

Searching for and Finding Meaning following Personal and Collective Traumas

Roxane Cohen Silver

Department of Psychology & Social Behavior

University of California, Irvine

John Updegraff

Department of Psychology

Kent State University

Searching for and Finding Meaning following Personal and Collective Traumas

Adversity is common. Whether it is a sudden unexpected loss, traumatic injury, or life-threatening illness, most individuals will experience a personal tragedy in their lifetimes (Seery, Holman, & Silver, 2010); many will experience an undesirable life event in any given year (Norris, 1992). Sometimes an entire community will be exposed to a natural or technological disaster, school shooting, or terrorist attack, although those directly affected often seem to be selected at random, and others appear to be spared at random (cf. Wayment, Silver, & Kemeny, 1995). These collective traumatic events become a shared experience among many victims.

Both personally experienced and collective traumas are often sudden, unexpected, and unpredictable. Because of these features, they have the potential to challenge people's expectations about living in an orderly, understandable, meaningful world (Janoff-Bulman, 1992; Park & Folkman, 1997). Indeed, some have argued that what makes traumatic events so distressing is that they violate many of the basic assumptions people have about themselves and the world (Janoff-Bulman, 1992; Silver & Wortman, 1980; Taylor, 1983).

Over the years, many theorists and researchers have examined the processes through which individuals confront these events, think about or process them, and either try to integrate the events into their pre-existing views of the world, or develop new views to accommodate the new reality. Sometimes the individual is unable to make sense of or reconcile the event and this process is unsuccessful. In this chapter we will review a three-decade program of research conducted by the authors and their colleagues that has examined how individuals and community members seek to cope with and come to terms with traumatic experiences, as well as the consequences for well-being and adjustment when they are unable to make sense of these experiences.

Meaning making in the context of personal trauma

A number of influential theories exist on how people cognitively and emotionally adapt to life stressors, as well as the influence the stress and trauma can have on people's understandings of themselves and their worlds (Janoff-Bulman, 1992; Neimeyer, 2001; Taylor, 1983; Thompson & Janigan, 1988). As noted by Park (2010), each of these theories shares tenets that postulate a central role for meaning-making in how people adjust to stress and trauma. These tenets include (1) people possess global belief systems that motivate behavior and through which they interpret ongoing experiences, (2) some life experiences have the capability to challenge these belief systems, and people assign meaning to these experiences, (3) people experience distress to the extent that the meaning they assign to a life experience is discrepant from their more global belief systems, and (4) this distress prompts a process by which people seek reduce the discrepancy between their appraised meaning of a life experience and their global belief systems. When people are able to adjust their global beliefs and/or their appraised meaning of the life experience so that this discrepancy is reduced, distress should be alleviated and a sense of order and coherence may be maintained.

Janoff-Bulman (1992) has eloquently argued that the global belief systems that are challenged by trauma include fundamental assumptions that the world is benevolent, the world is meaningful, and the self is worthy. These assumptions often manifest themselves in beliefs that the world is a good and safe place, that good things happen to good people, and that people hold substantial control over their situations. When people experience a sudden and severe misfortune, these fundamental beliefs are often "shattered" (Janoff-Bulman, 1992). The world is no longer a safe and predictable place, and a person may come to believe that bad things can befall good people, or instead come to believe that the person was deserving of their lot.

People also construct “situational meanings” (Park, 2010), which are understandings of a particular situation or life experience. The form of these situational meanings can be rather varied and complex, ranging from appraisals of the situation’s predictability and controllability, attributions regarding the cause the situation, assignments of blame to the self or others, as well as what the event means in terms of current goals and one’s future (Aldwin, 2007). When a person’s initial situation meaning of an event clashes with one’s global belief systems, it can initiate a search for *meaning as comprehensibility* (Janoff-Bulman & Frantz, 1997), or attempts to make the event make sense and fit with existing belief structures.

Because the specific meanings that people can assign to specific situations are likely to be tied to the specific nature of the stressor, it is often most fruitful to examine people’s meaning making with broad questions that get at how people general make sense of or understand the situations that they are coping with. Indeed, most studies of meaning making in the context of trauma have assessed meaning with simple questions such as “How often have you found yourself trying to make sense of your experiences?”, “Have you ever asked yourself, ‘Why me?’” and “How have you been able to make sense of your experiences?”. From simple questions such as these, it is possible to get a rich understanding of how people understand and make sense of misfortunes.

Early studies of meaning in the context of personal trauma

One of the first systematic investigations of the issue of meaning in personal trauma was a cross-sectional study of 29 patients of paralyzing spinal cord injuries (Bulman & Wortman, 1977). The injuries were sustained up to 1 year prior to the study. All of the patients reported a search for meaning, by asking themselves the question of “Why me?” All but one of the patients also had come to some answer to this question. However, particular forms of meaning that they

found varied widely. Although one of the most common explanations was that their accident was merely a result of chance, many of the patients viewed their accident as something that could be explained based on preexisting worldviews or conceptions of justice. For example, the most commonly-reported form of meaning was viewing their misfortune as something that was part of God's plan for them. Another common response was viewing their misfortune as something that was fated and predetermined, potentially as a consequence of past misdeeds. Others attempted to a way of viewing their experience in a positive light, by reevaluating their experience as something that was positive. What influence, if any, might these explanations have on people's ability to adapt to misfortune? Perhaps because the sample was small and the categories were derived post-hoc from open-ended questions, there was no evidence that the particular form of meaning ascribed for the accident was associated with adjustment in these data. Nonetheless, this landmark study yielded provocative findings and suggested that these complex issues might be fruitfully examined in methodologically rigorous studies in the "real world".

Silver (1982) attempted to replicate Bulman and Wortman's findings with a larger sample of individuals who were interviewed starting one week after a serious injury that left many of them permanently paralyzed. These individuals were injured in variety of ways, including auto accidents, falls, sporting accidents and violent crimes. In all, 102 spinal cord injured patients were interviewed within the first 8 weeks after their accident. In trying to understand how people made sense of their accidents and resulting disability, she found a curious result. In contrast to the findings of Bulman and Wortman, 54% of the sample had never asked the question at 3 weeks after their accidents; 46% had not done so by 8 weeks ("I've really never given it a thought", or "I haven't tried to make sense of it"; see Silver, 1982). Even those who asked the

question seemed to vary in terms of how much it concerned them (e.g., “it’s a question I haven’t, um, dwelled on”). Searching for meaning in this study was not associated with the severity of the injury and its consequences. That is, individuals who were left paraplegic were no less likely to search for meaning than those who were left quadriplegic. In fact, individuals who were injured but remained neurologically intact (e.g., broke their backs but were not left with permanent spinal cord injury) were no less likely to search for meaning (or more likely to find it) than individuals who were permanently paralyzed. Instead, searching for meaning was intricately tied to attributions of blame. That is, searching for an explanation was more common among respondents who blamed another for their accidents. In fact, independent coders saw those subjects who were blaming others to be innocent victims in the accident (e.g., pedestrians hit by a car, victims of sniper fire, see Davis, Lehman, Silver, Wortman, & Ellard, 1996).

The variability in these victims’ search for meaning allowed for an examination of how the search for meaning potentially relates to coping and adjustment. Compared to individuals who were not asking the question “Why me?”, individuals engaged in the search for meaning were more likely to blame have increased ruminations about the accident, report increased perceptions of unfairness surrounding the accident and reported significantly more depression, anger and anxiety within the first several weeks after their injury.

While this search for meaning might appear to be maladaptive, it did appear to facilitate adjustment when the search resulted in an answer to the question. Indeed, those patients who could generate an answer to the question (with answers ranging from the simple “that’s life” to complicated explanations about “God’s will”) reported significantly less depression, less anger, and fewer ongoing ruminations about the accident than subjects for whom no answer to the question was available. In addition, those who blamed others for their accidents had the most

difficulty finding an answer to the question. Importantly, the specific answer to the question “Why me?” – that is, how a person found meaning – did not appear to matter for adjustment. Regardless of the specific form of meaning found, those who were able to find meaning reported less distress than those who were not.

These findings are striking, as they provided perhaps the first evidence that the search for meaning could be a maladaptive response to personal trauma, at least to the extent that it does not yield an answer. Yet, it may often be the case that victims of personal trauma are unable to find meaning in their experience, despite being preoccupied with the search. Silver, Boon and Stones (1983) surveyed 77 adult women who were survivors of childhood sexual abuse at the hands of their father or other male guardian. In this study, the sexual abuse occurred, on average, two decades earlier. Despite the time that had passed since the trauma, over 80% of the women in this study still searched to find some reason, meaning or way to make sense of their experiences. A similar proportion of women also reported that this search for meaning was still important to them. Yet, over half of the women who were searching for meaning were still unable to make any sense of their experience, despite the passing of time. Furthermore, the women who still reported an ongoing search for meaning had greater levels of distress and more frequent ruminations about the abuse. Of course, as the authors note, because these data were cross-sectional, it is impossible to tease apart whether searching drives distress, whether distress drives the search to understand the distress, or whether the two go hand in hand.

As had been seen in the study of physically disabled individuals described earlier (Silver, 1982), the frequency of the search for meaning among the adult survivors of childhood sexual abuse was not associated with “objective” circumstances of their abuse. That is, relationships between the frequency of the search for meaning and the “severity” of the outcome, such as the

frequency of the incestuous encounters, whether the sex had been accompanied by physical violence, and whether the contact progressed to intercourse, failed to reveal any significant effects.

The forms of meaning found were unique to the trauma of childhood sexual abuse. Over 50% saw the incest as an explainable consequence of dynamics in the household; 40% sympathized with the perpetrator's need for love or sexual satisfaction. Almost one-third of the sample saw the perpetrator as mentally ill or having a characterological disorder. Over 20%, however, made sense of their incest experience by focusing on positive outcomes of the situation. In contrast to explanations generated for spinal cord injury, very few women made sense of the incest with religious or philosophical explanations. Interestingly, as was seen in the search, finding meaning was also not associated with "objective" circumstances of the abuse. There were no differences in the number of years since the incest had terminated among those who were successful in their search for meaning and those who were not, nor were there differences in age at onset or termination of the abuse, in the duration or frequency of the encounters, whether violence had accompanied the sex, or whether the abuse had continued to intercourse. Moreover, it was not simply true that the longer these women searched, the more likely they were to find meaning. Unfortunately, time did not assist the woman in making sense of their experiences.

Silver and colleagues (1983) also noted that attempts to cognitively process or make sense of the event could take the form of repeated ruminations of the "unfinished business." Indeed, as they noted, repeated reviewing of an experience could be interpreted as a means of "working through" the event so as to gain mastery over it. Struggles to reconcile the experience of the event with beliefs about the world could be manifest through recurrent, involuntary,

intrusive thoughts of the trauma. While the direction of causality was unanswerable with these correlational data, they suggested that there was likely to be an interplay between ruminations about the abuse and a search for meaning in it. As they discussed, “mentally reviewing disturbing memories of the past may be the mechanism by which our respondents attempted to make sense of their experience.... However, intrusive ruminations may also prompt a need to understand the experience and its persistent effects.” (p. 88). This issue was subsequently examined in some detail by Tait and Silver (1989), who interviewed 45 senior citizens about the worst event of their lives (which had occurred on almost 23 years previously). Almost 40% of the sample reported still searching at least sometimes for a meaningful perspective from which to view their most negative event. Searching for meaning was also associated with an ongoing desire to talk about the event as well as attempts to cognitively “undo” the experience (cf. Davis et al., 1995). This ongoing cognitive and emotional involvement was associated with frequent intrusive ruminations, as well as going distress surrounding the negative event. Tait and Silver (1989) maintained that ongoing intrusions suggested that the individual had not been able to integrate the event successfully and thus may signal and cause continued distress (cf. Silver et al., 1983). Interestingly, none of these measures of ongoing impact were related to the amount of time that had passed since the event.

Longitudinal studies of meaning in personal trauma

These fundamental questions in the study of meaning-making have been more closely examined in a number of longitudinal studies, many of which focus on bereavement (Davis et al., 1998; 2000). The first of these was study of 124 parents who had suffered the loss of a child to Sudden Infant Death Syndrome (SIDS) (Davis, Wortman, Lehman & Silver, 2000; Downey, Silver, & Wortman, 1990). SIDS is a unique trauma, because it represents a devastating loss, is

unexpected, and there is typically no known cause for SIDS. Thus, it may represent a trauma for which issues of explanation and meaning are paramount.

Parents were first interviewed within a month after the death of their child, and were asked if they had ever searched for meaning in their loss. An overwhelming majority of the parents (86%) reported that they were; only 14% said that it was “not at all” important to make sense of their baby’s death. When asked if they had ever searched for meaning since the loss of their child, 18% said they had, but were no longer searching for meaning. Of these, most of them reported that they had not been able to find any meaning in their loss.

The parents who reported that they were actively searching for meaning at the first interview were no more likely than those who were not to report finding meaning, either at the first interview or the following 18 months. Furthermore, rates of finding meaning were strikingly similar across the three interviews. At 1 month, 65% were unable to find meaning. At both 3 months and 18 months, 75% were unable to find meaning. Thus, this longitudinal study provides more compelling evidence that ability to find meaning either appears early on in the coping process, or not at all. When meaning was found, it largely came in three forms: attributing the loss to God’s will, attributing it to fate, or finding something positive in the loss. How did this search for meaning relate to long-term adjustment? Across three measures of adjustment (depression, well-being, and negative emotions), the results were consistent. Parents who were *not* searching for meaning in the first month post-loss were doing better across the entire 18 months period than those who were searching for meaning. Thus, the search for meaning was associated with long-term adjustment problems.

Did finding meaning appear to improve adjustment? To address this question, parents were divided into three groups based on their search for meaning in the first month: (1) those

who were not searching for meaning and had never found meaning, (2) those who were searching for meaning but were unable to find any, and (3) those who had searched and found meaning. As expected, the parents who searched for meaning but were unable to find any did worse on all outcomes than the two other groups. However, those parents who reported never searching at all and never finding meaning fared the best. Thus, these analyses suggest that finding meaning may facilitate adjustment for those who are actively searching for meaning. However, being concerned with a search for meaning in the first place may be indicative of coping difficulties.

One limitation of this study of parents coping with SIDS is that pre-loss measures of distress were not available given the unexpected nature of SIDS. Thus, there is the potential that the parents' search for meaning and their long-term adjustment may have been driven, in part, by their adjustment prior to their loss. However, we note that these findings are consistent with those found in a longitudinal study of 205 adults coping with the death of a hospice-residing family member (Davis, Nolen-Hoeksema, & Larsen, 1998). These researchers were able to interview their participants prior to the loss of their loved one and observed adjustment from pre-loss through 13 months post-loss. At 6-months post-loss, 68% of their participants reported that they had been able to make sense of the death, while 19% reported that they were completely unable to make sense of it. Furthermore, these proportions were strikingly similar to the proportions of individuals who were able to make sense of the death at 13-months post-loss. However, this study also noted that making sense was not necessarily consistent over time. Despite the consistent rates over time, the authors note that people switched categories from 6- to 13- months. That is, while over half of the respondents reported no change in their ability to make sense over time, 32% had changed from the 6-month to 13-month interviews. Almost one-

third of these respondents (32%) “gained sense”, while a smaller percentage (7%) “lost sense” over time.

What is noteworthy about these findings, however, is how they related to adjustment over time. Controlling for pre-loss levels of distress, respondents who were able to make sense of their loss at the 6-month interview experienced less distress at the 13-month follow-up. More importantly, it was only the ability to make sense at the earlier interview that predicted longer-term adjustment. In fact, the researchers observed that those people who had “gained sense” from 6-months to 13-months were still experienced more distress than those who had made sense all along, suggesting that the meanings that respondents found later may not have been “particularly comforting” (p. 569). Indeed, the types of explanations found by the “sense gainers” at 13-months tended to lack an ability to make sense, for example by concluding that these kinds of events “just happen” (p. 569).

Summary of meaning in the context of personal trauma

Across diverse types of personal trauma – bereavement, sexual abuse, and spinal cord injury – there is clear evidence that the search for meaning is a common response to trauma, and one that may likely influence longer-term adjustment to trauma. These early empirical studies of meaning following personal trauma brought to light several important findings in the study of meaning. First, the search for meaning is a common response to personal traumas, but it is also not a universal response. Second, searching for meaning may not necessarily be adaptive, particularly when the search for meaning persists without any resolution. Third, the passage of time does not appear to assist in finding meaning. When people are able to find meaning, they may be likely to do so early in the process. Last, finding meaning may be more difficult for events that are perceived as particularly unfair, as the people may be most likely to search for

meaning – and least likely to find it – following particularly severe, directly experienced traumas.

Meaning making in collective trauma

Traumatic events impact both individuals and collectives. Community-wide disasters, such as natural, technological or human caused traumatic events (e.g., mass shootings) can cause death and physical damage, but they also disrupt life, alter routine patterns, interrupt the rhythm and tear the social fabric of the community (e.g., Erikson, 1976). Importantly, even if one is not impacted directly by the incident, such community-wide events often strip individuals of a sense of security in their surroundings, highlight the fragility of life and shatter perceptions of individual vulnerability.

With few exceptions (Pennebaker & Banasik, 1997; Wayment, 2004), limited research has examined the process of meaning making following collective traumas. Yet it is clear that communities are deeply concerned about how their story is told (Pennebaker & Banasik, 1997). Based on the work that has been conducted following personally experienced events, we suspected that individuals exposed to collective traumas would also try to make sense of these shared events. Moreover, we hypothesized that one would not need to have been directly exposed to a collective trauma to search for meaning in it.

These themes were evident in a small qualitative study of almost a dozen parents and children who were interviewed within the first two weeks after the shootings at Columbine High School in Littleton, Colorado, where two male students murdered 13 students and teachers and subsequently took their own lives (Hawkins, McIntosh, Silver, & Holman, 2004). All respondents reported having tried to make some sense of the tragic events, although the importance of finding meaning in the events was highly variable. The extent to which the topic

consumed thought processes in the early aftermath of the shooting was also highly variable, with some admitting thinking about the issue only rarely and others thinking about it all the time. For some, meaning was facilitated via identifying with the perpetrators: understanding their motivations and acknowledging the pain they felt as a result of social exclusion; others had been unable to find any answers.

Meaning making in a community natural disaster

In October 1993, a firestorm ravaged two small coastal communities in Southern California a week apart. Almost 600 homes were destroyed and hundreds more sustained significant fire damage. Both communities were evacuated in a matter of hours, and residents were left to wonder the state of their homes and possessions while seeking refuge and watching the extensive media coverage of the disaster. In the end, it was unclear what started the fires, although initial reports suggested it could have been the result of arson.

Within 36 hours after residents' return from the forced evacuation, our research team was able to interview 85 residents of these firestorms (see Holman & Silver, 1998). Some of the interviewees suffered a loss of their home. Others suffered the threat of losing their home, financial damages, or witnessed neighbors and friends suffer the loss of their homes. Thus, some respondents experienced a direct loss, whereas others suffered more indirectly. In the first interview, over 50% of the respondents reported searching for meaning in the firestorm and its aftermath. Over 75% of these individuals reported that they were able to find meaning in the firestorm and its aftermath "at least sometimes." Interestingly, despite the initial suggestions that arson may have been the cause, very few participants (5%) made sense of the firestorms by blaming others for the disaster. Instead, the most common response (30%) was to interpret the events in terms of some larger philosophical or religious perspective (fate, chance, God's plan).

Perhaps due to the nature of the situation, another common response (19%) was to focus on actions taken to repair the situation, by fixing damage, helping neighbors, or contacting insurance companies (Updegraff, Silver, & Holman, unpublished).

At several times over the next two years following the firestorm, respondents were again asked whether they had searched for meaning and if so, how they had found it. Across the years, the prevalence of the search for meaning remained stable. Half of the respondents reported an active search for meaning, and half did not. Moreover, most reported being able to make sense of the fires (almost 90% answered affirmatively at one year and almost 85% did so at two years). However, there was some change in the content of people's statements. In particular, there was a marked increase in the number of people who make sense by making use of cognitive restructuring, for example by focusing on positive aspects of the situation. In contrast, respondents were less likely to make sense by interpreting within a philosophical or religious perspective over time. Thus, there was some evidence to suggest that time might have changed the particular explanations with which respondents explained the disaster.

Although it was difficult to assess whether the severity of the trauma influenced the particular forms of meaning that respondents found, we were able to examine whether the severity influenced the intensity of the search for meaning. Across the first two weeks of this collective trauma, there was no difference in the intensity of the search among those respondents who lost their house and those who did not. This is arguably due to the fact that all respondents were threatened by the fire and witnessed the damage to their community in the first weeks of the disaster. It was only at the 6-month interview that a difference emerged, with those who lost their home were significantly more likely to still be searching for meaning in the experience compared to those who did not lose their home. Nonetheless, this difference did not maintain at

one and two years after the fires. In general, it appears that the degree to which community residents searched for and finding meaning in the firestorms was not associated with severity of fire damage. As had been seen with very different sorts of adversity (physical disability, childhood sexual abuse), individuals who completely lost their homes were not more likely to search for meaning than those who did not, and those who did not lose their homes were no more likely to make sense of the firestorms than those who lost their homes.

However, across time, the degree to which individuals searched for and whether or not they reported finding meaning in this collective trauma was associated with distress. Specifically, those who were searching for meaning in the first several hours after the forced evacuation reported higher distress over time; those who reported searching for meaning at two weeks after the firestorms reported more distress up to two years later. Finally, those who had found meaning by two weeks after the fires reported significantly less distress over the next several years; the ability to find meaning also predicted a more rapid decrease in distress over the 6 months following the firestorm (Updegraff et al., unpublished).

Thus, it appears from the local collective traumas we studied (Columbine High School Shooting and Southern California firestorms) that such events appear to initiate the same psychological processes in the search for meaning as had been seen following personally traumatic events. Even without direct loss from these collective traumas, residents are nonetheless confronted with challenges to basic assumptions about living in a predictable, understandable world and their role in it. In confronting these challenges, we see individuals exhibiting remarkably similar responses to both indirectly and directly experienced traumatic events.

Meaning-making in the September 11, 2001 terrorist attacks

The terrorist attacks of September 11, 2001, represented a collective trauma for the entire United States. Although residents of New York City and Washington DC were largely the people who experienced direct personal trauma as a result of the attacks, the entire country was shaken by vivid television images and extensive media coverage. Indeed, nearly half of Americans reported symptoms of posttraumatic stress in the days following the attacks, with symptoms remaining elevated in the months following 9/11 (Schuster et al., 2001; Silver, Holman, McIntosh, Poulin & Gil-Rivas, 2002). These symptoms were accompanied by substantial fears of more terrorist attacks, as more than half of Americans expressed concerns for the safety of themselves and their loved ones (Silver et al., 2002). Although only a small proportion of Americans were directly traumatized by the attacks (by witnessing them, or losing a loved one), the attacks represented a widespread collective trauma for the country.

These attacks provided an unusual opportunity to examine meaning making among individuals coping with a collective trauma. Updegraff, Silver and Holman (2008) examined the predictors and long-term consequences of both searching for meaning and finding meaning in a large, nationally-representative longitudinal study of American's responses to 9/11. This study was unique to meaning studies in a number of important respects. First, it was a longitudinal study that included pre-attack measures of mental health and followed respondents for 2 years. The baseline measures are particularly noteworthy, as the attacks represented an unanticipated event, unlike prior studies that have included pre-event measures of adjustment (e.g., Davis et al., 1998). Second, this study had measures of early stress and coping responses at 2-weeks post-attack, enabling an examination of the early predictors of long-term adjustment. Lastly, the

study assessed beliefs that have been theorized to explain the link between finding meaning and adjustment.

Respondents in this study also had varying levels of exposure to the attacks. Over half (60%) viewed the attacks on live TV, while a smaller proportion either lived within 100 miles of the attacks (8%) or had direct exposure to them (3%). Thus, this study was able to assess the role of direct exposure in the search for meaning.

The first interview that asked Americans about their search for meaning was administered in November, 2001. Over two-thirds (69%) of the sample reported searching for meaning in the terrorist attacks and their aftermath at the 2-month interview. This proportion was also similar at the 1-year interview (71%), so the search for meaning did not appear to abate over time. At 2-months, the intensity of peoples search for meaning was not predicted at all by direct experience with the attacks. Rather, the intensity of the search for meaning was predicted by respondent's level of acute stress symptoms in the weeks following the attacks, after controlling for pre-attack indices of mental health. Early coping strategies did little to predict the extent of people's search for meaning. Thus, direct exposure to the trauma was not required for a search for meaning to occur. All that mattered was that a person experience subjective distress resulting from exposure to the collective trauma.

Despite the high proportion of Americans searching for a way to make sense of the attacks, only 40% of the sample reported being able to find meaning. Furthermore, this percentage also remained stable at the 1-year follow-up. Again, direct exposure to the attacks was not related to the ability to find meaning, but acute stress symptoms were: those who experienced more early acute stress symptoms were less likely to report finding meaning. However, early coping strategies played a greater role in predicting the ability to find meaning.

People who sought instrumental support from others – such as seeking advice – were more likely to find meaning in the terrorist attacks, as were people who engaged in positive reframing.

People who sought emotional support from others or who engaged in denial coping were less likely to find meaning. These findings suggest an important role for the social environment in meaning making, particularly in the context of a collective trauma.

Of greatest importance, this study provided perhaps the most compelling evidence to date that searching and finding meaning in a traumatic experience facilitates long-term adjustment. After controlling for pre-event mental health, exposure to the attacks, as well as early acute stress response, we found that both searching and finding meaning predicted posttraumatic stress symptoms over the following two years. The more people searched for meaning in the early months, the more posttraumatic stress symptoms they experienced over time. In contrast, the more people were able to find meaning, the less posttraumatic stress symptoms they experienced over time.

This study also identified a link that could explain why finding meaning facilitated long-term adjustment. Specifically, we found that finding meaning facilitated adjustment by reducing fears of future terrorism. These findings can be taken to suggest that something in the explanations that Americans found for the attacks enabled them to be less preoccupied with the potential that future attacks were likely. In short, finding meaning may have served to restore some order or coherence in an event that was – at its core – unanticipated, threatening to national security, and devastating.

What kinds of meanings did Americans find? The most common way of explaining the terrorist attacks was to either derogate the terrorists or assert American's moral superiority over the terrorists (30%). Another common response was to find meaning by seeking to understand

the motivations behind the terrorists' actions (24%). Smaller proportions of Americans found meaning by looking to religious explanations (15%) or interpreting the events within a political or historical perspective (12%). The least common ways of finding meaning in the early aftermath were by blaming the US government (8%) or by looking for positive consequences resulting from the attacks (5%). A striking pattern to these explanations is how they map onto some of the fundamental assumptions that have been argued to provide a sense of coherence in people's lives (Janoff-Bulman, 1992) – world as just place, world as benevolent, self as worthy. Nonetheless, of these, only finding meaning by seeking to understand the motives of the terrorists was related to better adjustment. Otherwise, the particular form of meaning found was inconsequential.

Summary and Future Directions

For decades, psychologists have maintained that the need to make sense of the events in one's social world is a fundamental part of everyday social cognition, as well as a central part of theories of adaptation to trauma (Janoff-Bulman, 1992; Park, 2010; Taylor, 1983). Empirical research conducted over the past several decades makes clear that individuals frequently seek to make sense of traumatic life events – both personally experienced and socially shared events. In fact, in the case of collective traumas, one does not need to have been directly exposed to an event to search for meaning in it. Across several populations it is also clear that searching for meaning tends to be associated with distress. Of course the causal direction of this relationship is impossible to clarify definitively. Rather than distress driving the search for meaning or the search for meaning driving distress, it is likely that there is a constant interplay between them. In addition, some individuals appear to be able to avoid the search for meaning in adversity altogether, and they appear to have better psychological outcomes over time.

Many, but not all, individuals are able to reconcile an individually- or collectively-experienced traumatic event with their preexisting worldviews by finding some kind of meaning in the event (Silver & Wortman, 1980; Taylor, 1983). This may take the form of blaming oneself or others for the event (Bulman & Wortman, 1977), interpreting the experience through one's philosophical or religious beliefs (McIntosh, Silver, & Wortman, 1993), or believing that the event has had some positive consequences or social benefits (Poulin, Silver, Gil-Rivas, Holman, & McIntosh, 2009, Torabi & Seo, 2004). Nonetheless, across a variety of studies it has become clear that the type of answer generated following the search for meaning appears less important than whether an answer is generated at all. That is, regardless of the particular form of the explanation, it is thought that making *some* kind of sense out of a trauma or loss facilitates long-term adaptation (Janoff-Bulman, 1992; Silver & Wortman, 1980; Taylor, 1983). This process appears to take the form of restoring people's sense of invulnerability and shutting down continued ruminations of the traumatic experience (Silver et al., 1983; Updegraff et al., 2008).

Our review also highlights substantial variability in the frequency of the search and ability to find meaning depending on characteristics of the traumatic event. For example, the proportion of people who have been able to find meaning in adversity range from 8% among spouses who lost a loved one in a motor vehicle accident (Lehman, Wortman, & Williams, 1987), to roughly half among victims of childhood sexual abuse (Silver et al., 1983), among women diagnosed with breast cancer (Kernan & Lepore, 2009), parents of children who died of SIDS (Davis et al., 2000) or died violently (Murphy, Johnson, & Lohan, 2003), to almost 70% among older adults suffering the loss of a hospice-residing loved one (Davis et al., 1998). Only by examining a wide variety of stressful experiences could this variability be seen. Events that

are particularly unfair or perpetrated by others appear to be associated with a greater search and more difficulty finding meaning.

Research also demonstrates that time does not appear to assist in finding meaning – if individuals are able to find meaning, they appear to do so early in the process. Although it has been suggested that time can facilitate finding meaning (Murphy et al., 2003), many studies have relied on cross-sectional designs that cannot assess longitudinal patterns. However, in our longitudinal study of parents coping with the sudden death of an infant (Davis et al., 2000), meaning was found early, if it was found at all. At this stage, further development of the construct requires longitudinal research to examine how the processes of searching and finding meaning remain stable versus change over time.

Future research should also continue to explore what factors (both individual and contextual) trigger the search for meaning and facilitate finding meaning. For example, surprisingly little research has explored the link between the social environment's response to victims and the process by which they come to terms with their experiences. The social environment often reacts in widely divergent ways towards victims of negative life events, ranging from understanding and empathy to indifference and rejection (Silver & Wortman, 1980). A thorough consideration of how these reactions impact the individual's attempt to understand their experiences may prove useful in explaining variability as well as assist in the design of professional or social interventions for individuals who are stuck in an unproductive "searching for meaning" loop (e.g., Davis et al., 2000).

As Janoff-Bulman (1992) argues, the social environment can give the victim invaluable post-trauma feedback regarding themselves, their coping attempts, and the world in general. Supportive and empathic responses can help the individual retain a belief in a benevolent world

by facilitating the recognition that he or she is loved, cared for, and belongs to a network of mutual help and obligation. Individuals whose social networks remain supportive may be able to retain previously-held assumptions about themselves and the world, and may be less likely to engage in an extended search for meaning in their misfortune. Further, individuals who receive effective support from others may be more likely to recognize benefits resulting from the experience. For example, in Thompson's (1985) study of community fire victims, the most frequent benefit that individuals reported was "finding out about the helpfulness of others" (see Poulin et al., 2009, for a comparable finding post 9/11).

Positive social relations may also influence the ability to find meaning by allowing the victim to discuss trauma-related thoughts and feelings with others. Talking with others about the experience may help to structure it by emphasizing cause-effect relationships, clarifying feelings, and increasing one's insight (Pennebaker, 1993). Although having individuals available to discuss the trauma does not guarantee that ventilation attempts will be responded to favorably (Silver & Wortman, 1980), or that they will allow the in-depth and feeling-focused discussion that appears to facilitate these benefits, a supportive social environment will be much more likely to provide the opportunities necessary to discuss and explore one's thoughts and feelings surrounding the experience.

Recently, some promising individual-level factors that may be associated with the meaning process have also been identified. For example, spirituality may provide schemata that help individuals more easily assimilate events into their worldviews, which may facilitate a more effective processing of traumatic events (McIntosh, Poulin, Silver, & Holman, 2011). Religiosity may facilitate interpretation and assimilation of traumatic events because social interactions, especially in religious contexts, can offer collaborative opportunities to interpret traumatic events

(Lepore, Silver, Wortman, & Wayment, 1996; Pennebaker & Harber, 1993; Tait & Silver, 1989).

These and other factors have great potential in advancing conceptual and empirical work on how individuals process and come to terms with the inevitable adversities encountered over the life course.

References

- Aldwin, C. M. (2007). *Stress, coping, and development: An integrative approach*. New York, NY: Guilford.
- Bulman, R. J., & Wortman, C. B. (1977). Attributions of blame and coping in the "real world": Severe accident victims react to their lot. *Journal of Personality and Social Psychology, 35*, 351-363.
- Davis, C. G., Nolen-Hoeksema, S., & Larson, J. (1998). Making sense of loss and benefiting from the experience: Two construals of meaning. *Journal of Personality and Social Psychology, 75*, 561-574.
- Davis, C. G., Lehman, D. R., Silver, R. C., Wortman, C. B., & Ellard, J. H. (1996). Self-blame following a traumatic event: The role of perceived avoidability. *Personality and Social Psychology Bulletin, 22*, 557-567.
- Davis, C. G., Lehman, D. R., Wortman, C. B., Silver, R. C., & Thompson, S. C. (1995). The undoing of traumatic life events. *Personality and Social Psychology Bulletin, 21*, 109-124.
- Davis, C. G., Wortman, C. B., Lehman, D. R., & Silver, R. C. (2000). Searching for meaning in loss: Are clinical assumptions correct? *Death Studies, 24*, 497-540.
- Downey, G., Silver, R. C., & Wortman, C. B. (1990). Reconsidering the attribution-adjustment relation following a major negative event: Coping with the loss of a child. *Journal of Personality and Social Psychology, 59*, 925-940.
- Erikson, K. T. (1976). Loss of communality at Buffalo Creek. *American Journal of Psychiatry, 133*, 302-305.

- Hawkins, N. A., McIntosh, D. N., Silver, R. C., & Holman, E. A. (2004). Early responses to school violence: A qualitative analysis of students' and parents' immediate reactions to the shootings at Columbine High School. *Journal of Emotional Abuse, 4*, 197-223.
- Holman, E. A., & Silver, R. C. (1998). Getting "stuck" in the past: Temporal orientation and coping with trauma. *Journal of Personality and Social Psychology, 74*, 1146-1163.
- Janoff-Bulman, R. (1992). *Shattered assumptions: Towards a new psychology of trauma*. New York: Free Press.
- Janoff-Bulman, R., & Frantz, C. M. (1997). The impact of trauma on meaning: From meaningless world to meaningful life. In M. J. Power & C. Brewin (Eds.), *The transformation of meaning in psychological therapies: Integrating theory and practice* (pp. 91-106). Hoboken, NJ: Wiley & Sons.
- Kernan, W. D., & Lepore, S. J. (2009). Searching for and making meaning after breast cancer: Prevalence, patterns, and negative affect. *Social Science & Medicine, 68*, 1176-1182.
- Lehman, D. R., Wortman, C. B., & Williams, A. F. (1987). Long-term effects of losing a spouse or child in a motor vehicle crash. *Journal of Personality and Social Psychology, 52*, 218-231.
- Lepore, S. J., Silver, R. C., Wortman, C. B., & Wayment, H. A. (1996). Social constraints, intrusive thoughts, and depressive symptoms among bereaved mothers. *Journal of Personality and Social Psychology, 70*, 271-282.
- McIntosh, D. N., Silver, R. C., & Wortman, C. B. (1993). Religion's role in adjustment to a negative life event: Coping with the loss of a child. *Journal of Personality and Social Psychology, 65*, 812-821.

- McIntosh, D. N., Poulin, M. J., Silver, R. C., & Holman, E. A. (2011). The distinct roles of spirituality and religiosity in physical and mental health after collective trauma: A national longitudinal study of responses to the 9/11 attacks. *Journal of Behavioral Medicine*. Advance online publication. doi:10.1007/s10865-011-9331-y
- Murphy, S. A., Johnson, L.C., & Lohan, J. (2003). Finding meaning in a child's violent death: A five-year prospective analysis of parents' personal narratives and empirical data. *Death Studies*, 27, 381-404.
- Neimeyer, R. A. (2001). *Meaning reconstruction and the experience of loss*. Washington DC: Sheridan Books.
- Norris, F. H. (1992). Epidemiology of trauma: Frequency and impact of different potentially traumatic events on different demographic groups. *Journal of Consulting and Clinical Psychology*, 60, 409-418.
- Park, C. (2010). Making sense of the meaning literature: An integrative review of meaning making and its effects of adjustment to stressful life events. *Psychological Bulletin*, 136, 257-301.
- Park, C. L., & Folkman, S. (1997). Meaning in the context of stress and coping. *Review of General Psychology*, 1, 115-144.
- Pennebaker, J. (1993). Putting stress into words: Health, linguistic, and therapeutic implications. *Behaviour Research and Therapy*, 31, 539-548.
- Pennebaker, J. W., & Banasik, B. L. (1997). On the creation and maintenance of collective memories: History as social psychology. In J. W. Pennebaker, D. Paez, & B. Rime (Eds.), *Collective memories of political events* (pp. 3-19). Hillsdale, NJ: Erlbaum.

- Pennebaker, J. W., & Harber, K. D. (1993). A social stage model of collective coping: The Loma Prieta earthquake and the Persian Gulf war. *Journal of Social Issues, 49*(4), 125-45.
- Poulin, M. J., Silver, R. C., Gil-Rivas, V., Holman, A. E., & McIntosh, D. (2009). Finding social benefits after a collective trauma: Perceiving societal changes and well-being following 9/11. *Journal of Traumatic Stress, 22*, 81-90. doi:10.1002/jts.20391
- Schuster, M. A., Stein, B. D., Jaycox, L. H., Collins, R. L., Marshall, G. N., Elliott, M. N., Zhou, A. J., Kanouse, D. E., Morrison, J. L., & Berry, S. H. (2001). A national survey of stress reactions after the September 11, 2001, terrorist attacks. *New England Journal of Medicine, 345*, 1507-1512.
- Seery, M. D., Holman, E. A., & Silver, R. C. (2010). Whatever does not kill us: Cumulative lifetime adversity, vulnerability, and resilience. *Journal of Personality and Social Psychology, 99*, 1025-1041. doi:10.1037/a0021344
- Silver, R. L., Boon, C., & Stones, M. H. (1983). Searching for meaning in misfortune: Making sense of incest. *Journal of Social Issues, 39*(2), 81-101.
- Silver, R. C., Holman, E. A., McIntosh, D. N., Poulin, M., & Gil-Rivas, V. (2002). Nationwide longitudinal study of psychological responses to September 11. *Journal of the American Medical Association, 288*, 1235-1244.
- Silver, R. L., & Wortman, C. B. (1980). Coping with undesirable life events. In J. Garber & M. E. P. Seligman (Eds.), *Human helplessness: Theory and applications* (pp. 279-340). New York: Academic Press.
- Tait, R., & Silver, R. C. (1989). Coming to terms with major negative life events. In J. S. Uleman & J. A. Bargh (Eds.), *Unintended Thought* (pp. 351-382). NY: Guilford.
- Taylor, S. E. (1983). Adjustment to threatening events: A theory of cognitive adaptation.

- American Psychologist*, 38, 1161-1173.
- Thompson, S. C. (1985). Finding positive meaning in a stressful event and coping. *Basic and Applied Social Psychology*, 6, 279-295.
- Thompson, S. C., & Janigan, A. S. (1988). Life schemes: A framework for understanding the search for meaning. *Journal of Social and Clinical Psychology*, 7, 260-280.
- Torabi, M. R., & Seo, D.-C. (2004). National study of behavioral and life changes since September 11. *Health Education & Behavior*, 31, 179-192.
- Updegraff, J. A., Silver, R. C., & Holman, E. A. (2008). Searching for and finding meaning in collective trauma: Results from a national longitudinal study of the 9/11 terrorist attacks. *Journal of Personality and Social Psychology*, 95, 709-722.
- Wayment, H. A. (2004) It could have been me: Vicarious victims and disaster-focused distress. *Personality and Social Psychology Bulletin*, 30, 515-28.
- Wayment, H. A., Silver, R. C., & Kemeny, M. (1995). Spared at random: Survivor reactions in the gay community. *Journal of Applied Social Psychology*, 25, 187-209.