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Psychological Culture, Physical Health, and Subjective Well-being

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This article investigates the role of psychological culture in influencing health by examining the relationship between cultural discrepancies and physical health and subjective well-being. Participants completed a large battery of tests assessing their individual, psychological culture; perceptions of the larger, ecological culture; coping strategies; emotion and mood states; physical health and subjective well-being. Cultural discrepancies were operationalized as the difference between ratings of psychological and ecological culture. Regression analyses indicated that cultural discrepancies were associated with greater coping strategy usage which, in turn, was associated with anxiety and depression. These emotions were then predictive of both physical health and psychological well-being. These findings suggest that this approach is promising, and may open the door to other studies that operationalize culture on the individual level, forcing us to consider psychological culture and cultural discrepancies in our theoretical models of culture and health.

KEY WORDS: psychological culture; cultural discrepancies; idiocentrism; allocentrism; health; well-being.

INTRODUCTION

Interest in the relationships among culture, physical health, and subjective well-being has risen dramatically. Early studies highlighted the effects of social isolation on mortality (Berkman & Syme, 1979), and of sociocultural variables on the incidence of heart disease (Syme & Berkman, 1976). Tri-

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andis (Triandis *et al.,* 1988) extended these findings to culture by documenting the relationship between individualism v. collectivism (IC) and heart disease in eight cultural groups, while Matsumoto and Fletcher (1996) replicated and extended these findings by demonstrating relationships between Hofstede's (1980) four cultural dimensions—IC, power distance, uncertainty avoidance, and masculinity—and six disease processes in 28 countries. Likewise, Bond (1991) demonstrated a relationship between the cultural values of social integration, cultural inwardness, reputation, and morality and the incidence rates of cerebrovascular disease, ulcers, acute myocardial infarction, neoplasms, and cirrhosis of the liver.

Recent research has also documented the relationship between culture and subjective well-being. Diener and Diener (1995), for example, sampled 13,118 participants in 31 countries, showing that life satisfaction was correlated with individualism, wealth, and self-esteem. Similar findings were reported by Diener, Diener, and Diener (1995) across 55 countries. Arrindell *et al.* (1997) extended these findings by demonstrating that countries that scored low on uncertainty avoidance were associated with greater well being. Also, masculinity correlated positively with well being in poorer countries, but negatively in richer countries. In studies involving 61 nations and 62,446 participants (Suh & Diener, 1997; Suh, Diener, Oishi, & Triandis, 1998), emotions were found to predict well being in individualistic cultures, while emotions and norms were equally predictive of well being in collectivistic cultures.

All the studies described above considered culture as an ecological level variable. There has been, however, increasing awareness in the past decade of the importance of recognizing culture as an individual level variable as well (referred to in this article as psychological culture). This notion suggests that culture exists in individuals as well as in global, social constructs. Matsumoto (in press), for example, defines culture as "a dynamic system of rules—explicit and implicit—established by groups in order to ensure their survival, involving attitudes, values, beliefs, norms, and behaviors, shared by a group but harbored differently by each specific unit within the group, communicated across generations, relatively stable but with the potential to change across time." Triandis defines personal level constructs as resulting from "a pattern of construct variation unique to the individual, which cannot be meaningfully interpreted by reference to demographic or cultural membership" (Triandis *et al.*, 1990, p. 303). Thus, individual-level *psychological* culture adds an important dimension to our understanding of culture.

Psychological culture refers to more than just a person's individual values. Instead, it refers to a constellation of psychological traits, attributes, and characteristics that are formed by and reflect the dominant cultural

mores within which an individual exists. Triandis (1995) refers to this constellation as a "syndrome" involving values, attitudes, opinions, beliefs, norms, and other psychological constructs. While they exist on the level of the individual, they can be considered operational manifestations of the larger ecological culture. While resembling personality, there are important differences (reviewed in Matsumoto, in press), most important of which is that the contents of psychological culture are the exact psychological derivatives of the larger cultural values, norms, traditions, customs, and heritage. Psychological culture is mutually constituted within individuals as they are raised within and interact with a cultural environment.

The most widely discussed dimension of psychological culture is a derivative of the cultural dimension known as individualism-collectivism (IC); Triandis (Triandis, Leung, Villareal, & Clack, 1985) labeled the psychological levels of this construct *idiocentrism* and *allocentrism.* Idiocentrics endorse values, behaviors, and attitudes common to individualistic cultures; allocentrics endorse values, behaviors, and attitudes common to collectivistic cultures. A number of studies (e.g., Triandis, 1995) has isolated factors at the psychological level markedly similar to those found at the ecological level. Hui and Villareal (1989), for example, demonstrated that allocentric participants were high in affiliation, while idiocentrics were high in dominance. Yamaguchi (1994) found that high scores on allocentrism in Japan correlated positively with affiliation, sensitivity to rejection, public self-conception, self-monitoring, false consensus, and social anxiety, and negatively with need for uniqueness. Schmitz (1990; cited in Triandis, 1995) found that, among East Germans who had recently moved to West Germany, idiocentrics were less likely to lie than allocentrics, but were higher on neuroticism and psychoticism. Triandis *et al.* (1985) found factors of allocentrism similar to defining factors of collectivism—subordination of personal to group goals, the ingroup as extension of self, and ingroup identity—within a highly individualistic culture. Triandis, McCusker, Betancourt, *et al.* (1993) reanalyzed earlier data to suggest that the factors "Separation from Ingroups," "Independence," and "Personal Competence" existed at both psychological and ecological levels.

In recent years, psychometrically valid and reliable methods to measure idiocentrism and allocentrism have been developed (see review of 20 studies by Triandis, 1995, Appendix). Hui's (1984, 1988) INDCOL scale, for example, measures IC tendencies in six collectivities. Triandis et al. (1985) used items from the INDCOL and broadened them by adding scenarios and other ratings. Triandis *et al.* (1986) used items from Hui (1984) and Triandis *et al.* (1985), plus items suggested by other colleagues in other cultures to measure IC. Triandis, Bontempo, Villareal, Asai, and Lucca (1988) used items from the INDCOL and United States—originated emic items to

measure IC. Triandis, McCusker, and Hui (1990) employed a multimethod approach to measuring IC, representing an evolution not only in thinking about IC but also in method. Matsumoto (Matsumoto *et al.*, 1997) developed a 19-item scale of IC focusing on context-specific interpersonal relationships. Triandis and his colleagues (Singelis, Triandis, Bhawuk, & Gelfand, 1995) have developed measures that assess horizontal and vertical IC, representing yet further advances in the conceptual understanding of IC. Thus, there exists today a number of measurement tools for researchers to assess IC on the individual level in their research.

Using these methods, some studies have gone beyond the ecological level studies reported above to document important relationships between psychological culture with health and well being. For example, Florsheim (1997) reported that allocentric participants were more likely to enjoy higher psychosocial functioning. Watson *et al.* (1998) found that collectivistic values were related positively to self-worth, social responsibility, social isolation, and all subscales of irrational beliefs, but negatively with normlessness. Individualistic values were related to self-esteem and normlessness when collectivistic values were partialled out. Sinha and Verma (1994) extended these findings by demonstrating that one possible mediator of the relationship between allocentrism and well being is social support, as subjective well-being existed when conditions of high social support existed, but not when social support was low. Bettencourt and Dorr (1997) suggested the possible role of collective self-esteem as a mediator of this relationship. Collectively, these studies have shown the promise of using individual-level measures of psychological culture and its influence on health and well-being.

One potentially important avenue of research that has not been explored systematically to date involves studies of the discrepancy between psychological and ecological cultural values (referred to hereafter as cultural discrepancies), and the relationship between these discrepancies and health and well being. That is, given that individuals have their own psychological culture, and that they exist within a larger social or ecological culture, the potential exists for their psychological culture to be either congruent or discrepant with the larger ecological culture in which they live. For example, an allocentric individual residing within an individualistic culture would have greater cultural discrepancy than an idiocentric individual. Likewise, an idiocentric individual living in a collectivistic culture would have greater discrepancy than an allocentric individual. If such discrepancies exist, it is reasonable to consider that individual's health and well being outcomes may differ depending on the size or degree of this discrepancy.

How might cultural discrepancies work to affect health and well being? We speculate that individuals with greater cultural discrepancies must engage in greater coping strategies to help them manage those discrepancies.

Coping strategies, however, should be associated with emotional and mood outcomes; thus, greater use of coping processes should result in differential long-term emotional reactions and mood states. Some mood states, particularly anxiety, hostility, or depression, may be detrimental to health and well being, while others such as vigor, positive affect, and the like, may have positive benefits to health and well being. Cultural discrepancies, therefore, influence coping which, in turn, affects emotions and moods that have consequences for health and subjective well being (Fig. 1).

This study tests this model. Participants completed a comprehensive battery of tests designed to assess their cultural discrepancies, coping strategies, emotion and mood states, and health and subjective well being outcomes. Care was taken to use multiple measures of each construct, so as to increase the internal consistency of the findings within the study. Care was also taken to use measures of all constructs that have been widely used in previous research, and that have demonstrated psychometric reliability and validity. In doing so, this study extends previous findings by examining the interaction of the two levels of culture—via discrepancies—and its effects on health and subjective well being.

METHOD

Participants

Fifty-six university students (17 males, 39 females, average age = 27.44 years) participated in partial fulfillment of class requirements. Thirty nine percent classified themselves as of European-American ethnicities, 31% as Asian, 15% as Hispanic, and the remaining 15% as other categories. Their median personal annual income was under $10,000, and the median parental household socioeconomic standing was self-classified as middle class. This diverse group of participants raised the possibility that personal, psychological cultures would be discrepant with mainstream societal values.

Instruments

Cultural Discrepancies

Fifty items were taken from three measures that assess IC cultural values reliably and validly: (a) the Individualism-Collectivism Interpersonal Assessment Inventory (ICIAI; Matsumoto *et al.*, 1997), (b) the Rokeach Values Survey (RVS; Rokeach, 1973), and (c) value items from the Triandis

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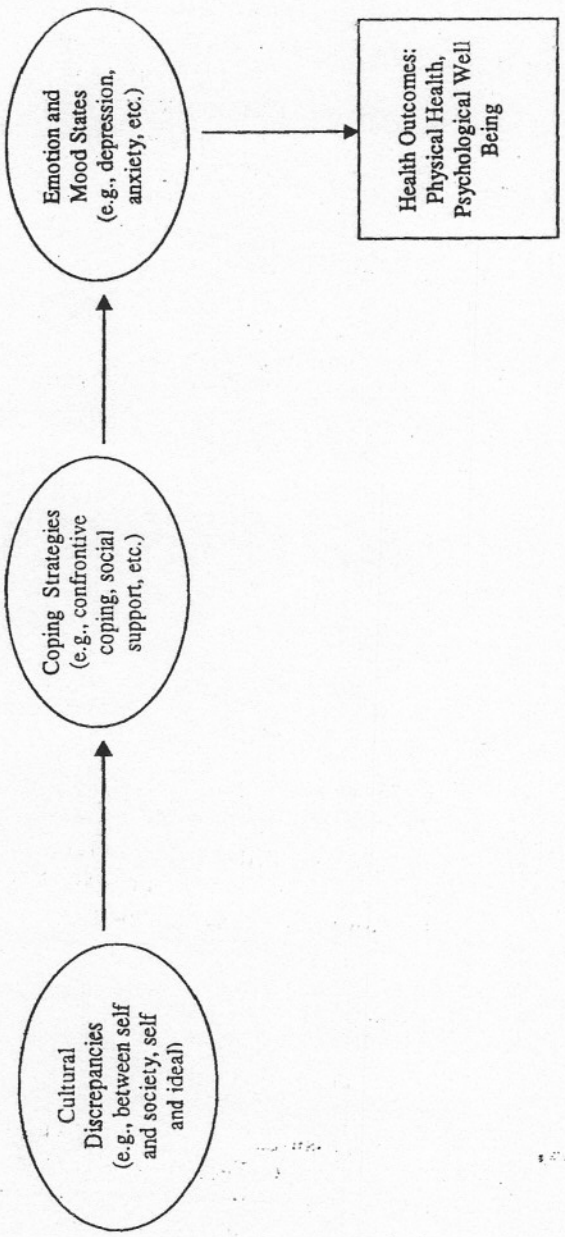

Fig. 1. Model summarizing the influence of cultural discrepancies on health and well-being via coping and emotion/mood

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multimethod assessment protocol (Triandis, 1995). Participants rated how well each item described their personal value system, what they perceived to be mainstream society's values, and what they considered to be an ideal value, using a 7-point rating scale labeled 0, Not Important at All, to 6, Very Important. Discrepancy scores were computed by taking the difference between self and society (PS), and self and ideal (PI) ratings on each item, and summing across all items, separately for the ICIAI, the RVS and Triandis items combined, and a composite averaging across all three measures. In addition, an overall discrepancy score was computed by averaging the PS and PI scores for the ICIAI, combined RVS and Triandis scales, and the composite.

Coping

The participants completed Folkman and Lazarus' (1988) Ways of Coping Questionnaire, a 67-item test that scores eight types of psychological processes used to cope with stress: Confrontive Coping (CC), Distancing (DI), Self-Controlling (SC), Seeking Social Support (SSS), Accepting Responsibility (AR), Escape-Avoidance (EA), Planful Problem Solving (PPS), and Positive Reappraisal (PR). Each style is assessed by averaging four to eight items, each item rated on a 4-point scale from 0 to 3.

Emotion/Mood

Participants completed three emotion/mood measures: the Beck Depression Inventory (BDI; Beck & Steer, 1987), the Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1993), and the Multiple Affect Adjective Check List (MAACL; Zuckerman & Lubin, 1985). The BDI and BAI are both 21-item scales that assess depression and anxiety, respectively; each item is rated on a 4-point scale ranging from 0 to 3, and total BDI and BAI scores are computed by averaging across all 21 items in each test. The MAACL contains 132 items that score six emotion/mood subscales: Dysphoria, Anxiety, Depression, Hostility, Sensation Seeking, and Positive Affect. (Actually, the MAACL includes a seventh scale—Positive Affect and Sensation Seeking, which is computed by averaging these two separate scales. We opted to not include this scale in the analyses below because of its redundancy with the two separate scales. Descriptive statistics on this scale, however, are provided in Table I.)

Table I. Means and Standard Deviations for All Variables

Cultural Discrepancies	ICIAI PS	ICIAI PI	ICIAI Overall	RVS-Triandis PS	RVS-Triandis PI	RVS-Triandis Overall	Composite PS	Composite PI	Composite Overall
	−.56	−.34	−.44	.64	−.66	−.01	0.00	−.54	−.28
	(0.55)	(0.43)	(0.38)	(1.99)	(1.26)	(1.28)	(1.03)	(0.74)	(0.70)
Coping	CC	DIS	SC	SSS	AR	EA	PPS	PR	
	1.13	1.11	1.62	1.39	1.44	0.96	1.59	1.43	
	(0.48)	(0.53)	(0.57)	(0.49)	(0.65)	(0.64)	(0.50)	(0.58)	
Emotion/ mood	BDI	BAI	MAACL-anxiety	MAACL-depression	MAACL-hostility	MAACL-sensation seeking	MAACL-positive affect	MAACL-dysphoria	MAACL-PASS
	9.93	11.98	2.95	2.15	3.47	7.73	12.67	8.56	20.40
	(7.88)	(10.55)	(2.76)	(2.72)	(3.52)	(2.37)	(5.53)	(7.92)	(7.26)
Health/ well-being	GHQ	HSQ	PWB Total	PWB-autonomy	PWB-environmental mastery	PWB-personal growth	PWB-positive relations with others	PWB-purpose in life	PWB-self-acceptance
	35.15	6.41	364.04	4.12	4.23	4.67	4.49	4.06	4.50
	(8.87)	(7.23)	(49.12)	(0.64)	(0.80)	(0.54)	(0.63)	(0.47)	(0.97)

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Health and Subjective Well-being

Participants completed three measures that assessed their general physical health and subjective well-being: the General Health Questionnaire (GHQ), the Health Symptoms Questionnaire (HSQ), and the Psychological Well-being (PWB; Ryff, 1989) inventory. The GHQ combined items from three measures assessing general physical health (Belloc, Breslow, & Hochstim, 1971; Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974; and Mumford, 1989); it included 21 items, each rated on a 4-point scale ranging from 1 to 4. An overall score was computed by averaging across all items. The items on the HSQ were derived from a larger survey called the Symptoms Checklist; it includes 20 items assessing general physical health, each rated on a 5-point scale ranging from 0 to 4. An overall score was computed by averaging across all 20 items. The PWB scale is an 84-item scale assessing basic subjective well-being. Each item is rated on a 6-point scale ranging from 1 to 6. A total PWB score was computed by averaging across all items; six subscale scores were also computed by averaging items loading on each scale: Autonomy, Environmental Mastery, Personal Growth, Positive Relations with Others, Purpose in Life, and Self-Acceptance.

Procedures

Participants were recruited from a variety of psychology courses, and completed the tests in four separate sessions. They were first provided the cultural discrepancy measures, and were instructed to complete those at their leisure, provided that they worked independently and with no distractions. The measures were collected 1 week after distribution. Two weeks later, they were given the coping measure with the same instructions. These were also collected one week later. Two weeks after that, they were given the emotion/mood measures, again with the same instructions. Finally, 2 weeks after collection of those, they were given the health and well-being measures, which were collected 1 week later. While these procedures may produce correlations among similar measures because of simultaneous assessment, they do not allow for spurious correlations between constructs measured at different times. Given that the goal of the study was to examine correlations among the constructs, not among the measures of the same constructs, we deemed this procedure preferable over randomization of measure order across data collection periods. In actuality, a much larger number of participants than we report here participated; not all, however, completed all measures. The data we report in this article include only those individuals who completed the entire battery of tests.

RESULTS

Descriptive statistics were computed for all variables (Table I). We conducted a series of regression analyses to investigate the relationship between cultural discrepancy and health and well being. The theoretical framework suggested earlier determined the order of analysis. To assess the relationship between cultural discrepancy and coping, we computed zero-order correlations between the cultural discrepancy scores and each of the eight coping scales (Table II). All eight coping scales were significantly correlated with cultural discrepancy scores between person and society (PS), and with most of the overall discrepancy scores. None of the correlations with self-ideal (PI) discrepancies, however, was significant, suggesting that the results involving overall discrepancy were an artifact of the significant PS discrepancies. These results demonstrated that greater discrepancies between one's individual cultural values and the perceived values of society are associated with greater use of coping in general, as predicted by the model.

We then computed a series of simultaneous multiple regressions, using the eight coping scales as predictors and the BAI, BDI, and the six MAACL scales separately as dependents (Table III). As a set, coping significantly predicted BAI, BDI, and MAACL-Depression; in addition, coping marginally predicted MAACL-Dysphoria. Examination of specific coping styles indicated that greater scores on Confrontive Coping (CC) were significantly associated with greater anxiety, depression, hostility, dysphoria, and sensation seeking. Accepting Responsibility (AR) was associated with greater depression, less positive affect, and less sensation seeking. Seeking Social Support (SSS) was negatively correlated with depression and dysphoria. Finally, Self-Controlling (SC) coping was significantly and positively related to depression. These results support the contention that coping predicts emotion and mood, and suggest that specific coping styles are associated with specific emotion outcomes.

We then computed nine simultaneous multiple regressions, one each for the GHQ, HSQ, total PWB, and the six PWB subscales, using BAI and BDI scores as the independent variables. We opted to use only these two variables because they were the only ones coping as a set significantly predicted (with the exception of MAACL-Depression). Also, while specific MAACL scales were associated with specific coping styles, there is considerable conceptual and empirical overlap between MAACL subscales such as depression, positive affect, and dysphoria and the BDI (Table IV).

All nine multiple *R*s were significant, indicating that emotion/mood significantly predicted both physical and psychological health. Analysis of the semi-partial correlations indicated that BAI scores predicted both GHQ

Table II. Correlations Between Cultural Discrepancy Variables and the Eight Coping Styles (Decimals Omitted)

Discrepancy Variable	CC	DI	SC	SSS	AR	EA	PPS	PR
ICIAI PS	370*	416*	533**	436**	378*	351*	426*	339*
ICIAI PI	121	265	128	297	050	038	260	056
ICIAI overall	364*	392*	424*	476*	323	194	431*	277
Rokeach/Triandis PS	407*	302	382*	407*	421*	333*	059	292
Rokeach/Triandis PI	149	031	260	237	109	020	225	158
Rokeach/Triandis overall	540**	344*	552**	390*	489**	382*	276	449**
Composite PS	478**	460**	578**	396*	486**	437*	392*	433*
Composite PI	199	149	288	285	150	020	241	148
Composite overall	498*	393*	643**	401*	439*	329	469**	440**

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

Table III. Results of Simultaneous Multiple Regressions on Emotion/Mood Variables Using the Eight Coping Styles as Independent Variables

Dependent	R	R^2	F	p	Significant Individual Predictors	Semipartial Coefficient	p
BAI	.705	.498	2.600	<.05	None		
BDI	.767	.589	4.113	<.01	SSS	−.607	<.05
					AR	.458	<.06
MAACL-anxiety	.611	.373	1.714	Ns	CC	.534	<.05
MAACL-depression	.722	.522	3.135	<.05	CC	.491	<.05
					SC	.561	<.05
					SSS	−.737	<.01
MAACL-hostility	.599	.359	1.613	Ns	CC	.574	<.05
MAACL-dysphoria	.652	.425	2.122	<.10	CC	.570	<.05
					SSS	−.583	<.05
MAACL-positive affect	.574	.329	1.411	Ns	AR	−.624	<.05
MAACL-sensation seeking	.622	.387	1.815	Ns	CC	.630	<.05
					AR	−.669	<.05

and HSQ scores above and beyond that predicted by the BDI. The BDI, however, predicted total PWB and five of the six PWB subscales above and beyond that accounted for by BAI. Collectively, these results provide strong support for the contention that emotion and mood predict physical and psychological health.

DISCUSSION

Cultural discrepancies were significantly related to coping, with greater discrepancies between personal and perceived societal values associated with greater use of coping strategies. Coping, in turn, was related to emotion and mood, specifically anxiety and depression. Specific coping styles were associated with specific emotion outcomes, with Confrontive Coping, Accepting Responsibility, and Self-Controlling coping associated with greater anxiety, depression, hostility, dysphoria, and sensation seeking, and less positive affect; Seeking Social Support was associated with less depression and dysphoria. Depression and anxiety, in turn, significantly predicted both physical and subjective health, with anxiety appearing to contribute more

Table IV. Results of Simultaneous Multiple Regressions on Health/Well-being Variables Using the BAI and BDI as Independent Variables

Dependent	R	R^2	F	p	Significant Individual Predictors	Semipartial Coefficient	p
GHQ	.649	.421	17.098	<.0001	BAI	.483	<.01
HSQ	.647	.418	16.534	<.0001	BDI	.452	<.01
					BAI	.254	<.10
PWB-total	.731	.535	18.406	<.0001	BDI	−.754	<.0001
PWB-autonomy	.552	.305	7.453	<.01	None		
PWB-environmental mastery	.646	.417	11.789	<.0001	BDI	−.697	<.001
PWB-personal growth	.661	.437	13.174	<.0001	BDI	−.672	<.001
PWB-positive relations with others	.632	.399	11.280	<.001	BDI	−.730	<.001
PWB-purpose in life	.507	.257	5.699	<.01	BDI	−.586	<.01
PWB-self acceptance	.736	.542	20.122	<.0001	BDI	−.794	<.0001

greatly to physical symptomatology, while depression contributed more to subjective well-being (negatively).

These data have several implications for our understanding of physical health and subjective well being. We believe that cultural discrepancies between self and societal values create tension and stress that require individual coping strategies. That all correlations between coping and discrepancies were positive was indicative of the necessity for increased coping with greater discrepancy. Although we did not measure this stress directly, the correlations between discrepancy and coping, coupled with the positive correlations between coping styles such as Confrontive Coping, Self-Control, and Accepting Responsibility and the negative emotions supports the notion that greater discrepancies are associated with greater negative emotions and moods indirectly. That Seeking Social Support correlated negatively with some negative emotions suggests that this coping strategy may act as a buffer against negative emotions despite cultural discrepancies.

Some coping strategies to deal with cultural discrepancies may be more adaptive than others. Maladaptive strategies may lead to negative emotions such as depression and anxiety which, in turn, have negative health outcomes. That different emotions are associated with different health outcomes, with anxiety predictive of greater problems in physical health, and depression predictive of less subjective well being, is consistent with results from many other studies. For example, Harris *et al.* (1988), Murphy (1983), Murphy *et al.* (1988), and Koenig *et al.* (1989) have found that people with depression suffer with greater health problems, have higher rates of mortality and suicide, and have poor rehabilitation. More recently, Kohen, Burgess, Catalan, and Lant (1998) have shown that depression is related to self-reported quality of life even when differences in physical health and age are controlled statistically. With regard to anxiety, Himmelfarb and Murrell (1984), in a large-scale study involving over 2,000 participants, found that anxiety was inversely and highly correlated with the presence of nine specific medical conditions and the need for and use of a number of medical services. VanderVoort (1996) also showed that anxiety was related to higher incidences of physical symptoms and somatic illnesses, even when demographic and health risk factors were controlled.

The lack of findings on self-ideal discrepancies was interesting. It would not have been unreasonable to expect that different types of discrepancies lead to different coping and emotion processes, with self-society discrepancies leading to more anxiety, and self-ideal discrepancies leading to more depression. That none of the 24 correlations between self-ideal discrepancies and coping was significant, however, suggests no support for this position. Future research will need to explore this possibility further using other cultural dimensions. It may be, for example, that self-ideal

discrepancies do contribute to health outcomes, but not in relation to IC cultural values.

The lack of findings in relation to hostility was also interesting. One may suspect, for example, that individuals who experience greater hostility would have more negative health and well being outcomes. Research examining the relationship between anger and the autonomic nervous system (Ekman, Levenson, & Friesen, 1983; Levenson, Ekman, & Friesen, 1990) suggests that emotions such as anger and hostility would have some relationship with cardiovascular-related processes. Although not reported above, we did compute multiple regressions on the health and well being variables using all emotion and mood scales; hostility did not significantly contribute to any of the analyses. Also, hostility was not correlated with any of the coping strategies. Given that the mean and standard deviation of this variable were acceptable, the non-findings cannot be accounted for by problems in the distribution of the scores. Future research will need to explore these possibilities in other ways, perhaps with different outcome measures.

This study was not conducted without limitations, the first of which concerns the nature of the theoretical model tested. Certainly, many other variables are related to cultural discrepancies, some of which may be important in determining emotion/mood, coping, and health outcomes. The model tested in this article is not meant to be comprehensive or representative of all possible variables; rather, the goal was to demonstrate the potentially important role of cultural discrepancies on health outcomes, and the possible mediators of that relationship.

Also, the model as tested in this paper was unidirectional. These interrelationships in actuality are not unidirectional, nor linear, as assumed by the statistical techniques most commonly used to test these types of models. Indeed, intercorrelations among the various predictors of health—discrepancies, emotion and mood, and coping, should be captured simultaneously in estimating their influence on physical and psychological health outcomes. Unfortunately, their incorporation in this study would have rendered the findings from the analyses unreliable because of the high ratio of variables to cases. Future research with larger sample sizes, therefore, needs to flesh out these issues more carefully.

Despite these, and other, limitations, the findings from this study are the first to document the potential impact of cultural discrepancies on physical and psychological health outcomes. They are innovative in that they involve the blending of ecological (society) and psychological (individual) level cultures, and extend previous work in important ways. This study opens the door to many other types of research involving culture. For example, cultural discrepancies in other cultural dimensions such as power distance, status differentiation, time orientation, and the like, may produce

different findings. Future research can also investigate the possibility of cultural discrepancies influencing health outcomes other than those included in this study. In-depth, behavioral studies can examine the exact mechanisms—psychological, social, and biological—that underlie disease etiology or health maintenance. These studies will undoubtedly lead to more sophisticated ways of understanding the influence of culture and health in the future.

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