

The Cultural Internalization Scale: Assessing internal and external reasons for endorsing one's cultural identity

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Abstract

The constructs of 'culture' and 'cultural identity' have long been recognized by researchers as important, but traditionally have been treated as static properties rather than in terms of their degree and quality of internalization. Adopting the more dynamic view of internalization proposed by Vygotsky and by self-determination theory (SDT), two studies tested the measurement properties of the Cultural Internalization Scale (CIS), which assesses internal versus external reasons for endorsing one's ambient culture. In a U.S. sample, Study 1 (N = 149) provided evidence for the reliability, factor structure, and predictive validity of the scale. Study 2 replicated these results in a second U.S. sample (N = 205) and in a sample from China (N = 245). In addition, Study 2 demonstrated that greater internalization of one's ambient culture was associated with satisfaction of the basic psychological needs for competence, relatedness, and autonomy. Discussion focuses on the potential applications of the CIS in research on socialization, the cultural adjustment of immigrants and sojourners, and implications for students in higher education settings.

Keywords: culture; cultural identity; internalization; self-determination theory; socialization; immigrant adjustment; higher education; way of life.

Шкала культурной интернализации: измерение внутренних и внешних причин для одобрения своей культурной идентичности

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Аннотация

Конструкты «культуры» и «культурной идентичности» издавна признавались исследователями важными, но традиционно рассматривались с точки зрения их статических характеристик, а не степени и качества интернализации. В соответствии с более динамичным взглядом на интернализацию, предлагаемым Выготским и теорией самодетерминации (SDT), было проведено два исследования с целью проверки измерительных свойств шкалы культурной интернализации (ШКИ). Шкала оценивает внутренние и внешние причины одобрения человеком окружающей его культуры. Первое исследование было проведено в США и получило доказательства надежности, факторной структуры и прогностической валидности шкалы. Второе исследование позволило воспроизвести полученные результаты на второй выборке из США и на выборке из Китая. Кроме того, второе исследование показало, что большая интернализация окружающей культуры связана с удовлетворением основных психологических потребностей в компетентности, связанности и автономии. Обсуждение результатов фоку-

сируется на потенциальном применении методики ШКИ в исследованиях, связанных с вопросами социализации, культурной адаптации иммигрантов и приезжих, а также студентов высших учебных заведений..

Ключевые слова: культура, интернализация, теория самодетерминации, социализация, адаптация иммигрантов, высшее образование, образ жизни.

Cultural identity is, arguably, an important aspect of the self that develops over time as one becomes a member of a cultural group. The degree to which one freely internalizes one's cultural identity depends, according to some theories, on nutrients provided by the immediate social environment. Culture is learned, and is acquired by individuals through the developmental process of socialization; indeed, culture plays a central role in such influential theories as Vygotsky's cultural-historical theory of development (Vygotsky, 1977). The outcomes of socialization, however, are not necessarily homogeneous: people can, presumably, internalize the values and norms of their culture to differing degrees and in different ways. These differences in internalization should be expected to be meaningfully related to the quality of one's experience in the culture, and to other important outcomes such as well-being and adjustment (Howard, Gagne, & Bureau, 2017; Ryan & Deci, 2000; 2002). Yet only recently have differences in the quality of cultural internalization begun to come into focus. The present paper reports the development and validation of the Cultural Internalization Scale, which assesses the internal and external reasons for which a person embraces the ambient culture. Also tested is the relation of these different types of internalization to various adjustment outcomes and to satisfaction of basic psychological needs within one's relationships.

Self-determination theory (SDT) addresses the ways in which the norms, values, regulations, and behavioral practices embodied within a given culture can be internalized by the members of that culture (Chirkov, Ryan, Kim, & Kaplan, 2003; Deci & Ryan, 2000; Ryan & Deci, 2000; Ryan & Deci, 2002; Ryan & Deci, 2017). Most theories of internalization (e.g., Bandura, 1996) consider the phenomenon to be dichotomous: internalization either has taken place, or it has not. For SDT, however, internalization is continuous and is a matter not only of degree, but of quality. Specifically, SDT suggests that social norms can be embraced for reasons that are more external (*heteronomous*) or more internal (*autonomous*). When internalization is heteronomous, people may take in a value or regulation because they feel pressured or coerced into doing so, or because they would feel guilt, shame, or a loss of self-esteem for failing to do so. When internalization is autonomous, in contrast, people take in the value or regulation because it is personally important and meaningful to them, because it is consistent with their other values and their sense of self, or because it is experienced as enjoyable or even fun. SDT suggests there is in fact a continuum of internalization which reflects the relative autonomy with which a norm or value, including one's cultural identity, has been taken into and made part of the self (Ryan & Deci, 2000). Prior research has found that more autonomous internalization is associated with better adjustment and well-being (see, e.g., Ryan & Deci, 2017; 2002; 2000).

Internalization and Basic Psychological Needs

As noted, internalization is not categorical, but continuous. Furthermore, internalization is not static, but dynamic. The degree to which a given belief or behavior has been internalized (in the SDT sense) may change from more heteronomous to more autonomous, or vice-versa. SDT suggests that social environments can either facilitate or hinder the process of internalization. This happens when they provide, or fail to provide, opportunities to satisfy three basic psychological needs that are rooted in the nature of the human organism: relatedness, competence, and autonomy (Ryan & Deci, 2000; 2002).

Need satisfaction activates the organismic, developmental process by which experiences are organized and integrated, leading to greater internalization (Ryan & Deci, 2017). When social contexts fail to provide opportunities for need satisfaction, the process of internalization is forestalled, and regulation for norms and behavior may remain at the external or heteronomous end of the SDT continuum. The three needs proposed by SDT are thought to be universal, that is, to apply across genders, age groups, and cultures (Lynch, 2004; Yu, Levesque-Bristol, & Maeda, 2018).

Cultural Internalization

The SDT continuum of internalization was initially applied to the study of behavior in various domains, such as parenting (Grolnick & Ryan, 1989) and achievement (Ryan & Connell, 1989). Empirical work has provided evidence that the continuum applies to cultural values, as well. In an initial study, Chirkov and colleagues (2003) tested the hypotheses that cultural practices are internalized by people from different cultures, and that the relative autonomy with which these practices are internalized predicts well-being. Adapting Triandis' (1995) horizontal/vertical and individualism/collectivism dimensions, they demonstrated that cultural practices were indeed differently internalized among participants from four cultures (South Korea, Turkey, Russia, and the United States). That is, they could be either autonomously or heteronomously internalized, with horizontal practices on average being internalized more autonomously than vertical ones. In addition, it was found that in all four countries, regardless of the cultural dimension in question, more autonomous internalization was associated with greater global well-being.

Building on this line of research, Chirkov, Ryan, and Willness (2005) tested whether the same model would apply in samples from Canada and Brazil. Using the horizontal/vertical and individualism/collectivism dimensions of Triandis (1995), they found that more autonomous internalization of cultural practices was associated with well-being in both samples. In addition, as predicted by SDT they found that support for basic psychological needs from parents and teachers (combined) was associated with autonomous internalization of horizontal cultural practices as well as with what they called 'culture fit,' that is, the sense of connectedness to the values, norms and traditions of one's culture.

Downie, Koestner, ElGeledi, and Cree (2004) investigated tricultural individuals in Canada from an SDT perspective. Their approach to measuring internalization was based on that reported by Chirkov and colleagues (2003), but they assessed each of the three cultures being investigated (heritage, English Canadian, French Canadian) rather than the Triandis (1995) dimensions. They found that greater internalization of heritage as well as English and French Canadian cultures was associated with culture-specific positive affect.

Both the studies by Chirkov and colleagues (2003, 2005) and Downie and colleagues (2004) investigated the extent to which autonomous internalization of culture was associated with well-being. The former studies investigated internalization within distinct cultural groups living in their own native countries, while the latter considered internalization among multicultural individuals living within one specific national context. In addition, the method for assessing internalization differed somewhat across these studies. The Chirkov studies focused on internalization of culture construed according to the horizontal/vertical and individualism/collectivism dimensions suggested by Triandis (1995); in this approach, it is believed that these dimensions represent cultural syndromes according to which national cultures around the world may be categorized. The study by Downie and colleagues seems to have abandoned the four-fold dimensions of Triandis in favor of assessing internalization of cultural norms in more culture-specific ways, in terms of 'participating in the cultural traditions,' 'maintaining the cultural practices,'

and ‘believing in the specific cultural values’ of the relevant cultural group (heritage, English Canadian, or French Canadian). These differing approaches call attention to the importance of specifying what it is that is being internalized. In this light, we turn now to the issue of cultural identity.

What is Being Internalized: Cultural Identity

Research on the acculturation of immigrants and sojourners has focused on cultural identity, sometimes referred to as ethnic identity or as identification. ‘Identity’ and ‘identification’ are sometimes differentiated from each other. Oetting, Swaim, and Chiarella (1998), for example, suggested that cultural identity is a self-perception involving a “qualitative classification of membership” (p. 132), whereas cultural identification reflects “the extent to which individuals view themselves as involved with an identifiable group along with their investment in or stake in that particular culture” (p.132). Others, however, suggest that ‘cultural identity’ is the broader term that includes ‘cultural identification.’ Thus, for example, Jasinskaja-Lahti and Liebkind (1999) suggested that ‘identity’ refers not only to a cognitive, categorical labeling of oneself as a member of a particular group, but to an affective sense of belonging to that group. Cultural identity, in this sense, is thought to be dynamic, rather than static (Jasinskaja-Lahti & Liebkind, 1999), in that it can change over time, intensifying or diminishing in degree.

As noted, SDT suggests that the process of internalizing a cultural identity is a matter not just of degree, but also of quality, and that one’s cultural identity can be internalized for qualitatively different reasons, along a continuum of relative autonomy. The scale developed in the present studies tests this latter proposition.

The Present Studies

The present studies describe the development and validation of the Cultural Internalization Scale, which assesses both internal and external reasons for embracing one’s ambient culture or for adopting a particular cultural ‘identity,’ as that term is used by Jasinskaja-Lahti and Liebkind (1999). Importantly, the scale begins with a set of items that make the notion of ‘cultural identity’ salient to participants, before asking them to indicate the degree to which they have autonomously internalized that identity. The scale is not culture-specific, and can be adapted for use with people from any cultural group or heritage. Study 1 tested the initial psychometric properties of the scale in a college student sample from the United States. Study 2 replicated and extended these findings in college student samples from the United States and China.

Study 1

Method

Participants and Procedure

One hundred forty-nine undergraduate students (84% female; age: $M = 20.12$, $SD = 2.61$) at a private northeastern U.S. university completed measures in small groups (<15 students) in exchange for extra course credit.

Measures

Cultural Identity. Five items tapped the construct of cultural identity (i.e., the extent to which participants thought of themselves as ‘American’) in order to make the construct salient to participants. One item was adapted from Sayegh and Lasry’s (1993) measure of cultural identification (“Do you feel completely or not at all American?”), rated on a scale of 1 (Not at all) to 10 (Completely). Three items were adapted from Roccas’

(S. Roccas, personal communication, May, 2002) Identification with Society of Origin scale (“Being an American is an important part of my identity,” “When someone criticizes the Americans, it feels like a personal insult,” “When I talk about Americans, I usually say ‘we’ rather than ‘they’”); these items were rated on a scale of 1 (Strongly disagree) to 7 (Strongly agree). Finally, one item, rated on a scale of 1 (Not at all) to 4 (A lot), was adapted from Oetting, Swaim, and Chiarella’s (1998) measure of cultural identification (‘I live by or follow an American way of life’). The internal consistency reliability for these five items was $\alpha = .80$. Items were standardized and summed to form a measure of Cultural Identity (C-ID).

Cultural Internalization. Based on existing scales that assess internalization from the SDT perspective (Ryan & Connell, 1989; Williams, Grow, Freedman, Ryan, & Deci, 1996), eleven items were constructed to tap the degree of internalization of ‘American cultural identity.’ Four items were constructed to represent *internal motivation* (that is, the degree to which one embraces an American identity because it is personally important, reflects one’s personal values, or is enjoyable); seven items were constructed to represent *external motivation* (that is, the degree to which one embraces American identity because it is viewed as a way to achieve success, approval or acceptance from others). The eleven cultural internalization items were presented immediately after the last item of the Cultural Identity scale (that is, after the item, ‘I live by or follow an American way of life’), and were preceded by the stem, ‘To the extent that I live by or follow an American way of life, I do so because...’ (see Appendix).¹ Items were rated on a scale of 1 (Not at all) to 4 (A lot). Scores for internal reasons (C-IN) and external reasons (C-EX) were calculated as the mean of the items in the respective subscale. Psychometric properties are presented separately, below.

Well-being. In order to evaluate predictive evidence for the validity of the cultural internalization scale, three measures of well-being were included: the 10-item Rosenberg self-esteem scale (Rosenberg, 1965); the 5-item Satisfaction with life scale (Diener, Emmons, Larsen, & Griffin, 1985); and the 6-item Self-Report Depression Scale (Radloff, 1977). Self-esteem and life satisfaction were rated on a scale of 1 (Strongly disagree) to 5 (Strongly agree); participants rated how often over the past four weeks they had experienced the items tapping depressive symptoms on a scale of 1 (Not at all) to 5 (Very frequently). For the self-esteem, life satisfaction, and depression scales, Cronbach’s alphas were .87, .88, and .85, respectively.

Results

Psychometric Properties of the Cultural Internalization Scale

Internal consistency. To establish the reliability of the internal and external subscales (C-IN, C-EX), internal consistency was computed for each. Cronbach’s alpha for C-IN was .77; item-to-total correlations were acceptable, ranging from .56 to .62. For C-EX, $\alpha = .81$, with item-to-total correlations ranging from .48 to .64. Thus, the two Cultural Internalization subscales demonstrated adequate internal consistency.

Construct-related evidence for validity of the Cultural Internalization Scale: Intercorrelations and Measurement Properties. Construct-related evidence for validity was examined in several ways. As an initial test, correlations among the two Cultural Internalization subscales (C-IN, C-EX) and the Cultural Identity scale were explored. C-IN and C-EX were moderately associated with each other ($r = .35, p < .01$). In addition, both were associated with Cultural Identity (.66 for internal, .36 for external, $p < .01$). This provides initial evidence that the constructs of cultural identity as well as the two types of cultural internalization are related, yet separable.

To provide a stronger test of the distinctiveness of the internal (C-IN) and external (C-EX) subscales, a series of confirmatory factor analyses was conducted, including both subscales together with the Cultural Identity (C-ID) scale, to test whether a one-, two-, or three-factor solution would provide the best fit to the data. Specifically tested were a single-factor solution, (C-ID + C-IN + C-EX); three separate two-factor solutions, C-ID and (C-IN + C-EX), (C-ID + C-IN) and C-EX, and (C-ID + C-EX) and C-IN; and a three-factor solution, C-ID and C-IN and C-EX. For models with more than one factor, latent constructs were allowed to covary. Model fit was assessed using the CFI, IFI, TLI, and RMSEA indices. 'Best fit' was determined qualitatively, by comparing statistics for the models on these three indices (Byrne, 2001). The three-factor solution (see Figure 1) had the best overall fit (CFI = .931, IFI = .934, TLI = .899, and RMSEA = .064), and was accepted.

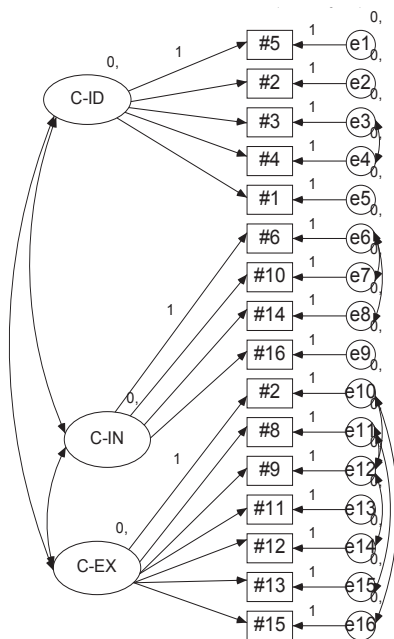


Figure 1. Final three-factor model (Study 1): C-ID + C-IN + C-EX.

Predictive Evidence for the Validity of the Cultural Internalization Subscales. In SDT, more highly internalized self-regulation is generally associated with better well-being outcomes, while more external self-regulation is linked with poorer outcomes (Ryan & Deci, 2017). Accordingly, well-being should relate positively with C-IN scores but negatively with C-EX scores on the Cultural Internalization scale. To test this prediction, scores on the C-IN and C-EX were correlated with the three well-being indicators. For the sake of comparison, scores on the Cultural Identity scale were also included in the analysis. Identifying with the ambient American culture (C-ID) was associated with higher self-esteem ($r = .17, p < .05$) and life satisfaction ($r = .18, p < .05$) but not with depression ($.00, p > .90$). Internal reasons for identifying with the ambient culture (C-IN) were also associated with self-esteem ($r = .17, p < .05$) and life satisfaction ($r = .21, p < .05$), but not depression ($r = .03, p > .70$). External reasons (C-EX), however, were associated with depression ($r = .24, p < .01$), marginally with self-esteem ($r = -.15, p < .08$), but not with life satisfaction ($r = -.09, p > .20$). Thus, although Cultural Identity and Internal

reasons were similarly related to well-being outcomes, they were clearly distinguishable from External reasons, in terms of their predictive validity. As hypothesized, Internal reasons for embracing one's culture were positively related, while External reasons were negatively related, with well-being.²

Brief Discussion

Study 1 demonstrated that the Internal and External subscales of the Cultural Internalization Scale were internally consistent, and it provided construct and predictive evidence for the scale's validity. The final, three-factor solution indicated that cultural internalization (C-IN, C-EX) was indeed distinct from cultural identity (C-ID), as suggested by SDT, with Internal reasons being associated with higher scores on measures of self-esteem and life satisfaction, while endorsing External reasons was associated with higher levels of depressive symptoms. Thus, as predicted, to the extent that one's cultural identity was more autonomously internalized, the better one's psychological well-being.

Study 1 tested the Cultural Internalization Scale (CIS) in a single sample from the United States. In order to test the scale's generalizability, Study 2 tested the CIS in a second U.S. sample as well as in a sample from China. Specifically, the study tested not only the reliability, factor structure, and predictive validity of the scale in these samples, but also its associations with independent and interdependent self-construals (Singelis, 1994). Lastly, Study 2 tested the SDT assumption that internalization is facilitated by satisfaction of basic psychological needs.

Study 2

Method

Participants and Procedure

Participants were 205 college students from a northeastern U.S. university (65.4% female; age: $M = 19.66$, $SD = 1.99$), and 245 from a university in the Shandong region in China (68.6% female; age: $M = 20.71$, $SD = 1.07$). Participants volunteered for the study, receiving course credit (U.S. sample) or a small monetary compensation (China sample). Participants completed measures in small groups (<15 students) over the course of two sessions, one week apart from each other.

Measure Translations

To ensure fidelity of measures, translation and back-translation were performed by persons highly fluent in English and Chinese. Discrepancies were discussed and resolved by the translators and the author.

Measures: Session 1

Cultural identity and cultural internalization. To measure cultural identity and internalization, participants responded to items from the same two-part scale used in Study 1. Items were worded so that participants responded with respect to their own country (e.g., for participants in China, 'America' and 'American' were replaced by 'China' and 'Chinese'). For the Cultural Identity scale, alphas were .82 and .67, for the U.S. and Chinese samples, respectively. Scale properties for the Cultural Internalization subscales are reported separately, below.

Independence versus interdependence. As another measure of cultural orientation, participants were administered Singelis' (1994) 24-item measure of *Independent* and *Interdependent self-construals* (12 items each; alphas, for U.S. and Chinese samples, respectively, were .64 and .56 for Independent and .61 and .67 for Interdependent self-construals). Self-construals reflect the extent to which priority is placed on the individual or the group within one's self-concept.

Well-being. Seven indicators assessed well-being: the Satisfaction with Life scale (Diener, et al., 1985; scale alpha: .84 for U.S., .72 for China), the Subjective Vitality scale (Ryan & Frederick, 1997; scale alpha: .89 for U.S., .66 for China), the Positive and Negative Affect Scale (PANAS; Watson, Clark, & Tellegen, 1988; scale alpha for PA: .87 for U.S., .82 for China; scale alpha for NA: .89 for U.S., .85 for China), 6 items from the CES-D (Radloff, 1977; scale alpha: .87 for U.S., .81 for China), 6 items from the State-Trait Anxiety scale (Gaudry, Vagg, & Spielberger, 1975; scale alpha: .85 for U.S., .73 for China), and physical symptoms (Emmons, 1991; scale alpha: .70 for U.S., .79 for China). Participants rated the items on a scale of 1 (Not at all) to 7 (Very much) in terms of the extent to which they had been experienced over the past month. A higher-order CFA supported two factors, with life satisfaction, vitality, and positive affect loading onto one factor (called *positive well-being*) and depressive symptoms, anxiety, negative affect, and physical symptoms loading onto another factor (called *negative well-being*). Scale scores were computed by averaging the respective items.

Measures: Session 2

Measures in Session 2 focused on within-person variations across six target relationships: Mother, Father, Best Friend, Romantic Partner, Roommate, and a self-selected Teacher (“please think about one of your current teachers, preferably the teacher with whom you currently have most contact”). Each relationship was presented in a separate section of the survey, and the order of presentation was counterbalanced across participants using a Latin square design.

Basic psychological need satisfaction. The Need Satisfaction in Relationships scale (La Guardia et al., 2000) includes three items each for autonomy, competence, and relatedness. Participants rated how well their basic needs were met within each relationship on a 7-point Likert scale. Sample items include “When I am with my mother, I feel loved and cared about” (relatedness), “When I am with my mother, I have a say in what happens and can voice my opinion” (autonomy), “When I am with my mother, I feel like a competent person” (competence). In line with La Guardia and Ryan (2003), a composite score was computed representing the three needs taken together (averaging across subscales). For the U.S. and Chinese samples, the composite Cronbach’s alphas for need satisfaction scores across the six relationships were .68 and .81, respectively.

Relationship-specific well-being. Some have suggested that well-being should be measured relationally in cross-cultural studies that involve samples from traditionally collectivist societies (e.g., Kitayama & Markus, 2000). Accordingly, four indicators were included to assess participants’ well-being and satisfaction within relationships. All measures were assessed within the six specified relationships noted above. The PANAS (Watson, et al., 1988) was included to assess positive and negative affect within relationships. For the U.S. sample, alphas ranged from .89 to .95 for positive affect and from .88 to .93 for negative affect; for the Chinese sample, these ranges were .75 to .84 and .84 to .91. Items were rated on a scale of 1 to 7. Scale scores were calculated as the mean of items.

The Subjective Vitality scale (Ryan & Frederick, 1997) was included as a measure of energy and ‘aliveness’ within relationships. For the U.S. sample, Cronbach’s alphas ranged from .92 to .96 across the six relationships, and from .70 to .80 for the Chinese sample. Items were rated on a scale of 1 to 7. Scale scores were calculated as the mean of items.

Lastly, a single item was included to assess how satisfied the participant was in each particular relationship. This item was rated on a likert-type scale of 1 (Not at all) to 7 (Very much).

For each relational well-being indicator, composite scores were created by averaging across relationships. For example, 'mean positive affect' represents the average level of positive affect, across all relationships. In this way, four relational well-being indicators were created: mean positive affect, mean negative affect, mean vitality, and mean satisfaction.

General Analytic Procedures

Construct comparability. Establishing the comparability of constructs when examining between-groups differences is a critical issue in cross-cultural research (Cheung & Rensvold, 2000; Little, Lindenberger, & Nesselroade, 1999). Following recommendations by Byrne (2001, 2002) and Little (1997), structural equation modeling was used to test for factorial invariance and measurement comparability across groups. Data for all scales demonstrated adequate fit, allowing for testing of hypotheses by correlational analysis.

Results

Psychometric properties of the Cultural Internalization scale

Internal consistency. Internal consistency was computed for both the internal (C-IN) and external (C-EX) subscales of the Cultural Internalization scale. For the United States sample, Cronbach's alpha was .81 for C-IN, with item-to-total correlations ranging from .55 to .74. For C-EX, alpha was .80, with item-to-total correlations ranging from .39 to .59.

For the China sample, the alpha for C-IN was .70, with item-to-total correlations from .47 to .51. The alpha for C-EX was .42; however, by removing item 12 ("...because it opens up many possibilities for me"), alpha was improved to .61, item-to-total correlations from .25 to .41.

Recalculating the C-EX alpha for the U.S. sample, based on the six-item scale (after removing one item), yielded an alpha of .79, item-to-total correlations from .42 to .59. Subsequent analyses used the revised 6-item scale for C-EX.

Construct-related evidence for validity of the Cultural Internalization Scale. Several approaches were used to explore the construct-related evidence for the Cultural Internalization Scale's validity. First, correlations between Cultural Internalization subscales and measures of Cultural Identity and cultural self-construals (independent, interdependent) were explored. Second, because self-determination theory suggests that internalization is facilitated by satisfaction of basic psychological needs, associations between need satisfaction and internal / external reasons were tested.

Correlational evidence. Intercorrelations among the five cultural variables were determined. Results are presented in Table 1.

Table 1. Intercorrelations among cultural variables

Variable	(1)	(2)	(3)	(4)	(5)
1. C- ID	1	.47**	.29**	.23**	.34**
2. C-IN	.63**	1	.44**	.13+	.32**
3. C-EX	.31**	.40**	1	.10	.24**
4. Indep-SC	-.06	.06	-.13+	1	.33**
5. Inter-SC	.22**	.18**	.26**	-.05	1

Note. Values below the diagonal are for the U.S. sample; values above the diagonal are for the China sample. C-ID = cultural identity. C-IN = internal reasons. C-EX = external reasons. Indep-SC = independent self-construal. Inter-SC = interdependent self-construal.

** $p < .01$ * $p < .05$ + $p < .08$

In both samples, internal and external reasons for embracing one's ambient culture were correlated with each other (.40 for the U.S., .44 in China, $p < .01$). As in Study 1, Cultural Identity was more strongly associated with internal reasons (.63 for the U.S., .47 for China, $p < .01$) than with external reasons (.31 for the U.S., .29 for China, $p < .01$). Thus, as in Study 1, correlational evidence supported the view that Cultural Identity and internal versus external reasons for endorsing one's culture were related but separable constructs in these two samples.

In exploratory mode, although not central to the current analyses it is worth considering correlations among the Cultural Identity and Internalization scales and self-construals. Among U.S. participants, 'feeling American' was associated with feeling interdependent, but not independent. Among Chinese participants, 'feeling Chinese' was associated with both interdependence and independence. For U.S. participants, those who embraced their American identity for internal reasons were more likely to endorse interdependence (.18, $p < .01$) but not independence, while embracing one's American identity for external reasons was associated with feeling more interdependent (.26, $p < .01$) and slightly less independent (-.13, $p < .08$). Among Chinese participants, those who embraced their Chinese identity for internal reasons were likely to feel more interdependent (.32, $p < .01$) and slightly more independent (.13, $p < .08$), while doing so for external reasons was associated with feeling more interdependent (.24, $p < .01$).

Evidence from need satisfaction. As noted, self-determination theory suggests that internalization of cultural norms and regulations is fostered by need-satisfying interpersonal contexts. To test whether this would hold in the current samples, correlations among need satisfaction, Cultural Identity, and the two Cultural Internalization subscales were examined. Results are summarized in Table 2.

Table 2. Intercorrelations among cultural variables and need satisfaction

	(1) U.S.	(2) U.S.	(3) U.S.		(1) China	(2) China	(3) China
1. C- ID	1				1		
2. C-IN	.63**	1			.47**	1	
3. C-EX	.31**	.40**	1		.29**	.44**	1
4. NSAT-bf	.15*	.19*	-.08		.44**	.17**	.05
5. NSAT-m	.18*	.18*	-.07		.44**	.20**	.13+
6. NSAT-f	.14+	.15+	-.12		.32**	.22**	.11
7. NSAT-rp	.09	.19*	-.03		.33**	.15	-.09
8. NSAT-r	.08	.12	.00		.27**	.17*	.11
9. NSAT-t	.00	.05	-.20**		.12	.06	.04
10. M-NSAT	.17*	.19*	-.16*		.42**	.21**	.10

Note. C-ID = cultural identity. C-IN = internal reasons. C-EX = external reasons. NSAT = need satisfaction. BF = best friend. M = mother. F = father. RP = romantic partner. R = roommate. T = teacher. M-NSAT = mean need satisfaction (averaged across relationships).

** $p < .01$ * $p < .05$ + $p < .08$

Of primary interest are the relations among need satisfaction and the two Internalization subscales. Among U.S. participants, overall need satisfaction (averaged across relationships) was positively associated with Internal reasons (C-IN) for embracing the ambient culture, but negatively with External reasons (C-EX). For C-IN, the effect was carried by need satisfaction from best friend, mother, romantic partner, and to some

extent father. For C-EX, the effect was carried by need satisfaction from one's teacher. Among Chinese participants, overall need satisfaction was positively associated with Internal reasons for embracing the ambient culture, but was unassociated with External reasons. For C-IN, the effect was carried by need satisfaction from best friend, mother, father, and roommate. Thus, as predicted by SDT, satisfaction of basic psychological needs was on average associated with greater internalization of the ambient culture, among both U.S. and Chinese participants. In addition, need satisfaction was positively associated with Cultural Identity (feeling American, feeling Chinese) among participants from both countries, and this association was particularly strong among Chinese participants. The more need satisfaction people experienced in their relationships, the more likely they were to identify with the ambient culture.

Predictive evidence for the validity of the Cultural Internalization Scale. As previously noted, SDT suggests that, in general, greater internalization is associated with better psychological adjustment. Accordingly, the cultural variables (C-ID, C-IN, C-EX) were correlated with global and relational well-being indicators. Results are summarized in Table 3.

Table 3. Intercorrelations among cultural variables and global and relational well-being

	United States				China		
	(1)	(2)	(3)		(1)	(2)	(3)
1. C- ID	1				1		
2. C-IN	.63**	1			.47**	1	
3. C-EX	.31**	.40**	1		.29**	.44**	1
4. PWB	.06	.18*	-.04		.03	.12+	.06
5. NWB	-.02	-.09	.22**		-.28**	-.11	.02
6. Vital	.07	.17*	.04		.22**	.24**	.27**
7. Satis	.15*	.11	-.08		.41**	.27**	.14*
8. PA	.13	.19*	.12		.15*	.18**	.06
9. NA	-.10	-.16*	.18*		-.31**	-.10	.02

Note. C-ID = cultural identity. C-IN = internal reasons. C-EX = external reasons. PWB = positive well-being. NWB = negative well-being. Vital = subjective vitality (averaged across relationships). Satis = satisfaction (averaged across relationships). PA = positive affect (averaged across relationships). NA = negative affect (averaged across relationships).

** $p < .01$ * $p < .05$ + $p < .08$

Looking first at global well-being, among U.S. participants, C-IN was positively associated with positive well-being (PWB) while C-EX was associated with negative well-being (NWB). In terms of relational well-being, C-IN was associated with vitality and positive affect (positively) and with negative affect (negatively), while C-EX was associated only with negative affect. Among Chinese participants, neither of the internalization subscales was associated with global well-being indicators (aside from a marginal correlation between PWB and internal reasons). Regarding relational well-being indicators, however, both internal and external reasons were associated with vitality and satisfaction, and internal reasons additionally were associated with positive affect. There is thus some predictive evidence for the validity of the Cultural Internalization subscales, although it was unexpected that external reasons should be positively associated with relational vitality and satisfaction among Chinese participants.

Brief Discussion

Study 2 replicated the finding that Internal and External reasons for endorsing one's culture are reliably measured by the Cultural Internalization scale, that these are distinct constructs, and that they are also distinct from the broader construct of Cultural Identity. As predicted by SDT, Internal reasons were more likely to be fostered by need-satisfying relationships and to be associated with greater well-being than were External reasons. Study 2 thus provided further evidence for the psychometric adequacy of the Cultural Internalization scale. Further, because these findings were obtained not only in a second U.S. sample but in a sample from China, Study 2 provided evidence for the scale's generalizability.

General Discussion

Researchers have typically focused on the fact or the *strength* of a person's identification with a given culture. The present studies tested the position, drawn from self-determination theory, that the *quality* of one's cultural identification is also important. To this end, two studies in college student samples provided evidence for the reliability and validity of the Cultural Internalization Scale (CIS), which measures the degree to which one's cultural identity is embraced for intrinsic versus extrinsic reasons. Study 1, using a sample from the United States, demonstrated the adequacy of a 3-factor model, and further distinguished Internal and External reasons from the related construct, Cultural Identity (seeing oneself as 'belonging' to a particular cultural group). In addition, more autonomous internalization of one's cultural identity was associated with greater well-being, in terms of both depression and affect, which supports the construct validity of the scale. Study 2 replicated and extended these findings among samples from the U.S. and China, establishing the measurement invariance of the CIS across two diverse cultural groups. In this study, however, cultural internalization was more closely linked with relational well-being than with global well-being. Further, as predicted by self-determination theory, internalization was associated with satisfaction of basic psychological needs for relatedness, competence, and autonomy. People from both samples were more likely to endorse autonomous reasons for embracing their cultural identity when they had relationships experienced as need-satisfying. The present studies thus not only provided evidence for the psychometric properties and generalizability of the Cultural Internalization Scale, but supported the predictions of SDT concerning the interpersonal conditions that facilitate the process of cultural internalization, thus supporting its construct validity.

In both studies, autonomous internalization of culture (C-IN) was more closely associated with cultural identity (C-ID) than was heteronomous internalization of culture (C-EX). In Study 1, C-IN and C-ID were correlated ($r = .66, p < .01$), and both were similarly related to the well-being outcomes that were assessed. Study 2 also showed stronger correlations between C-ID and C-IN than between C-ID and C-EX. This finding was unexpected, but makes conceptual and theoretical sense. 'Identification,' as a form of self-regulation, is closer to the autonomous or internal end than to the heteronomous or external end of the SDT continuum. Thus, those who 'identify' with being American may, on average, be more likely to do so for reasons that are internal. On the other hand, in both studies C-ID was also correlated with C-EX (r 's between .29 and .36, $p < .01$), suggesting that people can identify with their culture for reasons that are external in nature, too. For this reason, and because the identity and internalization items were constructed differently (the latter being explicitly motivational in nature, aimed at specifying a person's reasons for embracing their cultural identity), it is recommended that Cultural Identity and Cultural Internalization be thought of as separate, but related,

constructs. With this scale, internalization is, precisely, internalization of one's cultural identity. Identity is the 'what,' and internalization is the 'how.'

Study 2 yielded some interesting secondary findings. The relations among C-ID, C-IN, C-EX, and independent and interdependent self-construals (see Table 1) bear some comment. For example, those who more strongly thought of themselves as American (C-ID) were also more likely to experience themselves as interdependent. 'Being American,' contrary to popular mythology, was not necessarily equivalent to 'being independent.' On the other hand, 'being Chinese' could mean feeling both interdependent as well as independent, again perhaps contradicting cultural stereotypes about Asian societies. These results suggest the importance of measuring such dimensions as independence and interdependence rather than assuming them simply on the basis of country membership (Oyserman, Coon, & Kemmelmeier, 2002).

Along these lines, it was unexpected that C-EX would be positively associated with interdependence, in both the U.S. and China samples of Study 2 (see Table 1). Those whose cultural identity was more heteronomously internalized were more likely to endorse higher levels of interdependence. There does not seem to be a clear conceptual reason why this should be. These correlations, however, may reflect the fact that more than half of the items on the C-EX subscale contained an explicit or implicit reference to interpersonal relationships (e.g., items 7, 8, 11, and 15), while none of the C-IN items did. The association, thus, may in part be a measurement artifact. It is possible as well that the construct of interdependence, as it is measured in the Singelis (1994) scale, does not distinguish between being autonomously dependent on others, and being heteronomously dependent on others (see, e.g., Chirkov, et al., 2003). Thus, the correlations between C-EX and interdependence obtained in the present samples may simply reflect the fact that those whose cultural identity is more heteronomously internalized are also those who are more likely to be heteronomously (inter)dependent on others.

The present studies call attention to several measurement issues. Of relatively minor importance is whether the C-EX scale should be used with only 6 items, as in Study 2, or with the original 7 items, as in Study 1. In Study 2, inclusion of item (12) substantially reduced the internal consistency reliability of the scale in the Chinese sample; removing this item improved alpha to within acceptable limits, and this statistic remained acceptable for the U.S. sample with the 6-item version. Thus, in both samples the 6-item version of the scale performed adequately. On the other hand, internal consistency for the 7-item version of the scale was adequate for both U.S. samples (Study 1, 2), and Study 1 further demonstrated the adequacy of additional measurement properties for the 7-item scale. The nature of the difficulty with item (12) in the Chinese sample was not further explored, and perhaps a re-translation of that item might address the problem. Although it would seem that the 7-item version of the C-EX scale may be used in U.S. samples without problem, in the interest of parsimony, it may be easiest to adopt the 6-item scale in subsequent studies. This should be further explored, ideally with other cultural groups.

Of more importance, in terms of measurement, is the decision to treat C-IN and C-EX as separate subscales. Often, users of the SDT self-regulation questionnaire and its variations calculate an index of *relative* autonomy by subtracting scores on the 'external' subscales (external and introjected regulation) from those on the 'internal' subscales (identified and integrated regulation). This approach is theoretically meaningful and psychometrically elegant. The present studies however did not follow this tradition but rather treated internal (C-IN) and external (C-EX) reasons separately. The results of several CFA's provided psychometric support for this decision. C-IN and C-EX can, thus, meaningfully be treated as separate, but related, constructs. Indeed, in this light it was informative that C-IN and C-EX related to well-being and need satisfaction

differently, underscoring that autonomous internalization of the ambient culture may be facilitated by satisfaction of basic psychological needs and is associated with greater well-being (Yang, Zhang, & Sheldon, 2018), while heteronomous internalization is linked largely with negative well-being outcomes and may perhaps be forestalled by need satisfaction, as suggested at least in the U.S. sample, when one's teacher was experienced as need-supportive. Although interesting, it is unclear why need-satisfying teachers, in particular, should have this relationship to the process of cultural internalization, except insofar as teachers may have a special role in shaping the beliefs and attitudes (and their internalization) of a college-age sample.

As noted, other approaches to assessing the internalization of culture have been proposed (Chirkov et al., 2003, 2005; Downie et al., 2004). The scale developed by Chirkov and colleagues (2003, 2005) in particular merits attention. That scale reflects the cultural dimensions of horizontality/verticality and individualism/collectivism proposed by Triandis (1995); it may thus be best suited for use in studies in which those cultural dimensions are of explicit interest. For studies that seek a more general measure of the degree of cultural internalization, the CIS may be more suitable. The CIS can be administered in tandem with a measure of cultural identity, as it was in the studies reported herein. This gives participants the opportunity to affirm their cultural identity before rating the degree to which they have internalized it. It need not be done this way, however, and in general the scale was designed to provide an essentially content-free assessment of participants' internalization of their personal construal of the ambient culture.

There are limitations in the present research. Both studies were correlational in nature. Longitudinal studies would be better suited to test the causal role, for example, of need satisfaction in the internalization of ambient cultures. As well, it would be beneficial to test the scale with groups that differed from the present samples in terms of age or culture.

The idea that culture can be internalized more or less autonomously, and that this will have an impact on well-being, is of potential importance in a number of applications. For those who study the process of acculturation among immigrants or sojourners, such as, for example, international students, it may be important to understand that, just as people may identify simultaneously with more than one culture (Oetting et al., 1998), they may internalize their unique or multiple cultural identities for different reasons. When such internalization is more autonomous, however, it is more likely to be accompanied by well-being, whether the culture is one's heritage culture, as it was for participants in the three samples reported herein, or, by extension, whether the culture is some other culture to which one has been exposed through choice or circumstance (Amiot, Doucerein, Zhou, & Ryder, 2018; Chu, 2015; Yang, et al., 2018). The acculturation literature typically looks at cultural identity or, alternatively, cultural identification. The present research on the CIS, based on self-determination theory, suggests that in addition to cultural identity or identification, the ability to assess the degree and quality with which one internalizes that dimension seems to be a matter of importance. Further, as suggested in the present studies and in others (e.g., Chirkov et al., 2005), the process of autonomous internalization may be facilitated when immigrants, sojourners, international students, or others experience a variety of need-satisfying relationships in their environment (Yang, et al., 2018). This line of reasoning similarly bears implications for research on socialization, generally.

Culture is learned, and is acquired through socialization. As researchers in the SDT tradition have argued, however, the process of socialization can result in various outcomes. Whether one takes on a single cultural identity or perhaps even multiple cultural identities, they may be embraced for qualitatively different reasons. SDT suggests

the importance of distinguishing between reasons that are internal, or autonomous, and those that are external, or heteronomous. The present studies join with several others (Chirkov et al., 2003, 2004; Downie et al., 2004) in providing empirical support for the meaningfulness of this distinction. The CIS offers a reliable and valid way to measure it.

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Footnotes

- ¹ Items on the Cultural Internalization scale were presented after two of the cultural identity items ('Do you feel completely or not at all American?' and 'I live by or follow the American way of life') in order to provide participants the opportunity to affirm their cultural identity prior to endorsing the degree to which that identity was internalized; the remaining Cultural Identity items were

presented after the Cultural Internalization scale. It is also possible, perhaps preferable even, to present all five Cultural Identity items before the Cultural Internalization Scale. The Appendix presents the scales in this way.

² I considered the possibility that level of cultural identification (how 'American' participants felt themselves to be) would moderate the association between cultural internalization and well-being. Conceptually, it is possible that the internal/external distinction would only apply to those who actually felt and considered themselves to be American. However, the fact that the internalization items were preceded by the stem, 'To the extent that I live by or follow an American way of life, I do so because...', could rule out this possibility. Indeed, I conducted a series of simple slopes regression analyses to test the moderation hypothesis, and in no case did level of cultural identity moderate the relation between either internal or external reasons and the various well-being indicators.

Appendix CULTURAL IDENTITY AND CULTURAL INTERNALIZATION

Please take a moment to think about your own ethnic and cultural identity. Think about yourself, where you live, and your place in the world. Now, answer the following questions.

1. Do you feel completely or not at all American¹?

Completely									Not at all
10	9	8	7	6	5	4	3	2	1

	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree
2. Being an American is an important part of my identity.	1	2	3	4	5	6	7
3. When someone criticizes the Americans, it feels like a personal insult.	1	2	3	4	5	6	7
4. When I talk about Americans, I usually say 'we' rather than 'they'.	1	2	3	4	5	6	7

People sometimes talk about living a certain kind of lifestyle. Please think about what the "American way of life" means to you, and then answer each of the following questions.

	A lot	Some	Not much	Not at all
5. I live by or follow an American way of life	4	3	2	1
To the extent that I live by or follow an American way of life, I do so...				
6. because it is personally important to me	4	3	2	1
7. because I want to be accepted by those around me	4	3	2	1

¹ Note that any cultural group or ethnicity can be substituted.

	A lot	Some	Not much	Not at all
8. because I would get into trouble if I didn't	4	3	2	1
9. because that's the way to get ahead/be successful	4	3	2	1
10. because I value the American way of life	4	3	2	1
11. because it's important to me not to disappoint my parents	4	3	2	1
12. because it opens up many possibilities for me	4	3	2	1
13. because I would feel bad about myself if I didn't	4	3	2	1
14. because I enjoy it	4	3	2	1
15. because I want to "fit in" with those around me	4	3	2	1
16. because being true to one's culture is important	4	3	2	1

CULTURAL IDENTITY: 1, 2, 3, 4, 5 (score: standardize, sum items).

CULTURAL INTERNALIZATION: Internal: 6, 10, 14, 16; External: 7, 8, 9, 11, 12, 13, 15 (Subscale scores: mean of items).