

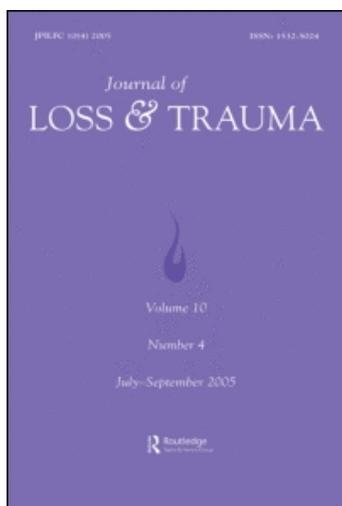
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Assumptive Worldviews and Problematic Reactions to Bereavement

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Forty-two individuals who had lost an immediate family member in the prior 2 years and 42 nonbereaved matched controls completed the World Assumptions Scale (Janoff-Bulman, 1989) and the Symptom Checklist-10-Revised (Rosen et al., 2000). Results showed that bereaved individuals were significantly more distressed than nonbereaved matched controls, and those grievors with weaker beliefs in the meaningfulness of the world and lower perceptions of self-worth had greater distress symptoms than those who perceived the world and themselves in more positive terms. Assumptive worldviews were not related to differences in psychological distress in the control group. The present findings suggest that problematic reactions to bereavement may reflect the influence of negative belief systems, which do not seem to have the same detrimental impact for individuals not dealing with a significant interpersonal loss.

Newer understandings of the challenges associated with losing a loved one to death have emerged over recent decades (Bonanno & Kaltman, 1999). One of these conceptual developments pertains to the manner in which people construct meaning in the bereavement experience

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(Folkman, 2001; Gillies & Neimeyer, 2006; Neimeyer, 2001, 2002, 2006; Thompson & Janigan, 1988). Although psychological reactions to loss are as diverse as the grievers themselves, constructing meaning tends to conform to a few broad patterns. First, many bereaved individuals respond to loss resourcefully, drawing on meaning structures that help them incorporate the loss experience without prolonged and intense difficulties in adjustment. Such people are able to assimilate the loss into a predominantly positive or optimistic belief system and return to preloss levels of functioning following a transitory period of distress (e.g., 3 to 6 months), ultimately affirming a worldview that conserves a sense of significance and personal identity (Neimeyer, 2006). Another substantial subset of the bereaved may even display resilient trajectories of coping characterized by the near absence of disruption in functioning (Bonanno, 2004). Evidence suggests that many of the bereaved adapt in a manner resembling one of these two patterns, with around 60% displaying common grief or resilience in the face of loss (Bonanno et al., 2002; Bonanno, Wortman, & Nesse, 2004). Moreover, it appears that having stable and supportive spiritual beliefs or secular philosophies promotes this form of positive coping with the adversity of loss, perhaps by offering a durable framework in which it can be given a positive meaning (Braun & Berg, 1994; Wortmann & Park, in press).

For a less fortunate subset of the bereaved, profound loss can violate a person's most fundamental understandings of God or the universe and call into question one's assumption that one is competent to deal with life's challenges. Particularly when the losses are traumatic in nature, as in the loss of a loved one to violent death (Rynearson, 2006), or when the deaths are "off time" in the family life cycle, as in the death of one's child (Keesee, Currier, & Neimeyer, in press; Walsh & McGoldrick, 2004), bereavement can launch a painful and protracted quest to reestablish a sense of identity that accommodates the new postloss reality. Consistent with this conceptualization, a growing body of literature has documented that a prolonged search for meaning in the loss experience is associated with poor bereavement adaptation. In contrast, an ability to "make sense" of the loved one's death, without a long and painful period of searching for it, predicts a less extended and anguished bereavement trajectory (e.g., Currier, Holland, & Neimeyer, 2006; Davis, Nolen-Hoeksema, & Larson, 1998; Keesee et al., in press). Notably, existing evidence suggests that approximately 20% of bereaved individuals experience an extended crisis of meaning following their loss (Bonanno et al., 2002, 2004; Davis, Wortman, Lehman, & Cohen Silver, 2000).

Another problematic reaction to bereavement has received less attention in the literature. Similar to a resilient pattern of coping, the individual following this course assimilates the loss without experiencing significant disorganization in identity. Nonetheless, unlike people who possess the resources to

appraise the death of their loved one in benign terms, for this subgroup of grievers the loss experience is filtered through preexisting negative meaning structures that increase the risk of poor bereavement adaptation (Neimeyer, 2006). From a theoretical standpoint, symptoms of bereavement-related distress in this case would reflect the influence of problematic ways of construing the self or the world, such that the death of the loved one simply provides further evidence for the cruelty or indifference of God or the universe, the ultimate meaninglessness of life, or the powerlessness of the self. Consistent with theoretical explanations of posttraumatic stress symptoms emerging from other types of stressful life events (Foa et al., 1999; Foa & Rothbaum, 1998), researchers have recently proposed that negative global beliefs may be a crucial mechanism in complicated grief reactions following bereavement (Boelen, van den Hout, & van den Bout, 2006). However, to this point, theoretical and empirical work has focused nearly exclusively on the pattern of meaning disruption and not investigated whether difficulties with bereavement adaptation may reflect the impact of negative meaning structures that would not differ from the assumptive worldviews of a sample of nonbereaved matched controls.

The recent focus on meaning making in bereavement adaptation has stemmed in large part from assumptive world theory, a framework derived from work with survivors of trauma of many kinds (Janoff-Bulman, 1992). Parkes (1971) was the first bereavement theorist to describe the "assumptive world," which reflects a basic conceptual system that develops from one's lived experiences to organize perceptions of the self, other people, and the larger world. Janoff-Bulman (1989, 1992) expanded on these initial conceptions to pinpoint three primary assumptive worldviews that may be challenged by bereavement and other types of potentially traumatic experiences. First, *benevolence of the world* involves the extent to which an individual views the world in general and other people in positive or negative terms. Second, *meaningfulness of the world* pertains to one's perceptions of the occurrence of good and bad outcomes and the manner in which these outcomes are distributed according to principles of justice, randomness, and controllability. Third, *worthiness of self* involves self-perceptions of goodness, morality, or decency; the ability to engage in appropriate behaviors and decision making; and a sense of being lucky or fortunate in one's life. In support of these theoretical propositions, Janoff-Bulman (1989) demonstrated that dimensions from each category distinguished a group of 83 trauma survivors from 255 nonsurvivors in that the survivors had more negative assumptions than individuals who did not report a trauma.

Other research has similarly provided indirect evidence for negative changes in assumptive worldviews following specific traumatic events, such as serving in combat (Dekel, Solomon, Elklit, & Ginzburg, 2004) and experiencing other war-related violence and torture (Magwaza, 1999). Compared to

coping with traumatic events in general, studies on adaptation to loss have yielded a more ambiguous picture regarding the degree to which the death of a loved one influences assumptions of benevolence, meaningfulness, and self-worth (Matthews & Marwit, 2004; Schwartzberg & Janoff-Bulman, 1991). For example, in an investigation of 21 young adults who had lost a parent and 21 matched controls, Schwartzberg and Janoff-Bulman (1991) found that the bereaved undergraduates saw the world as less meaningful than did nonbereaved individuals, but the two groups had equivalent levels of belief in benevolence and self-worth. In contrast, compared to 30 nonbereaved parents, Matthews and Marwit (2004) found that the 135 bereaved parents in their study reported considerably less confidence in the benevolence of the world and perceived lower levels of self-worth but did not endorse weaker assumptions of meaningfulness. Therefore, of studies that investigated the association between assumptive worldviews and bereavement adaptation, results have conflicted somewhat with respect to the impact of loss on grievers' meaning structures. However, in spite of this divergence, other findings converged in that bereaved individuals with weaker assumptions of benevolence, meaningfulness, and self-worth had more problematic reactions to their losses than grievers with more positive views (Matthews & Marwit, 2004; Schwartzberg & Janoff-Bulman, 1991).

As a way of replicating and extending prior work in this area, the present study examined (a) the impact of losing a primary relationship on assumptions of benevolence, meaningfulness, and self-worth and (b) possible interactions between bereavement status (i.e., bereaved participants vs. nonbereaved matched controls) and assumptive worldviews in explaining severity of psychological distress. The sample included both adults who had lost an immediate family member in the past 2 years and nonbereaved persons who were similar in many important respects except for the experience of loss. Even though changes in assumptive worldviews can only truly be evaluated using a prospective longitudinal design, we assessed the impact of loss and relevance of assumptive worldviews in bereavement adaptation using a matched control design. Based on the results of prior research (Matthews & Marwit, 2004; Schwartzberg & Janoff-Bulman, 1991), we did not hypothesize that the experience of bereavement would have a considerable impact on the strength of assumptive worldviews. However, we did hypothesize that losing an immediate family member would have a salient impact on psychological functioning and that stronger beliefs in benevolence, meaningfulness, and self-worth would be associated with lower levels of distress symptoms across bereaved and nonbereaved individuals. Additionally, we hypothesized that these associations would be stronger for those individuals who had recently lost a close loved one (i.e., significant interaction between bereavement status and assumptive worldviews), reflecting the relevance of negative meaning structures in adaptation to bereavement.

METHOD

Participants

Following institutional review and approval of the project, 42 bereaved and 42 nonbereaved adults (18 years or older) were recruited from undergraduate psychology courses at a large southern research university. Data were collected electronically via an online subject pool system sponsored by the institution's psychology department. This data set represents about 10% of the participants from a larger ongoing investigation on adaptation to bereavement at the sponsoring institution that includes individuals who had lost any loved one (i.e., primary and secondary relationships) in the past 2 years as well as those who had not experienced the recent death of a loved one. For inclusion in the present study, however, bereaved participants needed to have experienced the death of a parent, sibling, spouse/partner, or child within the previous 2 years. The basis for this criterion stems from prior research suggesting that exceptional challenges are associated with losing a primary relationship compared to more secondary losses (e.g., loss of grandparents, friends, aunts/uncles; Weiss, 1988) and that significant bereavement phenomena are frequently observed for at least 24 months following the loss (Lichtenthal, Cruess, & Prigerson, 2004). Following the selection of bereaved individuals from the larger sample who met these more focused inclusion criteria, nonbereaved participants who had not lost any loved one in the past 2 years were identified and matched according to age, gender, ethnicity, and educational background. So as to minimize bias in this procedure, the researcher remained blind to levels of assumptive worldviews and psychological distress by creating a separate data set that only included participants' identification numbers, bereavement status, and the four characteristics used to match bereaved and nonbereaved individuals.

The mean ages for the bereaved (5 men and 37 women) and nonbereaved (5 men and 37 women) groups were 24.3 years ($SD=10.4$, range = 18 to 56) and 23.4 years ($SD=8$, range = 18 to 52), respectively. Half of both groups were composed of African American individuals. The two groups also had corresponding proportions of Caucasian (bereaved, 43%; nonbereaved, 41%) and individuals who reported another ethnicity (bereaved, 7%; nonbereaved, 9%). The nonbereaved control group was also matched as closely as possible with bereaved participants on the basis of the highest level of education attained in the participant's household, which could either reflect the achievement of a family member or the participants themselves if they had obtained the highest level of education in the family. The breakdown of educational backgrounds for the two groups was as follows: graduated high school (bereaved, 14.3%; nonbereaved, 9.5%), some college or trade school (bereaved, 31%; nonbereaved, 40.5%), completed a 2-year associate's degree (bereaved, 23.8%; nonbereaved, 16.7%), completed

a bachelor's degree (bereaved, 23.8%; nonbereaved, 19%), or had someone in the family go to graduate school (bereaved, 7.1%; nonbereaved, 14.3%).

Bereaved participants had lost one of six relationships involving an immediate family member: mother (19%), father (31%), sister (16.7%), brother (4.8%), spouse or partner (19%), or child (9.5%). The deaths had occurred by natural anticipated causes (e.g., cancer; 33.3%), natural sudden causes (e.g., heart attack; 28.6%), accidents (e.g., motor vehicle crashes; 11.9%), suicide (11.9%), homicide (7.1%), and other causes (e.g., perinatal death; 7.1%). On average, 13 months had elapsed since the time of the death, with a range of 0 to 24 months ($SD=8$).

Procedure

All of the participants provided demographic information and completed standardized measures of assumptive worldviews and psychological distress. In addition to these measures, bereaved participants also provided information on the circumstances of their loss.

Measures

WORLD ASSUMPTIONS SCALE (WAS)

Assumptive worldviews were assessed with the WAS (Janoff-Bulman, 1989), a 32-item self-report instrument that generates three primary subscales related to benevolence, meaningfulness, and self-worth. Researchers have frequently divided these three main subscales into eight smaller subscales. In light of recent factor-analytic evidence regarding the possible superiority of an eight-factor solution (Elkit, Shevlin, Solomon, & Dekel, 2007), we initially subdivided the WAS into the eight indices in preparation for the statistical analyses. However, several of the smaller subscales demonstrated poor internal consistency ($\alpha = .2$ to $.5$). Also, previous research on bereavement has focused on Janoff-Bulman's (1989) three main categories of assumptive worldviews, which was another reason for preferring the three-subscale solution in the present study.

Items on the WAS were rated on a 5-point¹ Likert-type scale, with anchor points of 0 (*strongly disagree*) to 4 (*strongly agree*), such that higher scores indicated stronger beliefs in the particular assumption. Example items for the subscales included "The good things that happen in this world far outnumber the bad" and "Human nature is basically good" (benevolence); "Generally, people deserve what they get in this world" and "The course of our lives is largely determined by chance" (meaningfulness); and "I am usually satisfied with the kind of person I am" and "I usually behave in ways that are likely to maximize good results for me" (self-worth). The WAS has been used extensively in research, demonstrating good reliability in several empirical studies (Dekel et al., 2004; Elkit et al., 2007; Janoff-Bulman,

1989; Jeavons & Greenwood, 2007; Poulin & Cohen Silver, 2008). In support of its construct validity, the WAS has been shown to account for PTSD symptoms (Dekel et al., 2004; Elklit et al., 2007) and to differentiate survivors of problematic experiences from people who did not report a trauma in their history (Janoff-Bulman, 1989; Matthews & Marwit, 2004; Schwartzberg & Janoff-Bulman, 1991). The full WAS yielded an alpha of .86 in the present sample; benevolence ($\alpha = .73$), meaningfulness ($\alpha = .68$), and self-worth ($\alpha = .8$) showed acceptable levels of internal consistency as well.

SYMPTOM CHECKLIST-10-REVISED (SCL-10-R)

Psychological distress was assessed with the revised version of the Symptom Checklist-10 (Rosen et al., 2000), which represents a 10-item index of the Symptom Checklist-90 (SCL-90; Derogatis, Lipman, & Covi, 1973). Items on the SCL-10-R are rated on a 5-point Likert-type scale according to the intensity of psychological distress associated with the symptom over the previous 30 days. Responses are anchored from 0 (*not at all*) to 4 (*extremely*). Example items included “your feelings being easily hurt” and “feeling tense or keyed up.” The SCL-10-R displayed excellent internal consistency in the present sample ($\alpha = .92$). Additionally, the SCL-10-R has been shown to correlate highly with other standardized brief measures of emotional distress (e.g., MHI-5; Strand, Dalgard, Tambs, & Rognerud, 2003), further supporting its validity as a general measure of psychological functioning in the current sample.

RESULTS

Assumptive Worldviews and Psychological Distress: Bereaved Versus Nonbereaved Participants

Descriptive statistics for the three assumptive worldviews and total scores on the SCL-10-R are presented in Table 1. The results of independent samples *t* tests failed to demonstrate statistically significant differences between bereaved and nonbereaved participants with respect to benevolence, meaningfulness, or self-worth.² Other results showed that bereaved participants had significantly higher symptoms of distress compared to their nonbereaved counterparts, $t(82) = -4, p < .001$, which is consistent with the expectation that the experience of losing a primary relationship would have a salient impact on psychological functioning.

Predicting Psychological Distress

In an effort to evaluate the roles of bereavement status and assumptive worldviews in accounting for psychological distress, we performed a

TABLE 1 Assumptive Worldviews and Distress Among Bereaved Persons and Nonbereaved Controls.

Variable	Bereaved (<i>n</i> = 42)	Nonbereaved (<i>n</i> = 42)	<i>d</i>
Assumptive worldviews			
Benevolence	16.71 (5.26)	18.24 (5.43)	-0.29
Meaningfulness	23.5 (6.36)	22.67 (7.52)	0.12
Self-worth	30.19 (9.21)	32.86 (6.81)	-0.33
Psychological distress			
SCL-10-R	11.86* (9.72)	5.38 (3.99)	-0.87

Note. Mean scores and standard derivations are shown; Cohen's *d* = estimate of effect size based on bereaved participants' scores (Cohen's 1988); SCL-10-R = Symptom Checklist-10-Revised. Independent samples *t* tests were used to evaluate differences between groups.

**p* < .05.

hierarchical regression analysis. As we primarily were interested in exploring the interplay between the variables to see if assumptive worldviews were more relevant for bereaved or nonbereaved persons, participants' scores for the three assumptive worldviews were converted to *z* scores. So as to reduce problems with multicollinearity and to aid in interpreting the first-order terms, these centered scores were used to create three separate interaction terms: (a) Bereavement × Benevolence, (b) Bereavement × Meaningfulness, and (c) Bereavement × Self-Worth. Next, using a two-step process, psychological distress was regressed onto bereavement status, assumptive worldviews, and the three interaction terms. On the first step, bereavement status, benevolence, meaningfulness, and self-worth were entered. On the second step, the three interaction terms were entered along with these predictors.

The first model achieved statistical significance, $F(4, 79) = 9.01, p < .001$, accounting for 31% of the total variance in psychological distress (see Table 2). Of the individual factors, bereavement status and self-worth accounted for unique variance, with bereaved participants and those with less belief in their own worthiness self-reporting poorer psychological functioning. The entry of the interaction terms in the second model significantly increased the explained variance in the regression model, $\Delta R^2 = .12, F_{\text{change}}(3, 76) = 5.21, p = .003$. Of the three interaction terms, Bereavement × Meaningfulness ($p = .04$) and Bereavement × Self-Worth ($p = .04$) each explained unique variance in psychological distress.

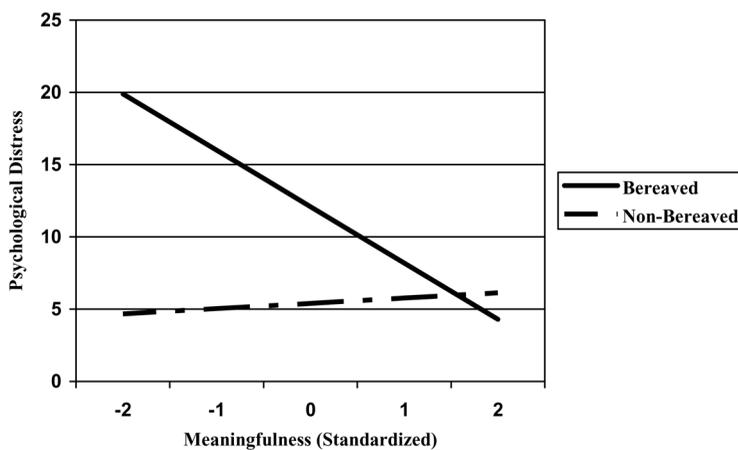
As a way of investigating the significant interactions between bereavement status and meaningfulness and self-worth, two independent sets of univariate regressions were performed. In these analyses, the interactions between bereavement status and assumptive worldviews were decomposed by testing the simple slopes of meaningfulness and self-worth on psychological distress symptoms for bereaved and nonbereaved participants. For the

TABLE 2 Assumptive Worldviews Predicting Psychological Distress ($n = 84$).

Predictor	<i>B</i>	<i>SE B</i>	β	R^2
Model 1				.31*
Bereaved (-1 = no vs. 1 = yes)	2.76*	0.77	.34*	
Benevolence	0.07	0.16	.05	
Meaningfulness	-0.01	0.13	-.01	
Self-worth	-0.40*	0.11	-.41*	
Model 2				.43*
Bereaved (-1 = no vs. 1 = yes)	2.89*	0.72	.36*	
Benevolence	0.05	0.15	.03	
Meaningfulness	-0.11	0.13	-.09	
Self-worth	-0.32*	0.12	-.32*	
Bereaved \times Benevolence	1.13	0.82	.14	
Bereaved \times Meaningfulness	-1.82*	0.88	-.23*	
Bereaved \times Self-worth	-2.00*	0.95	-.24*	

* $p < .05$.

bereaved participants, results demonstrated negative associations between meaningfulness and distress, $r(42) = -.37$, $p = .02$, and self-worth and distress, $r(42) = -.56$, $p < .001$. In contrast, we failed to find significant relations between meaningfulness and distress, $r(42) = .10$, $p = .53$, or self-worth and distress, $r(42) = -.03$, $p = .84$, among the nonbereaved participants. As depicted in Figures 1 and 2, these results indicated that weaker beliefs in the meaningfulness of the world and self-worthiness were each associated with greater psychological distress for the bereaved participants. In the nonbereaved groups, severity of distress symptoms was not associated with the strength of these two assumptive worldviews.

**FIGURE 1** Simple slopes of meaningfulness on distress for bereaved and nonbereaved persons.

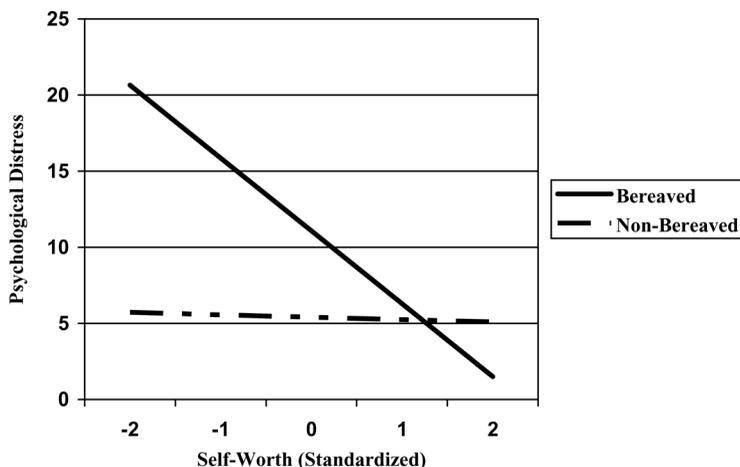


FIGURE 2 Simple slopes of self-worth on distress for bereaved and nonbereaved persons.

DISCUSSION

Newer understandings of grief have been influenced by Parkes's (1971) and Janoff-Bulman's (1989, 1992) assumptive world theory. Losing a loved one to death can challenge one's cherished beliefs about the self and the world, precipitating a personal crisis of meaning for many individuals (Gillies & Neimeyer, 2006; Neimeyer, 2001, 2002, 2006). However, available research on the impact of bereavement on assumptive worldviews suggests that the death of a loved one may not necessarily lead to dramatic changes in beliefs for many griever (Matthews & Marwit, 2004; Schwartzberg & Janoff-Bulman, 1991). Instead, it appears that although bereavement certainly can challenge one's fundamental understandings of the self and the world, most people do not experience a profound invalidation of their basic assumptions. The results of the present investigation also did not reveal large differences in assumptive worldviews between bereaved and nonbereaved groups. Compared to nonbereaved individuals who were matched in terms of age, gender, ethnicity, and educational background, we failed to show that bereaved participants viewed the world as considerably less benevolent or meaningful or perceived themselves as less worthy than individuals who had not experienced the recent loss of a primary relationship. Nonetheless, consistent with other work, bereaved persons were significantly more distressed than their nonbereaved counterparts, suggesting that bereavement had a negative impact on psychological functioning.

Overall analyses gave some indication that individuals with more negative assumptive worldviews had greater distress symptoms, regardless of bereavement status. However, further investigation of significant interactions showed that these associations were moderated by whether or

not the participant had lost a primary relationship in the recent past. Bereaved persons with weaker assumptions of meaningfulness and self-worth endorsed substantially more distress symptoms than those who perceived the world and themselves more positive terms. Conversely, the strength of these beliefs did not relate with the intensity of psychological distress among the nonbereaved participants. Although analyses failed to show considerable differences in assumptive worldviews between the two groups, the current results suggest that the nature of the griever's basic assumptions about the self and the world played a critical role in bereavement adaptation. These results are subject to multiple interpretations, one of which includes the possibility that having negative perceptions of the self and the world may serve as a risk factor for poor bereavement adaptation and not simply represent an outcome of the loss experience. Contrary to instances in which someone readily incorporates the loss via a benign explanation that alleviates distress and potentially restores functioning, assimilation of the loss experience in this latter situation would come at the unfortunate cost of affirming or even strengthening meaning structures that impede adjustment to loss.

Of course, a prospective longitudinal investigation would be necessary to examine the direct influence of preloss assumptive worldviews on bereavement adaptation. Using a matched control group design, we attempted to expand the empirical literature but needed to assume that the preloss assumptive worldviews of bereaved participants would converge with those of nonbereaved controls who likely shared many of the same experiences except for the recent loss of a family member. We allow for the possibility that bereaved individuals might have had more positive assumptions preloss compared to controls, which would provide an alternate explanation for the observed pattern of results. Despite the potential influence of unmeasured variables of this kind, we still believe that the current results raise some important issues and possibilities for future investigation. For example, it seems possible that some grievers may not have viewed the self and the world in particularly positive terms before the death occurred, which could prove to be a risk factor for poor bereavement adaptation but would not necessarily lead to a shattering of assumptive worldviews. In view of epidemiologic findings that most people who manifest clinical levels of distress after a traumatic life event also experienced multiple stressful experiences before the precipitating trauma (Helzer, Robins, & McEvoy, 1987), it might also be that a subset of the 10% to 15% of highly distressed grievers (Bonanno et al., 2002, 2004; Lichtenthal et al., 2004) have similarly been "hit" several times by other difficult experiences. In such cases, bereavement may not undermine one's positive beliefs about the self and the world but rather activate negative meaning structures fashioned from these other stressful experiences. For instance, for someone who has developed an extremely negative self-view, the loss of a primary relationship may

be perceived as further evidence that he or she is accursed or not worthy of participating in a security-enhancing relationship. Similarly, an individual whose sense of life's purpose has already been vitiated by previous trauma may be vulnerable to problematic responses to further losses that seem to confirm life's meaninglessness.

It is important to note several limitations of this study design that may have affected the present conclusions. We have already noted the lack of prospective data. We also failed to assess for nonbereavement stressful life events in this investigation. Hence, we can only speculate as to whether the predominance of other difficult experiences for matched controls may have accounted for the small differences in assumptive worldviews between the bereaved and nonbereaved groups. Considering that the study was conducted at a large urban university that successfully recruits individuals from a range of socioeconomic backgrounds, it seems possible that some of the nonbereaved participants had experienced potentially traumatic events or other stressors that influenced their perceptions of the self and the world in negative ways. On this point, a related limitation is that the sample primarily consisted of young adults with equivalent levels of education. Our findings may therefore not generalize as well to age groups outside of young adulthood or people of different educational backgrounds. In view of recent evidence that benevolence beliefs are increasingly linked with well-being over the course of the life span (Poulin & Cohen Silver, 2008), the failure to find a statistically significant interaction between bereavement adaptation and assumptions of benevolence in the present sample may reflect developmental factors related to young adulthood.

Another possible limitation pertains to inclusion criteria for the type of loss. As we focused somewhat broadly on the loss of a primary relationship, the results may not apply as well to specific circumstances associated with poor bereavement adaptation, such as the death of a child (Keese et al., *in press*). Also, less than a third of the deaths in the sample were violent in nature. Although preliminary analyses failed to demonstrate significant differences between the strength of assumptive worldviews for individuals who had lost loved ones to violent deaths and those who had lost a family member to a nonviolent cause, research suggests that violent loss increases the risk for distress and difficulties in finding meaning (Currier et al., 2006). The majority of bereaved participants in this study did not experience an unexpected, violent death, which may account in part for the slight divergence from other research on the role of assumptive worldviews in adaptation to trauma in general (Janoff-Bulman, 1989). Nevertheless, in spite of these limitations, the current study extends the empirical literature. Although preliminary in nature, the results provide at least initial support for an understudied but potentially important reaction to bereavement for some grievers whereby negative meaning structures unshaken by loss increase vulnerability to psychological distress associated with a loved one's death.

NOTES

1. Researchers who use the WAS typically incorporate a 6-point scale, with anchor points of 1 (*strongly disagree*) to 6 (*strongly agree*). In order to allow for an anchor point of 0 and give participants the option of choosing a true midpoint, we used a slightly different scaling method in this study.

2. Of note, the differences between groups on the benevolence and self-worth subscales were not entirely trivial ($d \sim 0.30$), which may reflect a lack of statistical power on our part to detect meaningful differences for bereaved and nonbereaved persons. Using the procedures described by Cohen (1988), analyses were therefore conducted to estimate the achieved level of power for the independent samples *t* tests in this study. Based on a medium effect size ($d = 0.5$) and an alpha level of .05, results showed that the analyses were powered at the 73% level, which is slightly lower than the conventional 80% level. However, we would have needed to include 140 participants in each group to detect a statistically significant effect for a *d* value of 0.30. Although we possibly would have found statistically significant differences if we had tripled the size of the sample, the magnitude of the differences between bereaved and nonbereaved participants on assumptive worldviews may have still remained relatively small.

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