

## An Examination of Happiness as a Buffer of the Rumination–Adjustment Link: Ethnic Differences Between European and Asian American Students

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Individuals who ruminate (i.e., a tendency to respond to negative life events with negative self-reflection) have consistently been found to be associated with maladaptive functioning (i.e., anxious and depressive symptoms). Happy individuals, on the other hand, have been found to have minimized anxious and depressive symptoms. Not surprisingly, rumination is negatively correlated with happiness. However, ethnic variations in the associations between these variables have not been studied previously. Thus, an integrative model involving rumination and happiness as predictors of psychological maladjustment (viz., depressive and anxious symptoms) was proposed and tested in 184 Asian Americans and 238 European Americans. For European Americans and not Asian Americans, results of hierarchical regression analysis indicated a significant Rumination  $\times$  Happiness interaction in predicting each of the maladjustment measures after accounting for the influences of both rumination and happiness. These findings are taken to offer support for a more interactive regression model of psychological maladjustment involving rumination and happiness.

*Keywords:* ethnicity, rumination, happiness, psychological adjustment

Research and interest in rumination has grown steadily over the years, resulting in hundreds of scholarly articles and scientific publications to date (see Nolen–Hoeksema, Wisco, & Lyubomirsky, 2008, for a review). As proposed by Nolen–Hoeksema’s (1987) response styles theory, rumination is characterized by self-reflection and the repetitive and passive focus on one’s own negative emotions (Nolen–Hoeksema, 1991, 2000). The ruminative response style refers to a stable tendency to respond to negative life events and negative

mood states with ruminative thinking and negative thoughts, resulting in an increased vulnerability to experience prolonged and more severe episodes of depression (Nolen–Hoeksema, Morrow, & Fredrickson, 1993). Consistently, research on rumination has shown it to be maladaptive in nature, often having significant positive associations with depressive symptoms (Nolen–Hoeksema, 2000), and greater anxious symptoms (Abbott & Rapee, 2004). Additionally, rumination has been associated with less life satisfaction (Ysseldyk, Matheson, & Anisman, 2007), and fewer expectations for positive events (Lyubomirsky & Nolen–Hoeksema, 1995). Rumination is also detrimental to adaptive behaviors, often interfering with engagement in instrumental behaviors, such as problem solving (Lyubomirsky & Nolen–Hoeksema, 1995). Although these studies are important (Smith & Alloy, 2009), a crucial yet often neglected aspect in studying psychological constructs is the examination of these constructs across different cultural groups. More specifically, few studies have examined cross-cultural differences in integrative models in-

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volving rumination and other theoretically important variables, such as happiness.

### **Encompassing Happiness as a Buffer: A Proposal for an Integrative Model**

Often studied by positive psychologists, happiness is an important construct that directly impacts the quality of one's life (Diener & Biswas-Diener, 2008). Research on happiness has accumulated significant evidence suggesting numerous benefits to psychological adjustment. Happiness has been found to be characterized by the experience of more frequent positive affective states than negative ones (Bradburn, 1969). Happy individuals have been found to have benefits in numerous domains, including larger social rewards such as higher odds of marriage, lower odds of divorce, more friends, and stronger social support (Harker & Keltner, 2001; Marks & Fleming, 1999). Important to our study, past research on happiness has found it to be negatively correlated with rumination (Elliot & Coker, 2008). Therefore, given that happiness is reliably associated with positive outcomes and attributes, being happy may represent an important factor that may mitigate or buffer the rumination-maladjustment link. Specifically, one might expect to find that among happy individuals, the rumination-maladjustment link may be weaker than what may be found among unhappy individuals (as noted above).

Although important findings have been found for rumination and happiness, a model of adjustment involving both variables has yet to be tested. Specifically, no study has examined a model involving happiness as a buffer of the link between rumination and adjustment. Important research by Needles and Abramson (1990) has shown that in reducing hopelessness depression, depressed individuals who have an enhancing attributional style for positive events were more likely to regain hopefulness, and thereby recover from depression when positive events occurred. Along a similar vein, Lyubomirsky and Nolen-Hoeksema (1995) have found that induced rumination exacerbates negative moods and impairs social problem solving only for those who exhibit high depressive symptoms. In other words, rumination appears to be most maladaptive when an individual is in a dysphoric mood. Thus, given that happiness is

associated with the experience of more positive affective states, one might infer that unhappiness may be associated with greater dysphoria and therefore exacerbate the positive link between rumination and maladjustment. On the contrary, the positive link between rumination and maladjustment may be buffered in the presence of happiness. Further supporting the argument that happiness may be a buffer for maladjustment, people who are happy have been found to have greater self-control and self-regulatory and coping abilities (Fredrickson & Joiner, 2002; Keltner & Bonanno, 1997). Yet, these predictions are based on past findings, which utilized predominantly European American samples, and therefore may not be generalized to different ethnic groups.

Personality research in Asian Americans is increasingly important. According to the U.S. Census, Asian Americans in the United States account for 5% percent of the population in the United States, this population is projected to double in the next 20 years (U.S. Census Bureau, 2000). Given the diversity of ethnic races we live among in the United States, diversity-related research in psychology is important. On top of that, few studies in the personality literature have examined Asian Americans directly (Chang, Chang, & Chu, 2006), highlighting the need for initial exploratory rather than confirmatory studies. Thus, we focus on cross-cultural comparisons between European and Asian Americans in this exploratory study.

Past research has found East-West differences in what constitutes the good and the valued (see Uchida, Norasakkunkit, & Kitayama, 2004, for a review). Therefore, although the importance of happiness may be similar across cultures, the way to achieve happiness may differ across cultures. Historically, Eastern cultures foster a view of collectivistic interdependence with the society in which fitting in is not only valued, but often required and expected. On the other hand, Western cultures foster a view of individualistic independence, viewing the self as a self-contained, autonomous entity that is the result of his or her own actions (Markus & Kitayama, 1991). According to Markus and Kitayama (1991), the difference lies at the perceived notion of the self: the Western view reflects independence, whereas the Eastern view reflects interdependence. Given the contrasting models of independence

versus interdependence, happiness can be seen as personal achievement for European Americans, and realization of social harmony for Asian Americans (Kitayama & Markus, 2000). Additionally, for Western cultures, maximizing happiness and functioning and reducing negative experiences and emotions are the key for happiness (Wong, 2008). On the other hand, for Eastern cultures, contentment is the key to lasting happiness. By integrating and balancing both positive and negative experiences, as opposed to achieving the highest levels of happiness with the lowest levels of sadness, contentment can be achieved (Wong, 2008).

We believe that the cultural differences between Asian and European Americans may point to important differences in the relationship between happiness and maladjustment. Specifically, we question whether the presence of happiness entails similar levels of maladjustment across two different cultures. For example, past research by Elliott and Coker (2008) has shown rumination to be associated with lower levels of happiness in European Americans. However, given that past research has found differences in how Western and Eastern cultures perceive happiness, we believe that cultural differences exist for the associations between rumination and happiness as well. Given these findings, it is possible that current findings on rumination may not translate well into other ethnic populations such as Asian Americans because of the many differences in cognitive and emotional styles that have been found.

Recent research on rumination suggests the importance of studying rumination across different cultural groups. Indeed, a number of studies have shown cultural differences in the relationships between rumination and maladjustment. Despite Asian Americans' greater frequency of rumination, rumination in Asian Americans was found to have weaker associations with depressive symptoms and anxious symptoms than rumination in European Americans (Chang, Tsai, & Sanna, 2010). Along the same vein, research by Grossmann and Kross (2010) have shown that self-reflection over negative experiences was related to fewer detrimental outcomes for Russians, an interdependent cultural group, as compared with Americans. Moreover, Lu and Stanton (2010) found that Asian Americans improved their negative physical symptoms more than European Americans through a self-focused

emotional disclosure of stressful experiences. It is important these cultural differences in rumination and self-reflection may be attributed to the value of negative self-relevant information. Indeed, past research has found that for Easterners, negative self-relevant information is readily accepted and even valued, whereas for Westerners, negative self-relevant information is associated with maladjustment (Heine et al., 2001). In summary, Heine, Lehman, Markus, and Kitayama (1999) indicated that the tendency to maximize the positivity of the self is constantly reinforced in Western culture, whereas it is not reinforced in Eastern culture. With these findings in mind, it is possible that for European Americans, happiness may buffer the rumination-maladjustment link due to its association with greater coping and self-regulation (Harker & Keltner, 2001; Marks & Fleming, 1999). On the contrary, if the maximization of the positivity of the self is not valued in Asian Americans, happiness may not play a significant role as a buffer for the rumination-maladjustment link.

### **Purpose of the Study**

Given these past findings, (the purpose of this study is to: 1) determine if there are differences in rumination and adjustment within groups (happy vs. unhappy) and between groups (Asian American vs. European American), and 2) to determine if level of happiness serves to buffer the association between rumination and adjustment differently between Asian and European Americans. Consistent with previous findings looking at cultural differences in happiness, we predicted that unhappy European Americans would show greater rumination and maladjustment as compared with Asian Americans. Lastly, we expected happiness to interact with the relationship between rumination and maladjustment. More specifically, given the role of happiness among Westerners, we expect the presence of happiness to act as a buffer against the maladaptive effects of rumination on adjustment for European Americans. However, given that happiness is characterized as a realization of social harmony rather as a personal achievement for Easterners, we expected happiness to play a weaker role in serving as a buffer against the maladaptive effects of rumination for Asian Americans.

## Method

### Participants

Participants were 184 (80 men and 104 women) Asian American and 238 (78 men and 160 women) European American college students attending a large Midwestern University. Due to the difficulty of collecting data from a particular ethnic group (Suarez-Balcazar, Balcazar, & Taylor-Ritzler, 2009), the participants were recruited via two different methods. The first method was to contact students by email using a randomly generated list of undergraduates provided by the registrar's office. This resulted in 336 (221 European Americans and 106 Asian Americans) participants. Because this produced a relatively small number of Asian American participants, we utilized a second method in which we distributed paper-and-pencil surveys at specific locations on campus where we could obtain a larger sample of Asian American participants. This second method resulted in 95 (17 European Americans and 78 Asian Americans) additional participants. When we compared the samples obtained from each method, we found no significant differences in age, sex, or year in college. For the total sample, mean age was 20.43 years (standard deviation [*SD*] = 2.96 years). Approximately 25.1% indicated being a freshman, 23% a sophomore, 22.5% a junior, 22.3% a senior, and 7.1% did not indicate class. Given our top-down approach and our method of initially soliciting participants (i.e., online surveys), we focused on limiting questions with the hopes of increasing online participation. That said, we did not collect additional data on measures such as generational status and acculturation.

### Measures

**Rumination.** The Ruminative Responses Scale (RRS; Nolen-Hoeksema & Morrow, 1991; Treynor, Gonzalez, & Nolen-Hoeksema, 2003) was used to measure rumination. The RRS is a 21-item self-report measure used to assess dispositional tendencies to ruminate (e.g., "Isolate yourself and think about the possible reasons why you feel sad," "Think 'Why do I have problems other people don't have?'," and "Think about all your shortcomings, failings, faults, mistakes"). Respondents are asked

to rate their responses on a 4-point Likert scale ranging from 1 (*almost always respond in this way*) to 4 (*almost never respond in this way*). Evidence for the construct validity of the RRS has been reported in previous research (e.g., Nolen-Hoeksema & Morrow, 1991; Nolen-Hoeksema, Parker, & Larsen, 1994). Test-retest reliability (2 months) for the RRS has been reported to be .71 (Sakamoto, Kambara, & Tanno, 2001). Previous research using this measure has found reliably to identify cultural differences across studies (e.g., Chang et al., 2010; Grossmann & Kross, 2010). Higher scores on the RRS indicate a stronger disposition to ruminate.

**Happiness.** Happiness was measured by the Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999). The SHS is a 4-item self-report measure of global subjective happiness. Respondents are asked to rate their responses on a 7-point Likert Scale. Items on the SHS ask respondents to characterize themselves using both absolute (e.g., a very happy person) and ratings relative to peers (e.g., more happy). The SHS has been shown to have good to excellent internal consistency, a moderate correlation with related constructs, good construct validity and discriminant validity, and a test-retest reliability of .55 to .90 (Lyubomirsky & Lepper, 1999; Lyubomirsky, 2001). The SHS has demonstrated good construct validity with diverse samples (Lin, Lin, & Wu, 2010). Higher scores on the SHS indicate greater happiness.

**Negative adjustment.** Negative adjustment was measured by the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) and the Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988). Although our working definition of negative adjustment refers to depressive and anxious symptoms in this study, we note that psychological adjustment is not limited to the measurement of depressive and anxious symptoms (e.g., life satisfaction and positive affectivity).

The BDI is a commonly used 21-item self-report measure of the severity of depressive symptoms. Using a 4-point Likert scale, respondents are asked to rate the extent to which they have experienced in the past week, including today, specific depressive symptoms (e.g., 0 = *I have not lost interest in other people*, to 3 = *I have lost all of my interests in other people*).

Evidence for the construct validity of the BDI has shown in past research, including positive correlations with other measures of depression (Beck, Steer, & Garbin, 1998). Test-retest reliability (4 months) for the BDI has been reported to be .62 (see Beck, Steer, et al., 1988). The BDI has been found to be a reliable measure across cultures (Carmody, 2005). Higher scores on the BDI indicate a higher level of depressive symptoms.

The BAI is a 21-item self-report measure of common symptoms of anxiety (e.g., "Fear of the worst happening"). Respondents rate the extent to which they have experienced each symptom over the past week using a 4-point Likert scale ranging from 0 (*not at all*) to 3 (*severely*). Evidence for the construct validity of the BAI has shown in past research, including positive correlations with other measures of anxiety (Beck, Epstein, et al., 1988). Test-retest reliability (1 week) for the BAI has been reported to be .75 (Beck, Epstein, et al., 1988). Previous research using the BAI has demonstrated good construct validity across cultures (Chang, Sanna, & Yang, 2003). Higher scores on the BAI generally indicate more severe levels of anxious symptoms.

## Procedure

Participants completed surveys either online or in paper-and-pencil format. Participants reported no self-identifying information and were not made aware of the purpose of the study until after they had completed the survey. Participants were told that the study was investigating college students' general cognitions, well-being, and adjustment in college.

## Results

### Relations Between Happiness, Rumination, and Psychological Maladjustment Between Asian and European Americans

To examine differences in rumination and adjustment between happy and unhappy Asian and European Americans, we conducted a series of univariate *t* tests. The results of our between-groups comparisons, including comparisons on rumination, depressive, and anxious symptoms are presented in Table 1. Because defining happiness and unhappiness by those who were 1 *SD* above and below the mean eliminated too many of our participants, to preserve our statistical power, instead, based on the two separate mean scores of happiness for Asian and European Americans, we defined happiness as those having scored above the mean, and unhappiness for those who scored below the mean. We found that happy Asian Americans (mean [*M*] = 42.30, *SD* = 10.47) reported lesser rumination than did unhappy Asian Americans (*M* = 51.56, *SD* = 12.13),  $t(182) = 5.54, p < .01$ , representing a large effect size,  $d = .82$ . Similarly, happy European Americans (*M* = 38.20, *SD* = 11.49) reported lesser rumination than did unhappy European Americans (*M* = 48.46, *SD* = 12.95),  $t(236) = 6.48, p < .01$ , representing a large effect size,  $d = .84$ . In addition, happy Asian Americans (*M* = 8.59, *SD* = 8.17) also reported lesser depressive symptoms as compared with unhappy Asian Americans (*M* = 12.24, *SD* = 9.60),  $t(182) = 2.78, p < .01$ , representing a medium effect size,  $d = .46$ . This pattern was found for happy European Americans (*M* = 4.39, *SD* = 4.64) as compared with unhappy European

Table 1  
*Mean Difference of Rumination, Depressive Symptoms, and Anxious Symptoms for Happy and Unhappy Asian Americans (n = 184) and European Americans (n = 238)*

Criterion	Asian American						European Americans					
	Happy (n = 78)			Unhappy (n = 106)			Happy (n = 110)			Unhappy (n = 128)		
	<i>M</i>	<i>SD</i>	$\alpha$	<i>M</i>	<i>SD</i>	$\alpha$	<i>M</i>	<i>SD</i>	$\alpha$	<i>M</i>	<i>SD</i>	$\alpha$
Rumination	42.30 <sup>a</sup>	10.47	.89	51.56 <sup>b</sup>	12.13	.85	38.20 <sup>c</sup>	11.49	.93	48.46 <sup>d</sup>	12.95	.93
Depressive symptoms	8.59 <sup>a</sup>	8.17	.91	12.24 <sup>b</sup>	9.60	.90	4.39 <sup>c</sup>	4.65	.90	11.27 <sup>b,d</sup>	8.86	.79
Anxious symptoms	6.38 <sup>a</sup>	6.09	.82	10.49 <sup>b</sup>	8.89	.75	6.07 <sup>a,c</sup>	6.26	.93	11.02 <sup>b,d</sup>	9.76	.88

*Note.* Means with different superscripts indicate a significant difference ( $p < .05$ ) between levels of happiness and ethnic groups.

Americans as well ( $M = 11.27$ ,  $SD = 8.86$ ,  $t(236) = 7.65$ ,  $p < .01$ , representing a large effect size,  $d = .97$ ). It is interesting that whereas the pattern of lesser maladjustment in happy participants is the same across ethnicities, happy Asian Americans report greater rumination and depressive symptoms than happy European Americans. Thus, this finding suggests cultural differences in the frequency of rumination experienced by Asian Americans as compared with European Americans. An independent-samples  $t$  test confirm that Asian Americans ( $M = 46.23$ ,  $SD = 12.08$ ) reported significantly greater rumination than European Americans ( $M = 42.94$ ,  $SD = 13.20$ ),  $t(420) = 2.63$ ,  $p = .01$ .

### Happiness as a Buffer of the Link Between Rumination and Adjustment

To examine the predictive utility of happiness and rumination in accounting for variance in measures of psychological maladjustment, we con-

ducted a series of hierarchical regression analyses for each of the maladjustment measures. For each of the regression equations, rumination was entered as the first step, followed by happiness in the second step. Finally, to test for a Rumination  $\times$  Happiness interaction, the multiplicative term was entered in the final step of the equation (Aiken & West, 1991). According to Baron and Kenny (1986), evidence for a moderator effect is present when the interaction term between the predictor (rumination) and moderator (happiness) is found to be significant. Results of these analyses for predicting variance in the two psychological maladjustment measures for both ethnic groups are presented in Table 2. To account for family-wise error rate, a Bonferroni correction was used. With four planned comparisons, the  $p$  value needs to be less than .0125 to achieve statistical significance.

For predicting depressive symptoms in Asian Americans, rumination and happiness accounted for 45% of the variance in depressive

Table 2  
Results of Hierarchical Regression Analyses Showing Amount of Variance in Depressive and Anxious Symptoms by Rumination, Happiness, and Rumination  $\times$  Happiness

Outcome	$\beta$	$R^2$	$\Delta R^2$	$df$	$F$
Asian American ( $n = 184$ )					
Depressive symptoms					
Step 1		.45	—	2, 181	23.52***
Rumination	.46***				
Happiness	.01				
Step 2		.46	.01	1, 180	.57
Rumination $\times$ Happiness	-.20				
Anxious symptoms					
Step 1		.17	—	2, 181	79.47***
Rumination	.34***				
Happiness	-.12				
Step 2		.17	.00	1, 180	0.20
Rumination $\times$ Happiness	-.12				
European American ( $n = 238$ )					
Depressive symptoms					
Step 1		.48	—	2, 235	111.53***
Rumination	.43***				
Happiness	-.39***				
Step 2		.54	.06	1, 234	29.42***
Rumination $\times$ Happiness	-.90***				
Anxious symptoms					
Step 1		.37	—	2, 235	70.99***
Rumination	.50***				
Happiness	-.19***				
Step 2		.43	.06	1, 234	26.35***
Rumination $\times$ Happiness	-.94***				

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

symptoms. More important, the Rumination  $\times$  Happiness interaction was not significant for predicting additional variance in depressive symptoms after partialing out the variances accounted for by both rumination and happiness. Next, for predicting anxious symptoms in Asian Americans, rumination and happiness accounted for 17% of the variance in anxious symptoms. In addition, the Rumination  $\times$  Happiness interaction was not significant for predicting additional variance in anxious symptoms after partialing out the variances accounted for by both rumination and happiness. Thus, these results suggest that happiness is not a significant moderator for Asian Americans in predicting depressive and anxious symptoms.

For predicting depressive symptoms in European Americans, rumination and happiness accounted for 48% of the variance in depressive symptoms. Most important, the Rumination  $\times$  Happiness interaction was significant for predict-

ing additional variance in depressive symptoms ( $\Delta R^2 = 6\%$ ) after partialing out the variances accounted for by both rumination and happiness. Next, for predicting anxious symptoms in European Americans, rumination and happiness accounted for 37% of the variance in depressive symptoms. In addition, the Rumination  $\times$  Happiness interaction was significant for predicting additional variance in anxious symptoms ( $\Delta R^2 = 6\%$ ) after partialing out the variances accounted for by both rumination and happiness. Thus, these results suggest that for European Americans, happiness is a significant moderator in the relationship between rumination and maladjustment.

To visually inspect the manner in which rumination and happiness interacted with each other in predicting depressive symptoms in Asian Americans (see Figure 1), we plotted the regression of depressive symptoms on each dimension of rumination at low and high levels (1 *SD* below and above the mean, respectively) of

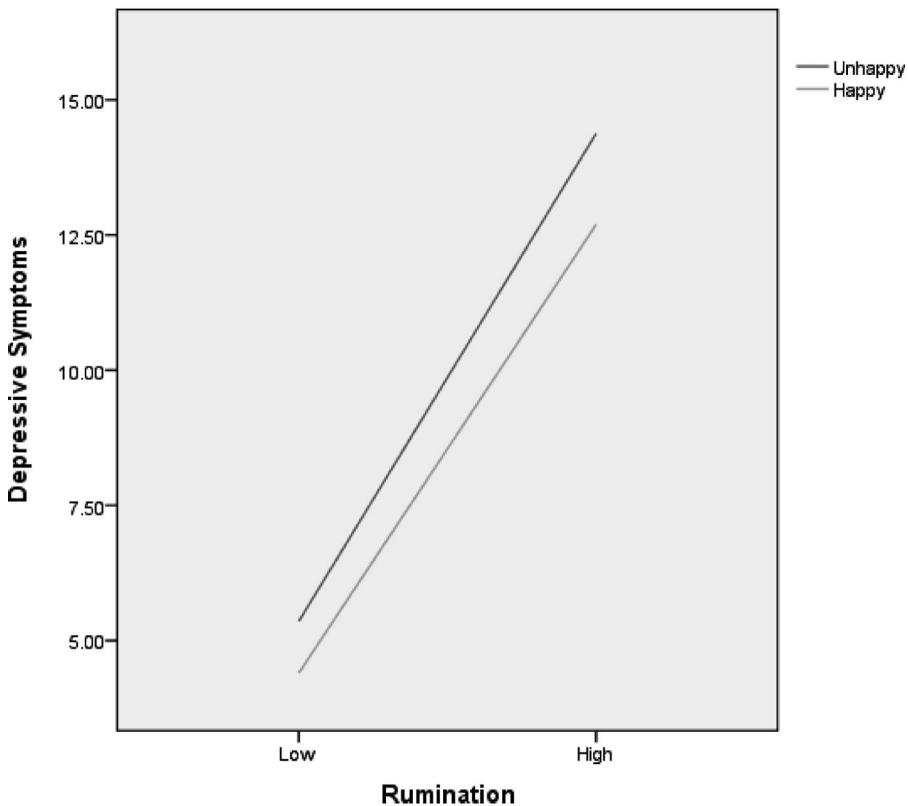


Figure 1. Relationship between rumination and depressive symptoms at low and high levels of happiness for Asian Americans.

happiness based on our initial regression results. The presence of high as compared with low happiness did not appear to increase the positive association between rumination and depressive symptoms. On the other hand, using the same analysis for European Americans, the presence of high as compared with low happiness appeared to increase the positive association present between rumination and depressive symptoms (see Figure 2).

Next, similar to the procedure used for predicting depressive symptoms, we plotted the regression of anxious symptoms on rumination at low and high levels of happiness to illustrate the Rumination  $\times$  Happiness interaction in Asian Americans (see Figure 3). Similar to the results for predicting depressive symptoms, the presence of high as compared with low happiness did not appear to increase the positive association between rumination and anxious symptoms. On the other hand, for European

Americans, the presence of high as compared with low happiness appeared to increase the positive association present between rumination and anxious symptoms (see Figure 4).

## Discussion

In the present study, we examined for potential ethnic differences between happy versus unhappy Asian and European Americans on rumination, depressive, and anxious symptoms. Happiness has predominantly been conceptualized as a result of desirable characteristics/personalities and successful life outcomes in the literature (Lyubomirsky, King, & Diener, 2005). Recently however, Lyubomirsky and her colleagues (2005) found that happiness may precede numerous successful outcomes and desirable personalities, suggesting an alternative causal pathway. For example, positive affect may be the cause of many of the desirable

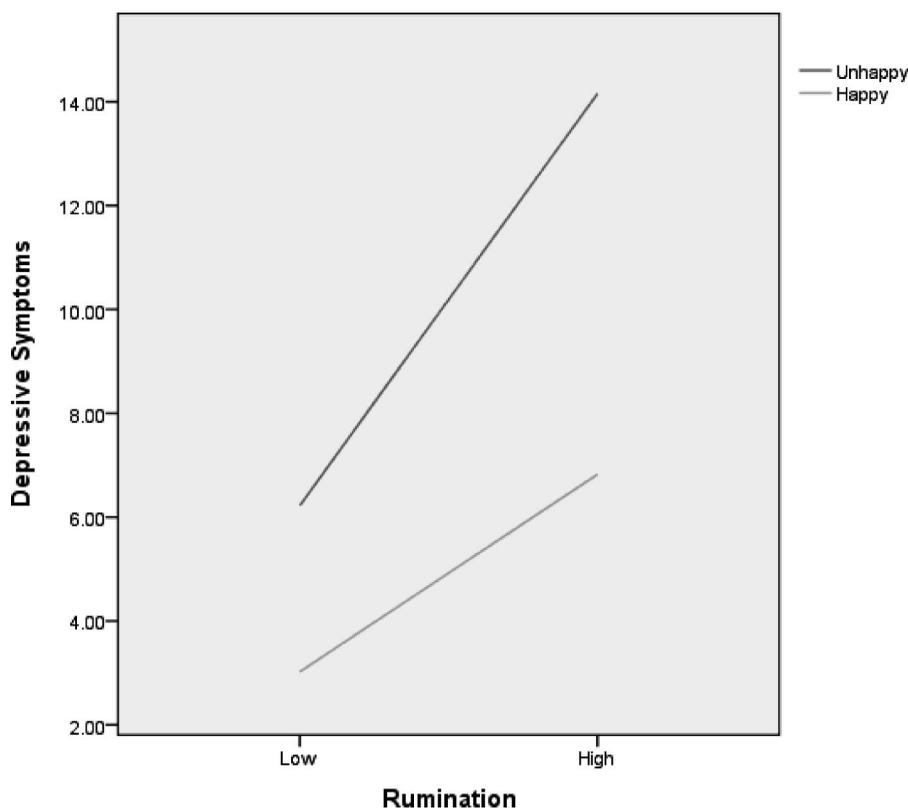


Figure 2. Relationship between rumination and depressive symptoms at low and high levels of happiness for European Americans.

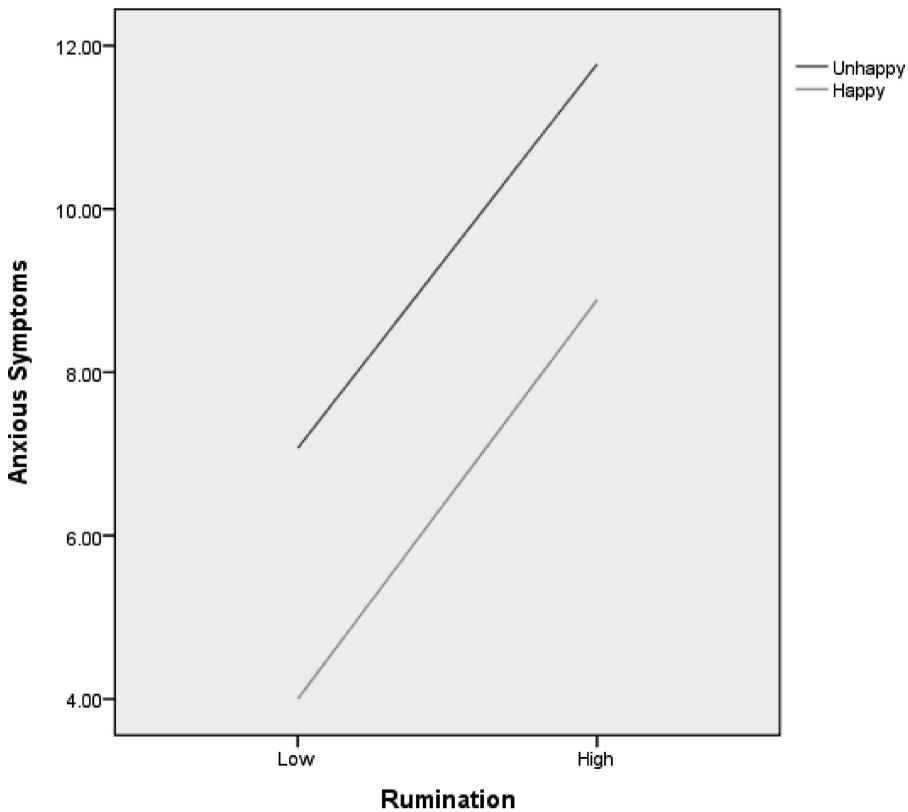


Figure 3. Relationship between rumination and anxious symptoms at low and high levels of happiness for Asian Americans.

personalities and outcomes correlated with happiness. Thus, our decision in this study to categorize happiness as a dichotomous variable using a mean split was to capture qualitative and meaningful differences both within and between Asian and European Americans—as done in past studies (Lyubomirsky & Ross, 1999; Lyubomirsky et al., 1999). In general, we found that for both Asian and European Americans, happiness was associated with the least maladjustment. For example, we found that as compared with other groups, unhappy Asian Americans scored the highest on measures of rumination and depressive symptoms. In contrast, unhappy European Americans scored the highest on anxious symptoms as compared with other groups. As expected, happy European Americans scored the lowest on rumination, depressive, and anxious symptoms. Comparing the scores of rumination and depressive

symptoms between happy Asian and happy European Americans, happy Asian Americans scored significantly higher in both variables. Thus, it appears that rumination and depressive symptoms in Asian Americans' adjustment is associated with less psychological harm than it is for European Americans (cf. Nolen-Hoeksema, 2000). That is to say, the presence of elevated levels of rumination and depressive symptoms in Asian Americans was not associated with lower levels of happiness in their lives. Indeed, consistent with our findings, Joorman, Dkane, and Gotlib (2006) have suggested that engaging in rumination may not necessarily be as psychologically harmful as previously believed. Even more, researchers have begun considering rumination as a more complex process, consisting of both adaptive and maladaptive components (e.g., Vassilopoulos & Watkins, 2009). Thus, it may be that for happy Asian Ameri-

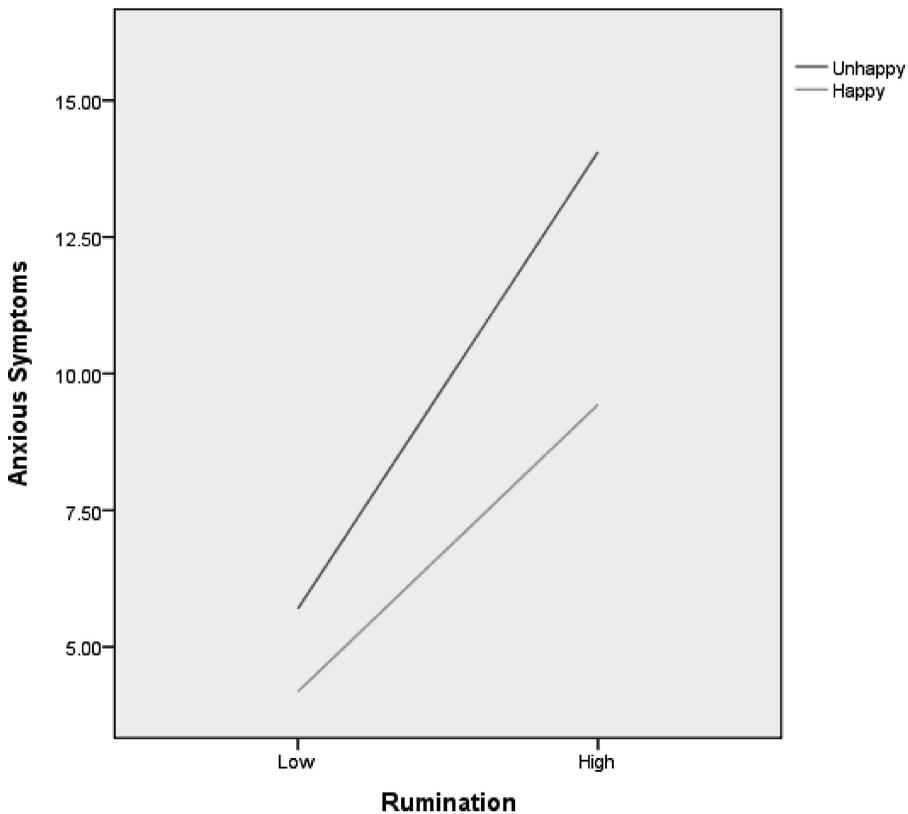


Figure 4. Relationship between rumination and anxious symptoms at low and high levels of happiness for European Americans.

cans, the elevated levels of rumination and depressive symptoms represent a multifunctional construct.

A second goal of the present study was to examine if evidence could be found for the role of happiness as a buffer of the expected rumination–maladjustment link in both Asian and European Americans. Consistent with expectations, level of happiness was not a significant buffer of the rumination–maladjustment link for Asian Americans. In contrast, level of happiness was a significant buffer of the rumination–adjustment link for European Americans. Specifically, our results showed that the presence of unhappiness was associated with a stronger link between rumination and depressive symptoms and between rumination and anxious symptoms in this group. These results are consistent with the idea that rumination is activated or exacerbated among individuals when in a depressed mood. However, unlike past studies, we were

able to show that this is also the case for European Americans when experiencing a lack of happiness (which is related to, but not redundant with depressed mood; Lyubomirsky & Lepper, 1999). Therefore, the findings point to the potential value of considering the interplay between rumination and happiness in formulating prediction models of depressive and anxious symptoms.

### Implications for Research and Practice

Given the cross-sectional and top-down design of this study, and the limited knowledge we have currently of Asian American personality research, the implications of this study should be taken as directions and theories for future research to examine. It appears that the presence (vs. absence) of happiness functions to lessen these maladaptive associations differently among Asian and European Americans. A Eu-

ropean American with low scores on happiness who also ruminates may be at the most risk for elevated levels of depressive and anxious symptoms. On the contrary, a European American with high scores on happiness who ruminates may have less depressive symptoms due to the presence of increased positive affectivity associated with happiness. Thus, our findings may be taken to suggest that it would be useful for clinicians to address a lack of happiness in European Americans before considering efforts to reduce levels of rumination, depressive, or anxious symptoms. Similar to this idea, an emerging line of research has identified “positive interventions” that lead to sustained and significant boosts in well-being by promoting happiness (see Sin & Lyubomirsky, 2009, for a review). For example, the gratitude visit exercise, an example of a positive psychology intervention, has been found to be an effective exercise in increasing positive affectivity and reducing depressive symptoms (Seligman, Steen, Park, & Peterson, 2005). In contrast, for Asian Americans, the level of happiness may not be a reliable indicator of adjustment. Instead, it may be useful for clinicians to first gain greater awareness of the role rumination plays in their adjustment before attempting to reduce it. Our findings for Asian Americans that show happiness as a nonsignificant moderator between the rumination and maladjustment link should not be viewed as a handicap, but an indication that there are important ethnic differences in the functions of rumination and happiness. Again, as previously noted, future research would be important to confirm these ideas to further understand and delineate the processes that occur during rumination in Asian and European Americans.

### Some Limitations

Although the results show important findings, this study has several limitations worth mentioning. First, the sample of this study is all college students from a large Midwestern University, and therefore may not be generalized to a non-college-student adult. Indeed, it would be useful to expand on the present findings and examine the role of happiness and rumination in samples that have a history of depressive and/or anxious disorders (Chang, 2004). Second, the

design of this study is cross-sectional, and therefore causal inferences could not be made. Thus, it would be useful to examine these cognitive variables with a prospective study, utilizing cognitive manipulations in an experimental design. Third, it is important to recognize that there are many different intraethnic groups (e.g., Japanese Americans and Korean Americans). Accordingly, it would be useful for future studies to determine whether the present findings for Asian Americans would vary across different intraethnic groups. Lastly, cultural variations were expected in the present study due to the presumed differences in collectivism and individualism. In future studies, using measures of collectivism and individualism would provide more concrete evidence of these theories and additional insights. Clearly, it will be important for future research to clarify and build on present findings so both researchers and clinicians working with Asian and European Americans may more successfully understand cognitive processes such as rumination and happiness.

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