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Mental Models of Attachment, Social Strain, and Distress Following a Collective Loss: A Structural Modeling Analysis

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ABSTRACT

Individuals who were exposed to the terrorist attacks of September 11th through the media but suffered no personal bereavement may have experienced a "collective loss." College students (314 total, 219 females, 95 males) completed questionnaires between 20 and 42 days after the attacks. Structural equation modeling was used to examine theoretically derived hypotheses. As expected, individuals with negative self-views reported greater social strain and general distress, while those with more positive views of others reported lower social strain and general distress. Furthermore, in the early weeks after the attacks, social strain only partially mediated the relationship between mental models of attachment and general distress reactions.

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MENTAL MODELS OF ATTACHMENT, SOCIAL STRAIN, AND DISTRESS FOLLOWING A COLLECTIVE LOSS: A STRUCTURAL MODELING ANALYSIS

Significant distress reactions have been documented in response to different types of natural or man-made disasters (Rubonis and Bickman, 1991). Terrorist attacks, which are intentional and designed to disrupt a sense of safety in a targeted population, have a greater potential for psychological distress (Bollin, 1985; Jacobs & Kulkarni, 1999; Norris, 2001; Ofman, Mastria, & Steinberg, 1995). Although most Americans did not suffer a personal bereavement in the attacks, nor were in close physical proximity to the attacks, exposure to media accounts coupled with the threat of future terrorist attacks represented a significant stressor of historical importance. Individuals who experienced this event indirectly can be said to have experienced a collective loss. In contrast to a personal bereavement, collective loss is experienced when tragedy strikes a community: individuals mourn for the loss of those with whom they have no personal connection

(Wayment, in press). Recent examples of collective loss include the public's reaction to the untimely deaths of the Columbia shuttle astronauts, the tragic death of Princess Diana, and the shootings at Columbine High School. Distress reactions to the September 11th terrorist attacks were common and affected a majority of Americans (Schuster et al., 2001; Schlenger et al., 2002; Silver et al., 2002). The types of affective reactions studied in response to stressful events are typically restricted to general measures of distress, such as depression, anxiety, and somatic complaints (Norris, 2001; Rubonis & Bickman, 1991). Our first goal was to examine whether attachment style was associated with general distress reactions among individuals who experienced September 11th as a "collective" loss.

Attachment Style and Reactions to Loss

Relatively stable over one's lifetime (Fraley, 2002), attachment styles are "internal working models" that guide perception and behavior (Bowlby, 1980). By crossing positive and negative views of the *self* and of *others*, a four-category model of attachment has been postulated (Bartholomew, 1990; Bowlby, 1973; Collins & Reed, 1990) (see Table 1). Secure individuals feel that they are worthy of love, find others to be reliable sources of support, are comfortable with closeness and depending on others, and having others depend on them. Three types of insecure attachment styles have been documented and described. Individuals with an anxious-ambivalent attachment style want to get close to others but worry that they are not worthy. Adults with an avoidant attachment style are often aloof, emotionally distant, and skeptical, and see significant others as being unreliable, or desiring too much intimacy, and avoid seeking support from others. Finally, a third type of insecure attachment style that has received much less attention in the literature is disorganized/disoriented (or fearful avoidant). Individuals in this category have negative views of both the self and others. These individuals are said to desperately want close relationships but do not trust others.

Table 1. Four-category Model of Attachment

| | View of Others | |
|-----------|----------------|---------------------|
| Self-View | Positive | Negative |
| Positive | Secure | Dismissing Avoidant |
| Negative | Ambivalent | Fearful Avoidant |

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As indicated in Table 1, there are two fundamental dimensions of mental models of attachment: self-views and views of others. For the purposes of the present study the term *negative self-views* will represent the continuum of positive self-views to negative self-views and the term *negative views of others* will represent the continuum of positive views of others to negative views of others.

A growing number of studies examining the affective reactions of individuals coping with real-world stressors have demonstrated that mental models of attachment are associated with the type

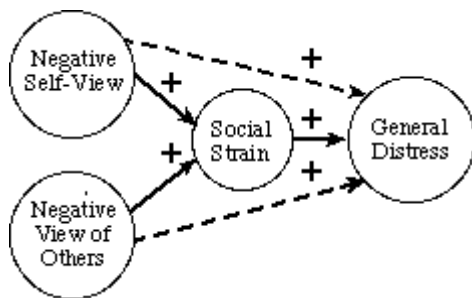
and course of affective reaction, with insecurely attached individuals (negative self views but positive views of others) associated with more distress (Bowlby, 1980; Fraley & Shaver, 1999; Shaver & Tancredy, 2001). In response to the Iraqi missile attacks on Israel during the first Gulf War, individuals who lived in the most dangerous area during the missile attacks reported higher levels of depression, anxiety, and somatization (as measured on the Symptoms Checklist; SCL-90, Derogatis, Rickels, and Rock, 1976) than those living in less dangerous areas. Furthermore, among those living in the most dangerous areas, anxious-ambivalent Israeli students reported higher depression and anxiety than avoidant and secure students (Mikulincer, Florian, & Weller, 1993). In a study of older adults who had experienced a bereavement in the previous 12-18 months, Wayment and Vierthaler (2002) found that individuals higher in negative self-views (e.g., anxious attachment) reported higher levels of SCL-90 depression while those with more positive self-views (e.g., secure attachment) reported lower levels of depression. Cozzarelli, Sumer, and Major (1998) examined the relationship between attachment style and SCL-90 distress among women who underwent a first-trimester abortion. These authors found that women with positive self-views reported less distress in response to abortion. Thus, the overall pattern of attachment style to distress reactions following bereavement or direct exposure to a traumatic event suggests that individuals with negative self-views are more likely to report greater levels of general distress as measured by the SCL-90. Conversely, individuals with more positive views of others are likely to report lower levels of general distress. A yet unexamined question is whether the association between mental models of attachment and general distress also exists for individuals who have experienced a collective loss rather than a personal loss.

Mental Models of Attachment and Social Strain

Although the attachment style distress link has not been clearly demonstrated in the context of collective loss, there is reason to believe that such a link exists because attachment style has been shown to be related to social strain. Social strain occurs when individuals who would like to share their feelings with members of their support network feel that they are unable to disclose or that their support network members are not interested in their disclosure. In times of collective distress individuals often express a desire to talk and think about the event. Pennebaker and Harber (1993) described the potential for a "pressure-cooker effect" which is the dilemma facing a community experiencing a trauma: everyone wants to talk, but after a time, nobody wants to listen. In two studies involving significant examples of collective loss (earthquake and war), Pennebaker and Harber (1993) found that higher rates of depression, anxiety, and somatic complaints were reported when individuals' thoughts about the stressful event occurred with much greater frequency than their reported ability to talk about their feelings. Social strain was also associated with depression in a sample of mothers who had lost an infant to SIDS (Lepore, Silver, Wortman, & Wayment, 1996). In a study of utilizing the same sample of college students reported in this investigation, social strain was associated with more general distress as well as disaster-focused distress (Wayment, in press). However, a relatively unexplored question is whether social strain mediates the relationship between mental models of attachment and general distress. Cozzarelli et al. (1998) not only found that women with negative self-views reported the highest levels of social strain while women with more positive self-views reported the lowest but also that social strain mediated the relationship between negative self-views and distress. Thus, we also set out to examine whether social strain could explain any potential relationship between mental models of attachment and general distress following the September 11th terrorist attacks.

The purpose of our study was to examine the relationship between mental models of attachment and general distress following the September 11th terrorist attacks among individuals who were far removed from the attacks and knew no one personally who died in the attacks. We ventured several predictions. Higher scores on negative self-views best represent the anxious-ambivalent and fearful avoidant attachment styles while lower scores on this variable represent more positive self-views (e.g., secure and dismissing avoidant attachment styles). Higher scores on negative views of others represents both types of avoidant attachment styles while lower scores represent more positive views of others (e.g., secure attachment). Our hypotheses were grouped into three models. The first model, called a direct effects model, hypothesized that negative views of self and negative views of others would be positively associated with general distress. Next, we tested a mediational model with both negative self-views and negative views of others were hypothesized to be positively associated with social strain and, in turn, social strain was hypothesized to be positively associated with general distress. We tested a third model which was a combination of the first two models. We reasoned that if social strain mediates the relationship between mental models of attachment and general distress, the third model should show that the direct paths between views of self and others to general distress would be reduced with the inclusion of social strain as a mediator variable. All three models were tested using a structural equation modeling program (EQS; Bentler, 1995) which controls for extraneous measurement error (Bentler, 1995). Figure 1 presents a diagram of the three models we tested.

Figure 1. Hypotheses from Model 1, Model 2, and Model 3



Note: Hypotheses from model one (Direct Effects Model) are depicted with broken lines, hypotheses from model two (mediational model) are depicted with solid lines. Hypotheses for model three (combination model) contained both solid and dashed lines.

METHOD

Participants and Procedure

A sample of 314 individuals (219 women, 95 men) over the age of 18 who were aware of the terrorist attacks that occurred on September 11 participated in the study. Participants who were interested in the study signed up to participate for course credit. Participants were recruited from various departments across Northern Arizona University. The average age of the respondents was 21 years with a range of 18 to 52. Eighty-three percent of the respondents were Caucasian,

7% Hispanic, 5% Native American, and 4% Black, reflecting the ethnic composition of the university. Questionnaires were completed between 20 and 42 days after the September 11th attacks. Ninety-four percent of the data were collected within 35 days after September 11. Because the focus of this paper was on individuals who had not personally suffered a bereavement five individuals (1.5% of the sample) were removed from the final data analyses because they reported that they personally knew someone who had died in the terrorist attacks.

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Measures

Mental Models of Attachment. The Simpson Adult Attachment Scale (AAQ; Simpson, Rholes, & Phillips, 1996) was used to assess attachment style. Respondents utilize seven-point scales to complete the 17 item questionnaire. The nine-item Ambivalent scale was used to measure *negative self-views*. This scale is associated with higher scores on Bartholomew's Relationship Questionnaire (RQ; Griffen & Bartholomew, 1994) anxious-ambivalent and fearful-avoidant prototypes, while lower scores reflect both the secure and dismissive-avoidance prototypes. People with high Ambivalent scores have a more negative view of themselves than of others. Sample items for this scale include "I often worry that my partner(s) don't really love me," "I'm confident others would never hurt me by suddenly ending our relationship" (reversed) and "The thought of being left by others rarely enters my mind" (reversed).. Coefficient alpha for this scale was .76, similar to those reported earlier (men: .72 men, women: .76; Simpson et al., 1996). The eight-item Avoidant subscale was used to assess *negative views of others*. Higher scores on this scale corresponds to RQ fearful-avoidant and dismissive-avoidant prototypes, but most strongly with the fearful-avoidant type, while lower scores reflect the secure prototype. People with high avoidance scores have a much more negative view of others than of themselves. Sample items for this scale include "I find it difficult to trust others completely," "I rarely worry about being abandoned by others" and "I'm nervous whenever anyone gets too close to me." The avoidant scale in this sample had a coefficient alpha of .81, exceeding those reported by Simpson et al. (.70 men, .74 women). The items of each of the scales were randomly divided to form three indicators for a latent variable of the same name.

Social Strain. Participants were asked to indicate their degree of agreement with statements assessing social strain using a 5-point scale (1 = completely disagree; 5 = completely agree). These items were adapted from measures used in earlier work on social strain and depression (Lepore et al., 1996). The items used for this scale were "My family has given me the idea that they don't want to hear about my thoughts and feelings about the events," "My friends have given me the idea that they don't want to hear about my thoughts and feelings," "I wish that I could have more support from my family about my thoughts and feelings regarding the attacks," and "I wish that I could have more support from my friends about my thoughts and feelings regarding the attacks." These items were highly correlated and had a coefficient alpha of .74. In the questionnaire three items measuring social support were also assessed (e.g., "My family has been very supportive of my reactions to recent events," "My friends have been very supportive of my reactions to recent events" and "I feel that I have adequate support surrounding my thoughts and feelings about the events."). This measure of social support was only modestly and negatively related to the measure of social strain (men: -.18, women: -.34), increasing our

confidence that our measure assessed social strain and not merely the absence of social support. Each of the four social strain items were used as indicators to form a latent variable called "social strain."

General Distress. Three measures were used to form a latent variable called "general distress." The Symptoms Checklist-90-Revised (SCL-90-R) has been found to be a highly reliable and valid instrument for measuring general negative affective states (Derogatis, Rickels, & Rock, 1976). Respondents were asked to report on a five-point scale (1 = not at all to 5 = extremely) the magnitude to which they were distressed by symptoms of depression, anxiety, and somatization during the previous two weeks, including the day they completed the questionnaire. Depression was assessed with 13 items (e.g., feeling blue, feeling hopeless about the future, feeling no interest in things), anxiety with 10 items (e.g., nervousness or shakiness inside, feeling tense or keyed up, feeling so restless you couldn't sit still), and somatization with 10 items (e.g., nausea or upset stomach, pains in heart or chest, feeling weak in parts of your body). Coefficient alphas for these scales were good (depression: .86, anxiety: .82, somatization: .82).

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RESULTS

Initial Analyses

A total of 314 primarily Caucasian college students between the ages of 18-52, participated in the study. Product moments for all of the measured variables measured in this study (e.g., mean, standard deviation, skewness, and kurtosis) are listed in Table 2.

Table 2. Product Moments for all Study Variables (N = 314)

| Variable | Mean | SD | Skewness | Kurtosis |
|--------------------------|------|-----|----------|----------|
| Negative Self-Views | 3.40 | 1.0 | .23 | .23 |
| Negative Views of Others | 3.42 | 1.1 | .21 | -.34 |
| Social Strain | 1.59 | .73 | 1.3 | 1.5 |
| Depression | 1.82 | .62 | 1.0 | .89 |
| Anxiety | 2.39 | .73 | .28 | -.35 |
| Somatization | 1.79 | .58 | 1.0 | 1.1 |

In order to examine if male and female participants differed on the study variables, a one-way (male vs. female) MANOVA was conducted and found to be significant ($F(6,308) = 5.69, p < .0001$). Univariate tests revealed strong gender differences for depression, anxiety, and somatization but not for attachment style or social strain (see Table 3).

Table 3. Gender Differences on Study Variables

| Variable | Males (N = 95) | Females (N = 219) | F(1,313) |
|--------------------------|---------------------------|----------------------------------|-----------------|
| Negative Self-Views | 3.34 (.94) | 3.43 (1.1) | .45 |
| Negative Views of Others | 3.51 (1.0) | 3.39 (1.1) | .72 |
| Social Strain | 1.60 (.69) | 1.59 (.75) | .01 |
| Depression | 1.70 (.59) | 1.89 (.63) | 5.98** |
| Anxiety | 2.07 (.71) | 2.53 (.69) | 15.07**** |
| Somatization | 1.56 (.50) | 1.89 (.59) | 23.30***** |

** $p < .01$, *** $p < .001$, **** $p < .0001$

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Structural Equation Modeling Analyses

The goal of structural equation modeling (SEM) is to compare a covariance matrix generated from a particular sample with a covariance matrix generated by a hypothesized model. Kline (1998) discusses the issue of model fit and argues that because indices reflect different aspects of model fit, researchers should report 4 indices of model fit: the Chi-square statistic, degrees of freedom, and significance level; an index that describes the overall proportion of the explained variance (such as the Bentler CFI); an index that adjusts the proportion of the explained variance for model complexity (such as the Bentler-Bonett NNFI), and an index based on the standardized covariance residuals such as the SRMR. Kline (1998) suggests that "favorable" model fit values are as follows: a non significant goodness-of-fit chi-square statistic, a chi-square to degrees of freedom ratio of less than 3; values on the CFI and NNFI greater than .90; and a favorable value of the SRMR of .10 or less. The CFI and NNFI range from 0 to 1; 0 reflects no fit, and 1 indicates a perfect fit.

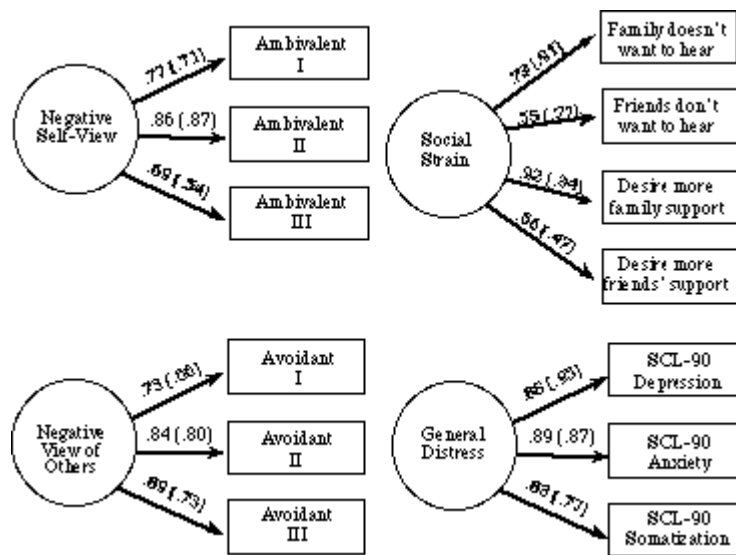
Measurement Model

Prior to examining the hypotheses of interest, we conducted separate confirmatory factor analyses (CFAs) for female and male participants. It was hypothesized that items from thirteen manifest

variables would reflect four latent constructs: *Ambivalent Attachment* (three 3-item subscales), and *Avoidant Attachment* (two 3-item subscales and one 2-item subscale), *Social Strain* (four 1-item measures), and *General Distress* (SCL Depression subscale, SCL Anxiety subscale, SCL Somatization subscale). For identification purposes, the variances of the four latent factors were fixed at 1.00 and their respective indicators were allowed to load freely. The four factors were allowed to correlate. Criteria used to assess model fit were based on established standards (Klein, 1998).

The CFA models provided an adequate fit for both samples, but model fit was significantly improved by adding one pair of correlated error terms (a different pair of terms for each sample). The final fit indices were satisfactory (Females: chi-square with 58 degrees of freedom = 96.69, chi-square to degrees of freedom ratio < 2, $p < .001$, CFI = .97, NNFI = .96, SRMR = .08; Males: chi-square with 58 degrees of freedom = 89.69, chi-square to degrees of freedom ratio = < 2, $p < .004$, CFI = .94, NNFI = .92, SRMR = .10). All of the factor loadings were reliable at the $p < .001$ level.

Figure 2. Factor Loadings (female sample loadings listed first, followed by loadings for male sample in parentheses)



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Correlations among the latent variables are presented in Table 4. Both attachment scales were positively and significantly associated with social strain and general distress. Social strain was positively and significantly associated with general distress.

Table 4. Correlations Among Latent Variables for Female sample (N = 219; lower left) and Male sample (N = 95; upper right)

| | Negative Self-Views | Negative Views of Others | Social Strain | General Distress |
|--------------------------|---------------------|--------------------------|---------------|------------------|
| Negative Self-Views | --- | .34** | .27** | .31** |
| Negative Views of Others | .44*** | --- | .29** | .37*** |
| Social Strain | .21*** | .18** | --- | .19* |
| General Distress | .46*** | .36*** | .25*** | --- |

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

Testing Sample Equivalency

In order to test whether the covariance structures of the female and male samples were equivalent a statistical comparison of the CFA models were conducted using EQS. Such a comparison tests whether one model can adequately explain the covariance matrices from both samples as well as statistically tests the hypothesized constraints that the correlation coefficients are equivalent for both samples. The model tested constrained all of the factor loadings and correlations to be equal. Results indicated that one model could reasonably account for both sample covariation matrices (chi-square with 135 degrees of freedom = 245.37, $p < .001$, chi-square to degrees of freedom ratio = 1.8, CFI = .94, NNFI = .93). Univariate chi-square tests did reveal three factor loadings that were significantly different. Two of the three loadings were for loadings on the social strain factor (desire to have more support from family; 21.14, $p < .0001$, desire to have more support from friends; 5.51, $p < .02$). The third difference was for loadings for anxiety on the general distress variable (10.88, $p < .001$). In spite of these gender differences in three of the factor loadings, the analysis revealed that the covariance structures of female and male samples could be explained by one model. Thus, the remaining analyses were conducted by combining the female and male samples [1].

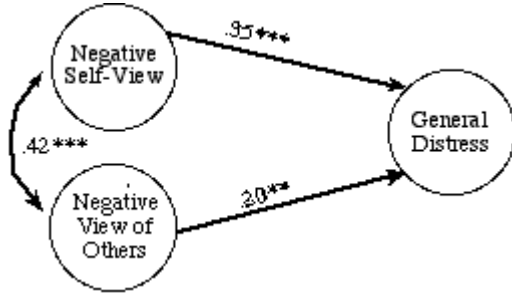
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Path Models

Direct Effects Model. The first model posited direct effects between negative self-views and negative views of others to general distress. For identification purposes, the variance of the four latent factors was fixed at 1.00, their respective indicators were allowed to load freely, and the error terms of each latent variable were allowed to correlate. This model had an acceptable fit (chi-square with 24 degrees of freedom = 52.83, $p < .001$, chi-square to degrees of freedom ratio = 2.2 ; CFI = .98, NNFI = .97, SRMR = .04). Both hypotheses were supported. This model accounted for 22% of the explained variance in general distress. Standardized path coefficients are presented in Figure 3.

Figure 3. Direct Effects Model ($p < .01$, *** $p < .001$)**

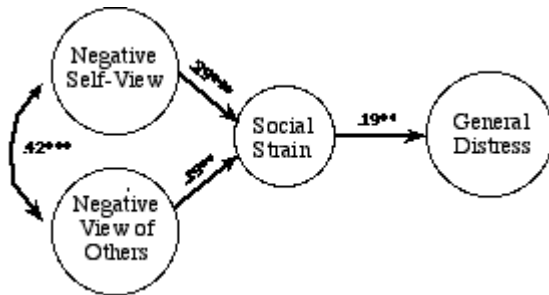


Social Strain as Mediator Model. This model hypothesized that both negative self-views and negative views of others would be positively associated with social strain, and social strain would then be positively associated with general distress. All of these hypotheses were supported. The model approached an acceptable fit (chi-square with 61 degrees of freedom = 250.54, $p < .001$, chi-square to degrees of freedom ratio = 4.1; CFI = .90, NNFI = .87, SRMR = .13). LaGrange Multiplier tests suggested that the addition of two pairs of correlated error terms would improve the fit of the model (between item 1 and 3, and between 2 and 4 of the social strain variable). Each error term was added one at a time, each time significantly improving the model fit. The final model fit well (chi-square with 59 degrees of freedom = 141.21, $p < .001$, chi-square to degrees of freedom ratio = 2.4; CFI = .96, NNFI = .94, SRMR = .13). The overall model accounted for only 5% of the explained variance in general distress. However, attachment style was found to have an indirect impact on general distress via the relationships with negative self-views and negative views of others to social strain and the relationship between social strain and general distress (indirect effect of negative self-views on general distress: .08, $p < .001$; indirect effect of negative views of others: .06, $p < .05$). In order to find evidence of full mediation it would be necessary for the direct paths between both mental model variables and general distress to be significantly decreased when social strain is modeled as a mediator variable. Thus, we tested a combination model to examine the extent to which social strain acted as a mediator between attachment style and general distress.

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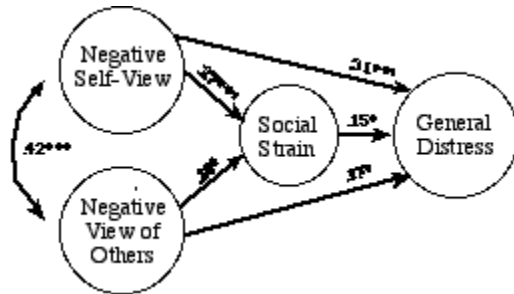
Figure 4. Social Strain as Mediator Model ($p < .01$, *** $p < .001$)**



Combination Model. This model hypothesized that negative self-views and negative views of others would be positively associated with social strain, and social strain would then be

positively associated with general distress. In addition, direct paths between both mental models and general distress were also included. We also included the two correlated pairs of residual error terms that were included in model two. The fit of this model was acceptable (chi-square with 57 degrees of freedom = 100.39, $p < .001$, chi-square to degrees of freedom ratio = 1.8; CFI = .98, NNFI = .97, SRMR = .05). A chi-square difference test revealed that model three was a significantly better fitting model than model (chi-square with two degrees of freedom = 40.82, $p < .001$), accounting for 24% of the explained variance in general distress. Standardized path coefficients are presented in Figure 5.

Figure 5. Combination Model (* $p < .05$, ** $p < .01$, * $p < .001$)**



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All of the models tested are reasonable explanations of the relationships between mental models of attachment and general distress. Taken together, the combination model (model three) provided the best description of the relationships between negative self-views, negative views of others, social strain, and general distress, and a significantly better description than model two (full mediational model). Results from the three models suggests that social strain only partially mediated the relationship between negative views of self and others to general distress in the early weeks after the terrorist attacks. The paths between both mental models and general distress (see Figure 2) were slightly reduced when social strain is added to the model (see Figure 4). Furthermore, when the direct paths between mental models of self and other to general distress are omitted (see Figure 3), there is a small, but significant, indirect relationship between these views and general distress via the relationships with social strain.

DISCUSSION

This study examined the relationship between two mental models of attachment, negative self-views and negative views of others, to general distress, in the context of what may be one of the most significant examples of collective loss experienced by college students. As expected, respondents with negative self-views reported greater general distress while those with more positive self-views reported lower general distress. Individuals with more positive views of others reported lower general distress. These findings suggest that an individual's mental models about the worthiness of the self and the reliability and trustworthiness of others may also shed light on the kinds of affective reactions experienced following a collective loss. These findings support a growing literature that has shown similar attachment style distress relationships among

those directly affected by loss such as war (Mikulincer et al., 1993), personal bereavement (Wayment & Vierthaler, 2002), and abortion (Cozzarelli et al., 1998).

Our study also suggests that individuals' working models of the worthiness of self and the reliability of others are also related to social strain. As predicted, those with negative self-views and those with negative views of others reported more social strain. Conversely, those with more positive views of the self and of others reported less social strain. This finding is similar to those found by Pennebaker and Harber (1993) suggesting that the need to talk about the event may be especially important following a collective loss, when thwarted or discouraged by one's social network, may lead to exacerbated stress reactions, such as depression, anxiety, and somatization. The findings of our study clearly suggest that while social strain may influence the relationship between mental models of attachment and general distress reactions, social strain did not fully mediate this relationship in the early weeks following the terrorist attacks in a sample of college students far removed from the attacks.

Limitations

The sample was a sample of convenience and is not representative of all college students or of other adults. Thus, the generalizability of these findings are limited. Furthermore, participants in the current study may have been biased in a particular way that led them to volunteer for this study in the early weeks after the attacks. Another limitation is that mental models of attachment were assessed after the September 11th attacks. It is assumed that attachment is a relatively stable trait, but respondents' scores could have been influenced by the attacks. Other limitations concern our measurement of social strain. Social strain was assessed 3-5 weeks post the attacks, somewhat earlier than the six-week benchmark proposed by Pennebaker and Harber (1993) as the time when individuals generally are "tired" of hearing people express their distress in a collective loss experience. Given the magnitude of the losses experienced by Americans following the terrorist attacks, it may be that social strain did not greatly influence distress reactions in the early weeks after the attacks. Future research on the impact of social strain on distress reactions in the context of collective loss would benefit from a longitudinal design, with data collected early after the event and again at six to eight weeks following the event (cf. Pennebaker & Harber, 1993).

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Conclusion

Utilizing SEM techniques, we were able to examine the relationships between mental models of attachment, social strain, and general distress following the September 11th terrorist attacks. The advantage of SEM is that we were able to examine our hypotheses while reducing the measurement error inherent in self-report questionnaire data. The collective trauma following the September 11th terrorist attacks is not one that many will forget. In the early weeks after the attacks, individuals reported general distress reactions such as depression, anxiety, and somatic complaints. Individuals with negative self-views reported more general distress and social strain while those with more positive views of others reported less general distress and less social

strain. However, social strain did not explain the relationship between mental models of attachment and general distress. These findings add further support to the literature suggesting that attachment style may be an especially useful construct to help identify which individuals are likely to experience emotional difficulties in the wake of tragic life events. In the early weeks following the attacks, social strain did not appear to exacerbate these reactions. What is also clear from this study, as well as others (cf., Schuster et al., 2002; Schlenger et al., 2001; Silver et al., 2002) is that general distress reactions can occur even from exposure to media about a tragic event that occurred thousands of miles away.

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ENDNOTE

1. All of the subsequent path models were also tested separately on the female and male sample followed by a test of model equivalency (e.g., where model paths were constrained to be equal). In every analysis, one model could account for both covariance structures, indicating no gender differences.

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For evaluating the model fit, a set of fit indices were used based on recommended criteria, including the following: a comparative fit index (CFI) and Tucker–Lewis index (TLI) ≥ 0.90 , which showed an acceptable fit of the model (Bentler, 1990; Schumacker and Lomax, 1996; Kline, 2005; Brown, 2006); the root mean square error of approximation (RMSEA), where ≤ 0.08 . The opportunity to reduce the level of mental distress has been evidenced in the model with increasing resilience and self-efficacy and reduced loneliness dissatisfaction. This reduction will strengthen the capacity to face adversity, different losses, and stressful situations (resilience).