attributes.

Cultural psychology perspectives have been supported in some but not all studies. Although there are exceptions (Ip & Bond, 1995), comparisons of the United States with East Asian cultures and India have generally supported the expectation that references to abstract or pure traits will be less frequent in collectivistic cultures (Bond & Cheung, 1983; Cousins, 1989; Dhawan et al., 1995; Kanagawa et al., 2001; Rhee et al., 1995). However, it is important to differentiate between pure traits and other personal attributes, because a frequent pattern in comparisons of the American samples with Chinese, Japanese, and Indian samples is for Americans to refer more to traits, but less to other personal attributes (Bond & Cheung, 1983; Cousins, 1989; Dhawan et al., 1995; Ip & Bond, 1995; Rhee et al., 1995). Some authors have interpreted these differences in terms of an abstract-specific distinction, with Americans more inclined to describe themselves with abstract traits and Asians describing themselves with specific or concrete preferences, goals, and activities (e.g., Kanagawa et al., 2001; Rhee et al., 1995). Shweder and Bourne (1984) attributed this Asian pattern to a distinct, non-Western style of thinking that is concrete and context-specific.

A number of studies also support the cultural psychology expectation that people in collectivistic cultures incorporate more social or allocentric elements in their self-concepts (Bochner, 1994; Cousins, 1989; Dhawan et al., 1995; Ip & Bond, 1995; Lalljee & Angelova, 1995; Triandis, McCusker, & Hui, 1990). However, there are a number of prominent exceptions to this pattern as well. For example, in the study by Rhee et al. (1995), Americans unexpectedly gave more social identity responses than Koreans. Kanagawa et al. (2001) found no differences between Americans and Japanese in the proportion of responses referring to social memberships and roles, and Americans more than Japanese referred to relationships (including family relationships). For additional results that are counter to the hypothesized pattern for collectivistic cultures, see Bond and Cheung (1983), Watkins and Gerong (1997), Watkins, Yau, Dahlin, and Wondimu (1997).[4]

In summary, previous studies have supported the individual–self-primacy hypothesis most consistently. Trait perspectives have been supported for most cultures, but less so for selected Asian cultures. Cultural psychology hypotheses have been supported best in

[4] In a test of a dynamic constructivist view of the self, Hong and colleagues (e.g., Hong et al., 2003) have shown that the content of self-concepts can be manipulated to increase reference to core attributes of one's cultural group by priming the cultural identity of the respondent. We will not address priming effects, however, because we are interested in the typical or baseline salience of different aspects of self-concept.

comparisons involving East Asian cultures. This raises the question of whether cultural psychology hypotheses are valid for comparisons of individualistic and collectivistic cultures generally, or mainly for comparisons involving East Asian cultures. Studies in additional individualistic and collectivistic cultures are needed.

1.3. Methodological issues

The TST might be less culturally biased than structured inventories, because it allows respondents to describe themselves in their own words, using terms that are particularly salient or accessible (Bond & Cheung, 1983; Kanagawa et al., 2001). In contrast, objective inventories provide a pre-structured set of constructs and items that may be less salient or interpreted differently across cultures. On the other hand, TST limitations include the subjective coding process, the diverse coding systems used, and questions about the optimal number and weighting of responses (Watkins et al., 1997). Gaertner et al. (1999) suggested that the usual TST stem ("I am. . ." or "Who am I?") may bias self-descriptions toward the individual self. Accordingly, one promising approach might be to assess the content of self-concepts using open-ended self-descriptive narratives, which a number of researchers have described as particularly suited to assessing self-concept or identity (e.g., McAdams, Diamond, de St Aubin, & Mansfield, 1997).

Only a few researchers have applied objective inventories to measure cross-cultural differences in self-concept content, with mixed results (Carpenter & Karakitapoglu-Aygün, 2005; Cheek, Tropp, Chen, & Underwood, 1994; Oyserman, 1993; Watkins, Adair, Akande, Cheng, et al. (1998)). In the largest study, Watkins, Adair, Akande, Cheng, et al. (1998) administered an inventory about sources of self-esteem in five individualistic and 10 collectivistic cultures. They found that the majority of respondents in all cultures rated family relationships, personal goals, being friendly, and being honest as important to self-esteem. Also, people in collectivistic cultures, as compared to people in individualistic cultures, reported greater salience of family relationships but not social relationships. Based on such results, the researchers questioned the validity of claims relating individualism–collectivism to the content of self-concepts.

Unfortunately, few researchers have investigated the convergence of alternative methods of assessing self-concept content. Kashima and Hardie (2000) found that TST scores for individual, relational, and collective self were quite distinct from objective measures of personal, social, and collective identity, individualism–collectivism, and independent and interdependent self-construals (see also Grace & Cramer, 2003). Kashima and Hardie concluded that the "meanings captured by TST categories need to be better understood in future research" (p. 42). Similarly, Dabul, Bernal, and Knight (1995) found that Mexican Americans gave more allocentric and fewer idiocentric responses than European Americans in open-ended interviews. However, in follow-up importance ratings, the two ethnic groups did not differ significantly in the mean importance of either allocentric or idiocentric descriptors. Clearly, questions remain about the relationship between open-ended versus structured inventory methods and there is a need for cross-cultural studies that apply multiple methods.

1.4. Overview of the present study

In this study, we tested trait, individual–self-primacy, and cultural psychology perspectives on the content of self-concepts across cultures. In doing so, we addressed several of

the limitations of research in this area. First, we studied a more diverse sample of cultures described in the literature as individualistic (United States, Australia) and collectivistic (Mexico, Philippines) (Church, 1987; Díaz-Loving & Draguns, 1999; Hofstede, 2001). Second, we included three methods of self-concept assessment, which varied along a continuum from open-ended self-descriptive narrative to structured inventory. Third, we used a relatively refined rather than global coding system for the open-ended methods and all responses were coded by three or four raters. Fourth, we included direct assessments of two hypothesized explanatory variables, self-construals and implicit theories. The study has significance for culture and personality theory generally, and, in particular, for our understanding and assessment of self-concepts across cultures.

2. Method

2.1. Sample

2.1.1. United States

The United States sample included 178 college students (62 men, 116 women) at Washington State University. Mean age was 20.2 years ($SD = 3.8$) and students from all year levels were sampled. Self-reported ethnic backgrounds were as follows: European American ($n = 156$, 87.6%), Chicano/Latino/Hispanic ($n = 5$, 2.8%), Asian/Pacific Islander ($n = 3$, 1.7%), African-American ($n = 2$, 1.1%), Native American ($n = 2$, 1.1%), bi- or multi-racial ($n = 8$, 4.5%), and other or not reporting ($n = 2$, 1.1%). A supplemental sample of 217 students (77 men, 140 women; mean age = 20.8 years, $SD = 3.6$) from the same university completed the Aspects of Identity Questionnaire (AIQ-IV) only. Self-reported ethnic backgrounds in the supplemental sample were as follows: European American ($n = 170$, 78.3%), Chicano/Latino/Hispanic ($n = 13$, 6.0%), Asian/Pacific Islander ($n = 8$, 3.7%), African-American ($n = 4$, 1.8%), Native American ($n = 1$, .5%), bi- or multi-racial ($n = 16$, 7.4%), and not reporting ($n = 5$, 2.3%). We had not used the AIQ-IV in previous cross-cultural studies and wanted a larger sample (total $n = 395$) to investigate measurement equivalence using confirmatory factor analyses (CFA).[5]

2.1.2. Australia

The Australian sample included 112 students (25 men, 87 women) at the University of Western Sydney. Mean age was 22.2 ($SD = 6.7$). The majority were first-year students (86.6%), the remaining students represented all year levels. Self-reported ethnic backgrounds were as follows: Anglo-Celtic or European Australian ($n = 67$, 59.8%), Asian Australian ($n = 12$, 10.7%), Middle Eastern ($n = 10$, 8.9%), bi- or multi-ethnic ($n = 10$,

[5] There was some ethnic diversity within the United States and Australian samples. Specific minority subgroups were too small to analyze separately. However, in supplemental analyses we did compare participants of European heritage and non-European heritage on the key variables in the study to determine whether the cross-national comparisons would differ if participants who were not of European heritage in these two samples were excluded. The results and conclusions did not change when the ethnic minorities in these two countries were retained in their respective samples. Only one variable, AIQ-IV Collective Identity, exhibited significant mean differences between the European and non-European heritage subgroups, with the former subgroup averaging lower in both countries. Thus, scores for this variable would have been slightly lower if ethnic minorities had been excluded. However, the relative rank of the country means in relation to the other country samples did not change, nor did our conclusions. Therefore, we included all participants in our analyses.

8.9%), other ($n = 10$, 8.9%), and not reporting ($n = 3$, 2.7%). No supplemental AIQ-IV sample was collected in Australia.

2.1.3. Mexico

The Mexican sample included 157 college students (33 men, 124 women) at the National Autonomous University of Mexico, Iztacala. Mean age was 20.1 years ($SD = 2.4$). Most were first year (66.9%) or fourth year (32.5%) students. A supplemental sample of 222 students (86 men, 136 women; mean age = 23.1 years, $SD = 3.8$) from the same university completed the AIQ-IV instrument only (total $n = 379$). All participants identified themselves as Mestizo (mixed Spanish and indigenous Indian ethnicity), the majority ethnic group in Mexico.

2.1.4. Philippines

The Filipino sample included 138 students (53 men, 85 women) at De La Salle College in Lipa City, located 90 km south of Manila. Mean age was 18.4 years ($SD = 1.2$). Most students were in their second (40.6%), third (34.1%), or fourth (24.6%) year in college. A supplemental sample of 195 students (64 men, 131 women; mean age = 18.1 years, $SD = 1.4$) from four Philippine universities completed the AIQ-IV instrument only (total $n = 333$). All participants identified their ethnicity as Filipino.

3. Instruments

3.1. Languages and translation

All instruments were administered in the language of instruction at the relevant universities, English in the United States and Australia, Spanish in Mexico, and Filipino (the national language based largely on the Tagalog language) in the Philippines. For the Australian instruments, a few items in the American English versions were modified slightly to reflect Australian English usage (e.g., *behavior* became *behaviour*). All United States participants described English as their native and best language. Ninety-eight percent of Australian participants described English as their best language, with 84% listing it as their native language. All Mexican participants listed Spanish as their native and best language. Ninety-nine percent of Filipino participants listed Filipino (Tagalog) as their native and best language. All instruments were translated from English into Spanish and Filipino (Tagalog) using bilingual native speakers and the backtranslation method.

3.2. Measures of self-concept and identity

3.2.1. Twenty Statements Test (TST; Kuhn & McPartland, 1954)

For this task, we presented participants with a single sheet of paper, labeled Self-Description Task, on which the sentence stem "I am..." appeared 15 times.[6] Participants

[6] Although the majority of TST researchers have requested 20 responses, other researchers have requested or coded fewer responses (e.g., 5–15; see Table 1). Some TST researchers have suggested that not much is gained by scoring more than 10 responses (Bochner, 1994) and that respondents in some cultures may not be able to respond to as many as 20 sentence stems in a meaningful way (Watkins et al., 1997). Such considerations were weighed in deciding to request 15 TST responses from the participants in each culture.

were given 10 min to "complete each of the lines by writing a phrase that describes you." To code the responses, we adapted the coding systems of Rhee et al. (1995) and Kanagawa et al. (2001). Table 2 shows the original coding categories, subcategories, and sample responses. For some categories, coders also judged whether the descriptors were positive, negative, or neutral; or autonomous, social, or indeterminant. Autonomous responses involve personal preferences, goals, competencies, and so forth that can be pursued more independently (e.g., "I like reading," "I am good in math"), whereas social responses refer to personal preferences, goals, and so forth that require the involvement of other people (e.g., "I like visiting my friends," "I want to help others"). Coder reliability and scoring are addressed in a separate section below.

3.2.2. Self-descriptive narrative—Writing About Yourself (WAY)

For this task, we presented participants with a single sheet of blank paper, labeled "Writing about Yourself." The top of the page contained the following instructions:

"In the space below (and on the back of this page if necessary), write one or more paragraphs about yourself. Although there is no specific length requirement, your paragraph(s) should be complete enough so that someone reading it would have a very good idea or understanding of you."

Participants were given 10 min to complete the task. We used the same coding system for the TST and WAY so that scores from the two instruments would be comparable.

3.2.3. Aspects of Identity Questionnaire (AIQ-IV; Cheek et al., 1994, 2002)

The AIQ-IV is a 45-item objective inventory that measures the importance of four identity orientations in individuals' self-concepts: (a) personal identity, or the importance of one's psychological traits and other personal attributes (e.g., "My personal values and moral standards"); (b) relational identity, or how individuals see themselves in the context of their intimate relationships (e.g., "My relationships with the people I feel close to"); (c) social identity, or how individuals see themselves in more general interpersonal contexts (e.g., "My reputation, what others think of me"); and (d) collective identity, or how individuals represent their various reference group identities (e.g., "My race or ethnic background"). We added two new items to the Personal Identity scale ("My personality characteristics," and "My personal abilities and talents"). Although the existing Personal Identity items refer to personal values, goals, dreams, academic ability, and so forth, none explicitly addressed personality traits or general abilities and talents. Participants filled in a blank space next to each item with a number from 1 ("not important to my sense of who I am") to 5 ("extremely important to my sense of who I am").

Across the four cultural groups, alpha reliabilities ranged from .80 to .83 for the Personal Identity scale, .82 to .91 for the Relational Identity scale, .80 to .82 for the Social Identity scale, and .67 to .77 for the Collective Identity scale. Cheek and Tropp (1997) summarized research supporting the construct validity of the instrument. Cross-cultural measurement equivalence of the inventory measures in the study is addressed in a separate section below.

3.3. Measures of explanatory variables

3.3.1. Self-construal scale (SCS)

The 30-item SCS (Singelis, 1994) was used to measure independent and interdependent self-construals. Items were rated using a 6-point agreement scale (strongly disagree, some-

Table 2
Original coding categories for TST and self-descriptive narratives (WAY)

1. Traits
   a. Pure
      (+) Positive (kind, friendly, smart)
      (−) Negative (unreliable, stubborn, hypocritical)
      (N) Neutral (private)
   b. Qualified
      i. Contextualized (with someone, at home)
         (+) Positive
         (−) Negative
         (N) Neutral
      ii. Temporal (sometimes, a little)
         (+) Positive
         (−) Negative
         (N) Neutral

2. Social identities
   a. Social role-status (student, major)
   b. Family role-status (I am a daughter. I am the last child)
   c. Family information (I have a brother. I am close to my family. My parents have been married 25 years)
   d. Social relationships (I am a friend. I am a boyfriend)
   e. Social information (I have a boyfriend. I am in a sorority. I have many friends)
   f. Ethnicity/race/nationality
   g. Gender (boy, woman)
   h. Self-ascribed identities (musician, hunter)
   i. Origin (from Hong Kong)
   j. Religion (Christian, child of God)
   k. Occupation (salesperson)
   l. Denial of social identity (not a Christian, not close to my family)
   m. Universal-oceanic (human being, earthling)

3. Preferences (interests, values, likes, dislikes, fond of)
   a. Autonomous (like books, independence is important to me)
   b. Social (like children, value community)
   c. Indeterminate (love camping, like to have fun)

4. Aspirations (wishes, hopes, wants)
   a. Autonomous (be successful)
   b. Social (help people)
   c. Indeterminate (be a lawyer)

5. Activities (activities, habits)
   a. Autonomous (take the bus)
   b. Social (visit friends)
   c. Indeterminate (swimming)

6. Attitudes and beliefs
   a. Autonomous (I believe in God)
   b. Social (All people deserve the right to vote)

7. Competencies, skills, and general evaluations
   a. Autonomous
      (+) Positive (good in math)
      (−) Negative (not good at writing)
      (N) Neutral (may not know myself)
   b. Social
      (+) Positive (good listener; easy to get along with)

(*continued on next page*)

Table 2 (*continued*)

(−) Negative (poor social skills)
(N) Neutral

8. Physical descriptions
   a. Subjective description (cute, sexy)
   b. Age or birth date (I am 18. I was born on 01/01/80)
   c. Factual description or physical condition (height, eye color, near sighted)

9. Emotional states
   a. Autonomous
      (+) Positive (excited)
      (−) Negative (worried, afraid)
      (N) Neutral
   b. Social
      (+) Positive (in love)
      (−) Negative (jealous)
      (N) Neutral

10. Peripheral information
   a. Immediate situations, states (tired, hungry, in class)
   b. Present residence (live at home)
   c. Other's descriptions (People say I'm nice)
   d. Possessions (clothes, pets)

11. Individuating self-references
   a. General references to self or one's existence (me, myself)
   b. Name

12. Unclassifiable
   a. Fillers/commentaries (I hope you like reading about me)
   b. Substantial descriptions, but do not fit under coding

Note. TST, Twenty Statements Test; WAY, "Writing about Yourself" self-descriptive narratives.

what disagree, slightly disagree, slightly agree, somewhat agree, and strongly agree). Based on principal-axis factor analyses in each culture, we dropped three items with poor factor loadings on the intended factors. Alpha reliabilities across the four cultural groups ranged from .61 to .77 for the independent self-construal scale and .66 to .79 for the interdependent self-construal scale. Although the structure and validity of the SCS has recently generated controversy (Levine et al., 2003), many cross-cultural studies have reported results consistent with self-construal theory (Gudykunst & Lee, 2003).

3.3.2. Personality beliefs inventory (PBI)

The PBI (Church et al., 2003) measures implicit trait and contextual theories or beliefs. The trait beliefs items measure beliefs about (a) the longitudinal stability of traits; (b) the cross-situational consistency of trait-relevant behavior; (c) the ability to predict individuals' behavior from their traits; and (d) the ability to infer traits from relatively few behavioral instances. The contextual beliefs items measure beliefs about (a) the longitudinal instability of traits; (b) the variability of behavior across situations; (c) the difficulty of predicting specific behaviors from traits; and (d) the difficulty of inferring traits from a few instances of behavior. Church et al. (2003, 2005; Church, Katigbak, del Prado, Ortiz, et al., 2006) showed that trait and contextual beliefs represent relatively independent dimensions, not bipolar opposites. A 39-item version of the PBI was administered. Items

were rated on a 6-point agreement scale (strongly disagree, somewhat disagree, slightly disagree, slightly agree, somewhat agree, and strongly agree). Based on principal-axis analyses in each culture, we eliminated six items that did not load well on the intended factors in one or more cultures. Across the four cultures, alpha reliabilities ranged from .74 to .86 for the Trait Beliefs scale and from .72 to .81 for the Contextual Beliefs scale. Church et al. (2003, 2005) reported validity evidence for the PBI in both individualistic and collectivistic cultures.

3.4. Procedure

In Mexico, Australia, and the Philippines, volunteer participants filled out the five instruments in three regular class sessions, separated by 1 week. The instruments completed in each session were as follows: Session 1, the WAY and PBI; Session 2, TST and SCS; and Session 3, AIQ-IV. The procedure was the same in the United States, except that the PBI and SCS were completed outside of class and returned to the researchers at the next session. Participants in Australia, and some students in the United States, received partial or extra course credit for participation. The instruments were ordered so that (a) the three measures of self-concept or identity were separated by 1-week intervals to reduce carry-over effects, and (b) participants' responses to the less structured instruments (WAY, TST) would not be biased by prior exposure to the identity scales in the structured inventory (AIQ-IV).

3.5. Coding and scoring of TST and WAY responses

In preparation for coding, the research team annotated each meaningful or codable unit of self-description on the TST and WAY response sheets. Coders were subsequently instructed to provide a single best code for each meaningful unit. There were initially two coders for each language. Subsequently, minor changes in a few coding guidelines were made to improve reliability and additional coders were added. Ultimately, there were four coders each for the American, Australian, and Mexican responses, and three coders for the Philippine responses.

Coders were provided with approximately 6 h of training, and were given written "rules of thumb" and prototypical examples of each category, derived from pilot testing of the coding system. Preliminary analyses indicated that coders had difficulty achieving an acceptable level of agreement for some of the more refined distinctions in the category system, for example, the distinctions between positive, negative, and neutral characteristics; between autonomous, social, and indeterminate characteristics; and between preferences, aspirations, activities, and attitudes, which Rhee et al. (1995) also combined into a single category. Acceptable coder reliability was obtained after combining the relevant categories. For the retained categories, which are shown in Table 3, proportion agreement between pairs of coders for the TST was as follows: United States ($M = .90$; range = .87–.98); Australia ($M = .83$; range = .80–.91), Mexico ($M = .80$; range = .74–.91); Philippines ($M = .89$; range = .89–.90). For the WAY, proportion agreement was as follows: United States ($M = .88$; range = .86–.95); Australia ($M = .83$; range = .80–.88), Mexico ($M = .75$; range = .69–.86); Philippines ($M = .88$; range = .88–.89). Coding disagreements were resolved by "majority vote" (i.e., 3 out of 4 coders in three cultures; 2 out of 3 coders in the Philippines). For some responses, "tie votes," in which two coders favored one code and two coders favored a different code, were resolved in favor of the two additional raters

Table 3
Convergent correlations of TST and WAY self-concept scores in four cultures

Self-concept category	Culture			
	Unites States	Australia	Mexico	Philippines
Personal attributes	.15*	.31**	.15	.22*
Pure traits	.27**	.32**	.28**	.20*
Qualified traits	.08	.06	.24**	.12
Preferences, aspirations, etc.	.20**	.19*	.07	.13
Competencies	.12	.19*	.15	.21*
Physical descriptions	.17*	.38**	.32**	.24**
Emotional states	.19*	.08	.03	−.04
Social identities	.21**	.33**	.31**	.26**
Other categories				
Peripheral information	.04	.16	.19*	.05
Individuating self-reference	−.09	.25**	.05	.09

Note. TST, Twenty Statements Test; WAY, "Writing about Yourself" self-descriptive narratives.
* $p < .05$.
** $p < .01$.

if they agreed, because they had applied the system after a few coding refinements had been made. Any remaining responses were excluded as too vague or ambiguous to enable coder agreement. Across the four cultures, the proportion of responses left unscored ranged from .01 to .06 for the TST and from .03 to .08 for the WAY.

For the TST, the mean number of responses in the four cultures was as follows: United States, $M = 15.5$ ($SD = 1.3$); Australia, $M = 16.4$ ($SD = 3.2$); Mexico, $M = 16.5$ ($SD = 3.1$); and Philippines, $M = 16.1$ ($SD = 2.27$). Thus, the average participant completed all 15 stems, plus one additional codable response, although a few participants provided as few as 7 or 8 responses. In an ANOVA, the main effect for culture was significant ($F[3, 583] = 4.5$, $p < .01$, $\eta^2 = .02$). Post hoc Scheffé t-tests revealed that only the mean difference between the United States and Mexican sample was significant ($p < .05$). Not surprisingly, the mean number of responses for the open-ended WAY was more variable within and across cultures, as follows: United States, $M = 16.6$ ($SD = 6.6$); Australia, $M = 18.5$ ($SD = 6.5$); Mexico, $M = 20.1$ ($SD = 7.1$); and Philippines, $M = 12.8$ ($SD = 5.4$). The Mexicans provided significantly more codable responses than the Americans and Filipinos, and the Filipinos provided significantly fewer codable responses than the other three groups ($p < .05$).

As in previous studies, we controlled for the number of responses given by each participant by deriving proportion scores for each participant for each coding category. These were obtained by dividing the number of responses in each category by the participant's total number of responses for the instrument. We also computed a total Personal Attributes score, which is the sum of the proportion scores for six personal attribute categories (see Table 3). All proportion scores were arcsine transformed to improve distributional properties (Kanagawa et al., 2001), but the original proportions are reported in Table 4. Separate scores were obtained for the TST and WAY tasks.

3.6. Cross-cultural measurement equivalence of inventory measures

We conducted multigroup confirmatory factor analyses (CFA), using AMOS 4.0, to test the structural equivalence of the three inventory measures (AIQ-IV, SCS, PBI) across

Table 4
Proportion scores for self-concept categories in four cultures

Self-concept category	TST				WAY			
	United States	Australia	Mexico	Philippines	United States	Australia	Mexico	Philippines
Personal attributes	.73	.74	.86	.87	.60	.59	.70	.58
Pure traits	.45	.39	.54	.41	.10	.09	.13	.13
Qualified traits	.03	.06	.12	.15	.01	.01	.04	.03
Preferences, aspirations, etc.	.09	.13	.08	.19	.41	.38	.40	.30
Competencies	.05	.05	.02	.06	.03	.03	.03	.04
Physical descriptions	.07	.06	.04	.05	.04	.07	.07	.06
Emotional states	.04	.04	.06	.01	.01	.01	.03	.02
Social identities	.21	.17	.08	.08	.30	.25	.16	.27
Other categories								
Peripheral information	.04	.03	.00	.02	.03	.05	.02	.04
Individuating self-reference	.01	.00	.00	.00	.00	.01	.02	.03

Note. TST, Twenty Statements Test; WAY, "Writing about Yourself" self-descriptive narratives.

the four cultures (the supplemental samples were included in the AIQ-IV analyses). For each instrument, the latent constructs—the four aspects of identity for the AIQ-IV, independent and interdependent self-construals for the SCS, and trait and contextual beliefs for the PBI—were measured by three to four item parcels, each consisting of randomly assigned items or, in the case of the PBI, items from existing content facets (Kishton & Widaman, 1994). For each instrument, the fit indices for models in which the factor loadings were constrained to equality across cultures were excellent (e.g., CFI indices ranging from .97 to .98; RMSEA indices of .03 for each instrument). However, there were some cultural differences in the freely estimated correlations, corrected for measurement error, between the latent constructs for each instrument. The correlations among the four identity scales in the AIQ-IV tended to be lower in the two individualistic cultures (range = .29–.65 in the United States, .13–.64 in Australia) than in the two collectivistic cultures (.48–.73 in Mexico, .44–.86 in the Philippines). The correlations between independent and interdependent self-construals (SCS) were generally modest in the American ($r = .35$), Australian ($r = -.16$), and Mexican ($r = .29$) samples, but not in the Philippine sample ($r = .60$). Similarly, trait and contextual beliefs (PBI) were modestly inversely related in the American ($r = -.17$), Australian ($r = -.15$), and Mexican ($r = -.14$) samples, but substantially positively correlated in the Philippine ($r = .61$) sample. These results suggest that measurement inequivalence, acquiescence response bias, or both were a problem for the self-construal and implicit theory measures in the Philippine sample. Many cross-cultural psychologists view between-culture mean comparisons with Likert-type scales to be risky because they can be affected by remaining measurement inequivalencies and by cultural differences in response styles and reference groups (Heine, Lehman, Peng, & Greenholtz, 2002; Smith, 2004). Therefore, we report only within-culture analyses with the self-construal and implicit theory measures. Despite questions about how well these two instruments functioned in the Philippine sample, we did not discard the Philippine

results for these two measures because they were essentially the same as the results in the other three cultures.

4. Results

4.1. Convergence of self-concept and identity measures

Before addressing the extent of support for trait psychology, individual–self-primacy, and cultural psychology perspectives, we considered an important methodological question: How well do alternative measures of self-concept or identity converge? Table 3 shows the convergent correlations between category scores for the TST and WAY. These results reveal a modest to moderate degree of convergence for most of the categories. Many, but not all, of the categories with non-significant correlations were those that were infrequently used.

Convergence of the open-ended TST and WAY scores with the AIQ-IV identity scores was poor, so we merely summarize the results. Few correlations were statistically significant and there were no sensible or consistent patterns in the results. For example, across the four cultures, only 1 of 48 correlations relating AIQ-IV Personal Identity scores to TST or WAY scores for the personal attribute categories was statistically significant, and only 2 of 24 correlations relating AIQ-IV Relational, Social, or Collective Identity scores to social identity scores on the TST and WAY were statistically significant and both correlations were in the unexpected direction. These results are consistent with those of Kashima and Hardie (2000), who found that TST and AIQ scores for comparable aspects of self-concept or identity were weakly correlated. Because of the limited convergence of self-concept and identity scores across methods, itself an important finding, we tested the three theoretical perspectives—trait psychology, individual–self-primacy hypothesis, and cultural psychology—separately using scores from each method.

4.2. Cultural differences in self-concept and identity

4.2.1. Open-ended methods

Table 4 shows the mean raw proportions in each category for the TST and WAY. Trait perspectives were supported because pure trait responses were frequently listed as an aspect of self-concept in all four cultures. However, it is clear that trait responses were elicited much more readily by the TST than by the self-descriptive narratives (WAY). Across cultures, the mean proportion of pure trait responses ranged from .39 to .54 for the TST, but from .09 to .13 for the WAY. The individual–self-primacy hypothesis was strongly supported with both open-ended methods, because respondents in all four cultures mentioned substantially more personal attributes than social attributes with both the TST and WAY. Indeed, across these two methods and the four cultures, the mean proportion of personal attribute responses ranged from .58 to .87, while the mean proportion of social identity responses ranged from .08 to .30.

To test whether cultural differences were consistent with cultural psychology hypotheses, we conducted a repeated-measures ANOVA for each category with culture and gender as between-subjects factors and method (TST vs. WAY) as the repeated factor. Because of the large number of effects being tested, we set a conservative alpha level of .01. The results were consistent with two main conclusions. First, cultural mean differences generally did

not support cultural psychology hypotheses, because participants in the two individualistic cultures did not give more personal attribute responses, or fewer social identity responses, than participants in the two collectivistic cultures. Second, the method of data collection was important. For the general Personal Attributes category, there was a significant method effect (Wilks' $\Lambda = .72$, $F[1, 575] = 220.19$, $p < .01$, $\eta^2 = .28$), with more personal attributes elicited in all cultures using the sentence completion method (TST) than the self-descriptive narratives (WAY). There was also a significant method × culture interaction effect (Wilks' $\Lambda = .92$, $F[3, 575] = 17.41$, $p < .01$, $\eta^2 = .08$). Contrary to cultural psychology expectations, follow-up Tukey tests revealed that Mexicans and Filipinos gave *more* personal attribute responses than Americans and Australians for the TST, and Mexicans gave more personal attribute responses than the other three cultural groups in the self-descriptive narratives (WAY).

Looking at specific categories of personal attributes, there were significant method effects for traits ($\eta^2 = .62$), qualified traits ($\eta^2 = .21$), competencies ($\eta^2 = .03$), and emotions ($\eta^2 = .06$), which were all mentioned more frequently in the sentence completion task (TST) than in the self-descriptive narratives (WAY). In contrast, responses in the combined category of preferences, goals, activities, and attitudes ($\eta^2 = .51$) were much more frequent in the self-descriptive narratives (range of $F[1, 575]$ statistics = 16.4–921.1, $p < .01$). With the exception of the pure traits, all of the specific personal attribute categories also exhibited significant method × culture interaction effects (range of $F[3, 575]$ statistics = 4.4–40.9, $p < .01$), but these interaction effects were generally small and not very interpretable. There were also a few isolated two- or three-way interaction effects involving gender, but the effects were again small ($\eta^2 < .03$) and did not reveal any patterns.

Finally, there was also a significant method effect for the social identities category (Wilks' $\Lambda = .83$, $F[1, 575] = 121.74$, $p < .01$, $\eta^2 = .18$). More social identity responses were elicited in all four cultures with the self-descriptive narratives (WAY) than with the sentence completion task (TST). The method × culture interaction effect was also statistically significant (Wilks' $\Lambda = .95$, $F[3, 575] = 9.7$, $p < .01$, $\eta^2 = .05$). Contrary to cultural psychology perspectives, follow-up Tukey tests indicated that Americans and Australians gave *more* social identity responses than Mexicans and Filipinos in the sentence completion task (TST), and Mexicans gave *fewer* social identity responses than the other three cultural groups in the self-descriptive narratives (WAY).

4.2.2. Aspects of identity (AIQ-IV)

The AIQ-IV mean scale scores, which are shown for each culture in Table 5, enable tests of the individual–self-primacy hypothesis and cultural psychology hypotheses. To test the individual–self-primacy hypothesis, we compared the four scale scores *within* each culture, using paired-sample *t*-tests. In all four cultures, Personal Identity was rated as significantly more important than both Social and Collective Identity. This is consistent with the individual–self-primacy hypothesis. As discussed earlier, it is less clear how to treat Relational Identity in tests of this hypothesis. In all four cultures, Relational Identity was also significantly more important to participants than Social or Collective Identity, and Relational Identities were more similar in importance to Personal Identities than to Social or Collective Identities. Importantly, in all four cultures, Relational Identity scores were more highly correlated with Personal Identity scores than with Social or Collective Identity scores (see Table 6). These correlations suggest that a strong relational identity presumes, or is not very distinct from, a strong personal identity. In this interpretation,

Table 5
Means and standard deviations for Aspects of Identity Questionnaire (AIQ-IV) scales in four cultures

Aspects of identity scale	Culture			
	United States	Australia	Mexico	Philippines
Personal identity				
Mean	4.10[a]	4.09[a]	4.30[b]	4.19[a]
SD	.45	.48	.48	.45
Relational identity				
Mean	4.25[a]	4.14[a]	3.91[b]	4.17[a]
SD	.58	.69	.62	.47
Social identity				
Mean	3.20[a]	3.15[a]	2.89[b]	3.60[c]
SD	.62	.69	.72	.63
Collective identity				
Mean	3.02[a]	2.73[b]	2.92[a,b]	3.76[c]
SD	.68	.79	.67	.68

Note. For each construct, means with different superscripts are significantly different in the between-culture comparisons ($p < .05$).

the similar importance of Personal and Relational Identities in this study may not be inconsistent with the individual–self-primacy hypothesis.[7]

While the test of the individual–self-primacy hypothesis involved within-culture comparisons of AIQ-IV scores, the test of cultural psychology hypotheses required between-culture comparisions. We conducted a multivariate analysis of variance with culture and gender as independent variables and the four aspects of identity as dependent variables. The main effects for culture (Wilks' $\Lambda = .61$, $F[12, 3196] = 55.43$, $p < .01$, $\eta^2 = .15$) and gender (Wilks' $\Lambda = .96$, $F[4, 1208] = 11.54$, $p < .01$, $\eta^2 = .04$) were statistically significant, but the interaction effect was not (Wilks' $\Lambda = .98$, $F[12, 3196] = 1.74$, $p > .05$). The gender effects were modest in size, with women averaging higher than men in Personal Identity ($\eta^2 = .03$) and Relational Identity ($\eta^2 = .03$; $p < .01$). Cultural psychology hypotheses were not supported because (a) the two individualistic cultures did not average higher than the two collectivistic cultures on the Personal Identity scale; indeed, the Mexican sample averaged significantly higher than the other three cultural groups in follow-up Tukey tests ($p < .01$); and (b) only the Filipino sample, and not the Mexican sample, averaged higher than the two individualistic cultures in Social and Collective Identities. For the Relational Identity scale, the Mexicans averaged significantly lower than the other three

[7] Details of the paired-sample *t*-tests were as follows: In the United States sample, all four scale means were significantly different from each other, with Relational Identity described as most important, followed by Personal Identity, Social Identity, and Collective Identity, in that order. In the Australian sample, the means for Personal and Relational Identity were not significantly different, both were significantly higher than the Social Identity mean, which, in turn, was significantly higher than the Collective Identity mean. In the Mexican sample, Personal Identity was significantly more important than Relational Identity, and both were significantly higher than Social and Collective Identity, which were not significantly different from each other. In the Philippine sample, Personal and Relational Identity were not significantly different from each other, both were significantly more important than Collective Identity, which was, in turn, significantly more important than Social Identity.

Table 6
Scale intercorrelations for Aspects of Identity Questionnaire (AIQ-IV) in four cultures

Scale	Relational identity	Social identity	Collective identity
United States ($n = 395$)			
Personal identity	.56**	.27**	.35**
Relational identity		.27**	.34**
Social identity			.25**
Australia ($n = 112$)			
Personal identity	.57**	.42**	.36**
Relational identity		.32**	.13
Social identity			.41**
Mexico ($n = 379$)			
Personal identity	.63**	.45**	.44**
Relational identity		.50**	.45**
Social identity			.41**
Philippines ($n = 333$)			
Personal identity	.72**	.44**	.49**
Relational identity		.37**	.42**
Social identity			.44**

** $p < .01$.

cultural groups, who did not differ significantly from each other. As in the Mexican TST and WAY results, the Mexican AIQ-IV scores were not consistent with expectations for a collectivistic culture, while the Filipino results (i.e., their higher Social and Collective Identity scores) were partially supportive of expectations.

4.3. Predictive utility of the explanatory variables

Drawing on cultural psychology theory, we predicted that explanatory variables associated with individualism (i.e., independent self-construals, implicit trait beliefs) would predict self-descriptions in terms of personal attributes, including traits. In contrast, explanatory variables linked in theory to collectivism (i.e., interdependent self-construals, implicit contextual beliefs) would predict self-descriptions in terms of social and collective attributes and identities. To test these predictions, we conducted hierarchical multiple regressions in which TST and WAY scores for total personal attributes, pure traits, and social identities (arcsine-transformed proportion scores) and the four identity scores from the AIQ-IV were predicted by the self-construal and implicit beliefs variables.

In each hierarchical regression the hypothesized predictors (e.g., the individualistic variables for personal attribute responses) were entered in Step 1 and the remaining predictors were added in Step 2. For example, in predicting TST scores for personal attributes, the two individualistic variables were entered in Step 1 and the two collectivistic variables were added in Step 2. In this example, the β coefficients and ΔR^2 values in Step 1 test whether the individualistic variables significantly predict personal attribute responses, while the Step 2 results indicate whether they continue to do in the context of the collectivistic variables. The maximum correlation between any two predictors ranged from .26 to .47 across the four cultures and inspection of the collinearity statistics in each culture indicated no

significant problems with multicollinearity (e.g., variance inflation factors [VIF] ranged from 1.12 to 1.44 across the four cultures).

Inspection of the hierarchical regression results for the TST and WAY revealed that the individualistic and collectivistic explanatory variables were poor predictors of the proportions of personal attributes, pure traits, and social attribute responses elicited by these two instruments. There were only a few significant β coefficients, perhaps due to chance, and no consistent or strong prediction patterns. The results for the AIQ-IV were more positive, probably because the AIQ-IV and SCS share a similar structured method of assessment. Table 7 shows the AIQ-IV results for each culture. Consistent with cultural psychology expectations, independent self-construals were associated with greater importance of personal identity in all four cultures and interdependent self-construals were generally associated with greater importance of social and collective identity (the Step 1 β coefficients were at least marginally significant in the Mexican and Filipino samples). Interestingly, relational identity was more consistently and strongly predicted by independent self-construals than by interdependent self-construals, again suggesting that the importance of relational identity is more associated with the independent or personal self than the collective self.

4.4. Follow-up analyses

4.4.1. Autonomous versus social responses

In our primary analyses of the TST and WAY, we did not differentiate between autonomous and social responses in the relevant personal attribute categories (i.e., preferences, aspirations, activities, attitudes, competencies, and emotional states), because coder agreement was not sufficiently high for this distinction across all responses. Like previous researchers, we treated the responses in these categories as personal attribute or idiocentric responses, because they refer to the individual's personal preferences, goals, and so forth, rather than their social identities or group memberships.

Although some responses were difficult to code as definitively autonomous, social, or indeterminant, the coders exhibited consensus (i.e., at least 2 of 3 judges in the Philippines; at least 3 of 4 judges in the other three cultures) for the majority of these responses. In a follow-up analysis, we compared the ratio of consensus autonomous and social responses given in the four cultures to explore whether autonomous responses might be more prevalent in individualistic cultures and social responses more prevalent in collectivistic cultures. For the TST, the ratio of autonomous to social responses across all relevant categories was approximately 3:1 in the American, Australian, and Philippine samples, with a higher ratio ($4\frac{1}{2}$:1) in the Mexican sample. For the self-descriptive narratives (WAY), the ratio of autonomous to social responses was approximately 2:1 in the American, Australian, and Philippine samples, with the Mexican sample again exhibiting a higher ratio ($3\frac{1}{2}$:1). In general, this pattern held up well within the individual response categories for which the autonomous-social distinction was made (i.e., preferences, aspirations, etc.). Thus, the autonomous-social distinction was not systematically associated with the individualism–collectivism distinction.

4.4.2. Cultural differences in the specific traits attributed to self

In our primary results, traits were very salient aspects of self-concept in all four cultures, at least when the TST method was used. Therefore, we conducted a second

Table 7
Results of hierarchical regression analyses predicting AIQ-IV aspects of identity scores from self-construals and implicit beliefs

Criteria/Predictors	United States				Australians				Mexicans				Filipinos			
	β		ΔR^2		β		ΔR^2		β		ΔR^2		β		ΔR^2	
	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
Personal identity			.13**	.02			.05	.02			.06**	.03			.18**	.01
Independent	.31**	.33**			.22*	.24*			.24**	.21*			.43**	.39**		
Trait beliefs	.12	.16*			−.03	−.07			.02	−.01			−.02	−.05		
Interdependent		−.13				.14				.16*				.09		
Contextual beliefs		.06				−.02				.06				.05		
Relational identity			.02	.05*			.04	.07*			.05*	.05*			.10**	.05*
Interdependent	.13	.06			−.18	.17			.13	.07			.30**	.22**		
Contextual beliefs	.04	.04			−.09	−.10			.17*	.12			.04	.04		
Independent		.19*				.22*				.20*				.27**		
Trait beliefs		.08				.13				.09				−.13		
Social identity			.06**	.03			.08*	.00			.03	.02			.04	.11**
Interdependent	.22**	.17*			.27**	.29**			.15	.14			.16	.03		
Contextual beliefs	.06	.09			−.09	−.10			.09	.05			.05	.03		
Independent		.03				.06				.14				.40**		
Trait beliefs		.17*				−.03				−.03				−.11		
Collective identity			.04*	.01			.07*	.01			.05*	.01			.04	.04
Interdependent	.18*	.15			.22*	.19			.22**	.19*			.17	.09		
Contextual beliefs	.07	.07			.12	.14			.00	.01			.04	.02		
Independent		.10				−.04				−.01				.24*		
Trait beliefs		.04				.08				.11				−.07		

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

follow-up analysis to explore whether the cultures differed not in the overall "traitedness" of self-concepts, but in the specific traits viewed as self-descriptive. To make the task manageable, we focused on the first trait response made by each respondent to the TST, the open-ended method that elicited the most trait responses. We reasoned that respondents' first trait response would be among the most salient or accessible in his or her self-concept. Several theorists have proposed that agentic traits are internalized or valued more in individualistic cultures, whereas communal traits are internalized more in collectivistic cultures (Kurman, 2001; Paulhus & John, 1998; Sedikides, Gaertner, & Toguchi, 2003). Indeed, a recent meta-analysis of cultural differences in self-enhancement tendencies by Sedikides, Gaertner, and Vevea (2005) supports this view. Therefore, we hypothesized that participants in the two individualistic cultures would describe themselves in terms of agentic traits more than communal traits, whereas participants in the two collectivistic cultures would exhibit the opposite pattern.

We defined agentic traits as traits that refer to personal effectiveness and social dominance (Sedikides et al., 2003) and communal traits as traits that refer to concern with social connection and harmony and the willingness to be a contributing member of the group (Kurman, 2001; Sedikides et al., 2003). Four judges were also given examples of prototypical agentic (e.g., independent, assertive, competent) and communal (e.g., cooperative, loyal, conforming) traits, drawing on previous studies that have made this distinction. For each language, a native speaking judge rated the first trait mentioned by each participant on a 9-point scale, indicating an extremely good (1), very good (2), good (3), or fair (4) example of an agentic trait; not an example of either an agentic or communal trait (5); or fair (6), good (7), very good (8) or extremely good (9) example of a communal trait. Ratings were obtained for each trait (or its equivalent translation in the other languages) by at least three of the four raters (some traits were not mentioned in all four cultures). Traits with mean ratings of 3 or lower were classified as agentic and traits with mean ratings of 7 or higher were classified as communal. In this manner, from 45.1% (Mexico) to 59.0% (United States) of the trait terms were classified as prototypical agentic or communal traits. We found that agentic traits were more frequently mentioned than communal traits in the American (37.1% vs. 21.9%), Australian (30.6% vs. 18.9%), and Mexican (31.3% vs. 13.8%) samples. In contrast, agentic traits were infrequently used in the Philippine sample (13.8%) relative to the proportion of communal traits (33.3%) (overall χ^2 [3] = 26.97, $p < .01$). These results suggest that people in different cultures may vary less in the overall traitedness of their self-concepts, than in the specific traits they consider self-descriptive.[8]

[8] There is no a priori reason to expect that participants whose first trait response was agentic versus communal would differ in their implicit trait or contextual beliefs. However, we might expect independent self-construals to be associated with agentic self-descriptions and interdependent self-construals to be associated with communal self-descriptions. In all four cultures, we did find that participants who listed an agentic trait as their first trait response averaged higher in independent self-construals than respondents who gave a communal trait as their first trait response. Also, respondents who first gave a communal trait response averaged either higher (in Australia and the Philippines) or the same (in the United States and Mexico) in interdependent self-construals than respondents who gave an agentic response first. Given the limited number of agentic and communal responses available in our follow-up analysis, however, these mean differences were not statistically significant.

5. Discussion

We tested three theoretical perspectives on cultural universals and differences in self-concept content, while addressing several limitations of previous studies in this area. Strengths of the study included (a) the sampling of more than one individualistic and collectivistic culture, including collectivistic cultures outside East Asia; (b) systematic comparisons of three methods of assessing self-concept or identity; (c) explicit tests of cross-cultural measurement equivalence; and (d) direct measurement of hypothesized explanatory variables.

5.1. Trait psychology perspectives

There was clear support for trait psychology perspectives in the study because participants in all four cultures described themselves in terms of pure traits with considerable frequency, at least with the sentence completion task (TST). The TST clearly elicited trait responses more readily than did the open-ended self-descriptive narratives (WAY). However, this does not negate the finding that respondents in all four cultures could readily describe themselves in terms of traits. If trait attributes were not salient or chronically accessible for individuals in all four cultures, it is unlikely that they would have been generated with such frequency in the sentence completion responses (TST). These results are consistent with a realistic and universal perspective on traits, which proposes that traits are real and that individuals in all cultures incorporate traits as an aspect of self-concept (Baron & Misovich, 1993; Funder, 1995; McCrae, 2000). The primary unexplained anomaly in previous studies was the apparent absence of pure trait responses in the Asian Indian sample investigated by Dhawan et al. (1995). However, Lalljee and Angelova (1995) found that Asian Indians do use pure trait descriptors relatively frequently (.31) in self and other descriptions.

5.2. Individual–self-primacy hypothesis

Support for the individual–self-primacy hypothesis (Gaertner et al., 2002) was also strong. To infer the motivational primacy of the individual self, Gaertner et al. (2002) have primarily drawn on studies that investigated the impact of threat and enhancement on the individual and collective self. However, as we did in the present study, Gaertner et al. (1999, Study 4) have also used the greater spontaneous frequency of mention of individual over collective attributes in self-descriptions to support the individual–self-primacy hypothesis. In the present study, participants in all four cultures mentioned personal attributes much more frequently than social attributes with both the TST and WAY and participants rated aspects of personal identity to be more important for their sense of self than aspects of social or collective identity with the AIQ-IV. Evidence of individual–self-primacy across cultures is consistent with an evolutionary basis for the individual self (Gaertner et al., 2002; Sedikides & Skowronski, 1997).

The primary unresolved issue regarding the individual–self-primacy hypothesis is how to view relational identities. In the AIQ-IV results, relational identities were similar in importance to personal identities for participants in all four cultures, and always substantially greater in importance than social and collective identities. Furthermore, our correlational results, and those of some other researchers (Cheek et al., 2002; Kashima &

Hardie, 2000), suggest that relational identities are more strongly associated with personal identities than social or collective identities. If the salience of close interpersonal relationships presumes, or is correlated with, the existence of strong personal identities, then the comparable importance of personal and relational identities in each of the four cultures could be consistent with the individual–self-primacy hypothesis. Indeed, Sedikides and Gaertner (2001) suggested that the relational self may become important through psychological processes that reduce it to the level of the individual self. In any case, our results suggest a gap in the alternative hypotheses specified by Gaertner et al. (1999, 2002), because they do not explicitly address the relational self. To date, these researchers have investigated only the relative importance of the individual and collective self, and have defined the collective self only in terms of natural or experimental groups (e.g., sororities and fraternities, political groups), not close interpersonal dyads. The results of the present study highlight the importance of differentiating relational identity from social or collective identity (Cheek et al., 2002; Cross et al., 2000; Kashima & Hardie, 2000).

5.3. Cultural psychology perspectives

Overall, support for cultural psychology perspectives was limited. In open-ended self-descriptions, participants in the two individualistic cultures did not mention personal attributes more, or social identities less, than participants in collectivistic cultures. Furthermore, with the structured measure of identity (AIQ-IV), participants in the two individualistic cultures did not consistently rate personal identity as more important, and social and collective identity as less important, than participants in the two collectivistic cultures. Indeed, only two findings were consistent with cultural psychology hypotheses and both involved the structured inventory (AIQ-IV): (a) the Filipino sample (but not the Mexican sample) averaged higher than the two individualistic cultures in the importance of social and collective identities; and (b) independent and interdependent self-construals showed some ability to predict individual differences in the expected aspects of identity. Implicit trait and contextual theories did not predict self-concept attributes or identity. Apparently, belief in the stability and predictive value of traits is independent of the centrality or importance of different aspects of self-concept or identity.

We should note that some TST researchers have found better support for selected cultural psychology hypotheses than we did. However, these studies have generally involved participants in Japan, Korea, and India. Even then, although Americans have reported more pure traits than respondents in these Asian cultures, Asians more than Americans have tended to report alternative personal attributes such as preferences, aspirations, interests, and activities (Bond & Cheung, 1983; Cousins, 1989; Dhawan et al., 1995; Ip & Bond, 1995; Rhee et al., 1995). This indicates that Asians are not reticent to describe themselves in terms of personal attributes. Rather, these cultural differences seem to reflect differential tendencies to describe oneself in abstract terms (i.e., traits) versus more specific or concrete terms (i.e., preferences, aspirations, etc.) (Kanagawa et al., 2001; Rhee et al., 1995; Shweder & Bourne, 1984).

It is also important to note that the results for collectivistic cultures outside Asia (i.e., Greece, Bulgaria, Kenyan college students, Ethiopia, Turkey, Nepal, and Nigeria) have generally failed to support cultural psychology hypotheses (see Table 1). This suggests that cultural psychology hypotheses regarding the content of self-concepts might not apply to comparisons of individualistic and collectivistic cultures generally. This could explain why

our Mexican results largely failed to conform to expectations. Indeed, although Mexico is typically viewed as collectivistic, Malloy, Albright, Díaz-Loving, Dong, and Lee (2004) have argued that both Mexicans and Americans are socialized to evaluate people in terms of traits, a characteristic typically attributed to individualistic cultures. Similarly, Church, Katigbak, del Prado, Valdez-Medina et al. (2006) found that Filipinos, but not Mexicans, exhibited lower interobserver agreement in trait ratings than Americans and also raised the possibility that some cultural psychology hypotheses might apply only to selected Asian cultures, rather than to collectivistic cultures more generally. In addition, given the substantial method effects identified in this study, even those studies that supported cultural psychology hypotheses might not have done so had they used alternative methods of assessment.

5.4. Method effects

While we were able to address the validity of trait, individual–self-primacy, and cultural psychology hypotheses, also important was our finding of substantial method effects for some categories of self-concept content. At the level of individuals, there was modest to moderate convergence between the two open-ended measures, but poor convergence with the structured inventory scores. As suggested by Gaertner et al. (1999), the TST apparently elicits pure traits, presumably because the format solicits relatively succinct self-descriptions such as trait attributes. In contrast, the more discursive self-descriptive narratives (WAY) elicited more social identity responses, and especially more responses that refer to preferences, aspirations, activities, or attitudes.

Both the sentence completion task (TST) and self-descriptive narratives (WAY) can be viewed as "operant" measures, as defined by McClelland (1984), because the responses were generated spontaneously by the participants. In contrast, "respondent" measures such as the AIQ-IV provide specific structured stimuli (i.e., inventory items), to which participants respond. McClelland noted that people tend to avoid giving similar responses to operant measures in repeat testing. Thus, it is conceivable that such "alternation" behavior reduced the degree of convergence of the TST and WAY category scores. However, respondents filled out the self-concept measures at 1-week intervals to reduce alternation or carry-over effects. Therefore, we believe the differences between the TST and WAY results are more likely the result of format differences that solicit relatively succinct attributes (e.g., traits) versus more discursive self-descriptions (e.g., preferences, goals, activities), respectively. Indeed, McClelland argued that operant measures are more likely than respondent measures to be influenced by subtle differences in testing conditions.

McClelland's (1984) distinction between operant and respondent measures may also be relevant in explaining the lack of convergence between the two open-ended (operant) measures and the structured (respondent) inventory (AIQ-IV) at the level of individuals. In McClelland's view, operant and respondent measures assess theoretically distinct aspects of personality and should not be expected to correlate highly. Indeed, whereas the TST and self-descriptive narratives are advocated by researchers as a way to tap those aspects of self that are particularly salient or accessible in one's self-concept (Bond & Cheung, 1983; Kanagawa et al., 2001; McAdams et al., 1997), the structured inventory may assess more deliberate choices or values among a broader range of researcher-provided aspects of identity, some of which may not have been spontaneously salient or accessible to respondents. One might be inclined to attribute greater validity to the structured inventory results because they were better predicted by the self-construal scores. However, the self-construal

and AIQ-IV measures also shared a similar respondent method of assessment. An important implication of our results is that researchers who investigate self-concept or identity across cultures should apply multiple and diverse methods of assessment.

5.5. An alternative approach

One of our follow-up analyses suggested an alternative approach to the analysis of open-ended measures such as the TST and self-descriptive narratives. Rather than focusing on the *categories* of descriptors generated (e.g., pure traits, social roles), more consistent or valid cultural differences might be found by analyzing the specific traits, roles, or relationships mentioned. To conduct a comprehensive analysis of this type in our multinational data set would involve a major new undertaking. However, we illustrated the approach in our analysis of respondents' first TST trait responses. The different pattern of agentic versus communal traits in the Philippine sample, as compared to the other cultural samples, suggested that this approach might be promising. Some specific examples can also be cited. In their first trait responses to the TST, only Filipinos described themselves as "simple" (e.g., "a simple person"). For Filipinos, the term connotes a person who is modest, and not flamboyant or attention-seeking. In addition, whereas the trait term "intelligent" was mentioned with some frequency as the first TST trait descriptor by Americans, Australians, and Mexicans, no Filipinos used this trait descriptor first, perhaps another indication of modesty in their self-descriptions. In a similar approach, TST researchers in two previous studies tallied the specific Big Five traits mentioned as self-descriptive by their respondents, but did not find much support for their hypotheses regarding cultural differences (Ip & Bond, 1995; Watkins & Gerong, 1997). However, the Big Five domains might not be the best categories for capturing cultural differences in self-concept, because each of the Big Five domains contains both agentic and communal traits (Wiggins & Trapnell, 1996). The agentic-communal distinction might better differentiate individualistic and collectivistic cultures (e.g., see Sedikides et al., 2005).

5.6. Limitations

Some limitations of the study should be noted. We sampled university students in each culture, who may be more individualistic, or differ in other aspects of self-concept, than more representative samples in each culture, particularly in the two collectivistic cultures, Mexico and the Philippines. It would be useful to investigate how well our results generalize to less educated or more traditional (e.g., rural) samples. However, it should also be noted that most of the studies that have tested cultural psychology perspectives, including those that support cultural psychology hypotheses, have been conducted with college students (see Table 1).

We addressed a limitation of previous studies by sampling new individualistic and collectivistic cultures. In retrospect, however, it would also have been beneficial to include one or more East Asian cultures, in which support for cultural psychology hypotheses has been better. Had we found better support for cultural psychology perspectives in the East Asian cultures, it would have strengthened our proposal that cultural psychology hypotheses apply better to East Asian cultures than to collectivistic cultures more generally. However, even without inclusion of an East Asian sample, the results of the present

study and many other studies in Table 1 call into question the generalizability of cultural psychology hypotheses regarding the content of self-concepts.

We improved on previous cross-cultural studies of self-concept by incorporating three different methods of self-concept assessment. Nonetheless, all three methods involved self-report and our comparisons assumed a degree of comparability across cultures in participants' ability or willingness to provide accurate or genuine self-descriptions. However, given the anonymous nature of the data, the similar numbers and categories of responses given across cultures, and the reasonable cross-cultural equivalence of the inventory measures, we doubt that self-report biases were a significant problem. Finally, our results do not address cultural psychology hypotheses that involve other aspects of behavior, such as causal attributions (Norenzayan, Choi, & Nisbett, 2002), self-enhancement biases (Heine, 2005), and cross-role consistency of self-descriptions (Suh, 2002).

5.7. Final remarks

In summary, we successfully tested alternative theoretical perspectives on cultural universality versus differences in the content of self-concepts. We found support for trait perspectives and the individual–self-primacy hypothesis, while raising questions about the validity of cultural psychology perspectives on the content of self-concepts, particularly outside selected Asian cultures. We also found that the method of assessment affected the salience of some self-concept categories, which should limit researchers' confidence in the results of previous monomethod studies. Finally, a follow-up analysis suggested that cultures may differ less in the "traitedness" of self-concepts than in the specific traits (e.g., agentic vs. communal) viewed as self-descriptive. Additional multimethod studies in a larger variety of cultures are needed as researchers further test these alternative theoretical perspectives.

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