

CITY UNIVERSITY OF HONG KONG

A Cultural Comparison of Cognitive Emotion Regulation Strategies:

Moderation of Cultural Values on Psychological Well-Being

A Report Submitted to
Department of Applied Social Studies
in Partial Fulfillment of the Requirements for
the Bachelor of Social Sciences in Psychology

by

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Abstract

Objectives. While studies have begun to look at cultural differences in emotion regulation, to date no study has explored cultural differences among cognitive emotion regulation strategies. This study aimed to find cultural differences among the nine Cognitive Emotion Regulation Questionnaire (CERQ) subscales, which include self-blame, acceptance, positive refocusing, refocus on planning, putting into perspective, positive reappraisal, rumination, catastrophizing, and blaming others, as well as the effects of these cognitive emotion regulation strategies on psychological distress and interpersonal functioning. While previous studies have found differences in the use of cognitive emotion regulation strategies across culturally different samples, here it was hypothesized that cultural values would mediate the relationship between country and cognitive emotion regulation strategy, and would also moderate the relationship between cognitive emotion regulation strategy and measures of psychological well-being.

Method. Questionnaires were distributed to local and non-local students in classes as well as the student residence halls of a local university in Hong Kong. Forty-three North American students and 66 Hong Kong Chinese students took part in the study.

Results. Individualism partially mediated the relationship between country and positive reappraisal, and country and catastrophizing. Individualism significantly moderated the

relationship between positive reappraisal and psychological distress, whereas Uncertainty avoidance significantly moderated the impact of catastrophizing on psychological distress and interpersonal relationships.

Conclusions. Findings showed that the buffering effect of positive reappraisal on psychological distress was reduced for individualistic cultures, whereas the negative effect of catastrophizing on psychological distress was reduced for uncertainty avoidant cultures. Furthermore, the negative effect of catastrophizing on interpersonal relationships was also lowered for uncertainty avoidant cultures. These results suggest that the psychological impacts of different cognitive emotion regulation strategies are not all universal. Implications on clinical interventions are discussed.

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Chapter 1: Introduction and Literature Review

Emotion regulation is a conscious or unconscious process of changing the way we feel, when, and how we express our emotions (Gross, 1998). It refers to all extrinsic and intrinsic means of appraising, and adjusting emotion reactions in order to reach one's goals (Thompson, 1994). It occurs so often in our daily lives that we may not even be aware of doing it, such as when we smile and thank a friend when we are given a present we dislike. As human beings, we have been socialized to regulate our emotions since childhood through experiences in the family and in schools. Emotion regulation processes take place for many reasons, such as for us to feel good (hedonistic principle), to let our feelings out (cathartic principle) and to pursue different interpersonal goals (Fischer, Manstead, Evers, Timmers, & Valk, 2004). Often, cultural values and norms that are endorsed by a society also guide our emotional regulatory styles.

As emotion regulation covers a broad area, different researchers have conceptualized its process in different ways. Gross (1998) identified two aspects of emotion regulation, *antecedent-focused* and *response-focused* emotion regulation. Antecedent-focused regulation refers to regulation emotions before the emotion has been elicited. This can be achieved through four methods. First, *situation selection* allows one to approach situations that are likely to produce pleasant feelings and avoid situations which are likely to evoke unpleasant feelings. Second, *situation*

modification means to alter a situation so that its emotional impact may be changed as well. *Attentional deployment* refers to placing one's attention on an aspect of a situation that would elicit feelings inconsistent with the undesired emotional state. Finally, *cognitive change or reappraisal* refers to reinterpreting a situation to give it another meaning. Response-focused regulation refers to the changing of experiential, physiological, or expressive components of emotion after an emotion has been elicited. Cognitive reappraisal is an example of antecedent-focused regulation and emotional suppression is an example of response-focused regulation.

Coping is defined as both cognitive and behavioral processes in managing certain external or internal demands that have been appraised by the person as stressful or exceeding personal abilities (Lazarus & Folkman, 1984). It is related to emotion regulation, although coping focuses more on a person's handling of negative events and may include non-emotional methods of achieving goals (Gross, 1998). In Lazarus and Folkman's (1984) transactional model of stress and coping, the categorization of emotion regulation also had components similar to Gross's antecedent and response-focused regulation. In face of a negative and stressful event, a person could appraise the situation as a challenge, threat, or harm. Appraising a situation in different ways could lead to different emotional and behavioral consequences. Two types of coping had been distinguished: *problem-focused coping* and *emotion-focused coping*. Problem-focused coping refers to attempts to act

directly on the stressor, whereas emotion-focused coping aims at dealing with the accompanying emotions. Besides from this model, people may also cope with stressful events using avoidant and approach coping styles (Taylor, 2009).

Research on emotion regulation has generally been confined to dichotomous categorizations previously mentioned, such as problem-focused or emotion-focused coping, although studies have shown that more factors can be found (Parker & Endler, 1992). Furthermore, because of the broad classifications, these types of emotion regulation or coping methods sometimes include both behavioral and cognitive aspects. In recent years, the Cognitive Emotion Regulation Questionnaire (Garnefski, Kraaij, & Spinhoven, 2001), has been developed to assess ways that individuals cognitively cope with negative life events. Cognitive emotion regulation is defined as conscious and cognitive ways people use to deal with emotionally arousing information (Garnefski & Kraaij, 2007) and can be considered a component of emotion regulation. It differs from other emotion regulation measures in that it measures purely the conscious, cognitive, and self-regulatory aspects of emotion regulation. The Cognitive Emotion Regulation Questionnaire (CERQ) consists of nine subscales: self-blame, acceptance, rumination, positive refocusing, refocus on planning, positive reappraisal, putting in perspective, catastrophizing and other blame, and thus covers a much wider spectrum of cognitive emotion regulation strategies. In general, these strategies can be divided into the “more adaptive”

strategies, including acceptance, positive refocusing, refocus on planning, positive reappraisal, and putting into perspective, and the “less adaptive” strategies, including self-blame, rumination, catastrophizing, and blaming others. The more adaptive strategies tend to be used more and lead to better emotional and health outcomes compared with less adaptive strategies (Garnefski & Kraaij, 2007).

Research in areas of emotion regulation and coping are related to the concept of cognitive emotion regulation since they include components of altering an emotion experience, as well as the conscious response to stressful life events (Garnefski et al., 2001). While coping and emotion regulation both consist of regulatory functions, coping differs from emotion regulation in that it emphasizes “adaptive” regulatory responses towards stressful events, whereas emotion regulation can refer to the expressive or experiential regulation of any type of emotion. As a result, coping may focus more on environmental variables whereas emotion regulation may include more person variables. In emotion regulation, both positive and negative emotions can be regulated, while in coping the focus is placed on the regulation of negative emotions (Gross, 1998). Despite these variations, research in both areas are conducive to understanding the concept of cognitive emotion regulation strategies.

Cultural Differences in Emotion Regulation

As mentioned, cultures endorse different forms of emotion expression, which lead to different ways of emotion regulation. This is largely due to the differing ideals, beliefs, and values that different cultures hold. For instance, compared to Americans, Japanese tend not to show negative emotions in front of strangers, and this is due to their cultural differences in display rules (Friesen, 1972). These cultural ideals, beliefs, and values act on individuals in the culture, governing our thoughts, behavior, and even the perception of the self and the environment.

While countries or nationalities can be used as the basis for cultural comparison, physical boundaries may not be the most effective way to conceptualize culture, as there may be meaningful variations within countries as well. As Matsumoto (1990) said, “Cultures transcend national borders and require researchers to use meaningful dimensions of variability rather than physical boundaries to conceptualize them” (p. 196). Studies have shown that cultural differences can be observed on a number of cultural dimensions, which provide researchers with a meaningful way of understanding and categorizing the elements of culture. Hofstede (2001) has found evidence for five cultural dimensions, including power distance, individualism, masculinity, uncertainty avoidance, and long-term orientation. Hofstede (2005) defined the five dimensions as follows:

Power distance. Power distance refers to the expectation and acceptance of unequal power distribution among members of a society (Hofstede, 2005).

Individualism versus collectivism. Individualism refers to independence of individuals in a society; ties between individuals are comparatively loose. Collectivism, on the other hand, refers to the way people are integrated into strong, cohesive in-groups within society from birth onwards and are expected to remain loyal to their in-groups through life (Hofstede, 2005).

Masculinity versus femininity. Masculine societies have clear and distinct emotional general roles, where men are represented by strength, assertiveness, and material success, whereas women are represented by modesty and tenderness. In feminine societies, gender roles tend to overlap (Hofstede, 2005).

Uncertainty avoidance. Uncertainty avoidance refers to the extent to which people of a society avoid ambiguous or unknown situations due to their feelings of being threatened by the uncertainty it poses (Hofstede, 2005).

Long- versus short-term orientation. Long-term orientation refers to prizing qualities that are oriented towards future rewards such as thrift and perseverance. Short-term orientation refers to qualities related to the past or present, such as respecting traditions, preserving face, and fulfilling social obligations (Hofstede, 2005).

One of the most extensively researched cultural dimensions is individualism versus collectivism (Markus & Kitmaya, 1991). Individualistic cultures view individuals as independent, autonomous beings that are not strongly bound to any group. Thus, they are encouraged to express themselves and to develop their own individuality. In contrast, collectivistic cultures have distinct in-groups and out-groups. An individual's goals, attitudes, and behavior are defined in the context of their in-group, thus minimizing individuality (Triandis, 1995). Often, power distance is negatively associated with individualism. In individualistic cultures, equality is emphasized, whereas in collectivistic cultures, hierarchy serves to maintain social harmony (Hofstede, 2001).

Cultural comparison studies have shown that cultures differ in emotion expression and emotion regulation. A study (Matsumoto, Takeuchi, Andayani, Kouznetsova, & Krupp, 1998) showed that 30% of the cultural differences in display rules could be explained by individualism. In a series of recent multinational studies, Matsumoto et al. (2008a) compared cultures on the individualism vs. collectivism dimension, and found that individualistic cultures had greater overall emotion expressivity. Compared to collectivistic cultures, they also endorse relatively more amounts of negative emotions within in-groups, but more positive emotions to out-groups. Matsumoto and colleagues (2008b) also found that in cultures that emphasized the maintenance of social order, emotional suppression was associated

with a number of cultural values including power distance, individualism, and long-term orientation, and was also correlated with better adjustment at the country-level, suggesting that suppression was important for maintaining existing social hierarchies. Furthermore, results of this study also showed that the relationship between cognitive reappraisal and suppression was positively correlated with long-term orientation in these cultures. As individuals in cultures that valued social order and in-group harmony would have to carefully consider the consequences of their emotion expression in a particular social context, suppression was to take place before positive reappraisal, and that they would be closely related. These results echo an earlier study in that cultures high in long-term orientation tend to be less emotionally expressive (Matsumoto, Nezlek, & Koopman, 2007). Studies have also shown that interdependent cultures were more likely to express engaging emotions, such as friendliness and guilt, whereas independent cultures were more likely to express disengaging emotions, such as pride and anger (Kitayama, Mesquita, & Karasawa, 2006).

Cultural differences have also been found in coping styles. In a study that compared East Asians and Western English-speaking samples (Tweed, White, & Lehman, 2004), it was found that Western English-speaking samples tended to use more externally-targeted coping strategies whereas East Asians tended to use more internally-targeted coping strategies. Internally-targeted coping strategies refer to

changing aspects of the self to fit with environmental demands in the face of stressful events, whereas externally-targeted coping strategies refer to changing aspects of the environment in order to cope with stressful events. Collective and avoidance coping strategies have also been shown to be used more often in Asian samples (Kuo, Roysircar, & Newby-Clark, 2006).

The CERQ has been used with culturally different populations, including populations from the Netherlands, France, United States and Mainland China. However, only one study to date has attempted to compare data cross-culturally. Zhu and colleagues (2008) compared their results from a Mainland Chinese sample to data from a previous study in the United States (Martin & Dahlen, 2005). They found that compared to the American sample, the Chinese sample reported significantly higher levels of self-blame and blaming others, whereas the American sample reported significantly higher levels of rumination, refocus on planning, positive reappraisal, putting into perspective, and catastrophizing. Interestingly, Chinese males reported higher levels of positive refocusing whereas American females reported higher levels of this subscale as well. The reason for the Chinese sample to report higher scores on self-blame and blaming others could be due to their cultural value of collectivism, although this was not measured in the study by Zhu and colleagues (2008). As Triandis (1995) noted, the cultural value of individualism versus collectivism could be defined along four dimensions, namely the self, goals,

relationships, and determinants of behavior. As collectivistic cultures place emphasis on in-groups, individuals in such cultures may tend to place blame on different people in different situations. In both situations, blaming may serve the purpose of enhancing social harmony of the in-group members. In individualistic cultures, individuals are seen as independent beings serving their own goals. Thus, they may tend to use more refocus on planning, positive reappraisal, and putting into perspective, which serve the purpose of self-motivation and goal achievement. It would be interesting to find out whether cultures differed in terms of using cognitive emotion regulation strategies and how this would be related to cultural values.

Emotion Regulation and Psychological Distress

Studies in emotion regulation have shown that certain emotion regulation styles were related to well-being and others to poorer functioning. Problem-focused coping was shown to be more adaptive than emotion-focused coping (Billings & Moos, 1981; Chan, 1992; Cohen, Ben-Zur, & Rosenfield, 2008). Emotion-focused coping, however, was found to be better in situations where controllability was low (Austenfield & Stanton, 2004; Terry & Hynes, 1998). It has also been shown that suppression was related to poorer psychological health outcomes, such as increased negative emotions, decreased positive emotions, anxiety, rumination, and higher

stress levels (Amstadter, 2008; Greenberg & Stone, 1992; Janoff-Bulman, 1992; Gross & John, 2003). Emotional suppression has also been known to cause various somatic symptoms and physiological illnesses, such as cancer, hypertension, and coronary heart disease (Gross, 1989; Pennebaker, 1990; Pennebaker & Susman, 1988). Studies have shown that flexibility in emotion regulation is more important in determining subsequent distress than suppression per se (Bonanno et al., 2004; Gross & Munoz, 1995). On the other hand, reappraisal was associated with better interpersonal functioning, more positive emotions, and less distress (Bjorck et al., 2001; Gross & John, 2003).

Recently, researchers have looked at how different cognitive emotion regulation strategies affect our emotions and well-being and it was found that certain subscales of the CERQ correlated with measures of depression, anxiety, and negative emotions. In particular, self-blame, rumination, and catastrophizing have been found to be associated with depressive symptoms, and positive reappraisal was found to be negatively associated with it, even across age, cultures, and clinical samples; longitudinal impact was also found (Garnefski & Kraaij, 2007; Garnefski & Kraaij, 2006; Martin & Dahlen, 2005; Zhu et al., 2008). Comparing across studies from different cultural samples, it was found that acceptance had been correlated with depressive symptoms among the Mainland Chinese, but not in the Dutch and French samples. Secondly, catastrophizing and blaming others were found to be positively

correlated with depressive symptoms while positive refocusing was negatively correlated with it among the Mainland Chinese, but not in Dutch sample. Thirdly, positive reappraisal had been negatively associated with depressive symptoms in the Dutch, French, and American studies, but not among the Mainland Chinese (Zhu et al., 2008). Studies on socially engaging and disengaging emotions have shown that well-being for Japanese was predicted by experiencing socially engaging emotions, whereas the opposite pattern was observed for Americans (Kitayama et al., 2006). These studies suggest that cultural differences might exist in the way cognitive emotion regulation strategies predict depressive symptoms and psychological well-being.

Emotion Regulation and Interpersonal Relationships

On the other hand, no published research to date has looked at the relationship between the CERQ subscales and interpersonal relationships, although research in the area of emotion regulation in general has explored this relationship. For instance, Gross and John (2003) have shown that reappraisal was positively correlated with interpersonal function and well-being, whereas suppression was negatively correlated with them. Butler and colleagues (2003) conducted a study among unacquainted women and asked them to discuss unsettling topics. It was

found that suppression led to disruptions in communication, building of rapport, and formation of relationships. In married couples, low expression was also associated with negative feelings and reduced marital satisfaction (Gottman & Levenson, 1986). Emotion regulation was also related to social competence in children (Spinrad et al., 2006). As one of the main goals of emotion regulation is to achieve interpersonal goals, it would not be surprising that cognitive emotion regulation strategies were related to social functioning as well.

Previous research has also demonstrated cultural differences may moderate the negative effects of emotion suppression. In a study done by Butler, Lee, and Gross (2007) concerning emotion suppression and its social consequences, they found that some of the detrimental effects of emotion suppression, including perceived level of hostility and unresponsiveness, were reduced for individuals with Asian values when conversing with newly acquainted people, thus causing less of an impact on relationship formation. Furthermore, Matsumoto (2008b) found that negative impacts of suppression on the individual did not exist at the cultural level as suppression may play an important part in maintaining social order and hierarchy. This suggests that other outcome variables, such as interpersonal relationships, could also be moderated by cultural values.

Conceptual Framework and Hypotheses

Reviewing the literature, it was found that there was lack of study on the cross-cultural differences between cognitive emotion regulation strategies. Furthermore, few studies investigated the impact of cultural values on health and interpersonal outcomes. Previous studies have consistently shown that certain “maladaptive” styles of emotion regulation led to adverse effects, although most studies failed to address the moderation of cultural values. As people nowadays are living increasingly stressful and emotion-filled lives, adaptive ways of emotion regulation and coping become increasingly important. Understanding more about cultural differences will help psychiatrists and psychologists make better treatment choices and design culture-specific education and clinical interventions.

The current study aimed to investigate whether cultural differences existed in cognitive emotion regulation strategies of the Cognitive Emotion Regulation Questionnaire (CERQ). Specifically, the aim was to test whether cultural values could account for country differences in cognitive emotion regulation strategies. It was hypothesized that cultural values would mediate the existing country-cognitive emotion regulation strategy relationship. Furthermore, in order to examine the effects of cognitive emotion regulation strategies on psychological well-being, cognitive emotion regulation strategies were tested against two outcomes, psychological distress and interpersonal relationships. It was hypothesized that cultural values

would moderate the cognitive emotion regulation strategy-distress/positive relations relationship.

In order to collect culturally diverse data for cultural comparison, exchange students would be recruited for the study. Previous research has shown that North Americans were significantly different from Hong Kong Chinese in a number of cultural values, including power distance, individualism, uncertainty avoidance, and long-term orientation (Hofstede, 2001). Thus, by recruiting exchange students, particularly students from North America, it would be possible to examine the role of cultural values in cognitive emotion regulation strategies and its effect on psychological well-being. Furthermore, previous studies with the CERQ have also been used with American and Chinese samples (Martin & Dahlen, 2005; Zhu et al., 2008). Therefore, by involving North American and Hong Kong students, we would be able to make more accurate comparisons with previous studies.

Chapter 2: Methodology

Participants

The sample consisted of 173 undergraduate students from a local university in Hong Kong, with 80 overseas and 93 Chinese students. Students ranged from 19 to 24 years of age. The entire sample consisted of 38.8% Hong Kong Chinese, 25.3% North Americans, 18.2% Mainland Chinese, 8.6% Europeans, and 4.2% from other Asian countries. 65.7% and 24.4% of the entire sample was of Chinese and Caucasian ethnicity respectively. To increase homogeneity and specificity, the final sample selected for comparison included only those from Hong Kong and North America, with 66 students (34.4% males, 65.6% females) and 43 students (51.2% males, 48.8% females) from each region respectively.

Procedure

Participants were recruited through various classes and lectures, as well as from the student residence halls from a local university. Participants were usually given 15 minutes at the end of their classes to complete the questionnaire. All students participated in the study on a voluntary basis.

Measures

All scales were first translated to Chinese by a bilingual student and then back-translated to English by another bilingual student. The original version and the back-translated version were then compared for discrepancies; final translation on such parts would be done in collaboration.

Hofstede's Values Survey Module (VSM 94). The Values Survey Module (Hofstede, 1994) is a 20-item questionnaire measuring 5 dimensions of cultural values, including Power Distance, Individualism, Masculinity, Uncertainty Avoidance and Long-term Orientation. Each subscale consists of 4 questions measuring work values that reflect cultural differences, and participants are required to indicate the level of importance of different work values (e.g. Sufficient time for your personal or family life) on a 5-point scale from utmost importance (1) to little importance (5). Scores for each subscale were then calculated using equations provided by the VSM 94 Manual (Hofstede, 1994). The VSM has been used across numerous countries in the world and has shown to be a reliable measure of cultural differences as indicated by its consistency of findings across countries and its correlations with many external factors, such as country GDP (Hofstede, 2001).

Cognitive Emotion Regulation Questionnaire Short-Version (CERQ-short).

The Cognitive Emotion Regulation Questionnaire short-version (Garnefsky & Kraaij, 2006) is an 18-item questionnaire measuring nine cognitive emotion regulation strategies, including self-blame, acceptance, rumination, positive refocusing, refocus on planning, positive reappraisal, putting into perspective, catastrophizing and blaming others. Each subscale consists of two questions; items were rated on a 5-point scale from almost never (1) to almost always (5), with higher scores indicating higher levels of using a particular cognitive emotion regulation strategy. The short version has shown to be highly correlated with the original 36-item version, as well as having good internal consistency among subscales (Garnefsky & Kraaij, 2006). The Cronbach's alpha for the overall CERQ in our sample was .638. Cronbach's alpha for most subscales ranged from .546 (self-blame) to .816 (catastrophizing). The subscale of putting into perspective showed a low Cronbach's alpha of .375 and was dropped from analyses.

Mood and Anxiety Symptom Questionnaire (MASQ). The General Distress subscale of the Mood and Anxiety Symptom Questionnaire (Watson et al., 1995) consists of 15 items measuring general symptoms of distress that underlie both depression and anxiety (e.g. worried a lot about things). Participants had to rate the frequency of the symptoms on a 5-point scale from not at all (1) to extremely (5), with higher scores indicating higher levels of distress. The reason for choosing this

subscale was because our sample consisted of university students who were less likely to show severe symptoms of depression or anxiety; thus using the General Distress subscale would increase sensitivity. Furthermore, research has shown that the MASQ has shown excellent criterion validity with standardized depression and anxiety measures (Watson, et al., 1995). In our sample, this subscale possessed a satisfactory Cronbach's alpha of .745.

Ryff's Scales of Psychological Well-being (SPWB). The Positive Relations with Others subscale was used to measure the extent of perceived positive relationships with others (Ryff, 1995). It consists of 7 statements rated on a 6-point scale, from strongly disagree (1) to strongly agree (6), with higher scores indicating better relations with others. The Cronbach's alpha of the scale in the present sample is .769.

Demographic variables. Demographic variables including age, sex, ethnicity, education level, place of birth, place raised, as well as their current status as an exchange student were included.

Chapter 3: Results

Mediation Effect of Cultural Values on Country and Emotion Regulation

In order to test our first hypothesis, the relationships between country and cultural value, country and emotion regulation strategy, and cultural value and emotion regulation strategy were first tested.

Country Differences in Cultural Values. Independent samples t-tests were conducted to compare cultural values among Hong Kong and North American students. Comparisons between Hong Kong students and North American students showed significantly higher Individualism scores in North American students, $t(107) = -2.279, p < .05$. Hong Kong students showed significantly higher scores on Long-term Orientation, $t(106) = 2.087, p < .05$, and marginally higher scores on Uncertainty Avoidance, $t(106) = 1.871, p = .064$. The results are shown in Table 1.

Table 1

Differences in Cultural Values among Hong Kong and North American Students

<i>Cultural Values</i>	<i>Hong Kong</i>	<i>North America</i>	<i>t-value</i>
	<i>Mean (SD)</i>	<i>Mean (SD)</i>	
Power Distance	33.64 (41.94)	34.77 (37.53)	-.143
Individualism	79.70 (46.18)	101.05 (50.20)	-2.279*
Masculinity	.91 (70.25)	.95 (87.76)	-.003
Uncertainty Avoidance	59.92 (64.56)	35.81 (67.09)	1.871†
Long-term Orientation	52.73 (23.70)	41.90 (29.90)	2.087*

Note. † $p < .10$, * $p < .05$

Country Differences in Emotion Regulation. Independent samples t-tests were conducted to compare cognitive emotion regulation strategies among Hong Kong and North American students. Comparisons between Hong Kong students and North American students showed significantly higher scores on self-blame, $t(106) = 3.015$, $p < .01$, and other blame $t(106) = 2.253$, $p < .05$, for Hong Kong students, whereas North American students showed significantly higher scores on positive reappraisal, $t(107) = -2.457$, $p < .05$. Hong Kong students also showed marginally higher scores on catastrophizing $t(106) = -1.789$, $p = .076$. Results are shown in Table 2.

Table 2

Country Differences in CERQ Subscales

<i>CERQ subscales</i>	<i>Hong Kong</i>	<i>North America</i>	<i>t-value</i>
	<i>Mean (SD)</i>	<i>Mean (SD)</i>	
Self-blame	6.64 (1.46)	4.76 (1.48)	3.015**
Acceptance	7.30 (1.42)	7.79 (1.49)	-1.686†
Rumination	7.24 (1.51)	6.95 (1.45)	.989
Positive Refocusing	5.74 (1.71)	5.33 (1.97)	1.156
Refocus on Planning	7.33 (1.69)	7.40 (1.61)	-.218
Positive Reappraisal	7.48 (1.77)	8.28 (1.44)	-2.457*
Catastrophizing	5.15 (1.92)	4.52 (1.53)	1.789†
Other Blame	5.44 (1.30)	4.81 (1.58)	2.253*

Note. † $p < .10$, * $p < .05$, ** $p < .01$

Pearson correlations were computed for cultural values against cognitive emotion regulation strategies. Individualism was found to be positively correlated with Positive Reappraisal, $r = .200$, $p < .05$, and negatively correlated with Catastrophizing, $r = -.216$, $p < .05$. Other cultural values did not show significant correlations with any of the CERQ subscales. Results are shown in Table 3.

Table 3

Pearson Correlations between Cultural Values and CERQ Subscales

<i>CERQ subscales</i>	<i>Cultural Value</i>				
	<i>PDI</i>	<i>IND</i>	<i>MAS</i>	<i>UAI</i>	<i>LTO</i>
Self-blame	.098	-.129	.063	-.004	-.068
Acceptance	.078	.095	-.090	.012	-.017
Rumination	-.024	-.057	.166	.010	-.008
Positive Refocusing	-.089	-.086	-.122	.020	-.063
Refocus on Planning	-.068	.101	-.023	-.046	-.015
Positive Reappraisal	.007	.200*	.033	-.069	.068
Catastrophizing	-.044	-.216*	.161	.123	-.057
Other Blame	.091	.154	.020	.060	.141

Note. * $p < .05$ PDI = power distance, IND = individualism, MAS = masculinity, UAI = uncertainty avoidance, LTO = long-term orientation

As only two cognitive emotion regulation strategies were predicted by individualism, two hierarchical multiple regressions were conducted to test whether a mediation effect of cultural values existed on the country-emotion regulation strategy relationship (see Table 4). Previous testing showed that individualism may be a possible mediator between the predictor, country, and outcomes, positive reappraisal and catastrophizing. For both models, country was entered into Block 1, and country

and cultural value were entered into Block 2. Partial mediation was found for the effect of individualism on both positive reappraisal and catastrophizing as the standardized regression coefficients of the predictor (country) in both models decreased. However, Sobel's Test indicated insignificant results for both the first model predicting positive reappraisal ($z=1.345$, *ns*) and the second model predicting catastrophizing ($z=-1.388$, *ns*).

Table 4

Multiple Regression Analyses for the Mediation Effect of Cultural Values

	<i>B</i>	<i>SE</i>	β	<i>R</i> ² <i>Change</i>
<i>DV = Positive Reappraisal</i>				
Block 1				.053*
Country	.397	.162	.231*	
Step 2				.024†
Country	.339	.164	.197*	
Individualism	.005	.003	.158†	
<i>DV = Catastrophizing</i>				
Block 1				.029†
Country	-.314	.175	-.171	
Step 2				.034†
Country	-.242	.177	-.132	
Individualism	-.007	.004	-.189†	

Note. † $p < .10$, * $p < .05$

B = unstandardized coefficients; *SE* = standard error, β = standardized coefficients

Moderation of Cultural Values on Emotion Regulation and Psychological Well-being

Pearson correlations for emotion regulation and well-being outcomes showed that self-blame, $r=.316$, $p<.01$, rumination, $r=.302$, $p<.01$, and catastrophizing, $r=.429$, $p<.01$, were positively correlated with general distress, whereas positive reappraisal, $r= -.220$, $p<.01$, was negatively correlated with it. Pearson correlations also showed that refocus on planning, $r=.244$, $p<.01$, and positive reappraisal, $r=.274$, $p<.01$, were positively correlated with positive relations, and catastrophizing, $r=.302$, $p<.01$, was negatively correlated with it. Gender differences existed in both general distress and positive relations; women were significantly more distressed, $t(165)= -2.464$, $p<.05$, and scored higher on positive relations, $t(167)= -1.973$, $p=.05$.

Table 5

Pearson Correlations between CERQ Subscales and Psychological Well-Being

<i>CERQ subscales</i>	<i>General distress</i>	<i>Positive relations</i>
Self-blame	.316**	-.111
Acceptance	.112	.079
Rumination	.302**	-.121
Positive Refocusing	-.069	.132
Refocus on Planning	-.133	.244**
Positive Reappraisal	-.220**	.274**
Catastrophizing	.429**	-.302**
Other Blame	.099	-.146

Note. ** $p<.01$

In order to test the second hypothesis, further multiple regressions were performed to test for moderation effects of cultural values on the emotion regulation strategy-distress/positive relations relationship. Interaction terms for cultural values and cognitive emotion regulation strategies were computed. As gender differences were found, gender was also included in the regression analysis. Gender was entered into Block 1, and the cultural value and cognitive emotion regulation strategy were entered into Block 2, and the interaction term was entered into Block 3. Significant moderation effects of individualism were found in the relationship between positive reappraisal and general distress (see Figure 1), $\beta=.165$, $t=2.185$, $p<.05$, uncertainty avoidance and catastrophizing on general distress (see Figure 2), $\beta=-.255$, $t=-3.779$, $p<.001$, and uncertainty avoidance and catastrophizing on positive relation with others (see Figure 3), $\beta=.218$, $t=3.015$, $p<.01$. Results are shown in Tables 6 and 7.

Table 6
Multiple Regression Analyses for the Moderation Effect of Cultural Values on Cognitive Emotion Regulation Strategies and General Distress

	<i>B</i>	<i>SE</i>	β	<i>R</i> ² <i>Change</i>
<i>DV = General Distress</i>				
Block 1				.035*
Gender	3..820	1.550	.188*	
Block 2				.057**
Gender	3.507	1.535	.173*	
Positive Reappraisal	-2.134	.766	-.212**	
Individualism	-.739	.759	-.075	
Block 3				.026*
Gender	3.251	1.522	.160*	
Positive Reappraisal	-1.809	.771	-.180*	
Individualism	-.860	.752	-.088	
Positive Reappraisal x Individualism	1.318	.603	.165*	
<i>DV = General Distress</i>				
Block 1				.033*
Gender	3.657	1.557	.181*	
Block 2				.186**
Gender	2.735	1.417	.135*	
Catastrophizing	3.717	.705	.374**	
Uncertainty Avoidance	1.657	.707	.166	
Block 3				.064**
Gender	3.117	1.366	.154*	
Catastrophizing	3.866	.678	.389**	
Uncertainty Avoidance	1.454	.682	.146*	
Catastrophizing x Uncertainty Avoidance	-2.347	.621	-.255**	

Note. * $p < .05$, ** $p < .01$

B = unstandardized coefficients; *SE* = standard error, β = standardized coefficients

Table 7

Multiple Regression Analyses for the Moderation Effect of Cultural Values on Cognitive Emotion Regulation Strategies and Positive Relations with Others

	<i>B</i>	<i>SE</i>	β	<i>R</i> ² <i>Change</i>
<i>DV = Positive Relations with Others</i>				
Block 1				.024*
Gender	1.656	.816	.156*	
Block 2				.097**
Gender	1.899	.783	.179*	
Catastrophizing	-1.603	.389	-.308**	
Uncertainty Avoidance	-.110	.394	-.021	
Block 3				.047**
Gender	1.770	.765	.167*	
Catastrophizing	-1.694	.381	-.326**	
Uncertainty Avoidance	-.023	.386	-.004	
Catastrophizing x Uncertainty Avoidance	1.053	.349	.218**	

Note. * $p < .05$, ** $p < .01$

B = unstandardized coefficients; *SE* = standard error, β = standardized coefficients

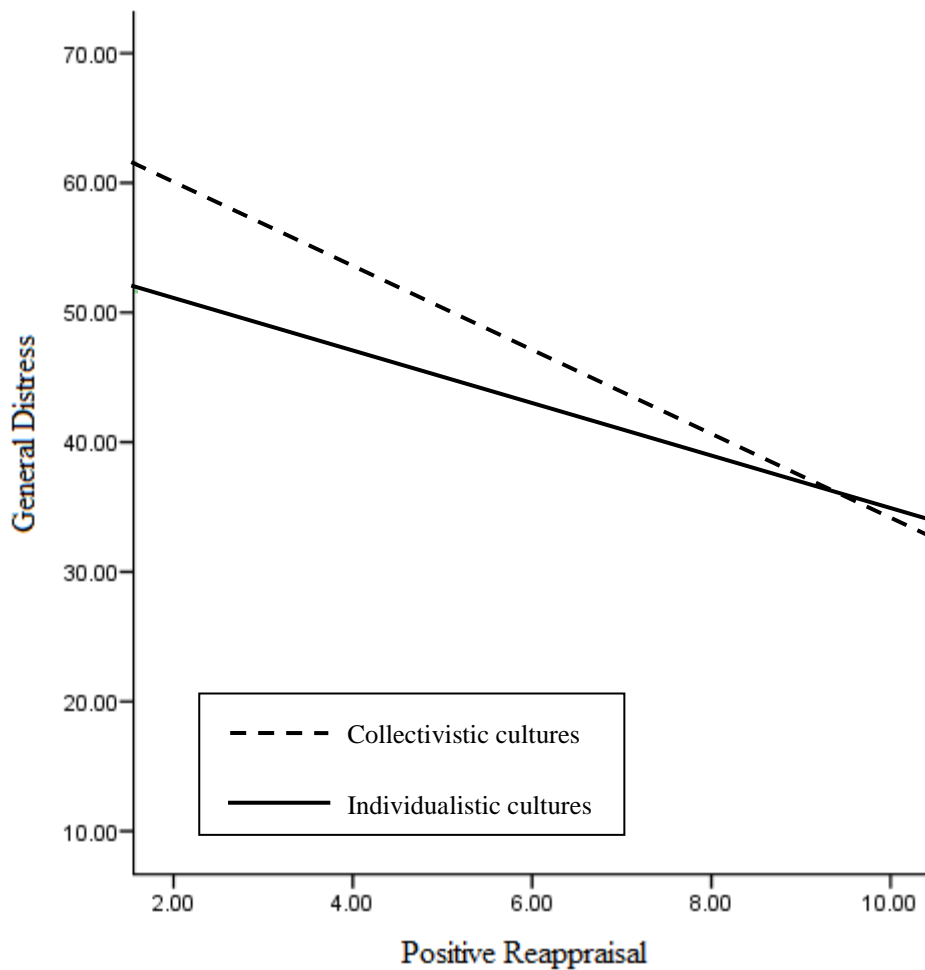


Figure 1. Moderation effect of individualism on positive reappraisal and general distress.

This graph was generated by plotting values that were ± 1 SD from the mean, thus generating a group high on individualism and another group low on individualism. As shown, positive reappraisal for individuals from collectivistic cultures showed a larger buffering effect on general distress, while the effect was smaller for individuals from individualistic cultures.

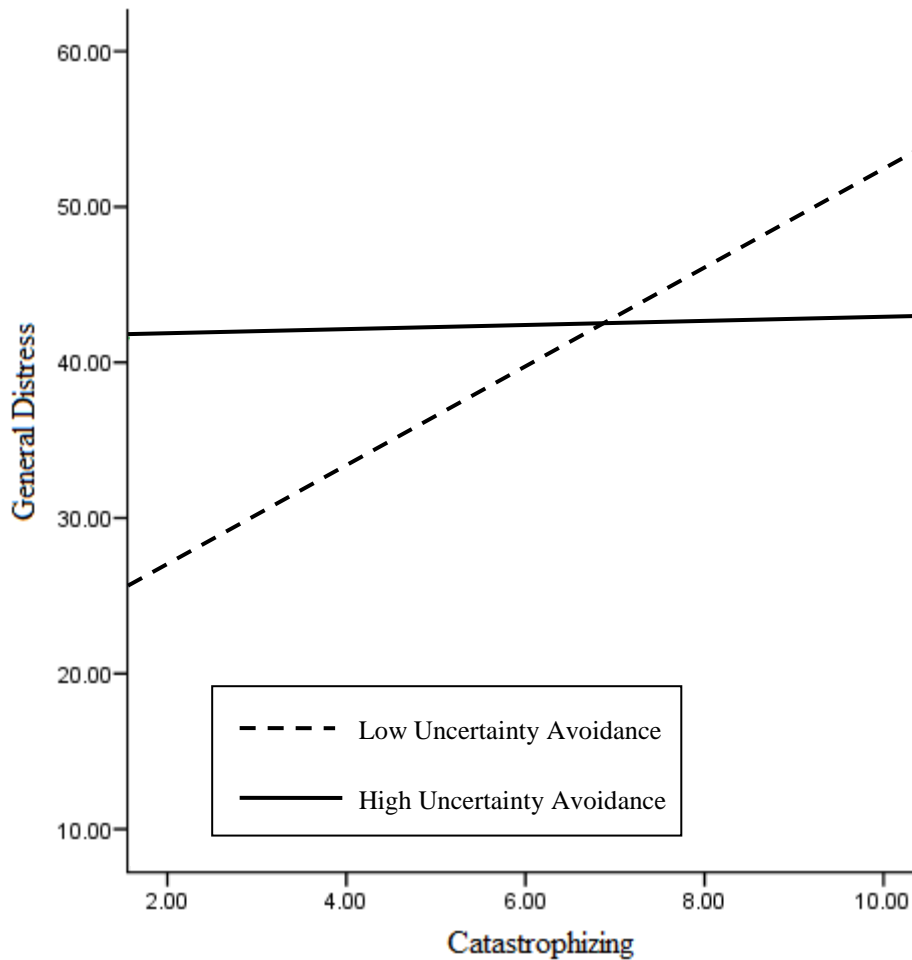


Figure 2. Moderation effect of uncertainty avoidance on catastrophizing and general distress.

This graph was generated by plotting values that were +/- 1 SD from the mean, thus generating a group high on uncertainty avoidance and another group low on uncertainty avoidance. As shown, catastrophizing was associated with general distress for individuals from cultures with low uncertainty avoidance. However, distress levels were not affected for catastrophizing individuals from cultures with high uncertainty avoidance.

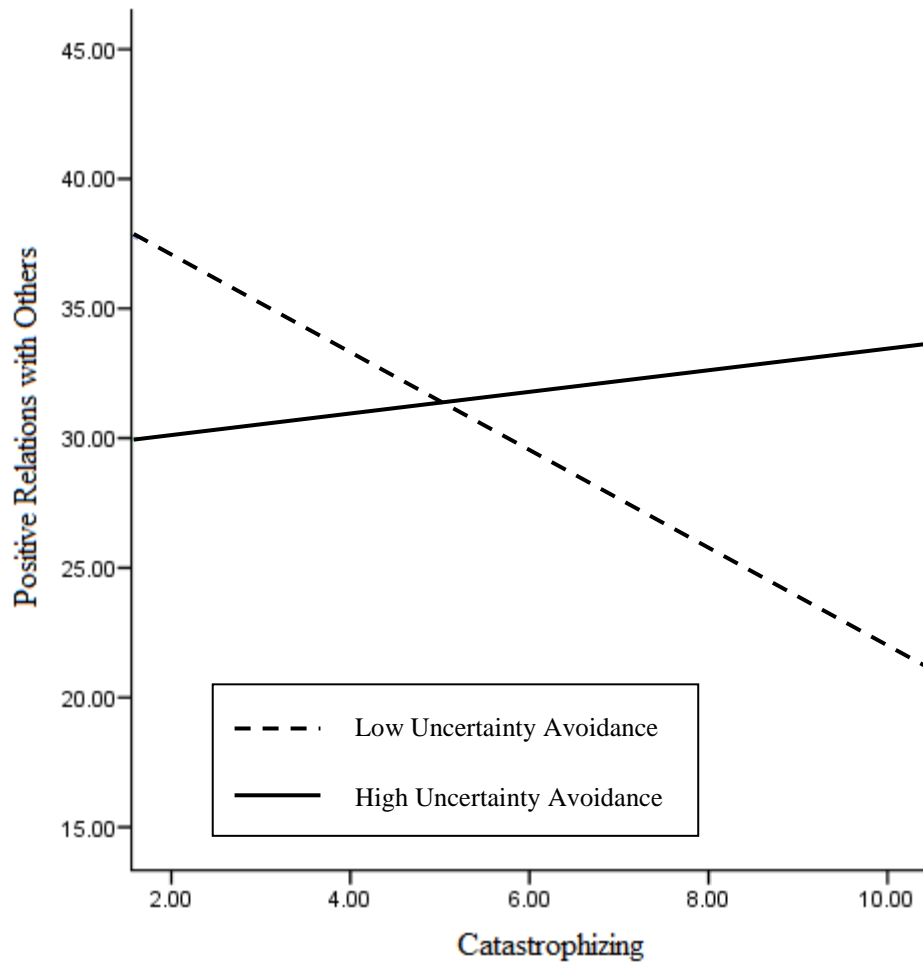


Figure 3. Moderation effect of uncertainty avoidance on catastrophizing and positive relations.

This graph was generated by plotting values that were ± 1 SD from the mean, thus generating a group high on uncertainty avoidance and another group low on uncertainty avoidance. As shown, for individuals from cultures with low uncertainty avoidance, catastrophizing was predictive of poor relationships with others. However, catastrophizing did not affect positive relations for individuals from cultures with high uncertainty avoidance.

Predictors of General Distress and Positive Relations

In order to determine which strategies remained predictive of general distress after all other cognitive emotion regulation strategies were controlled for, all CERQ subscales were entered into regression analysis. As gender differences existed, it was also controlled for in the regression analysis. Gender was entered into Block 1 and the CERQ subscales were entered into Block 2. When controlled for gender and all other cognitive emotion regulation strategies, self-blame, positive reappraisal and catastrophizing remained significantly correlated with general distress.

Similarly, in order to determine which strategies remained predictive of positive relations after all other cognitive emotion regulations strategies were controlled for, all CERQ subscales were entered into regression analysis. Gender was entered into Block 1 and the CERQ subscales were entered into Block 2. When controlled for gender and all other cognitive emotion regulation strategies, catastrophizing remained significantly correlated with positive relations. Self-blame also became significantly correlated (see Table 8).

Table 8
Multiple Regression Analyses for Cognitive Emotion Regulation Strategies in Predicting General Distress and Positive Relations with Others

<i>Variable</i>	<i>B</i>	<i>SE</i>	β	<i>R² Change</i>
<i>Distress</i>				
Block 1				.034*
Gender	3.745	1.580	.184*	
Block 2				.288**
Gender	1.935	1.460	.095	
Self-blame	1.931	.478	.307**	
Acceptance	.712	.465	.108	
Rumination	.206	.490	.033	
Positive Refocusing	-.743	.370	-.143*	
Refocus on Planning	.046	.487	.008	
Positive Reappraisal	-1.173	.533	-.185*	
Catastrophizing	1.502	.440	.285**	
Other Blame	.400	.510	.057	
<i>Positive Relations with Others</i>				
Block 1				.013
Gender	1.201	.812	.115	
Block 2				.199**
Gender	1.793	.797	.172*	
Self-blame	-.631	.263	-.195*	
Acceptance	.123	.255	.037	
Rumination	-.073	.267	-.023	
Positive Refocusing	.252	.204	.095	
Refocus on Planning	.531	.267	.172	
Positive Reappraisal	.310	.290	.098	
Catastrophizing	-.516	.238	-.192*	
Other Blame	-.489	.279	-.134	

Note. * $p < .05$, ** $p < .01$

B = unstandardized coefficients; *SE* = standard error, β = standardized coefficients

Chapter 4: Discussion and Conclusions

The present study had two hypotheses. The first hypothesis was that cultural values would mediate the relationship between country and cognitive emotion regulation strategies. The second hypothesis was that cultural values would moderate the relationship between cognitive emotion regulations strategies and general distress/positive relations. Results of analyses showed that positive reappraisal and catastrophizing were partly accounted for by individualism, which partly supported the first hypothesis. Individualism was found to significantly moderate the relationship between positive reappraisal and general distress. Uncertainty avoidance was also found to significantly moderate the relationship between catastrophizing and both general distress and positive relations. These results supported our second hypothesis.

Country Differences in Cultural Values

As predicted, North American students were found to score higher on individualism whereas Hong Kong students were found to score higher on long-term orientation. This was consistent with previous findings (Hofstede, 2001). However, Hong Kong students scored marginally higher on uncertainty avoidance. According to Hofstede (2005), uncertainty avoidance is defined as the extent to which people

seek to avoid ambiguous or unknown situations due to its threat of uncertainty and in general, is characterized by high levels of anxiety, a need for stability, and an urge to get things done. In cultures with high uncertainty avoidance, there is a strong sense of “what is different is dangerous”. Characteristics of high uncertainty avoidance seem to fit the case of many Hong Kong students. For instance, students prefer clear assessment criteria in classes and structured learning situations. Hong Kong students seldom express disagreement towards a professor’s opinions, respecting a professor’s expertise and accepting his knowledge as the “ultimate truth”. This is similar to Japanese students (Nakane, 2006). Perhaps differences in mean uncertainty avoidance scores have changed over the years due to the changing political scene in Hong Kong, where it has changed from British rule back to Chinese rule. In face of future uncertainties, Hong Kong people tend to seek stability and security. Furthermore, no differences in power distance were found among Hong Kong and American students. This may have been due to the fact that Hong Kong people have placed decreasing importance on hierarchy and increasing importance on equality between individuals. Again, this may have been due to the fact that under the British rule, Chinese had less status which resulted in large power distance, which slowly diminished now that Hong Kong people are ruled by their own people. Also, the fact that the sample consisted of highly educated young people may also have contributed to this difference.

Country Differences in Cognitive Emotion Regulation Strategies

In comparing cognitive emotion regulation strategies, North American students were found to use more positive reappraisal and acceptance, whereas Hong Kong students were found to use more of self-blame, other blame, and catastrophizing. These were consistent with previous studies, except for catastrophizing, in which American students were found to use more catastrophizing as reported in Zhu et al.'s (2008) study. Individualism was found to be positively correlated with positive reappraisal and negatively correlated with catastrophizing. The relationship between individualism and positive reappraisal may be due to the greater freedom of emotion expression among such individuals. Furthermore, there are salient norms in individualistic cultures concerning the desirability of positive affect, whereas other cultures, such as China, may even view positive emotions as undesirable (Eid & Diener, 2001). A possible reason for the higher levels of catastrophizing among Hong Kong students and its relation to individualism could be because catastrophizing may be displayed through self-disclosure, which enhances relationship formation. Once a person of an in-group is experiencing extremely negative emotions, other members of the in-group may show support and reassurance, and this may encourage the use of catastrophizing in collectivistic societies. Since our measure is related to self-perceived positive relationships, another possible reason is that people believe that members of their in-group have

developed a close bond with them when they catastrophize and respond with reassurance and support, even though this may not be the real case.

Mediation Effect of Cultural Values

Cultural values were found to partially mediate the country-cognitive emotion regulation strategy relationship, which partly supported the first hypothesis. As individualism was the only cultural value that was found to correlate with cognitive emotion regulation strategies of positive reappraisal and catastrophizing, mediation analyses were only performed on these relationships. Individualism was found to partially mediate both relationships. This shows that when a cognitive emotion regulation strategy is predicted by both country and cultural value, the cultural value does explain part of the variance. The reason that individualism was the only cultural value that showed significant mediation effects may be because this dimension is the most salient one, as it is closely linked with the self-concept (Triandis, 1995). However, in the current study cultural values did not mediate the relationship for most emotion regulation strategies, suggesting that other mediating variables may exist. In fact, compared to other emotion regulation strategies like suppression and reappraisal, the cognitive emotion regulation strategies in the current study may be similar to coping styles, which may be reflective of personal

experiences (Taylor, 2009). Further research should be done to investigate other possible mediators for the country-cognitive emotion regulation strategy relationship.

Moderation Effect of Cultural Values

Cognitive emotion regulation strategies that predicted general distress were also consistent with previous findings in that self-blame, rumination, and catastrophizing were positively correlated with distress while positive reappraisal was negatively correlated with it. Self-blame, positive reappraisal and catastrophizing remained significantly predictive of distress when controlled for gender and other cognitive emotion regulation strategies (Garnefski & Kraaij, 2006). On the other hand, refocus on planning, putting into perspective, and positive reappraisal were positively correlated with positive relations, whereas catastrophizing was negatively correlated with it. When controlling for gender and other cognitive emotion regulation strategies, catastrophizing still remained a significant predictor.

One of the interesting findings of the present study was the presence of significant moderation effects of cultural values on the relationship between cognitive emotion regulation strategy and distress/interpersonal outcomes, even when controlled for gender. Specifically, individualism moderated the positive

reappraisal-distress relationship and uncertainty avoidance moderated the catastrophizing-distress and the catastrophizing-positive relations relationship. This is an important finding to note as previously many studies have shown that positive reappraisal was associated with positive outcomes whereas catastrophizing was associated with negative outcomes (Garnefski & Kraaij, 2006, 2007; Martin & Dahlen, 2005). Study results showed that positive reappraisal was a much better predictor of negative association with distress in collectivistic cultures. In individualistic cultures, this relationship was not as strong. Collectivistic cultures have strong distinctions between in-groups and out-groups. In the face of negative events, these individuals may need to see the positive side of the situation in order to be able to “bring good news” back to the family, in order to “save face” for the in-group. This is important as an individual has close links with their in-group and in a sense they are each a representative of it. Positive reappraisal also allows the individual to be able to withstand the perceived pressures and judgments of out-groups. For instance, when negative events happen to an individual, the individual’s in-group will often be hindered and criticism will be targeted at the entire group, which brings distress to the individual that caused the incident. Under this line of reasoning, not having positive reappraisal should bring worse outcomes for an individual with collectivistic values compared to individualistic values, as further negative consequences occur for collectivistic cultures. This proves to be the case as

shown in Figure 1. While increased positive reappraisal leads to decreased distress for both cultures, decreased positive reappraisal has a larger negative impact on collectivistic cultures.

Secondly, uncertainty avoidance was found to moderate the relationship between catastrophizing and distress as well. For cultures with high uncertainty avoidance, catastrophizing did not lead to sufficiently high levels of distress. Uncertainty avoidance can be characterized by two important points, affect and informational value (Sorrentino et al., 2008). In the affective component, the goal of uncertainty avoidance is to avoid the anxiety that comes along with uncertainties (Hofstede, 2005). As for the informational component, the goal of uncertainty avoidance is to attain situational clarity. As individuals of high uncertainty avoidant cultures will take actions to reduce uncertainty, they may often predict the worst-case scenario for a given situation. In doing so, the future would be the same or better than predicted, which greatly reduces the anxiety from future uncertainties and also allows for better preparation of future challenges. Thus, catastrophizing from such individuals may not lead to adverse effects as these catastrophizations are congruent with expectations (see Figure 2). On the other hand, individuals from low uncertainty avoidance cultures may not take measures to predict future situations, and they may even consider all the different possibilities of the future. Catastrophizing would lead

to a much larger discrepancy between the real situation and “what could have been”.

Thus, catastrophizing is followed by greater psychological distress.

Furthermore, uncertainty avoidance was also found to moderate the relationship between catastrophizing and positive relations. Cultures high in uncertainty avoidance did not experience detrimental effects of interpersonal relationships with catastrophizing as with cultures low in uncertainty avoidance. It is possible that individuals of high uncertainty avoidance cultures would first predict reactions of others to their catastrophizing, and thus, any catastrophizing would have been done under the premise that it would not affect their interpersonal relationships. Since the measure of positive relations in the current study was a measure of *perceived* positive relations, the individual would not perceive any harm as the consequences have been evaluated beforehand. Furthermore, catastrophizing seemed to even cause a slight rise in interpersonal functioning (see Figure 3). A possible reason could be that catastrophizing actually brings individuals together, or that it increases perceived relationship closeness (Levesque et al., 2002). In the present study, catastrophizing was shown to be significantly correlated with collectivism, which suggests that catastrophizing may be a socially engaging, comparable to shame or guilt (Kitayama et al., 2006). Future studies will need to evaluate this possibility. On the other hand, individuals in low certainty avoidant cultures would

make no such predictions for the future. Thus, poor relationship outcomes are more likely to occur.

Limitations and Future Studies

The current study had several limitations. First of all, its sample size was rather small, especially for the North American sample. Also, most overseas participants of the study were exchange students, and thus there may be certain characteristics of exchange students that differ from non-exchange students. Although these exchange students have not stayed in Hong Kong for a very long, local cultural values may nevertheless be somewhat salient, as during their time here they are learning about the local culture and trying to fit in social circles. Thus, future studies should try to obtain larger samples from overseas.

Secondly, this study relied entirely on self-report measures, which risks self-report bias. In reality, how a person wishes to think and how he actually thinks may not be the same, and the perception of certain events may not translate into reality as well. Thus, future studies could try to incorporate different kinds of measures, such as other measurements of cultural dimensions, distress, and positive relations, or study designs, such as experimental designs, in order to achieve validity of the

current results and to have a clearer picture of the cross-cultural differences of emotion regulation.

Thirdly, this was a cross-sectional study and thus causal relationships could only be assumed. Perhaps distressed individuals tend to engage in maladaptive cognitive regulation strategies, and that individuals with positive relationships with others tend to engage in adaptive strategies. Therefore, future studies should adopt longitudinal designs in order to investigate long-term effects of different emotion regulation strategies, such as on catastrophizing and interpersonal relationships among individuals with different cultural values.

Implications and Conclusions

Despite limitations, this study is unique in that it is the first study to investigate cultural differences among the CERQ subscales in relation to cultural values. Furthermore, significant moderation effects of cultural values on emotion regulation and well-being were found, suggesting that the positive impact of positive reappraisal and the negative impact of catastrophizing are not as straightforward as researchers once thought. These results may lead to important implications concerning the understanding and treatment of clinical disorders. Emotional dysregulation has long been implicated in psychopathology as numerous

psychological disorders include symptoms of emotion regulation difficulties (Kring & Werner, 2004). For instance, catastrophizing has been implicated in mood disorders such as depression and anxiety (e.g. Hazlet-Stevens & Craske, 2003; Sullivan & D'Eon, 1990). In addition, positive reappraisal has also been incorporated into interventions for various health problems (e.g. Manne et al., 2008). Having an understanding of cultural differences in effects of catastrophizing and positive reappraisal would allow clinicians to better understand reasons for different cognitions and behaviors, which could contribute to future culture-specific interventions.

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Appendix A: Cognitive Emotion Regulation Questionnaire Short Version (CERQ-short)

Everyone gets confronted with negative or unpleasant events now and then and everyone responds to them in his or her own way. By the following questions you are asked to indicate what you generally think, when you experience negative or unpleasant events.

	Almost never	Sometimes	Regularly	Often	Almost always
	1	2	3	4	5
1. I think that I have to accept that this has happened	1	2	3	4	5
2. I often think about how I feel about what I have experienced	1	2	3	4	5
3. I think I can learn something from the situation	1	2	3	4	5
4. I feel that I am the one who is responsible for what has happened	1	2	3	4	5
5. I think that I have to accept the situation	1	2	3	4	5
6. I am preoccupied with what I think and feel about what I have experienced	1	2	3	4	5
7. I think of pleasant things that have nothing to do with it	1	2	3	4	5
8. I think that I can become a stronger person as a result of what has happened	1	2	3	4	5
9. I keep thinking about how terrible it is what I have experienced	1	2	3	4	5
10. I feel that others are responsible for what has happened	1	2	3	4	5
11. I think of something nice instead of what has happened	1	2	3	4	5
12. I think about how to change the situation	1	2	3	4	5
13. I think that it hasn't been too bad compared to other things	1	2	3	4	5
14. I think that basically the cause must lie within myself	1	2	3	4	5
15. I think about a plan of what I can do best	1	2	3	4	5
16. I tell myself that there are worse things in life	1	2	3	4	5
17. I continually think how horrible the situation has been	1	2	3	4	5
18. I feel that basically the cause lies with others	1	2	3	4	5

(Chinese Version)

每一個人有時候都會遇到負面或不愉快的事情，而每一個人都會對事件有自己的處理方式。以下問題是有關你在遇上負面或不愉快的事情時，你一般會有的想法。答案沒有錯對之分，請跟據你自己的經驗，利用以下量表作答。

	從不	間中	慣性	通常	經常
	1	2	3	4	5
1. 我認為我必須接受這事情	1	2	3	4	5
2. 我時常想著我對於已發生的事情的感受	1	2	3	4	5
3. 我認為我可以從事件中學習	1	2	3	4	5
4. 我覺得我應該為事情負責	1	2	3	4	5
5. 我認為我必須接受現狀	1	2	3	4	5
6. 我不停地想著我對所經歷的事情的所想所感	1	2	3	4	5
7. 我想著一些與現實無關的好事	1	2	3	4	5
8. 我認為我可以從事件中變得更堅強	1	2	3	4	5
9. 我不停想著我所經歷的事情有多恐怖	1	2	3	4	5
10. 我覺得別人應該對事情負責任	1	2	3	4	5
11. 我情願想著美好的事情而不去想已發生的事情	1	2	3	4	5
12. 我會思考我可以怎樣改變現況	1	2	3	4	5
13. 我認為相對之下這件事並不是太壞	1	2	3	4	5
14. 我認為事情的起因大都是因為我自己	1	2	3	4	5
15. 我會思考出一個我最能把事情做好的計劃	1	2	3	4	5
16. 我告訴自己生命中會有更壞的事情	1	2	3	4	5
17. 我不斷想著事情有多可怕	1	2	3	4	5
18. 我認為事情的起因大都是基於別人所引致	1	2	3	4	5

Appendix B: Hofstede's Values Survey Module 94

Take a moment to think of an **ideal job**, disregarding your present job, if you have one. In choosing an ideal job, how important is each of the following to you? Please use the following scale and circle your choice.

Utmost importance	Very important	Moderately important	Little importance	Very little or no importance
1	2	3	4	5

1. Sufficient time for your personal or family life	1	2	3	4	5
2. Good physical working conditions (good ventilation and lighting, adequate work space, etc.)	1	2	3	4	5
3. A good working relationship with your direct superior	1	2	3	4	5
4. Security of employment	1	2	3	4	5
5. Working with people who cooperate well with one another	1	2	3	4	5
6. Be consulted by your direct superior in his/her decisions	1	2	3	4	5
7. An opportunity for advancement to higher level jobs	1	2	3	4	5
8. An element of variety and adventure in the job	1	2	3	4	5

In your **private life**, how important is each of the following to you?

9. Personal steadiness and stability	1	2	3	4	5
10. Thrift	1	2	3	4	5
11. Persistence (perseverance)	1	2	3	4	5
12. Respect for tradition	1	2	3	4	5

Never Seldom Some-
times Usually Always

(Chinese Version)

試想像你的理想職業。在選擇你的理想職業時，以下各項有多重要？

	最重要	非常重要	一般重要	不太重要	不重要
1. 能給予足夠的私人或與家人相處的時間	1	2	3	4	5
2. 有良好的工作環境（如：空氣流通，光線充足，寬闊的工作空間）	1	2	3	4	5
3. 與上司有良好的工作關係	1	2	3	4	5
4. 工作穩定	1	2	3	4	5
5. 有一些良好的合作夥伴	1	2	3	4	5
6. 上司做決定時會諮詢你的意見	1	2	3	4	5
7. 有晉升機會	1	2	3	4	5
8. 工作多元化和具挑戰性	1	2	3	4	5

在你的私人生活當中，以下各項對你有多重要？

	最重要	非常重要	一般重要	不太重要	不重要
9. 個人穩定性	1	2	3	4	5
10. 財務管理	1	2	3	4	5
11. 堅持	1	2	3	4	5
12. 對傳統的重視	1	2	3	4	5
	從不	很少	間中	通常	經常
13. 你工作時有多少時候感到緊張？	1	2	3	4	5
14. 在你的經驗當中，下屬有多常向上司表達不同的意見？	1	2	3	4	5

對於下列的句子，你有多大程度同意或不同意？

	十分 同意	同 意	不知 道	不同 意	十分 不同 意
15. 大多數人是值得信賴的	1	2	3	4	5
16. 一個好的經理並不取決於他/她能否完全解答大部份下屬工作上的疑問	1	2	3	4	5
17. 一個團體架構裡是應該絕對避免某一些下屬有兩位上司的	1	2	3	4	5
18. 員工之間的競爭通常弊多於利	1	2	3	4	5
19. 員工不應該違反公司的規條，即使他們認為是對公司有利的	1	2	3	4	5
20. 員工人生的失敗大都原於人們自己的過失	1	2	3	4	5

Appendix C: Mood and Anxiety Symptom Questionnaire (General Distress Subscale)

Please indicate the extent to which these statements applied to you
over the past two weeks.

	Not at all		Sometimes		Extremely
1. Worried a lot about things	1	2	3	4	5
2. Trouble concentrating	1	2	3	4	5
3. Felt dissatisfied with things	1	2	3	4	5
4. Felt confused	1	2	3	4	5
5. Felt irritable	1	2	3	4	5
6. Trouble making decisions	1	2	3	4	5
7. Trouble paying attention	1	2	3	4	5
8. Felt restless	1	2	3	4	5
9. Felt something awful would happen	1	2	3	4	5
10. Got fatigued easily	1	2	3	4	5
11. Trouble remembering things	1	2	3	4	5
12. Trouble falling asleep	1	2	3	4	5
13. Trouble staying asleep	1	2	3	4	5
14. Loss of appetite	1	2	3	4	5
15. Slept very well	1	2	3	4	5

(Chinese Version)

在過去的兩個星期裡，下列的句子有多大程度發生在你身上？

	完全沒有		間中		經常
1. 為了很多事情擔憂	1	2	3	4	5
2. 不能集中精神	1	2	3	4	5
3. 對事情感到不滿	1	2	3	4	5
4. 感到困惑	1	2	3	4	5
5. 感到煩躁	1	2	3	4	5
6. 做決定有困難	1	2	3	4	5
7. 專注有困難	1	2	3	4	5
8. 感覺靜不下來	1	2	3	4	5
9. 感覺可怕的事情將會發生	1	2	3	4	5
10. 容易疲倦	1	2	3	4	5
11. 記憶有困難	1	2	3	4	5
12. 入睡有困難	1	2	3	4	5
13. 不能維持長時間的睡眠 (失眠)	1	2	3	4	5
14. 食慾不振	1	2	3	4	5
15. 睡得很好	1	2	3	4	5

Appendix D: Scales of Psychological Well-Being (Positive Relations Subscale)

Please indicate how much you agree with the following statements. Please use the scale below and circle your choice.

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1	2	3	4	5

- | | | | | | | |
|---|---|---|---|---|---|---|
| 1. Most people see me as loving and affectionate. | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. I often feel lonely because I have few close friends with whom to share my concerns. | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. I enjoy personal and mutual conversations with family members or friends. | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. I don't have many people who want to listen when I need to talk. | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. It seems to me that most other people have more friends than I do. | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. People would describe me as a giving person, willing to share my time with others. | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. I know that I can trust my friends and they know that they can trust me. | 1 | 2 | 3 | 4 | 5 | 6 |

(Chinese Version)

你有多大程度同意下列的句子？請用下列量表作答。

非常不同意 1	不同意 2	部份不同意 3	部份同意 4	同意 5	非常同意 6	
1. 大部份的人認為我是值得愛錫／愛護的	1	2	3	4	5	6
2. 我時常感到寂寞，因為我只有很少的知己去分擔我的擔憂	1	2	3	4	5	6
3. 我享受與家人及朋友之間的互動對話	1	2	3	4	5	6
4. 當我需要別人和我傾訴時，很少人會願意聆聽	1	2	3	4	5	6
5. 其他人好像比我更多朋友	1	2	3	4	5	6
6. 別人認為我是會付出的人，而且願意和別人分享自己的時間	1	2	3	4	5	6
7. 我知道我能信任自己的朋友及他們亦會信任我	1	2	3	4	5	6