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Identity Exploration, Commitment, and Distress: A Cross National Investigation in China, Taiwan, Japan, and the United States

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Abstract This study tested cross cultural measurement equivalence of three identity constructs by testing the factor invariance among participants from four nations. Data from measures of identity exploration, commitment, and distress were collected from university students in Mainland China ($n = 85$), Taiwan ($n = 117$), Japan ($n = 117$), and the United States ($n = 223$) using the Ego Identity Process Questionnaire (EIPQ) and the Identity Distress Scale (IDS). Invariance was not found for the Exploration subscale of the EIPQ, and only partial invariance was found for the Commitment subscale. The Identity Distress Scale did demonstrate invariance across all four samples. Differences varied by degree of Westernization (globalization) of the cultures under study. The results question the cross cultural validity of the EIPQ, particularly the identity exploration subscale. Results are discussed in terms of avenues for improving the cross cultural validity of assessments of identity constructs and implications for interventions that target identity processes to promote positive youth development.

Keywords Identity · Asian · Cross-national

Asian Identity Formation: A Cross National Comparison of Identity Status and Distress in China, Taiwan, Japan, and the United States

Erikson (1963, 1968) suggested that the psychosocial stage of adolescence is typically precipitated by an existential crisis as the adolescent struggles with the question "Who am I?" Given the social-structural changes that took place during the latter half of the twentieth century, Arnett (2000) extended this "psychosocial moratorium" to include the early adult years. As young people explore their identities in various ways, they tend to

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gradually make commitments to certain roles, goals, and values that provide the core of their self-definition. And as Kroger (2007) makes clear, identity issues continue to play out in various ways throughout adulthood.

Marcia (1966) operationalized several of Erikson's concepts and came up with a four status paradigm to describe people's level of identity development. This status paradigm is based on two underlying developmental questions: Has the individual experienced an identity crisis? And, has the individual committed to a particular set of roles, goals, and values to define him/herself? In a normal trajectory, young people would begin without a firm sense of identity (the diffusion status—no crisis, no commitment). As they progress through adolescence and attempt to traverse into adulthood a crisis is typically provoked by things such as societal demands to choose a career and establish financial independence. The crisis often provokes a period of exploration of alternative identities (the moratorium status—crisis, but no commitment), which hopefully culminates with life choices being made and a firmer sense of identity being established (the achievement status—commitment following crisis resolution). However, some people never experience this identity crisis and rather than imparting on a road of active exploration, self-discovery, and decision making, they tend to internalize the expectations of authority figures within their culture, adopting the goals, roles, and beliefs about the world suggested by others, typically parental figures, and assumed without being questioned or examined, attained more from a process of modeling rather than through self-reflection (the foreclosure status—commitment without crisis).

Eastern Views of Identity

To date, more than 500 published studies have drawn on this identity status paradigm (Schwartz et al. 2006). However, it is not so clear as to how, or even whether, the statuses apply to the development of non-Westerners' sense of identity. Marcia's concept of identity status is squarely rooted in Western notions of separation and individuation. Cloninger (2008, p. 139) has gone as far as to assert that "Identity is inherently an individualistic issue." This is not to say that a sense of personal identity is established in isolation of others. In fact, Erikson emphasized the *psychosocial* nature of identity, which is constructed within a social context. Still, the affirmation of self and identity can be viewed in contrast to the denial of self that is often promoted in certain Buddhist and Hindu practices and teachings (Parnjpe 2010). Markus and Kitayama (1991, 2003) contrast two modes of being: the independent self-construal more common in Western cultures, and the interdependent self-construal that is more common in Eastern cultures. Accordingly, the purpose of the present study was to examine whether Western concepts used to describe the identity formation process are equally applicable in the United States and in East Asian cultural contexts.

Collectivistic versus individualistic orientations have been frequently used to categorize the difference between Eastern and Western views of the self (Oyserman et al. 2002). But this distinction is not just limited to Eastern countries. Other cultures, and in particular, ethnic minorities within the United States, are often found to have a more collectivistic value orientation as well (Varela et al. 2007). Individualistic identity exploration may be inhibited in such cultures, and thus the foreclosure identity status (i.e., uncritical acceptance of an identity that uncritically accepted or borrowed from others, as opposed to freely and thoughtfully chosen) might actually be more adaptive for members of these groups. In fact, Streitmatter (1988) found that minority-group individuals were more likely to be identity foreclosed, rather than achieved. Their minority sample was predominantly Black

and Hispanic, with few Native American and Asian participants. In her mixed sample of White, Black, Puerto Rican, and Filipino American participants, Rotheram-Borus (1989) found that Whites were more likely than other ethnic groups to have experienced an Eriksonian-type "identity crisis." In a more recent study, Lewis (2003) found in an urban college sample that Asian-Americans were more likely to be foreclosed and diffused compared to White Americans, African Americans, and Hispanic Americans. Ying and Lee (1999) discuss the difficult process of acculturation and identity development for Asian-Americans as they attempt to move from identity foreclosure to identity achievement, and from cultural separation to biculturalism. Tse (1999) also discusses the many difficulties that belonging to an ethnic minority group places on the identity development of Asian-Americans. A similar phenomenon may be going on worldwide, as Arnett (2002) suggests that globalization may cause identity confusion and distress in non-Westerners caught in a struggle between two cultures with competing value systems.

Although a number of studies have examined ethnic identity in minority groups, many of whom come from non-Western cultures, there is a dearth of research on identity formation among individuals living in Asian countries—and almost nothing published in English-language books or journals. Asian Americans, for example, may maintain many Eastern customs and values. However, the fact that they are living in a Western culture is likely to give them a different life experience compared to those who are raised in an Asian country. One of the few studies to pursue a cross-national study of Eastern versus Western identity (Rhee et al. 1995) found that Europeans used traits and emotional states more than Koreans to describe themselves, whereas Koreans were more likely to use specific attributes and global descriptions. Ohnishi et al. (2001) attempted to compare the factor structure of a North American measure of identity formation (the Objective Measure of Ego-Identity Status; Adams et al. 1989) between American and Japanese samples of adult women. They found that the factor structures were not equivalent, and suggested that American concepts of identity development may not be completely relevant to the Japanese context.

Clearly, there is need for more research in the area of identity development in non-Western cultures, not only to determine the extent to which identity development takes different forms across cultural contexts, but more importantly, to determine if these Western concepts are even relevant and adequate to describe the process of identity development in other cultures. Especially necessary is more cross-national research so that we do not limit our knowledge of other cultures to US minority groups who may be facing different pressures and circumstances than those in a non-Western majority culture. To our knowledge, studies have yet to systematically examine the cross cultural factorial invariance of identity constructs between Western and Asian cultures. Horn and McArdle (1992) have proposed that factorial invariance is an important part of establishing measurement invariance in construct validation. Mean level differences among individuals and groups of individuals cannot be unambiguously interpreted unless there is evidence that measurement of the construct is consistent across individuals and groups. Without evidence for invariance, we do not know whether mean differences represent actual differences, or whether measurement instrument is measuring different construct(s) across different groups of people (e.g., across age groups; see Dehon et al. 2005; or across cultures; see Schwartz et al. 2006). For example, differences in mean identity exploration, commitment, or identity distress levels may be due to cultural differences in endorsement of these constructs, or alternatively, they may emerge because the instrument is measuring different constructs across the different cultures sampled. Examining factorial invariance establishes that a set of items on a measure (e.g., EIPQ) works in the same way to produce the same

kind of measurement under different conditions (e.g., different samples, different cultural groups). Invariance testing therefore assures us that any mean differences obtained represent true differences in the endorsement of the same construct across cultural groups.

The current study compares data gathered from two identity surveys, one on identity status and another on identity distress, completed by college students in Japan, Taiwan, Mainland China, and the United States. The choice of these three Asian countries was based on their varying degrees of globalization (Westernization). Based on the literature review, it was hypothesized that the single factor structure of the EIPQ commitment scale and the IDS distress scale would show cultural invariance but that the EIPQ exploration scale would not show cultural invariance. Identity exploration represents an individualistic, self-directed approach to developing a sense of self (Luyckx et al. 2006)—and such an approach may not be compatible with collectivist, interdependent Asian cultural contexts. On the other hand, commitments are likely adaptive across contexts in that they establish a system of social roles that the person will fill (Stryker 2003). Identity-related distress may also generalize across cultures, because distress represents dissatisfaction or apprehension regarding the person's sense of self—regardless of how that self comes into being. Support for these hypotheses would be important in designing and adapting interventions to promote identity development in young people.

Method

Participants

College students in Japan ($n = 117$), Taiwan ($n = 117$), Mainland China ($n = 85$), and the United States ($n = 223$) participated in this study. The sample was 63% female. The mean age of the sample was 21 years old with a standard deviation of 3.8 years. There was no significant age difference between samples. There were significant differences in gender distribution by country, $\chi^2 (3, 542) = 108.4$, $p < .001$, with the Mainland Chinese sample containing the lowest proportion of females (21%) followed by Japan (56% female), Taiwan (62% female) and the United States (84% female).

Measures

Measures were first translated into Japanese and Mandarin Chinese, and then translated back into English by other research assistants who were unfamiliar with the original English measures. Comparisons between the original and the back-translated measures were then scrutinized, and further adjustments were made to the translated measures to preserve the original intended meaning as much as possible.

The *Ego Identity Process Questionnaire* (EIPQ; Balistreri et al. 1995), a 32-item survey, consists of two subscales: exploration and commitment. The questionnaire was used to assess exploration and commitment in the areas of occupation, political affiliation, religion, values, friends, gender roles, family, and dating relationships. Balistreri et al. (1995) reported internal consistency reliability of .80 for commitment and .86 for exploration and test–retest reliability of .90 for commitment and .86 for exploration. Factor analysis confirmed moderately high reliability and construct and concurrent validity. In the present study, the internal consistency (Cronbach's Alpha) for the Identity Exploration subscale was .74, and for the Identity Commitment subscale was .73. Balistreri et al. used median splits to form 4 identity status categories based on the two subscales: diffusion (low

exploration and low commitment), foreclosure (low exploration and high commitment), moratorium (high exploration and low commitment), and achievement (high exploration and high commitment).

The *Identity Distress Survey* (IDS; Berman et al. 2004) measures distress associated with unresolved identity issues. The survey was modeled on the DSM-III and III-R criteria for Identity Disorder, but can also be used to assess DSM IV criteria for Identity Problem. The survey asks participants to rate on a 5 point scale (Not at all, Mildly, Moderately, Severely, or Very Severely) the degree to which they have been recently upset, distressed, or worried over the following identity issues: long-term goals, career choice, friendships, sexual orientation and behavior, religion, values and beliefs, and group loyalties. Internal consistency has been reported as .84 with test–retest reliability of .82, and the survey has demonstrated convergent validity with other measures of identity development (Berman et al. 2004). Significant associations have also been found between identity distress and both internalizing and externalizing symptoms (Hernandez et al. 2006). The importance of identity distress is also supported by findings that identity distress predicted psychological symptom scores beyond identity status, and that identity status accounted for substantially less variance in psychological symptom severity when controlling for identity distress (Berman et al. 2009). The measure can be scored as a continuous symptom score measure (average distress ratings across domains listed above) or used to derive a DSM diagnosis (Identity Disorder or Identity Problem). In this study the internal consistency (Cronbach's Alpha) for identity distress was .75.

Procedure

All surveys were administered, along with a demographic questionnaire and an IRB approved informed consent form, in one class session and were returned in a subsequent class session. Participants answered the survey questions on scan sheets that were later read and compiled by a computer and scanner.

Contacts were made with universities in Japan, Taiwan, and China by international graduate students in the American university through friends and professors in their home country. The US sample participated in return for extra class credit, the Asian samples received no compensation. The return rate was 92%.

Results

Although there were gender differences in the compositions of the four samples, gender was not related to any of the identity variables discussed here, and nor were there any interactions found between gender and country on any of the identity variables. Gender was therefore not considered further in the analyses reported here.

The primary hypothesis, that psychometric invariance of the identity subscales underlying the identity statuses (identity exploration and identity commitment), would not be found in the Asian samples, was tested using structural equation modeling. Specifically, for each of the scales (EIPQ exploration, EIPQ commitment, and identity distress), we tested for invariance by comparing a single-factor model across the four national groups in the study. The fit of each model was evaluated using three indices (Kline 2006): the chi-square statistic, which tests the null hypothesis of perfect fit to the data; the comparative fit index (CFI), which compares the specified model to a null model with no paths or latent variables; and the root mean square error of approximation (RMSEA), which represents the

extent to which the covariance matrix implied by the model deviates from the covariance matrix observed in the data. Although there has been some controversy regarding acceptable values for these fit indices, some rules of thumb suggest that CFI ≥ .95 and RMSEA ≤ .05 represent excellent fit, and that CFI ≥ .90 and RMSEA ≤ .08 represent adequate fit (Quintana and Maxwell 1999). The 90% confidence interval for the RMSEA can also be computed and used to evaluate the extent to which the RMSEA index is likely to fall below .05 or .08. The chi-square test can be used in interpretation with fairly small samples and simple models, although a significant chi-square value is generally not regarded as sufficient grounds to reject a model (Steiger 2007).

We conducted separate one-factor invariance tests for each construct (exploration, commitment, and distress). Following Vandenberg and Lance (2000), we then estimated a configural invariance model and, if possible, a metric invariance model, for the items on each subscale (exploration, commitment, and distress). Configural invariance indicates that the same model provides adequate fit in all of the groups used in analysis, whereas metric invariance indicates that the factor loadings are equivalent across groups. Metric invariance can only be tested provided that the assumption of configural invariance is retained. In situations where configural invariance is not found, no further analyses can be conducted.

The assumption of metric invariance is tested by comparing two models: an unconstrained model where all factor loadings are free to vary across groups, and a constrained model where all factor loadings are set equal across groups. These two models are compared in terms of their chi-square values, their CFI values, and their values on the non-normed fit index (NNFI). Although the NNFI was not used in evaluating the fit of each model to the data, it is extremely sensitive to differences in fit between models (Little 1997). For the null hypothesis of metric invariance to be statistically rejected, two or more of the following criteria had to be met: $\Delta\chi^2$ significant at $p < .05$ (Byrne 2001); ΔCFI ≥ .01 (Cheung and Rensvold 2002); and ΔNNFI ≥ .02 (Vandenberg and Lance 2000).

Table 1 summarizes the fit of the EIPQ and IDS scoring algorithms in each of the four samples. The EIPQ exploration subscale provided a vastly different degree of fit to the data across the four countries. The subscale fit the American data well, $\chi^2(19) = 9.11$, $p = .97$; CFI = 1.00; RMSEA < .001 (90% CI = .000–.000). The fit was just below acceptable

Table 1 Fit statistics for EIPQ and IDS scoring algorithms by country

Model	United States	Japan	Mainland China	Taiwan
EIPQ exploration				
CFI	1.00	.86	.80	.67
RMSEA	.000	.080	.058	.076
90% CI (RMSEA)	.000–.000	.029–.124	.000–.117	.029–.120
EIPQ commitment				
CFI	1.00	.94	.88	.88
RMSEA	.000	.053	.071	.080
90% CI (RMSEA)	.000–.060	.000–.120	.000–.123	.023–.131
Identity distress				
CFI	1.00	.98	1.00	.97
RMSEA	.000	.050	.000	.072
90% CI (RMSEA)	.000–.052	.000–.107	.000–.076	.000–.123

Table 2 Means and standard deviations for identity variables by country

	China	Taiwan	Japan	United States
Identity distress	2.14 (.92)[1]	2.16 (.87)[2]	2.44 (1.10)	2.69 (1.05)[1,2]
Identity commitment	52.35 (7.57)[1,2]	47.27 (6.84)[1]	46.32 (7.28)[2]	55.25 (8.65)[1,2]

Means with the same superscript numbers differ significantly at $p < .05$

levels for the Japanese sample, χ^2 (19) = 32.99, $p = .02$; CFI = .86; RMSEA = .080 (90% CI = .029–.124), and for the Chinese sample, χ^2 (20) = 25.74, $p = .18$; CFI = .80; RMSEA = .058 (90% CI = .000–.117). The fit was poor for the Taiwanese sample, χ^2 (20) = 33.43, $p = .03$; CFI = .67; RMSEA = .076 (90% CI = .029–.120). This suggests that the concept of identity exploration may not be generalizable to Asian samples—especially to the Taiwanese sample—and, as a result, the assumption of configural invariance was rejected. Hence, no further analyses on identity exploration in any of the Asian samples could be conducted.

Analyses on the EIPQ commitment scale suggested that the scoring algorithm for this scale fit at least reasonably well across countries (CFI values ranged from .88 to 1.00; RMSEA values ranged from .000 to .080). However, the assumption of metric invariance was statistically rejected, $\Delta\chi^2$ (27) = 70.64, $p < .001$; ΔCFI = .080; ΔNNFI = .078. Following Byrne (2001), we returned to the fully unconstrained model and constrained one factor loading at a time to identify the source(s) of the noninvariance. These analyses indicated that five of the eight factor loadings were equivalent across groups, suggesting that the assumption of *partial* metric invariance could be retained. The commitment domains for which metric invariance could be assumed were religion, occupation, dating, gender roles, and family. Invariance could not be assumed for politics, values, and friendships.

The Identity Distress Scale (IDS) fit well in all four countries (CFI values ranged from .97 to 1.00; RMSEA values ranged from .001 to .072). Moreover, the assumption of metric invariance was retained for identity distress, $\Delta\chi^2$ (27) = 39.32, $p = .06$; ΔCFI < .001; ΔNNFI < .001.

Mean comparisons were conducted with regard to the constructs that showed evidence of invariance, i.e., identity commitment and identity distress. We first compared the three Asian samples, as a group, against the American sample, and then we conducted comparisons among the four samples individually. The Asian group scored significantly lower than the American group on both identity commitment ($t = -9.70$, $p < .001$) and identity distress ($t = -4.88$, $p < .001$). Subsequent analyses by the different countries with one-way analyses of variance (ANOVA) yielded significant differences between countries on identity commitment (F [3, 538] = 45.4, $p < .001$), and identity distress (F [3, 538] = 9.9, $p < .001$). Scheffé post hoc analyses indicated specific differences among countries, with Americans and Japanese scoring significantly higher than the Chinese and the Taiwanese. For identity distress, only the Americans scored significantly higher than the Chinese and Taiwanese (who were not significantly different from each other), with the Japanese scoring in the middle and not significantly different from any of the other groups (see Table 2).

Discussion

Results suggest invariance for identity distress with the IDS, some evidence for invariance in EIPQ commitment but no evidence for factor invariance of the Exploration subscale of

the EIPQ. The Identity Distress Scale did demonstrate invariance across all four samples, suggesting that the areas in which young people might be distressed about their identities may be consistent across American and Asian young adults. The results question the cross cultural validity of the EIPQ, particularly the identity exploration subscale Although the identity status model appears to generalize across Western nations (e.g., Schwartz et al. 2006), the model (especially the focus on exploration) did not fully generalize to Eastern cultural contexts. In addition, the present study also found that Asians were significantly lower on commitment and identity distress than Americans.

To explain these results, four hypotheses for further study are suggested. First, the results suggest that Western conceptions of how identity is conceived and measured may not apply in non-Western cultures. For instance, it is possible that self-identity in Asians is not so much forged through a process that entails crisis, exploration, self-discovery, and commitment. Rather, individual identity is accepted as being part of the collective (Markus and Kitayama 1991), perhaps resulting in lower levels of distress and commitment compared to Americans. Thus, although the normal path of identity development in Western industrialized mainstream society may be to explore and seek out a personal sense of identity, in Asian societies, one's sense of identity may come more from group membership (e.g., family, community, country) and may have more interpersonal significance (Cross et al. 2003). Identity in these countries may be more often simply accepted or not even particularly questioned, as opposed to the Western notion of identity achievement. Hence, the Eriksonian concept of identity is based on an individualistic notion of personal identity, whereas Asian cultures may promote a more collectivistic view of interpersonal identity (Yeh and Huang 1996).

It might also be hypothesized that there are differences in the particular domains of identity that are most salient between cultures. For instance, it is possible that the particular domains of identity (e.g., political affiliation, gender roles) surveyed on the measures used in this study may not be the most salient domains for people in other cultures, and that there are many different ways one can define identity. Zhou et al. (2008) used a modified measure of the EIPQ which was based on an open-ended survey and individual interviews, and included three domains: personal internal area (self identity, career, academics, lifestyle), personal social area (friendship, love, family, entertainment), and social area (morality and religion). In this study, the identity commitment domains of politics and values did not hold up across samples, suggesting that these may have less relevance in some Asian cultures. In particular, the lack of political choices in Mainland China might have exerted a heavy influence on the data. In a collectivistic society, one would expect more agreement on values as well, which might explain the lack of invariance in this domain.

A third hypothesis is that the socially and developmentally prescribed timeline for making identity-relevant life decisions may be different in different countries. We know that, in Western cultural contexts, many identity commitments (e.g., marriage, career choice) are increasingly being made at later ages. Hence this psychosocial crisis of identity confusion that Erikson cited as an adolescent issue is often not completely resolved until the mid to late twenties (Côté and Allahar 1994; Meilman 1979). In fact, this trend of later identity commitments has resulted in some researchers identifying a new, culturally defined developmental period, often referred to as "emerging adulthood" (Arnett 2000). Although this trend of putting off identity commitments until one is older is well documented in the United States, it is possible that this is also happening, and perhaps to a greater extent, in other countries. This leads us to the fourth and related possibility.

The fourth possible explanation of these results is the idea that globalization has changed the way individuals in countries with clashing values develop identity. Although Arnett (2002) has suggested that globalization may cause identity confusion in non-Westerners caught in a struggle between two cultures with competing value systems, the present results seem to support the opposing idea that the pressure to achieve in Western society places people at greater risk for identity distress when social expectations of certain identity mile-markers are not met in a timely fashion, whereas in other countries that are struggling with clashing values caused by globalization, expectations are less certain, and hence, identity related social pressures are less clear, resulting in lower rates of identity achievement and less distress over not having "achieved" a sense of identity.

Any of these four possibilities may individually, or in combination, help to explain the present results. Further cross-cultural and cross-national investigations are needed to better determine which among these hypotheses are best able to explain the differences in identity formation and identity distress. Answers to these questions might help us to better assess if and how culture, and changes in culture, are working to enhance or inhibit identity development, and equally, if not more, importantly, whether traditional Western concepts of identity formation are appropriate for categorizing, labeling, and defining identity in non-Western cultures.

These findings also have implications for interventions that are specifically aimed at helping young people find a sense of direction and purpose. Ferrer-Wreder et al. (2003) have suggested that many intervention programs that seek to promote youth development target various constructs that could be subsumed under the broadband term of identity development. A number of these programs specifically focus on increasing identity exploration (see for example, Berman et al. 2008; Ferrer-Wreder et al. 2002; Kurtines et al. 2008a, b; Schwartz et al. 2005). The current findings indicate a need to look more carefully whether the techniques and goals of such interventions are consistent with the developmental norms and processes that might predominate in other cultural contexts.

Although the study contributes to an understanding of the phenomena of identity development in varying cultural contexts, there are several limitations. First, this study is limited by the cross-sectional nature of the investigation and thus longitudinal research is needed to clarify the developmental phenomenology of identity development and its associations with identity distress. Second, because self-report measures were employed there is the potential issue of source variance. Future research may benefit from employing interview schedules of identity variables. Third, the analyses are correlational so no causal assumptions can be inferred, and finally, the samples were chosen out of convenience and may vary in ways not measured in this study (e.g., SES, major course of study, marital status). Thus, future studies should be undertaken to determine if this findings can be replicated while addressing these various concerns.

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