

Examining the Link Between Perfectionism and Psychological Maladjustment: Social Problem Solving as a Buffer

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An integrative model in which perfectionism and social problem solving were hypothesized to have additive and interactive effects in predicting psychological maladjustment (viz., depressive symptoms and suicide ideation) was proposed and tested in a sample of 371 college students. Results of hierarchical regression analyses indicated that social problem solving added significant incremental validity in predicting scores on measures of depressive symptoms and suicide ideation beyond what was accounted for by perfectionism. Moreover, a significant Perfectionism × Social Problem Solving interaction was found in predicting each of the maladjustment measures after accounting for the influences of both perfectionism and social problem solving. These results are taken to provide preliminary support for an additive and interactive prediction model of psychological maladjustment involving perfectionism and social problem solving.

KEY WORDS: perfectionism; social problem solving; depressive symptoms; suicide ideation.

Psychologists have come to increasingly recognize and appreciate the potential hazards and pitfalls often associated with perfectionistic pursuits (e.g., Blatt, 1995; Pacht, 1984). According to Frost, Marten, Lahart, and Rosenblate (1990), *perfectionism* is conceptualized as an individual differences variable that includes excessive self-criticism associated with high personal standards, doubts about the effectiveness of one's actions, and concerns about meeting social expectations. In adult populations, numerous studies have indeed shown that perfectionism is a significant predictor of psychological maladjustment (e.g., Chang, 2000; Frost et al., 1990; Rice, Ashby, & Slaney, 1998). For example, studies based on college student populations have shown that elevations on perfectionism are associated with experiences of greater depressive symptoms (e.g., Chang & Sanna, 2001; Cheng, 2001; Frost et al., 1990; Frost, Heimberg, Holt, Mattia, & Neubauer, 1993), and greater suicide ideation (e.g., Chang, 1998; Hewitt, Flett, & Weber, 1994). However, it is not clear if perfectionism

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is always detrimental and hazardous to one's psychological health as commonly believed. Specifically, having stronger problem-solving abilities may enable some perfectionists to be better able than others to manage their perilous pursuits.

ENCOMPASSING SOCIAL PROBLEM SOLVING AS A PREDICTOR AND AS A BUFFER: A PROPOSAL FOR AN INTERGRATIVE MODEL

In recent years, studies on social problem solving have shown that it is a significant predictor of psychological maladjustment (e.g., D'Zurilla & Sheedy, 1991; Elliott, Godshall, Shrout, & Witty, 1990; Heppner, Kampa, & Brunning, 1987). Indeed, similar to what has been noted earlier for perfectionism, problem-solving deficits have been linked also to experiences of greater depressive symptoms (e.g., Cheng, 2001; Haaga, Fine, Terrill, Stewart, & Beck, 1995; Priester & Clum, 1993), and greater suicide ideation (e.g., Bonner & Rich, 1988; Chang, 1998; Dixon, Heppner, & Anderson, 1991; Priester & Clum, 1993). According to D'Zurilla and his associates (D'Zurilla, 1986; D'Zurilla & Nezu, 1990; D'Zurilla, Nezu, & Maydeu-Olivares, in press), *social problem solving* refers to problem solving as it occurs in the real world, and is defined as the self-generated cognitive–affective–behavioral process by which a person attempts to discover effective ways for coping with problematic situations encountered in everyday living. Although social problem solving has been found to be composed of a number of different elements, it is considered to represent a general individual differences factor that is relatively stable and enduring (e.g., D'Zurilla & Maydeu-Olivares, 1995; Heppner, 1988), and is distinct from problem-solving performance.

According to D'Zurilla and Maydeu-Olivares (1995), for example, the Social Problem-Solving Inventory—Revised or SPSI-R (D'Zurilla et al., in press), which is based on a factor analysis of the original Social Problem-Solving Inventory items identified by D'Zurilla and Nezu (1990), is considered a process measure of social problem solving insofar that it assesses for what and how people typically think, feel, and act when they encounter problems in their lives. In contrast, these investigators consider the Means-Ends Problem-Solving Procedure (MEPS; Platt & Spivack, 1975) a performance measure because it provides little information about the underlying cognitive, affective, and behavioral processes leading to the outcome when dealing with a specific problem. Importantly, it may be worth noting that although social problem-solving process measures such as the SPSI-R have been found to be significantly related to psychological maladjustment measures, problem-solving performance measures such as the MEPS have often failed to relate significantly with psychological maladjustment. For example, Blankstein, Flett, and Johnston (1992) found significant differences between depressed and nondepressed college students on perceived problem-solving ability, but not on actual problem-solving performance using a student version of the MEPS. Hence, for the present research, I focus exclusively on social problem solving as a process.

In expanding the framework for identifying useful predictors of psychological maladjustment, there are several worthwhile reasons for considering a model that involves not only perfectionism, but also involves social problem solving. First, social problem solving and perfectionism are only moderately correlated with each

other (Chang, 1998; Flett, Hewitt, Blankstein, Solnik, & Van Brunschot, 1996), and because they have been found to be moderate predictors of similar psychological maladjustment measures (e.g., depressive symptoms and suicide ideation), social problem solving should add significant incremental validity to the prediction of maladjustment beyond perfectionism. This prediction is also consistent with Lazarus and Folkman's view that beyond the influence of personality variables, coping variables such as problem solving are important determinants of psychological maladjustment (Lazarus & Folkman, 1984).

Second, and more importantly, social problem solving should interact with perfectionism for predicting psychological maladjustment. Although the idea that some coping variables may moderate the link between perfectionism and maladjustment has been suggested previously (Hewitt & Flett, 1993), there is good reason to consider social problem solving specifically. Recall, social problem solving refers to the process in which an individual attempts to discover effective ways for dealing with problematic situations. Thus, for example, in contrast to an individual possessing low social problem-solving ability, the individual possessing high social problem-solving ability is one who is more likely to be positive in their self-appraisals for handling potentially stressful events, highly motivated to resolve any problems that may arise, and to be careful and methodical in their approach to addressing any problems encountered (D'Zurilla, 1986). In that regard, possessing high problem-solving ability should enable some perfectionists to better buffer themselves against some of the pitfalls of their perfectionistic tendencies compared to perfectionists with low problem-solving ability. As one might imagine, for the latter group, negative self-appraisals involving thoughts that one cannot effectively solve problems, low motivation to solve problems, and an inability to carefully consider both the costs and benefits of a given approach to tackling a problem, are all only likely to further magnify the association between their perfectionistic tendencies and maladjustment.

Lastly, although Flett et al. (1996) recently examined the relations between perfectionism, social problem solving, and psychological distress, they did not test for an integrative model involving perfectionism and social problem solving as additive and interactive predictors of psychological maladjustment however. Rather, these investigators focused on examining the association between perfectionism and social problem solving (Study 1), and on examining whether the previously obtained association between these constructs remained significant after controlling for distress (Study 2). In addition, although Chang (1998) did examine the extent to which social problem solving added to the prediction of psychological maladjustment beyond what was accounted for by perfectionism, this investigator failed to consider the extent to which social problem solving may moderate the association between perfectionism and maladjustment.

PURPOSE OF THIS STUDY

As part of proposal for an integrative model, the purpose of the present cross-sectional study was to examine the relations between perfectionism, social problem solving, and psychological maladjustment (as measured by depressive symptoms and

suicide ideation). Based on previous research and theory, general perfectionistic tendencies were expected to be positively associated with psychological maladjustment. In contrast, general social problem-solving abilities were expected to be negatively associated with maladjustment. In addition, insofar as perfectionism represents a maladaptive individual differences variable and social problem solving represents an adaptive coping process, it was expected that perfectionism would have a modest negative association with social problem-solving ability. As argued earlier, I predicted that social problem solving would add significant incremental validity to the prediction of psychological maladjustment beyond perfectionism insofar that as the general constructs are not wholly redundant with each other. Lastly, this study also set out to determine if social problem solving interacts with perfectionism in predicting psychological maladjustment. As discussed earlier, there is some reason to expect that social problem solving acts as a buffer against the negative influence of perfectionism on psychological maladjustment.

METHOD

Participants

Participants were 385 college students from a mid-sized Midwestern university. All participants were enrolled in an upper-division psychology course (e.g., Animal Learning, Personality Theory, Human Sexuality) and fulfilled a course requirement or obtained extra credit for participating.

Of the original 385 participants the responses provided by 14 participants were dropped from the study because they were either incomplete or not returned on time. Hence, the responses provided by the remaining 371 (72 male and 299 female) participants were used. For this subsample, ages ranged from 18 to 53 years, with a mean age of 23.5 years. Men and women were not found to differ significantly in age. Participants were predominantly White (93.0%).

Measures

Perfectionism

The Multidimensional Perfectionism Scale (MPS; Frost et al., 1990) is a 35-item multidimensional measure of perfectionism that provides for a measure of general perfectionism as well as for specific components (e.g., "I set higher goals than most people"). Respondents are asked to rate items across a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Evidence for the construct validity of the MPS scale has been reported in Frost et al. (1990, 1993). It is worth noting that research by Frost and his colleagues using the MPS and its subscales provide reason to consider general perfectionistic tendencies rather than specific tendencies. For example, total MPS scores have been found to have stronger associations with other measures of perfectionism than the average correlations obtained with its subscales (Frost et al., 1993). Similarly, total MPS scores have also generally been found to have stronger associations with measures of psychological symptoms

when compared to scores on the MPS subscales (Frost et al., 1990). Furthermore, although some researchers have offered valuable frameworks for considering different MPS subscales to measure for different aspects of perfectionism (e.g., Cheng, 2001; Rice et al., 1998), no consensus exists regarding which MPS subscales should be used to tap what dimensions of perfectionism or how many dimensions are tapped by the MPS (e.g. Stöber, 1998). Thus, until an accepted standard for using scores taken from the MPS subscales is identified, the use of the total MPS score continues to offer a useful, albeit general, approach to studying perfectionism with this instrument. In fact, one of the major advantages of using the MPS over other measures of perfectionism (Hewitt & Flett, 1991) is that it allows researchers to look at perfectionistic processes at a general level of analysis. Thus, given that the objectives of this study were to investigate how perfectionistic tendencies and social problem-solving abilities, at a general level, related to each other and how these variables predicted psychological maladjustment, use of a general perfectionism score was viewed to be most appropriate for this study. I used the general perfectionism score which can be calculated by summing scores across each of the MPS subscales, except for the Organization subscale (Frost et al., 1990). Higher scores on the total MPS scale reflect greater levels of general perfectionism.

Social Problem Solving

Social problem solving was assessed by the 25-item short-form of the Social Problem-Solving Inventory—Revised (SPSI-R-SF; D’Zurilla et al., in press). The SPSI-R-SF is based on D’Zurilla’s model of problem solving as it occurs in the real world (e.g., “After carrying out my solution to a problem, I try to evaluate as carefully as possible how much the situation has changed for the better”; (D’Zurilla, 1986; D’Zurilla & Nezu, 1990). Respondents are asked to rate items across a 5-point Likert-type scale ranging from 0 (*not at all true of me*) to 4 (*extremely true of me*). Studies have shown that scores on the SPSI-R and the SPSI-R-SF are related to other measures of problem solving and active coping as well as with measures of psychological maladjustment (D’Zurilla et al., in press). Higher SPSI-R-SF scores indicate better social problem-solving skills and abilities, whereas lower scores indicate problem-solving deficiencies.

Psychological Maladjustment

Psychological maladjustment was assessed by the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) and by the Adult Suicide Ideation Questionnaire (ASIQ; Reynolds, 1991a).

The BDI is a commonly used 21-item self-report measure of depressive symptomatology, which assesses many of the symptom categories required for a diagnosis of major depression. 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 scale (for example, from 0 = *I do not feel sad* to 3 = *I am so sad or unhappy that I can’t stand it*). Higher scores indicate more severe levels of depressive symptomatology.

The ASIQ is a 25-item measure designed to assess for thoughts related to suicide in adult populations. Each item measures a specific suicidal thought or behavior (e.g., "I thought about killing myself"). Respondents are asked to rate the presence and frequency of experiencing a specific suicidal thought in the past month on a 7-point scale ranging from 0 (*I have never had this thought*) to 6 (*Almost every day*). In support of its validity, scores on the ASIQ have been found to correlate strongly with clinical ratings of suicidal risk in adult outpatient and community populations (Reynolds, 1991a). In addition, ASIQ scores have also been found to be positively correlated with prior suicide attempts among college students (Reynolds, 1991b). Higher scores on the ASIQ are indicative of greater severity and frequency of suicidal thinking (Reynolds, 1991a).

Procedure

All study measures were administered to all 385 participants in the form of a take-home survey that was to be returned the next day of class. Participants were not made aware of the purpose of the study until after they had completed all measures. To protect the participants' anonymity, only participant 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.

RESULTS

Because no gender differences emerged across any of the present set of variables, all analyses are collapsed across gender.

Relations Between Perfectionism, Social Problem Solving, and Psychological Maladjustment

Correlations, means, standard deviations, and internal consistencies for all study measures are presented in Table I. As the table shows, scores on the MPS were significantly associated with SPSI-R-SF scores, indicating that greater social problem

Table I. Correlations, Means, Standard Deviations, and Internal Reliabilities for All Study Measures

Measures	1	2	3	4
1. MPS	—			
2. SPSI-R-SF	-.13*	—		
3. BDI	.38**	-.46**	—	
4. ASIQ	.36**	-.39**	.61**	—
<i>M</i>	80.13	65.61	8.54	15.33
<i>SD</i>	16.16	14.77	7.56	20.78
α	.91	.88	.89	.98

Note. $N = 371$. MPS = Multidimensional Perfectionism Scale; SPSI-R-SF = Social Problem-Solving Inventory—Revised—Short Form; BDI = Beck Depression Inventory; ASIQ = Adult Suicide Ideation Questionnaire.

* $p < .05$. ** $p < .001$.

solving is associated with less perfectionism. However, this association was small ($r = -.13$), providing additional evidence that they represent related, but not redundant constructs. Consistent with past findings, MPS scores were found to have moderate positive associations with scores on the BDI and ASIQ. Similarly, SPSI-R-SF scores were also moderately associated with scores on both maladjustment measures. Also, although the associations between the two psychological maladjustment measures were significant and in the expected direction, they were not too high as to indicate redundancy.

Perfectionism and Social Problem Solving as Additive and Interactive Predictors of Psychological Maladjustment

To examine the predictive utility of perfectionism as measured by the MPS and social problem solving as measured by the SPSI-R-SF in accounting for variance in measures of psychological maladjustment, I conducted a series of hierarchical regression analyses for each of the maladjustment measures. For each of the regression equations, scores on the MPS were entered as the first step, followed by SPSI-R-SF scores in the second step. Finally, to test for a Perfectionism \times Social Problem Solving 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 (perfectionism) and moderator (social problem solving) is found to be significant. Results of these analyses for predicting variance in the two psychological maladjustment measures are presented in Table II.

For predicting depressive symptoms, MPS scores accounted for 14% of the variance in BDI scores. In addition, SPSI-R-SF scores accounted for a significant amount of additional variance in BDI scores ($\Delta R^2 = 17\%$), after partialing out variance accounted for by MPS scores. Furthermore, as the table shows, the MPS \times SPSI-R-SF interaction was significant for predicting additional variance in BDI

Table II. Hierarchical Regression Analyses Showing Amount of Variance in Each Maladjustment Measure Accounted for by Perfectionism and Social Problem Solving Scores

Maladjustment measure	<i>R</i>	ΔR^2	<i>df</i>	<i>F</i>
BDI				
MPS	.38		1, 369	63.95**
SPSI-R-SF	.56	.17	1, 368	93.73**
MPS \times SPSI-R-SF	.57	.01	1, 367	4.08*
Full equation	.57	.33	3, 367	59.78**
ASIQ				
Perfectionism	.36		1, 369	55.61**
SPSI-R-SF	.50	.12	1, 368	59.41**
MPS \times SPSI-R-SF	.58	.09	1, 367	48.21**
Full equation	.58	.34	3, 367	63.33**

Note. $N = 371$. MPS = Multidimensional Perfectionism Scale; SPSI-R-SF = Social Problem-Solving Inventory—Revised—Short Form; BDI = Beck Depression Inventory; ASIQ = Adult Suicide Ideation Questionnaire.

* $p < .05$. ** $p < .001$.

scores ($\Delta R^2 = 1\%$), after partialing out the variances accounted for by both MPS and SPSI-R-SF scores. The full regression model for predicting depressive symptoms accounted for 33% of the variance in BDI scores, $F(3, 367) = 59.78$, $p < .001$.

Next, for predicting suicide ideation, MPS scores accounted for 13% of the variance in ASIQ scores. In addition, SPSI-R-SF scores accounted for a significant amount of additional variance in ASIQ scores ($\Delta R^2 = 12\%$), after partialing out variance accounted for by MPS scores. As the table shows, the MPS \times SPSI-R-SF interaction was significant for predicting additional variance in ASIQ scorers ($\Delta R^2 = 9\%$), after partialing out the variances accounted for by both MPS and SPSI-R-SF scores. The full regression model for predicting suicide ideation accounted for 34% of the variance in ASIQ scores, $F(3, 367) = 63.33$, $p < .001$.

To illustrate the Perfectionism \times Social Problem Solving interaction for depressive symptoms, I plotted the regression of depressive symptoms on perfectionism at low and high levels of social problem solving for the present sample (see Fig. 1). Consistent with procedures outlined by Aiken and West (1991), I used the simple slope (unstandardized) for the regression of depressive symptoms on perfectionism by using the low (one standard deviation below the mean) and high (one standard deviation above the mean) values for social problem solving. As the figure shows, there was a significant positive relation between perfectionism and depressive symptoms at low levels of social problem solving ($b = .20$), $t(367) = 2.66$ $p < .01$ (two-tailed). Similarly, for those with high problem-solving abilities, perfectionism also had a positive, albeit, weaker influence on depressive symptoms ($b = .12$), $t(367) = 2.10$, $p < .05$. However, on the basis of procedures outlined by Aiken and

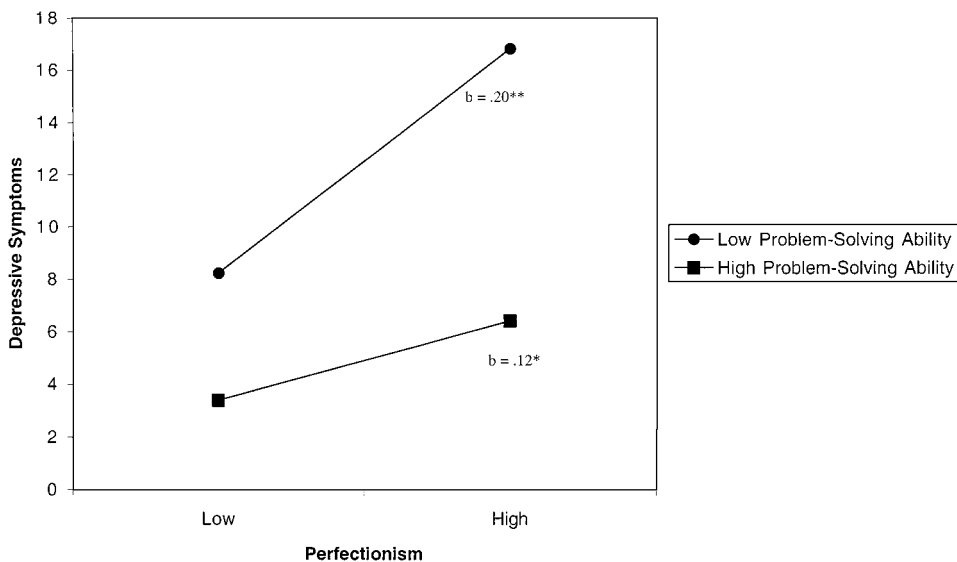


Fig. 1. Relationship of perfectionism with depressive symptoms at low and high levels of social problem solving ($N = 371$). * $p < .05$. ** $p < .01$.

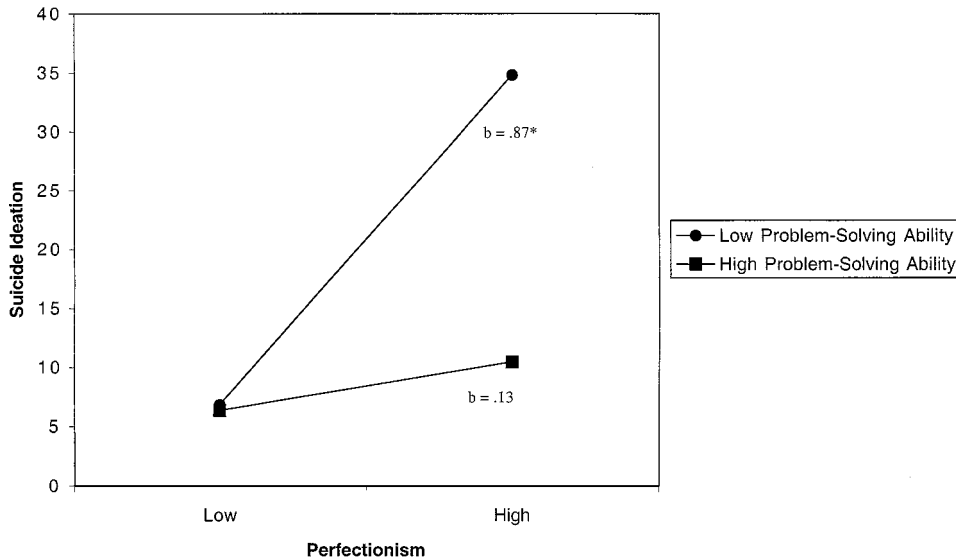


Fig. 2. Relationship of perfectionism with suicide ideation at low and high levels of social problem solving ($N = 371$). * $p < .01$.

West (1991) for determining differences between simple slopes, the slope for those with low social problem-solving abilities was not found to be significantly steeper than the slope for those with high social problem-solving abilities, $t(367) = -1.89$, *ns* (two-tailed).

Lastly, similar to the procedure used for predicting depressive symptoms, I plotted the regression of suicide ideation on perfectionism at low and high levels of social problem solving to illustrate the Perfectionism \times Social Problem Solving interaction (see Fig. 2). As the figure shows, there was a significant positive relation between perfectionism and suicide ideation at low levels of social problem-solving abilities, ($b = .87$), $t(367) = 10.12$, $p < .01$. At high levels of social problem solving, the relation between perfectionism and suicide ideation was not found to be significant, ($b = .13$), $t(367) = 1.82$, *ns*. Hence, for those with low social problem-solving abilities, but not for those with high abilities, perfectionism was a significant determinant of suicide ideation. In this case, the slope for those with low social problem-solving abilities was found to be significantly steeper compared to the slope for those with higher problem-solving abilities, $t(367) = -6.94$, $p < .01$.

DISCUSSION

Perfectionism, Social Problem Solving, and Psychological Maladjustment

As expected, perfectionism and social problem solving were found to be significantly and negatively related to each other ($r = -.13$). Also, consistent with findings

from previous studies on the link between perfectionism and psychological maladjustment, MPS scores were found to be significantly and moderately correlated with both psychological maladjustment measures of depressive symptoms and suicide ideation. Likewise, SPSI-R-SF scores were found to be significantly and moderately correlated with these maladjustment measures.

In support for an integrative prediction model of psychological maladjustment that encompasses both perfectionism and social problem solving, results of regression analyses indicated that although perfectionism accounted for a significant amount of the variance in depressive symptoms and suicide ideation, social problem solving significantly augmented the prediction of each of these maladjustment measures. Thus, these findings add to those obtained in previous studies (e.g., Chang, 1998), indicating that beyond the influences of perfectionism, social problem solving still matters as an important predictor of psychological maladjustment.

Social Problem Solving as a Buffer of the Negative Link Between Perfectionism and Psychological Maladjustment

A key purpose of this study was to test the hypothesis that social problem solving minimizes the association between perfectionism and psychological maladjustment. Consistent with this buffering hypothesis, scores based on the Perfectionism \times Social Problem Solving interaction were found to add significant incremental validity in predicting depressive symptoms and suicide ideation above and beyond what was accounted for by the main effects of perfectionism and social problem solving. Hence, these findings go beyond those that have previously indicated that both perfectionism and social problem solving are merely related to psychological maladjustment (e.g., Flett et al., 1996). Specifically, results of examining the significant interaction between perfectionism and social problem solving in this study indicated that the magnitude of the positive association between perfectionism and depressive symptoms was greater in the presence of low rather than high problem-solving abilities. Likewise, the positive association between perfectionism and suicide ideation was again stronger in the presence of low rather than high problem-solving abilities. Taken together, these findings point to the possible role of social problem solving as an effective buffer against the negative psychological consequences typically associated with perfectionism.

Nonetheless, it is worth noting that the amount of the variance accounted for by the Perfectionism \times Social Problem Solving interaction in predicting depressive symptoms was not large ($\Delta R^2 = .01$). However, it is important to realize that such an interaction is generally difficult to detect. As some researchers have noted, the statistical power and efficiency of estimating these interactions is generally quite low and that even findings that only account for 1% of the total variance should be considered important findings (McClelland & Judd, 1993). Still, the particularly robust interaction found for predicting suicide ideation strongly underscores the importance of social problem solving as a buffer of the link between perfectionism and suicidal risk. Recall, for example, under conditions of high social problem-solving abilities, the relation between perfectionism and suicide ideation was found to be not

significant. Overall, and in support for an integrative framework, these results suggest that just as social problem-solving researchers may gain from a consideration of certain personality attributes that may amplify or lessen the benefits of problem solving on maladjustment, so too may perfectionism researchers profit from a consideration of moderators that may magnify or minimize the costs of perfectionism on psychological maladjustment.

On the Value of Distinguishing Lemons from Limes

Insofar that perfectionism and social problem solving were found to represent significant additive predictors of psychological maladjustment in the present sample, these results point to the potential value of identifying and potentially modifying perfectionism and social problem-solving abilities in distressed adults. Moreover, the important finding that social problem solving buffered the negative influence of perfectionism on maladjustment (as was especially the case for suicide ideation) raises then an important issue for understanding perfectionism in adults. Specifically, the present findings suggest that not all perfectionists will necessarily get caught up in a vicious cycle involving unrealistic standards and high self-criticism resulting in psychological maladjustment (Rice & Mirzadeh, 2000). That is, some perfectionistic adults will undoubtedly have greater resources for coping or dealing with their perfectionism than others. In turn, and consistent with the present results, differences in perceived efficacy and resources related to resolving and overcoming problems are likely to influence psychological maladjustment (e.g., Bandura, 1982; Lazarus & Folkman, 1984). Interestingly, however, Dunkley, Blankstein, Halsall, Williams, and Winkworth (2000) failed to find evidence for an interaction between perfectionism and active coping in predicting psychological distress in their sample of college students. Therefore, it may be that social problem solving serves as a specific coping buffer against the negative psychological consequences typically associated with perfectionism. In sum, although the present findings remain preliminary, they indicate that it may be useful to appreciate the conditions around which perfectionism may have “good” effects (or at least benign effects) on psychological health.

Some Limitations of This Study

Several limitations to this study must be mentioned. First, there remains no consensus on a measure or model of perfectionism (for a review, see Chang, in press). Although the present research focused on examining the link between general perfectionistic tendencies and psychological maladjustment using the MPS, this does not preclude the importance of considering other perfectionistic components or facets not measured by the MPS. For example, according to Hewitt and Flett’s model and measure, perfectionism involves three key dimensions, namely, self-oriented, other-oriented, and socially prescribed perfectionism (Hewitt & Flett, 1991). However, these three dimensions are somewhat different from those provided by Frost et al. (1990). For example, although general perfectionistic tendencies as measured

by the total MPS score have been found to be related to measures of suicidal risk in this and in another study (Chang, 1998), findings based on examining the associations between measures of suicidal risk and Hewitt and Flett's measure of perfectionism, however, have consistently shown that only some dimensions are involved, namely, socially prescribed perfectionism (e.g., Boergers, Spirito, & Donaldson, 1998; Dean, Range, & Goggin, 1996; Hewitt & Flett, 1991). Therefore, one might not unreasonably infer that general perfectionistic tendencies as measured by the total MPS score are conceptually more similar than dissimilar to Hewitt and Flett's notion of socially prescribed perfectionism (Hewitt & Flett, 1999). Indeed, Frost et al. (1993) found that general perfectionistic tendencies had the highest positive association with socially prescribed perfectionism compared to self-oriented and other-oriented perfectionism. Yet, whether socially prescribed perfectionism interacts with social problem solving in predicting psychological maladjustment remains to be empirically determined. Relatedly, it is important to note that there are a number of different models and measures of social problem solving also (for a review, see D'Zurilla & Maydeu-Olivares, 1995). For example, Heppner (1988) proposed a three-dimensional model and measure of the problem-solving ability. Importantly, scores on the SPSI-R and on Heppner's measure have been modest, indicating that the two measures do not strongly tap the same process (D'Zurilla & Maydeu-Olivares, 1995; Heppner, 1988). Insofar that these problem-solving measures are believed to be valid, it would be important to determine the extent to which the present findings for social problem solving can be replicated using other problem-solving measures, such as Heppner's measure of problem-solving ability (Heppner, 1988). If there is a lack of convergence in the findings using different measures of social problem solving, then more basic questions may need to be raised regarding the presumed construct validity of some problem-solving measures.

Second, like most of the adult studies published on perfectionism and social problem solving, the present sample was largely Caucasian. For example, because cultural differences have been implicated in studies of perfectionism (e.g., Chang, 1998; Nilsson, Paul, Lupini, & Tatem, 1999), one must be cautious in generalizing the present set of findings to other populations. Third, insofar that life stress has been implicated both as a significant moderator of the link between perfectionism and psychological maladjustment (e.g., Chang & Rand, 2000; Flett et al., 1995; Hewitt et al., 1994; Hewitt & Flett, 1993) and as a moderator of the link between social problem solving and psychological maladjustment (e.g., Bonner & Rich, 1988; Dixon et al., 1991), it would be important to determine what impact the presence or absence of life stress may have on the present results. For example, it seems plausible to expect that the link between perfectionism and suicide ideation would be particularly exacerbated in the presence of high negative life stress and low social problem-solving abilities. Fourth, as in past studies, the present research focused on predicting maladjustment, rather than adjustment. Yet, for example, the manner in which perfectionism predicts psychological dysfunction may be very different from how perfectionism predicts positive psychological functioning. To date, there have been very few studies that have attempted to examine the potential impact

of perfectionism or social problem solving on positive psychological functioning (Chang, 2002).

Finally, although this study examined the hypothesized influence of perfectionism on psychological maladjustment, it is important to keep in mind that it was cross-sectional in design. Therefore, one cannot draw any inferences about cause and effect related to the observed findings. A prospective design study that incorporates multiple assessments across times would help greatly clarify the causal relations between perfectionism and psychological maladjustment.

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