



Optimism, pessimism, affectivity, and psychological adjustment in US and Korea: a test of a mediation model

Edward C. Chang^{a,*}, Lawrence J. Sanna^b, Kye-Min Yang^c

^a*Department of Psychology, University of Michigan, 525 East University Avenue, Ann Arbor, MI 48109, USA*

^b*University of North Carolina at Chapel Hill, USA*

^c*Chung-Ang University, Seoul, South Korea*

Received 21 September 2001; received in revised form 8 March 2002; accepted 15 April 2002

Abstract

Previous research has indicated that cognitive and affective variables play an important role in models of psychological adjustment. However, the examination of such variables across different cultural groups has remained a neglected issue. Accordingly, this study assessed the role of outcome expectancies (optimism and pessimism) and affectivity (positive and negative affect) as predictors of psychological adjustment (life satisfaction and depressive symptoms) in a sample of 294 South Korean and 320 European American college students. Consistent with the mapping of self-criticism and self-enhancement to Easterners and Westerners, respectively, Koreans compared to European Americans were found to report greater negative affectivity and depressive symptoms. In contrast, European Americans compared to Koreans were found to report greater positive affectivity and life satisfaction. Moreover, results of path analyses examining a model of affectivity as a mediator of the link between outcome expectancies and psychological adjustment provided additional evidence for cultural differences. Implications of the present findings for understanding psychological adjustment in Easterners versus Westerners are discussed. © 2002 Elsevier Science Ltd. All rights reserved.

Keywords: Optimism; Pessimism; Affectivity; Psychological adjustment; Culture

Over the past several decades, researchers, scholars, and practitioners have become increasingly interested in studying optimism and pessimism. According to Scheier and Carver (1985), *optimism* and *pessimism*, defined as generalized positive and negative outcome expectancies, respectively, are believed to represent important predictors of adjustment. Specifically, these investigators have argued that optimism is associated with and leads to securing positive outcomes, whereas pessimism

* Corresponding author. Tel.: +1-734-647-3876; fax: +1-734-615-0573.

E-mail address: changec@umich.edu (E.C. Chang).

is associated with and leads to incurring negative outcomes (Scheier & Carver, 1985). Consistent with this view, numerous studies have found that optimism is associated with greater positive psychological outcomes, whereas pessimism is associated with greater negative psychological outcomes. For example, optimism has been found to be associated with greater life satisfaction (Chang, Maydeu-Olivares, & D’Zurilla, 1997), whereas pessimism has been found to be associated with greater depressive symptoms (Chang et al., 1997). Accordingly, there has been growing interest in examining the influence of optimism and pessimism on psychological adjustment.

1. Optimism, affectivity, and psychological adjustment

Some studies have shown that expressions of pessimism are not equivalent to expressions of the lack of optimism. Recent factor-analytic findings examining the structure of the LOT and other measures of outcome expectancies have indicated that optimism and pessimism emerge as two distinguishable factors (e.g. Chang, D’Zurilla, & Maydeu-Olivares, 1994; Chang et al., 1997; Marshall, Wortman, Kusulas, Hervig, & Vickers, 1992; Scheier & Carver, 1985; Scheier, Carver, & Bridges, 1994). Moreover, recent studies looking at cultural influences have shown that there is considerable value in examining optimistic and pessimistic processes separately (e.g. Chang, 1996, 2002; Chang, Asakawa, & Sanna, 2001). However, recent findings have made clear that the study of cognitive concomitants of psychological adjustment must also consider the role of mood. According to Watson and Clark (1984; Watson, Clark, & Tellegen, 1988), mood is also composed of two distinguishable dimensions, namely positive and negative affect. Whereas *positive affectivity* reflects the extent to which individuals generally feel active, alert, and enthusiastic, *negative affectivity* reflects the extent to which individuals generally feel upset or unpleasantly aroused (Watson et al., 1988). Noteworthy, findings from recent studies have shown that measures of psychological adjustment (e.g. depression and life satisfaction) are strongly associated with both negative and positive affectivity (e.g. Chang et al., 1997). As a result, when considering cognitive models of psychological adjustment, it has become crucial to show that beyond affectivity, cognitive factors remain significantly associated with measures of psychological adjustment. Such efforts may be particularly meaningful when considering the role of outcome expectancies given that optimism and pessimism have been found to map onto positive and negative affectivity, respectively (Marshall et al., 1992). For example, in considering a mediation model, it would be important to show that the influence of cognitive variables such as optimism and pessimism on psychological adjustment is not fully mediated by affectivity. A representation of a model for predicting depressive symptoms and life satisfaction is presented in Fig. 1.

2. Cultural differences in Easterners and Westerners: self-enhancement versus self-criticism

Another crucial, but often neglected concern in studying psychological models of adjustment is the examination of such models across different cultural groups. For example, it is important to recognize that Eastern cultures have historically fostered a view of the person that maintains a fundamental relatedness of individuals to each other (Markus & Kitayama, 1991). Attending to others, harmonious interdependence with them, and fitting in are not only valued but also are

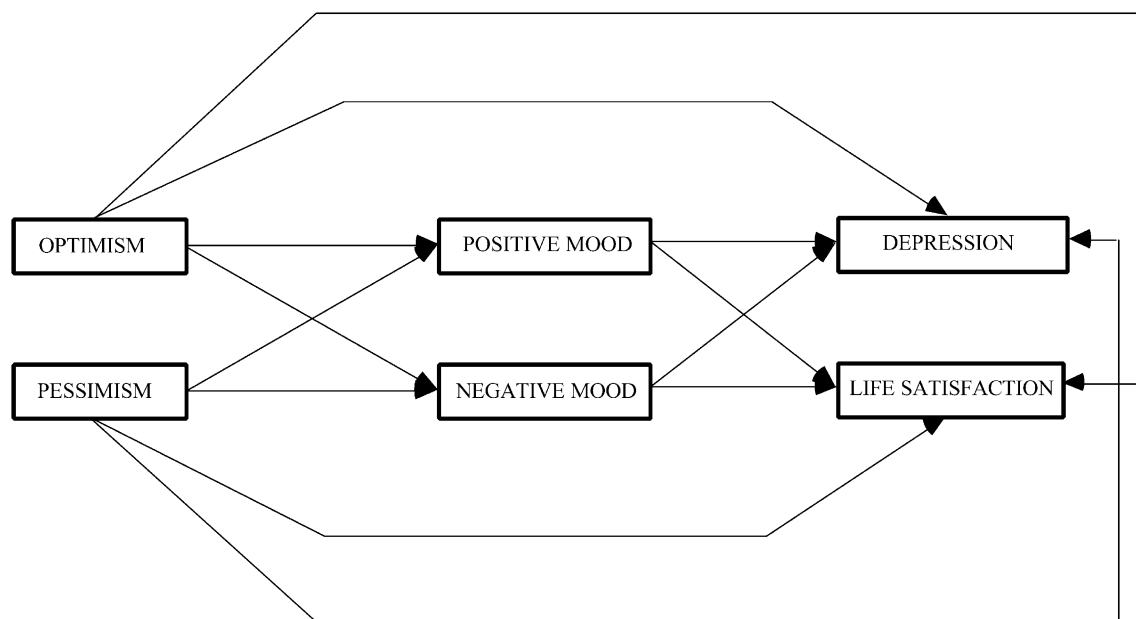


Fig. 1. A mediation model of positive and negative mood on the relation between optimism and pessimism and depression and life satisfaction.

often expected. In contrast, such relatedness among individuals is neither assumed nor valued in most Western cultures (Markus & Kitayama, 1991; Triandis, 1995). Rather, individuals seek independence from others by attending to the self and by expressing their uniqueness (Taylor & Brown, 1988). According to Markus and Kitayama (1991), these differences between Eastern and Western cultures are believed to be reflected in two relatively distinct notions of the self, one that is largely interdependent (Eastern) and another that is independent (Western). If the self forms the basis on which individuals think, feel, and behave, we should expect Easterners to differ significantly from Westerners along dimensions of cognition, affect, and behavior because of these presumed cultural differences in the self (Markus & Kitayama, 1991; Triandis, 1995).

One particular pattern that has emerged in distinguishing individualism versus collectivism has been the notion of self-enhancement versus self-criticism, respectively. According to Kitayama, Markus, Matsumoto, and Norasakkunkit (1997), *self-enhancement* may be broadly defined as a general sensitivity to positive self-relevant information. Indeed, within cultures that are believed to support and possibly encourage self-enhancement, researchers have found robust support for self-enhancement as indicated by individuals holding overly positive views of the self, exaggerated perceptions of personal control, and holding an optimistic bias that is unrealistic (Taylor & Brown, 1988).

In collectivist cultures, where group well-being may be more important than individual well-being, self-enhancement may not be a tell-tale sign of normative behavior however. Rather, as argued by Kitayama and his colleagues (Kitayama et al., 1997), what is typically found in collectivist cultures, as in Korea, is a tendency to support *self-criticism*, which Kitayama et al. (1997) have broadly defined as a general sensitivity to negative self-relevant information. Although it is often assumed that engaging in self-critical behavior is maladaptive, it is clearly the case that not all personality processes that involve self-critical elements are maladaptive. According to

Kitayama et al. (1997), self-criticism represents a constructive process for Japanese, one that allows the individual to obtain information vital to maintaining and supporting the group. In that regard, several studies have shown that individuals from collectivist cultures are indeed self-critical (Kitayama et al., 1997).

To date, the examination of cognitive (optimism and pessimism) and affective (positive and negative affectivity) concomitants of psychological adjustment across different cultural groups (e.g. Easterners versus Westerners), as well as, of a model of psychological adjustment across different cultural groups, has remained largely unaddressed in the literature.

3. Purpose of the present study

Given these concerns, the main purpose of the present study was to (a) assess the relations between measures of outcome expectancies (optimism and pessimism), affectivity (positive and negative affectivity), and psychological adjustment (*viz.*, assessed by depressive symptoms and life satisfaction) among Easterners (Koreans) and Westerners (European Americans); (b) examine for group differences on measures of outcome expectancies, affectivity, and psychological adjustment between Easterners and Westerners; and (c) assess the role of cognitive and affective concomitants in predicting psychological adjustment among Easterners and Westerners based on the mediation model presented earlier.

Consistent with previous findings, we expected that measures of outcome expectancies, affectivity, and psychological adjustment would be significantly interrelated with each other for both cultural groups. However, the associations between these variables were not expected to be identical given presumed cultural differences (e.g. Markus & Kitayama, 1991). In addition, based on the mapping of self-criticism to collectivist cultures and self-enhancement to individualistic cultures (Kitayama et al., 1997), we expected to find stronger expressions of pessimism, negative affectivity, and negative psychological adjustment (depressive symptoms) among Easterners compared to Westerners. Alternatively, we expected to find stronger expressions of optimism, positive affectivity, and positive psychological adjustment (life satisfaction) among Westerners compared to Easterners. In addition, we expected to find cultural differences in prediction models of psychological adjustment. Specifically, although we hypothesized that affectivity would mediate the link between outcome expectancies and adjustment for both Easterners and Westerners, we predicted that pessimism would continue to have a direct association with adjustment for Westerners, whereas optimism was expected to have a direct association on adjustment for Easterners.

4. Method

4.1. Participants

For the Western sample, 324 (81 men and 243 women) European American college students attending a mid-sized Midwestern university were solicited to participate in this study. For the Eastern sample, 297 (162 men and 135 women) Korean college students attending a mid-sized private university located in Seoul, South Korea were solicited to participate in this study. All

participants were enrolled in an introductory psychology course in their respective universities and fulfilled a course requirement by participating.

4.2. Measures

4.2.1. Revised Life Orientation Test (LOT-R)

The LOT-R (Scheier et al., 1994) is a six-item measure (plus four filler items) of individual-differences in optimism or OPT (e.g. “In uncertain times, I usually expect the best”) and pessimism or PESS (e.g. “If something can go wrong for me, it will”). Respondents are asked to rate the extent of their agreement to these items across a 5-point Likert-type scale ranging from 0 (*strongly disagree*) to 4 (*strongly agree*). The LOT-R is a brief modified version of the original Life Orientation Test (LOT; Scheier & Carver, 1985) and has been found to correlate 0.95 with the latter (see Scheier et al., 1994). Support for the construct validity of the LOT-R has been reported in Scheier et al. (1994).

4.2.2. Positive and Negative Affect Schedule (PANAS)

The PANAS (Watson et al., 1988) is a 20-item self-report measure of positive and negative affect, with 10 items assessing for positive affect or PA (e.g. “enthusiasm”) and 10 items for negative affect or NA (e.g. “irritable”). Respondents are asked to rate how they feel for each item across a 5-point Likert-type scale ranging from 1 (*very slightly*) to 5 (*extremely*). For the present study, instructions asked how respondents felt in general (i.e. “Indicate to what extent you *generally* feel this way, that is, how you feel on the average.”). Evidence for the construct validity of the PANAS PA and NA scales has been reported in Watson et al. (1988).

4.2.3. Beck Depression Inventory (BDI)

The BDI (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) is a commonly used 21-item self-report measure of depressive symptomatology. Respondents are asked to rate the extent to which they have experienced *in the past week, including today*, specific depressive symptoms across a 4-point Likert-type scale (for example, “0 = I do not feel sad” to “3 = I am so sad or unhappy that I can’t stand it”). Evidence for the construct validity of the BDI has been reported in Beck, Steer, and Garbin (1988). Higher scores generally indicate more severe levels of depressive symptomatology.

4.2.4. Satisfaction With Life Scale (SWLS)

The SWLS (Diener, Emmons, Larsen, & Griffin, 1985) is a 5-item measure of global life satisfaction (e.g. “I am satisfied with my life”), or a person’s satisfaction with life as a whole, rather than any specific domain. Respondents are asked to rate the extent of their agreement to these items across a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Evidence for the construct validity of the SWLS with other measures of subjective well-being has been reported in Pavot and Diener (1993). Higher scores on the SWLS reflect greater life satisfaction (Diener et al., 1985).

4.2.5. Translations

A senior psychology graduate student and senior psychology professor from Chung-Ang University in Seoul, South Korea, helped with the translations of the present measures into Korean. Both have extensive experience and training in translating and back-translating English and

Korean materials. First, the graduate student translated the English versions of the LOT-R, PANAS, BDI, and SWLS into Korean. Following this, the translated Korean items were then back-translated into English by the senior professor. This process was repeated until back-translated items closely matched the original English versions.

4.3. Procedure

For Koreans, all study measures were administered to all 297 participants in the form of a take home survey that was to be returned the next day of class. Of the initial Korean participant sample, three participants provided an incomplete set of surveys, and thus left a total of 294 completed responses that were available for subsequent analyses. For European Americans, all study measures were administered to all 324 participants in the form of a take home survey that was to be returned the next day of class. Of the initial European American participant sample, four participants provided an incomplete set of surveys, and thus left a total of 320 completed responses that were available for subsequent analyses. Participants were not made aware of the purpose of the study until after they had completed all measures. To protect the participants' anonymity, only subject numbers were placed on the instruments. In addition, all participants signed separate consent forms that indicated that all test data would be kept strictly confidential.

5. Results

5.1. Relations between optimism, pessimism, affectivity, and psychological adjustment in Easterners and Westerners

Zero-order correlations for all the study measures are presented in Table 1 for Koreans (outside of parentheses) and European Americans (inside parentheses). As the table shows, the expected pattern of associations was quite similar between Koreans and European Americans. For example, OPT scores were positively and significantly associated with SWLS scores for both Koreans ($r = 0.42$) and for European Americans ($r = 0.40$). However, of the 15 pairs of correlations between the two cultural groups, four were found to be significantly different. Specifically, although PA and NA scores were moderately and negatively correlated with each other for European Americans ($r = -0.29$), the association was not significant for Koreans ($r = 0.02$), $z = 3.35$, $P < 0.001$. In addition, significantly weaker negative associations emerged for Koreans compared to European Americans between OPT and PESS scores ($r_s = -0.41$ vs. -0.56 , respectively; $z = 2.45$, $P < 0.01$), OPT and NA scores ($r_s = -0.25$ vs. -0.42 , respectively; $z = 2.40$, $P < 0.01$), and between PESS and SWLS scores ($r_s = -0.34$ vs. -0.48 , respectively; $z = 2.09$, $P < 0.05$). Hence, the nomological net of associations between the present set of variables was not identical between Koreans and European Americans.

5.2. Cultural differences in optimism, pessimism, affectivity, and psychological adjustment between Easterners and Westerners

Table 2 presents the results of t tests comparing cultural differences in optimism, pessimism, affectivity, and psychological adjustment between Koreans and European Americans. As this

table shows, Koreans reported significantly *lower* PESS scores than European Americans ($M_s = 4.24$ vs. 5.08 , respectively), but no significant group difference emerged on OPT scores ($M_s = 8.19$ vs. 8.00 , respectively). The former result was quite unexpected given previous findings obtained with Asians (e.g. Lee & Seligman, 1997) and Asian Americans (e.g. Chang, 1996, 2002). As expected, Koreans compared to European Americans reported significantly greater scores on

Table 1
Correlations and internal reliabilities for all study measures

Measures		1	2	3	4	5	6
1.	OPT	–					
2.	PESS	–0.41*** (–0.56***)	–				
3.	PA	0.27*** (0.40***)	–0.35*** (–0.46***)	–			
4.	NA	–0.25*** (–0.42***)	0.34*** (0.43***)	0.02 (–0.29***)	–		
5.	BDI	–0.34*** (–0.39***)	0.41*** (0.45***)	–0.31*** (–0.36***)	0.52*** (0.44***)	–	
6.	SWLS	0.42*** (0.40***)	–0.34*** (–0.48***)	0.45*** (0.51***)	–0.28*** (–0.38***)	–0.41*** (–0.50***)	–
	α	0.53 (0.69)	0.64 (0.80)	0.84 (0.86)	0.80 (0.81)	0.88 (0.90)	0.82 (0.91)

For Koreans, $N = 294$. For European Americans, $N = 320$. Correlations outside of parentheses are for Koreans. Correlations in parentheses are for North Americans. OPT = Optimism scale of the revised Life Orientation Test (LOT-R); PESS = Pessimism scale of the LOT-R; PA = Positive Affect scale of the Positive and Negative Affect Schedule (PANAS); NA = Negative Affect scale of the PANAS; BDI = Beck Depression Inventory; SWLS = Satisfaction With Life Scale.

*** $P < 0.001$.

Table 2
Cultural differences in study measures^a

Criterion	Cultural group				$t(1, 612)$
	Koreans		European	Americans	
	M	SD	M	SD	
OPT	8.19	2.14	8.00	2.21	1.11
PESS	4.24	2.19	5.08	2.78	–4.19***
PA	29.28	6.71	36.67	5.98	–14.50***
NA	24.34	6.01	22.37	5.99	4.06***
BDI	11.15	7.75	7.22	7.42	6.49***
SWLS	19.88	2.22	25.57	5.70	–12.36***

^a For Koreans, $N = 294$. For European Americans, $N = 320$. OPT = Optimism scale of the revised Life Orientation Test (LOT-R); PESS = Pessimism scale of the LOT-R; PA = Positive Affect scale of the Positive And Negative Affect Schedule (PANAS); NA = Negative Affect scale of the PANAS; BDI = Beck Depression Inventory; SWLS = Satisfaction With Life Scale.

*** $P < 0.001$.

NA ($M_s = 24.34$ vs. 22.37 , respectively) and on BDI ($M_s = 11.15$ vs. 7.22 , respectively) however. Also, European Americans compared to Koreans reported significantly greater scores on PA ($M_s = 36.67$ vs. 29.28 , respectively) and on SWLS (25.57 vs. 19.88 , respectively). Hence, these latter sets of findings were consistent with the mapping of self-criticism in the East and self-enhancement in the West.

5.3. Is affectivity a mediator of the link between outcome expectancies and psychological adjustment in Easterners and Westerners?

Because the present correlation results for Koreans and European Americans indicate that affectivity may mediate the link between outcome expectancies and psychological adjustment, we next examined a mediation model in which the hypothesized influence of optimism and pessimism on psychological adjustment was believed to be partially mediated by positive and negative affectivity. Following the general guidelines of Baron and Kenny (1986), to establish evidence for the proposed mediation model, it would be necessary to meet three conditions. First, outcome expectancies (optimism and pessimism) must be shown to be significantly associated with affectivity (positive and negative affectivity). Second, affectivity must be shown to be associated with each of the two measures of psychological adjustment in question (life satisfaction and depression). Third, the significant association between outcome expectancies and psychological adjustment should become reduced when controlling for the influence of affectivity.

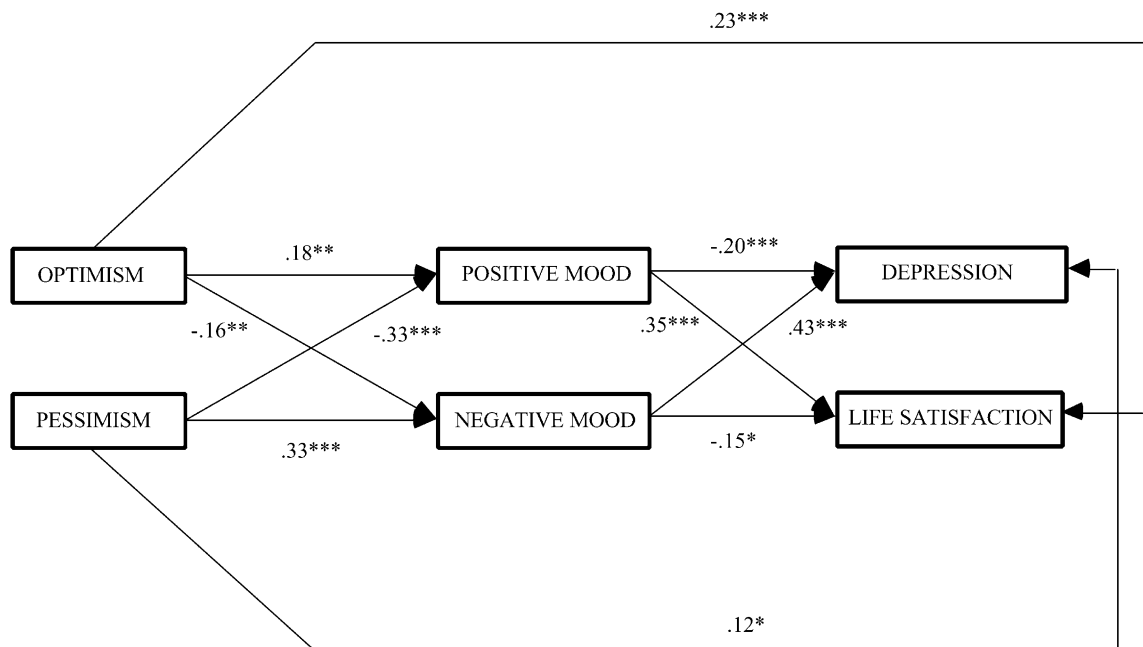


Fig. 2. Results of the path analyses delineating those paths found to be significant for Koreans ($N = 294$). All numbers represent standardized beta weights. * $P < 0.05$. ** $P < 0.01$. *** $P < 0.001$.

Complete mediation would be indicated if the associations between outcome expectancies and affectivity, and between affectivity and adjustment were significant, but the previously significant association between outcome expectancies and adjustment became nonsignificant after controlling for affectivity.

Results of conducting these analyses (controlling for covariation between the two adjustment measures) for Koreans are presented in Fig. 2. As the figure shows, both optimism and pessimism were significant predictors of both positive and negative affectivity. In turn, each dimension of affectivity was a significant predictor of depressive symptoms and life satisfaction after controlling for outcome expectancies. Positive and negative affectivity mediated the influence of optimism and pessimism on both depressive symptoms and life satisfaction. As the figure indicates, the links between pessimism and life satisfaction and between optimism and depressive symptoms were completely mediated by affectivity. However, it is worth noting that even after controlling for the influences of affectivity, optimism continued to be a significant predictor of life satisfaction, and that pessimism continued to be a significant predictor of depressive symptoms. The results of conducting similar path analyses for European Americans are presented in Fig. 3. As this figure shows, the link between optimism and psychological adjustment was completely mediated by negative affectivity in predicting depressive symptoms and by positive affectivity in predicting life satisfaction. Noteworthy, even after controlling for the influences of affectivity, pessimism continued to be an important predictor of both depressive symptoms and life satisfaction.

Overall, these path-analytic results examining a mediation model of psychological adjustment between Koreans and European Americans indicate that the influences of expectancies and affectivity on psychological adjustment are important and complex. That is, although the resulting models for Koreans and European Americans provide support for a model of affectivity as a mediator of the link between outcome expectancies and adjustment, notable differences between the two path models emerged.

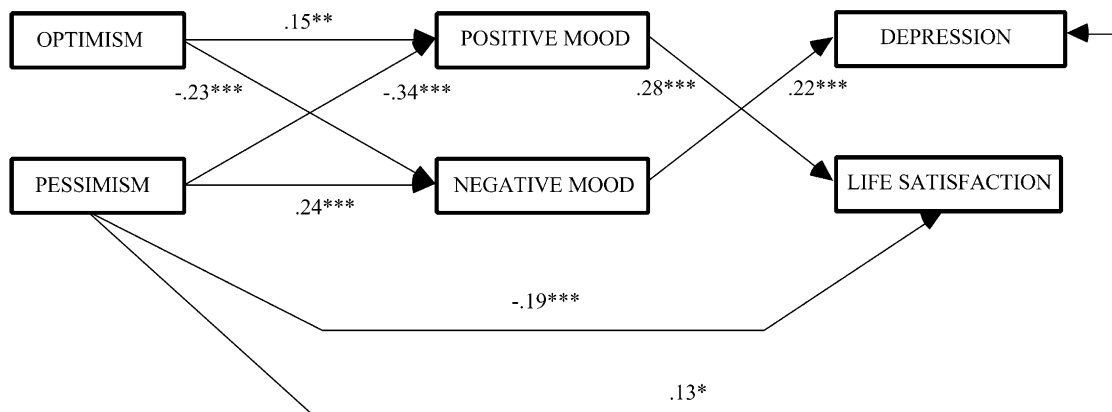


Fig. 3. Results of the path analyses delineating those paths found to be significant for European Americans ($N = 320$). All numbers represent standardized beta weights. * $P < 0.05$. ** $P < 0.01$. *** $P < 0.001$.

6. Discussion

6.1. *Optimism, pessimism, affectivity, and psychological adjustment among Easterners and Westerners*

In accord with previous findings, OPT and PESS scores were found to be only moderately correlated with each other, accounting for less than 17% of common variance among Koreans, and for just a little more than 31% of common variance among European Americans. With regard to affectivity, scores on PA and NA were found to share approximately 0 and 8% of common variance in Koreans and European Americans, respectively.

In addition, it is worth noting that there were signs of cultural differences in the nomological net of the present set of variables. In particular, negative affectivity was more strongly linked to scores on life satisfaction and optimism for European Americans than for Koreans. Moreover, although not found to be significantly different, the lower associations obtained between OPT and PA scores and between PESS and NA scores for Koreans than for European Americans, are consistent with findings obtained for these variables in recent studies of Asians (e.g. Cheng & Hamid, 1997; Lai, 1997) and Asian Americans (e.g. Chang, 2002). Hence, for Easterners, thinking positively does not appear to be as strongly associated with positive feelings as typically found for Westerners. A similar difference appears to be the case between negative thinking and negative feelings.

6.2. *Cultural differences in optimism, pessimism, affectivity, and psychological adjustment*

No difference was found between Koreans and European Americans on optimism. This is consistent with findings obtained from studies of Asian Americans in which no significant difference emerged on levels of optimism between Asian Americans and European Americans (e.g. Chang, 1996, 2002). Also as predicted, Koreans compared to European Americans were found to report greater negative affectivity and depressive symptoms. In contrast, European Americans compared to Koreans reported greater positive affectivity and life satisfaction. However, in contrast to expectations, Koreans compared to European Americans reported lower pessimism.

The cross-cultural difference in pessimism appears inconsistent with previous findings. That is, findings from previous studies have indicated that Asians (e.g. Lee & Seligman, 1997) and Asian Americans (e.g. Chang, 1996, 2002) are significantly more pessimistic than European Americans. Similarly, studies by Heine and Lehman (1995) have also pointed to the greater pessimism of Asians compared to European Americans. Therefore, we had little reason to expect the very opposite result. Nonetheless, a few considerations may be helpful to account for the lower pessimism found among Koreans compared to European Americans. First, as noted by other researchers (e.g. Anderson, 1999), a major problem with conducting cross-cultural studies involve the meaning of the measurement instruments across different cultural groups. Given that the development of LOT-R (as with the LOT) was based on Westerners (Scheier & Carver, 1985; Scheier et al., 1994), it is impossible to determine if it taps a sufficiently wide enough range of items to adequately measure for pessimism as it is experienced by Easterners. At the very least, it may be useful in future studies to add extra items to the PESS scale to address this possibility. In fact, as some have suggested, it may be useful to lengthen the entire LOT-R when using it to assess for optimism and pessimism in Asian populations (Lai & Yue, 2000). Still further, it may be useful to also develop

more basic models and measures of optimism and pessimism indigenous to Asians, and then assess for cultural differences using these measures between Easterners and Westerners. By possibly considering both approaches, a clearer understanding of how differences in models and measures of optimism and pessimism may effect findings across different cultures would be possible.

Secondly, the low reports of pessimism among Koreans may be unique to this Asian population. As Lee and Seligman (1997) have argued, broader social factors should be considered in understanding optimism and pessimism. Accordingly, insofar that the present study focused on South Koreans, it is worth noting that there has been considerable social, political, and economic upturns occurring in South Korea. For example, the South Korean economic market has been at an all time high over the past several decades, with major South Korean companies successfully moving into the American and European markets (Im, 1999). This is not to say that South Korea represents a dominant economic world power, but rather to indicate the there are less reasons for South Koreans to be as pessimistic as they might have been in the past. Moreover, related to studies of East and West Berliners (Oettingen & Seligman, 1990), it may be useful to consider the influence of social comparison processes between South and North Koreans. That is, exposure to public images chronicling the poor social conditions faced by North Koreans (Gills, 1996; Oberdorfer, 1997), may help South Koreans abate the development of excessive pessimism as such images are likely to reinforce a view that life is not as bad as it could be. No doubt, the possibility of such influences on optimism and pessimism among South Koreans will require empirical examination.

6.3. Cultural differences in cognitive and affective predictors of psychological adjustment

Results from conducting path analyses testing for a model of affectivity as a mediator of the link between outcome expectancies and psychological adjustment for Koreans indicated that lack of optimism had a significant direct influence on life satisfaction even after controlling for affectivity. Also, for Koreans, pessimism had a significant direct influence on depressive symptoms even after controlling for affectivity. Somewhat different results were found for European Americans. For this group, although pessimism had a significant direct influence on depressive symptoms after controlling for affectivity, it was pessimism, not lack of optimism, again that had a significant direct influence on life satisfaction. The finding that only negative affectivity and pessimism had direct influences on depressive symptoms for European Americans is consistent with the results obtained in Chang's (2002) study for this cultural group. Moreover, these findings for European Americans are quite consistent with the commonly accepted view in the West that pessimism (rather than lack of optimism) is an important vulnerability factor associated with psychological adjustment (e.g. Beck, 1967; Seligman, 1975). Although these findings are preliminary and need to be replicated, they do again point to the potential role of outcome expectancies and affectivity in determining adjustment for both Easterners and Westerners.

6.4. Limitations of this study

In addition to the above discussion, it is important to address several potential limitations to the present findings. First, although the purpose of the present study was to examine differences between Easterners and Westerners on a number of important psychological variables, the present set of findings for Koreans may not easily generalize to all Asian groups. As discussed earlier, the

finding that Koreans reported less pessimism than European Americans is inconsistent with previous findings based on other Asian populations (e.g. Chinese, Japanese). Clearly, it would be important to replicate the present findings in future studies of other Asian groups. Second, and relatedly, it is important to realize that although cultural variations were expected in the present study given presumed differences in individualism and collectivism (e.g. Markus & Kitayama, 1991), a more direct test involving the assessment of individualism and collectivism across the two groups may have offered additional insights. By including such a step, it would have been possible to draw more definitive conclusions regarding the influence of individualism and collectivism on outcome expectancies, affectivity, and psychological adjustment. Third, as previous studies have indicated, the link between optimism and adjustment appears to be mediated by a number of different coping processes (e.g. Chang, 1998). In turn, coping processes have been viewed as determinants of affectivity and adjustment (e.g. Lazarus & Folkman, 1984). Hence, it would be useful to develop and evaluate more integrative models which encompass the role of coping as a mediator of the links between optimism, affectivity, psychological adjustment. Fourth, although the present study examined a causal path model involving cognitive and affective predictors of psychological adjustment among Easterners and Westerners, one cannot draw any inferences about actual cause and effect given the cross-sectional nature of the present data sets. Hence, a true prospective study which assesses for all of the present measures at different points in time would help greatly clarify the causal relations between outcome expectancies, affectivity, and psychological adjustment in Easterners and Westerners. Finally, much more needs to be known about the constructs examined in the present study in Koreans. There are always problems in using imported tests whose status is unknown in other cultures. Thus, our study represents an important, but preliminary step to understanding the potential function of optimism and pessimism in Easterners.

Acknowledgements

We would like to thank Uichol Kim for his kind and generous assistance with the development of the Korean questionnaires. In addition, the first author would like to express his gratitude to Chang Suk-Choon and Tae Myung-Sook for their encouragement and support throughout this project.

References

- Anderson, C. A. (1999). Attributional style, depression, and loneliness: a cross-cultural comparison of American and Chinese students. *Personality and Social Psychology Bulletin*, 25, 482–499.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical consideration. *Journal of Personality and Social Psychology*, 1173–1182.
- Beck, A. T. (1967). *Depression: clinical, experimental and theoretical aspects*. New York: Harper & Row.
- Beck, A. T., Steer, R. A., & Garbin, M. G. (1988). Psychometric properties of the Beck Depression Inventory: twenty-five years of evaluation. *Clinical Psychology Review*, 8, 77–100.
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, L., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, 4, 561–571.

- Chang, E. C. (1996). Cultural differences in optimism, pessimism, and coping: predictors of subsequent adjustment in Asian American and Caucasian American college students. *Journal of Counseling Psychology*, *43*, 113–123.
- Chang, E. C. (1998). Dispositional optimism and primary and secondary appraisal of a stressor: controlling for confounding influences and relations to coping and psychological and physical adjustment. *Journal of Personality and Social Psychology*, *74*, 1109–1120.
- Chang, E. C. (2002). Cultural differences in psychological distress in Asian and Caucasian American college students: examining the role of cognitive and affective concomitants. *Journal of Counseling Psychology*, *49*, 47–59.
- Chang, E. C., Asakawa, K., & Sanna, L. J. (2001). Cultural variations in optimistic and pessimistic bias: do Easterners really expect the worst and Westerners really expect the best when predicting future life events? *Journal of Personality and Social Psychology*, *81*, 476–491.
- Chang, E. C., D’Zurilla, T. J., & Maydeu-Olivares, A. (1994). Assessing the dimensionality of optimism and pessimism using a multimeasure approach. *Cognitive Therapy and Research*, *18*, 143–160.
- Chang, E. C., Maydeu-Olivares, A., & D’Zurilla, T. J. (1997). Optimism and pessimism as partially independent constructs: relations to positive and negative affectivity and psychological wellbeing. *Personality and Individual Differences*, *23*, 433–440.
- Cheng, S.-T., & Hamid, N. (1997). Dispositional optimism in Chinese people: what does the Life Orientation Test measure? *International Journal of Psychology*, *32*, 15–22.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, *49*, 71–75.
- Gills, G. K. (1996). *Korea versus Korea: a case of contested legitimacy*. New York: Routledge.
- Heine, S. J., & Lehman, D. R. (1995). Cultural variation in unrealistic optimism: does the West feel more invulnerable than the East? *Journal of Personality and Social Psychology*, *68*, 595–607.
- Im, Y.-T. (1999). *Korea in the 21st century*. Huntington, NY: Nova Science Publishers.
- Kitayama, S., Markus, H. R., Matsumoto, H., & Norasakkunkit, V. (1997). Individual and collective processes in the construction of the self: self-enhancement in the United States and selfcriticism in Japan. *Journal of Personality and Social Psychology*, *72*, 1245–1267.
- Lai, J. C. L. (1997). Relative predictive power of the optimism versus the pessimism index of a Chinese version of the Life Orientation Test. *Psychological Record*, *47*, 399–410.
- Lai, J. C. L., & Yue, X. (2000). Measuring optimism in Hong Kong and mainland Chinese with the revised Life Orientation Test. *Personality and Individual Differences*, *28*, 781–796.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Lee, Y.-T., & Seligman, M. E. P. (1997). Are Americans more optimistic than the Chinese? *Personality and Social Psychology Bulletin*, *23*, 32–40.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: implications for cognition, emotion, and motivation. *Psychological Review*, *98*, 224–253.
- Marshall, G. N., Wortman, C. B., Kusulas, J. W., Hervig, L. K., & Vickers, R. R. Jr. (1992). Distinguishing optimism from pessimism: relations to fundamental dimensions of mood and personality. *Journal of Personality and Social Psychology*, *1067*–1074.
- Oberdorfer, D. (1997). *The two Koreas: a contemporary history*. Reading, MA: Addison-Wesley.
- Oettingen, G., & Seligman, M. E. P. (1990). Pessimism and behavioral signs of depression in East versus West Berlin. *European Journal of Social Psychology*, *20*, 207–220.
- Pavot, W., & Diener, E. (1993). Review of the Satisfaction With Life Scale. *Psychological Assessment*, *5*, 164–172.
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: assessment and implications of generalized outcome expectancies. *Health Psychology*, *4*, 219–247.
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): a reevaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, *67*, 1063–1078.
- Seligman, M. E. P. (1975). *Helplessness: on depression, development, and death*. San Francisco: W. H. Freeman.
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well being: a social psychological perspective on mental health. *Psychological Bulletin*, *103*, 193–210.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press.

- Watson, D., & Clark, L. A. (1984). Negative affectivity: the disposition to experience aversive emotional states. *Psychological Bulletin*, *96*, 465–490.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of Personality and Social Psychology*, *54*, 1063–1070.