

MEANING-MAKING IN MEMORIES:
A COMPARISON OF AUTOBIOGRAPHICAL MEMORIES OF DEATH AND LOW POINT
EXPERIENCES

By

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To all those who have supported my academic efforts, past and present

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Abstract of Thesis Presented to the Graduate School
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In order to incorporate death-related experiences into one's worldview, individuals rely on meaning-making strategies. These strategies should manifest years later when individuals share memories of their death-related experiences. Participants wrote memory narratives of death and low point experiences, shared lessons they had learned from each experience, and provided ratings of non-narrative characteristics of their memories. As predicted, death memory narratives exhibited more meaning-making strategies. No differences were found in lessons learned from the two types of experiences. In terms of non-narrative characteristics, death memories were rated as more affectively positive and more frequently re-experienced than low points. The long-term significance of the use of meaning-making strategies is discussed.

CHAPTER 1

INTRODUCTION

The life story approach to adult development posits that identity can be viewed as a constructed narrative that provides a person with a unique biographical understanding of oneself (Hooker & McAdams, 2003). While woven from individual life events, the life story is more than a collection of episodes. It also involves the forging of *causal coherence*: linking the conception of who one was in the past with the person one is today (Bluck & Habermas, 2000; McAdams, 1993). Individuals repeatedly reflect on experiences in an attempt to integrate them into their evolving life story (Bluck & Habermas, 2000). Telling stories from one's life to others also fosters integration of important events (Pasupathi, Weeks, & Rice, 2006). From this perspective, adult development is governed by the way individuals integrate and recall events.

One event that may provide a special challenge for integration into the life story is the death of a loved one. Compared to low point experiences such as job loss or family strife, losing a loved one is more likely to threaten an individual's worldview (i.e., core beliefs about life's order and purpose; Janoff-Bulman, 1992; Neimeyer, 2006; Parkes, 1975). These core beliefs provide a sense of *thematic coherence* (Bluck & Habermas, 2000) to the life story. That is, worldview beliefs provide the foundation on which the life story is constructed. In order to successfully integrate death-related experiences into one's life story, an individual must employ meaning-making strategies that reinstate or reconstruct worldview beliefs that are challenged by the death (Folkman, 2001; Park, 2000; Park & Folkman, 1997). Consequently, memories of death-related experiences are likely to be important markers within the life story (Pillemer, 1998), representing times when it was necessary to reconstruct the meaning of the event or to forge new beliefs about life's order and purpose. When individuals later recall these experiences, their memories should be infused with these meaning-making strategies. The goal

of the current study is to examine whether death-related experiences are represented differently in memory from low point experiences in terms of narrative meaning-making as well as non-narrative characteristics.

The literature review begins by outlining the influence that events have on development during adulthood and the importance of making meaning of events in order to integrate them into the life story. The death of a loved is then argued to be a unique event that presents a challenge to one's worldview and a special opportunity for development. Two strategies individuals use to meet this challenge are then described: *situational meaning-making*, which involves changing one's appraisal of the event in a way that reaffirms existing worldview beliefs, and *global meaning-making*, which involves modifying one's worldview beliefs (i.e., learning new lessons about life). Lastly, the review describes how memories of death and low point experiences might be expected to differ on non-narrative characteristics such as level of personal significance or extent of re-experiencing (i.e., characteristics not related to narrative meaning-making).

CHAPTER 2

REVIEW OF THE LITERATURE

Role of Events in Adult Development

From infancy through adolescence, human development is largely determined by biological processes that produce growth and maturation. Once one reaches adulthood, however, biological changes are less evident. Development during this life phase is instead largely driven by social, cultural, and environmental factors (Baltes, Lindenberger, & Staudinger, 1998; Staudinger & Bluck, 2001). In other words, development in adulthood is guided by the events an individual experiences. More importantly, it is the way that individuals process and understand these experiences that influences their development. From late adolescence and throughout adulthood individuals engage in *autobiographical reasoning* (Bluck & Habermas, 2000) in an attempt to link life experiences to each other and to integrate past experiences with the present self. Without remembering, reflecting on, and reasoning about personal experiences, life would appear to be a meaningless collection of unrelated and unmotivated events that happened randomly (Bluck & Habermas, 2000; Bruner, 1994).

Empirical evidence confirms that the need to integrate experiences into one's life story becomes prominent in adulthood. Adults' narratives of times when they faced difficult decisions or negative events are connected to broad life themes through autobiographical reasoning (Bluck & Glück, 2004). Similarly, autobiographical reasoning has been shown through the forging of self-event connections (i.e., the relating of past events to one's current sense of self) in adults' narratives about life crises (Pasupathi & Mansour, 2006). Adults have also been shown to seek harmony, balance, and reconciliation in their life stories, suggesting a need to maintain self-coherence (McAdams, 1993; Bauer & McAdams, 2005). In sum, both theory and empirical evidence portray adulthood as a time when development is guided by the events individuals

experience, but particularly by the way they make sense of, remember, and integrate these events into their ongoing life story.

Uniqueness of Death-Related Experiences

An event that becomes increasingly common in adulthood is the loss of a loved one. Individuals typically first experience the death of their grandparents, then their parents, and then normatively towards the end of their own life, spouses, friends, and siblings. Like other low points, such as job loss or family strife, these events can certainly be stressful and negative (Davis, Lehman, & Wortman, 1995; de Vries, Davis, & Wortman, 1997; Kessler, Davis, & Kendler, 1997). Experiences with death, however, are different from other low points in at least two ways.

First, the death of a loved one may remind individuals of their own inevitable mortality, thereby raising questions about the existence of an afterlife and eliciting an existential search for meaning (Schwartzberg & Janoff-Bulman, 1991; Yalom & Lieberman, 1991). In order to successfully integrate death-related experiences, individuals must somehow also deal with the increased awareness of their own mortality. A number of theorists suggest this to be both a difficult and lengthy task. Jung (1933) posited that confronting the reality of one's death and letting go of the illusion of immortality is so challenging and anxiety provoking that it is the primary goal of the second half of life. Similarly, Levinson (1978) states that the "...recognition of mortality collides with the powerful wish for immortality...[One] is terrified at the thought of being dead, of no longer existing" (p. 215). According to Erikson (1986), individuals engage in generative behavior because it "contributes to the sense of immortality that becomes so important in the individual's struggle to transcend realistic despair as the end of life approaches" (p. 75).

Terror Management Theory (Greenberg, Solomon, & Pyszczynski, 1997) has taken both a theoretical and empirical approach in explaining how individuals react to awareness of mortality. Similar to Erikson's position, the theory posits that individuals can ameliorate their death-related anxiety by identifying strongly with the values and norms of their culture. Doing so instills within individuals a sense of symbolic immortality because their culture will persist long after they die. Empirical research shows that reminders of mortality elicit culture-bolstering behaviors such as increased patriotism, religiosity, prejudice, and discrimination towards cultural out-group members (Florian & Mikulincer, 1998; Greenberg, Simon, Pyszczynski, Solomon, & Chatel, 1992).

In sum, one reason why experiences with death are unique is because they serve as reminders of one's own mortality. Consequently, with the loss of a loved one, individuals may not only be feeling deep sadness but may also be engaged in the task of coping with the realization of their own inevitable death. Both theory and research suggest coming to terms with one's mortality is an anxiety provoking task that is both lengthy and difficult.

Experiences with death are unique from low points in a second way. Regardless of whether they lead to a confrontation with one's personal mortality, they have the potential to challenge one's worldview (Janoff-Bulman, 1992; Park & Folkman, 1997; Parkes, 1975). An individual's worldview is a set of core beliefs and assumptions about life's order and purpose that guide his or her understanding of the world. It is comprised of beliefs in five domains: benevolence, significance, self-worth, control, and purpose. These beliefs allow individuals to interpret, organize, and predict their experiences. From a life story perspective, an individual's worldview beliefs provide a broad level of thematic coherence (Bluck & Habermas, 2000). For example, an individual may organize the life story according to the theme of purpose (e.g., "I

always have, and always will, put relationships with others first in my life.”) or according to the theme of having control over important life outcomes (e.g., “I always make things turn out right in the end.”). These worldview beliefs create a narrative tone that “speaks to the author’s underlying faith in the possibilities of human intention and behavior...[and] reflects the extent to which a person believes that the world can be good and that one’s place can be more or less secure within it” (McAdams, 1996, p. 136-137).

Although experiences with death may provide a unique challenge to individuals’ worldviews in various cultures, they are most likely to present a challenge in Western cultures where individualism is highly valued. The loss of a loved one, especially if unexpected, is particularly troubling for individualists because it poses a threat to their culturally-sanctioned emphasis on the significance of the individual. That is, since death signals the end of the individual, it is particularly challenging to worldviews that emphasize the self (Baumeister, 1991). As a result, North Americans are more likely to find the topic of death uncomfortable and anxiety provoking. North American culture has been suggested to be death-denying, as exemplified by the high level of institutionalization of death (80% of deaths in the United States occur in hospitals and nursing homes; Stryker, 1996) and the common use of euphemisms (i.e., use of terms such as “departed”, “passed away”; Harvey, 1996).

In sum, the second reason death-related experiences are unique is because they are more likely than low point experiences to threaten worldview beliefs (particularly in the Western context). For example, the prolonged and painful death of a loved one due to cancer can make the survivor wonder if the world is indeed a benevolent place since their loved one (presumably a good person) suffered without any reason. Alternately, it may lead the survivor to question how much control he or she truly has in life since the painful death was unpreventable. Regardless of

which specific belief is actually threatened, the result is that one's worldview becomes inadequate for encompassing the lived event, leaving a sense of incongruence between one's experience and one's expectation about how the world functions (Park & Folkman, 1997). As such, death-related experiences, more than low point experiences, provide a unique challenge to one's worldview beliefs. Individuals must utilize particular coping strategies in order to resolve this incongruence and integrate these experiences.

Making Meaning of Death-Related Experiences

Non-death-related low point events, such as job loss or family strife, are significant stressors and must be integrated into the life story (Bauer & McAdams, 2005). Previous research suggests that individuals cope with such negative events utilizing two strategies (Folkman & Lazarus, 1988; Lazarus & Folkman, 1984). A person can engage in *emotion-focused coping*, which has the goal of alleviating the negative emotions aroused by the stressful event. For example, a person who just lost his or her job might utilize emotion-focused coping by engaging in distracting behaviors such as watching television. A person can also engage in *problem-focused coping*, which has the goal of solving the problem practically so that it is no longer a source of stress. For example, a person who just lost a job utilizes problem-focused coping by deciding to send off a batch of resumes in order to find a new job. These two strategies are usually adequate for coping with low point experiences because low points typically do not pose a significant challenge to worldview beliefs and are easily integrated into the life story.

In the case of experiences with death, however, these two strategies are typically inadequate (Park & Folkman, 1997). Individuals frequently cannot engage in problem-focused coping because death is an irreversible event. For example, when a person loses a job, he or she can attempt to find another job. When a person loses his or her father, however, there is nothing that can be done to bring the father back and the notion of substitution is untenable. The loss of

a loved one is not an event over which a person can exert control, so problem-focused coping is not as useful. More importantly, death experiences frequently threaten worldview beliefs and neither emotion-focused coping nor problem-focused coping can effectively validate these beliefs. Thus, while emotion- and problem-focused coping are effective strategies for dealing with low point events, dealing with death-related events is more likely to also require meaning-making strategies that serve to reaffirm worldview beliefs and foster integration.

Meaning-making has been conceptualized broadly as the construction of an explanation for an event (Janoff-Bulman, 1992), the finding of benefits in difficult life events (Lehman et al., 1993), the development of relational schemas (Baldwin, 1992), the development of representational relations (Heine, Proulx, Mackay & Charles 2007), or the formation of attributions for events (Heider, 1958; Kelley, 1967). Park and Folkman (1997; Folkman, 2001; Park, 2000) adopt a comprehensive view by combining these various conceptualizations into a single construct of meaning-making, termed *meaning-focused coping*. In their view, any time a person makes sense of, develops greater comprehension of, or finds significance in an event, the person is making meaning. Park and Folkman (1997) suggest there are two strategies for meaning-making: *situational meaning-making*, which involves iterative recall and reflection on the event with the aim of reconstructing it in a way that assimilates it into the worldview (i.e., “telling” the story in a way that reaffirms threatened beliefs), and *global meaning-making*, which involves revising one’s threatened worldview beliefs in a way that accommodates the experience into the worldview (i.e., changing core beliefs). Since experiences with death are more likely to threaten worldview beliefs, individuals are particularly likely to use these meaning-making strategies when attempting to integrate death-related experiences into the life story. The two strategies are described in detail below.

Reflecting on Life's Experiences: Situational Meaning-Making

Situational meaning-making entails reflecting on a stress-inducing event in an attempt to make sense of it in a way that reaffirms challenged worldview beliefs (Park & Folkman, 1997). By creating meaning that is in line with one's existing beliefs and expectations, one's worldview ceases to be threatened. According to Park and Folkman (1997), an individual can reaffirm challenged beliefs by finding benefits, assigning responsibility for the event, focusing on personal growth, making downward comparisons, or making attributions suggesting that he or she will be able to prevent the event from reoccurring.

Although situational meaning-making takes place during the event as an individual is making initial attributions, it is also an ongoing process. It continues to occur for some time after the event has passed as one engages in autobiographical reasoning, continuously rehearsing and reflecting on the event. Due to the reconstructive nature of autobiographical memory (Conway & Pleydell-Pearce, 2000), each time the memory is recalled some parts may be embellished with new meaning, other parts may be selectively emphasized, and others may be discounted or forgotten (Bluck & Habermas, 2000). Over time, situational meaning-making reconstructs the memory of the event in a way that binds it into a coherent story. If experiences with death are more likely than low point experiences to threaten one's worldview, and are thereby more likely to elicit situational meaning-making, memory narratives of death-related experiences (as collected in the current study) should contain more instances of situational meaning-making than memory narratives of other types of low points.

Learning Lessons from Life's Experiences: Global Meaning-Making

Global meaning-making is another strategy individuals use to integrate events that threaten worldview beliefs. In contrast to situational meaning-making, global meaning-making involves modifying one's worldview to bring it in line with one's lived experience (Park & Folkman,

1997). By modifying the worldview, an individual respecifies the thematic coherence (Bluck & Habermas, 2000) that provides foundation for the life story. For example, an individual may come to realize that he or she does not always have control in life. This lesson modifies the worldview and allows the accommodation and integration of the event.

Any modification of core beliefs that results in a decrease in the discrepancy between one's lived experience and one's worldview is an example of global meaning-making. Specifically, Park and Folkman (1997) suggest global meaning-making is exhibited when an individual modifies any of the following categories of core beliefs: (i) *benevolence*, i.e., belief that the world is essentially a good place, that other people are essentially good, and that life is made up of more good than bad events, (ii) *significance*, i.e., belief that events occur and unfold as they are supposed to, that they do not occur randomly, (iii) *self-worth*, i.e., belief that one is essentially a good, moral, and decent individual, (iv) *control*, i.e., belief that one is basically in control of one's destiny and important outcomes, or v) *purpose*, i.e., belief that one's life has a direction, that one knows what to strive for and prioritize in life.

Similar to situational meaning-making, global meaning-making also involves memory and reflective processes. Individuals recall the event and engage in autobiographical reasoning (Bluck & Habermas, 2000; 2001) after the event has passed. As an individual attempts to make sense of the experience, some worldview beliefs are modified in a way that fosters the integration of the event. Engaging in global meaning-making is thus subjectively experienced as the learning of important life lessons (i.e., gaining insight into life as a result of the experience; Calhoun & Tedeschi, 2001). Global meaning-making can be assessed by asking individuals to recollect poignant autobiographical experiences and to describe the life lessons they feel they have learned from those experiences. Due to the fact that death-related experiences are more

likely than low points to threaten an individual's worldview, in the current study it is expected that life lessons learned from death-related experiences will exhibit more instances of global meaning-making than lessons learned from low point experiences.

While the learning of important life lessons (i.e., lessons relating to worldview beliefs) may occur, individuals may also learn more straightforward *event-specific lessons* from their experiences. These lessons relate only to the type of event in which the lesson was learned, and do not play as central a role in directing an individual's life as do worldview-related lessons. For example, "I learned that death can be a peaceful process," is a lesson that is only applicable to death-related experiences. Similarly, "Do not drink and drive," is a lesson predominately applicable to alcohol-related situations. Since all types of experiences have the potential to engender event-specific lessons, the current study simply explores, without specific hypotheses, whether there are differences in the extent to which event-specific lessons are learned from death and low point experiences.

Non-narrative Characteristics of Death and Low Point Memories

The review thus far has discussed the manifestation of meaning-making as it occurs on the narrative level of autobiographical memories (i.e., in the way memories are recalled and the life lessons they engender). Autobiographical memories, however, are mental representations of experienced events and thereby have both narrative and non-narrative aspects. According to Pillemer (1998), autobiographical memories are represented on a narrative level, and also an *imagistic* level that has sensory, perceptual, and affective characteristics. Similarly, Larsen (1998) argues that autobiographical memories have three broad characteristics: i) content, such as visual and affective information, ii) appearance, such as vividness and richness of detail, and iii) process, such as retrieval and reconstruction. Other researchers have also posited that emotion, imagery, and narrative are central components of autobiographical memory (Rubin,

1998). In line with this theorizing, studies have examined an array of non-narrative memory characteristics such as vividness, importance, memorability, emotional intensity, emotional valence, extent of re-experiencing (e.g., Bluck, Levine & Laulhere, 1999; Larsen, 1998; Rubin, 2004). Taken together, this research suggests autobiographical memories have both narrative (e.g., related to reconstruction and meaning-making) and non-narrative characteristics. The current study also explores whether there are differences between death and low point memories in terms of non-narrative characteristics.

Current Study

In comparison to low point experiences, the death of a loved one is an experience that is more likely to threaten an individual's worldview and require the use of meaning-making strategies. This may affect the way that individuals later recall specific death-related experiences. The study aims to investigate whether death memories differ from low point memories on three parameters: 1) situational meaning-making exhibited in the two types of memories, 2) global meaning-making exhibited in life lessons associated with the two types of memories, and 3) non-narrative memory characteristics of the two types of memories.

A novel contribution of the current study is its method of assessing meaning-making. Studies frequently explicitly ask individuals if they have found meaning in their negative experiences (e.g., "How have you grown from your experience?"). Unsurprisingly, they find that a high proportion of participants express high levels of meaning-making (Davis, Nolen-Hoeksema & Larson, 1998; Folkman & Moskowitz, 2000). It is hard to determine if these results are valid because of the demand characteristics of the procedure. To remedy this, the current study assesses meaning-making by asking participants to share autobiographical narratives and life lessons of death and low point experiences. These narratives and life lessons are then content-coded to assess situational and global meaning-making. No explicit questions

about meaning-making are asked. Instead, participants ‘tell a story’ of the event as they personally remember it and, if they feel they learned a lesson, share what lesson was learned from the event. This method thus provides a more ecologically valid assessment of how people make meaning of their experiences in everyday life.

Another novel contribution of this study is that it utilizes a sample of hospice volunteers with various levels of experience with death. Hospice volunteers play an intimate role in helping patients die, repeatedly experiencing the psychosocial impact of death and dying (Brazil & Thomas, 1995). Recruiting volunteers from hospice permits exploration of whether level of experience with death (Trainee vs. Experienced volunteer) influences death-related memories. Previous studies have not examined how meaning-making regarding death experiences is affected by level of experience with death.

Specific Aims

Aim 1: Situational meaning-making

The study examines differences between death and low point memory narratives with respect to the expression of situational meaning-making. It is expected that death memory narratives will contain more instances of situational meaning-making than low point memory narratives. The impact of level of experience with death on extent of situational meaning-making is explored.

Aim 2: Global meaning-making

The study examines differences in the extent of global meaning-making through assessment of life lessons associated with death and low point memories. It is expected that life lessons associated with death memories will more frequently relate to worldview beliefs than lessons associated with low point memories (signifying more global meaning-making).

Differences in the extent of learning event-specific lessons are explored, as is the impact of level of experience with death.

Aim 3: Non-narrative memory characteristics

The study also explores differences between death and low point memories on the non-narrative memory characteristics of vividness, importance, memorability, emotional intensity, emotional valence, extent of private re-experiencing, and extent of social sharing. There are no directional hypotheses. The impact of level of previous experience with death on non-narrative memory characteristics is explored.

CHAPTER 3

METHOD

The data for the current project were collected as part of a larger study (Bluck, Dirk, Mackay & Hux, in press). Only measures relevant to the current study are described. The study employs a within-groups design: all participants shared autobiographical memories of a death-related experience and, for comparison, a low point experience. To examine whether level of previous experience with death influences any of the comparisons between the two memory types, the sample includes individuals with lower and higher levels of experience with death.

Participants

Participants were hospice volunteers recruited from three Florida Hospice organizations ($N = 52$, age $M = 66.2$ years, $SD = 15.1$ years). Study participation was voluntary and participants received no compensation. The sample is comprised of 12 men and 40 women. This gender imbalance reflects the demographic make-up of hospice volunteer groups, which are comprised of 75-93% women (e.g., Claxton-Oldfield, Jefferies & Fawcett, 2004). The sample was 94% Caucasian and 6% Hispanic. This ethnic composition also represents hospice volunteer groups more generally (Zweigenhaft, Armstrong, Quintis & Riddick, 1996). Participants considered themselves in “better than average” health as compared to age-peers. Average reported education was between “trade/technical school” and “some college.”

In order to assess potential effects of different levels of experience with death, the sample was split into two groups. The *Experienced* group ($n = 27$, 22 women) was comprised of trained and active hospice volunteers who had experienced at least one death of an assigned patient. The *Trainee* group ($n = 25$, 18 women) was comprised of new volunteers who had received hospice volunteer training but had not yet been assigned to a patient. Using trainee volunteers as a comparison group allows for an appropriate assessment of the effects of level of experience with

death. Trainees are similar to experienced volunteers in that they have interest in hospice, and differ only in that they have not yet gained experience with death through hospice. Experienced volunteers reported a higher number of patient deaths ($M = 14.33$, $SD = 15.13$, range = 1 - 50) than trainee volunteers (no hospice-related death experience), $t(26.00) = 4.92$, $p < .001$. Experienced volunteers also reported having volunteered for a longer time ($M = 83.42$ months, $SD = 87.65$) than trainees ($M = 1.09$ months, $SD = 1.81$), $t(25.02) = 4.79$, $p < .001$. There were no significant differences between experienced and trainee volunteers in amount of personal death experience (i.e., number of friends and family members who have died).

Procedure

Administration occurred in groups of one to five participants and took about one-and-a-half hours. Participants completed a consent form, a demographics questionnaire, and a questionnaire assessing amount of experience with death gained both through volunteering with hospice and in their personal lives. Participants then recalled and wrote down an autobiographical memory narrative of a death-related experience.¹ For comparison purposes, they also wrote a memory narrative of a low point experience (*low point/nadir experiences* are a standard part of the life story procedure; McAdams, 1998). Order of writing memory narratives was counterbalanced.

To ensure participants wrote narratives about experiences that were *memorable moments* (Pillemer, 2001) as opposed to extended descriptions of what happened over several months or years, they were asked to recall a specific autobiographical memory and describe what happened, when it happened, and what they were thinking and feeling at the time. The following instructions were given:

¹ Participants were asked to share any death-related experience from their lives, not only experiences gained in the hospice setting.

We want you to share a specific memory about a death- or dying-related experience from your own life. This should be an experience that you were personally involved in. This is a specific memory that reflects only a brief moment or a few hours. Please describe what happened, and what you were thinking and feeling at that time...Do not simply give a general description of a certain time in your life.

Instructions were the same for the low point memories except that participants were asked to share a specific low point memory that was not death-related. Participants were provided three pages of blank paper for each memory and encouraged to write for ten minutes. Excerpts from the two types of memory narratives are presented in Table 3-1. The shared memories were of events that occurred an average of 27 years ago (range = 4 months to 77 years).

Directly after writing the first memory narrative (i.e., before moving on to write the next narrative) participants completed the following question:

Certain memories embody lessons we've learned about life. Other things we remember quite clearly, but they don't really provide lessons, they just happened. Would you say you learned a lesson from the event that you reported? If yes, what is the lesson you have learned? Please describe in one sentence, or with a 'motto,' the lesson you learned.

Participants indicated whether they had learned a lesson and, if so, wrote their lesson down.

Finally, participants indicated how many years ago the remembered event had occurred and completed a shortened version of the Memory Qualities Questionnaire (MQQ; Bluck, Levine & Laulhere, 1999) assessing various non-narrative memory characteristics.

Measures

Control Variables

Demographics

Participants first completed a standard demographics questionnaire. The questionnaire assessed age, gender, ethnicity, education, and physical health.

Level of death experience

The Death Experiences Questionnaire (DEQ) assesses experience with death gained in both hospice and personal domains. In the hospice domain it assesses the length of time the participant has been involved with hospice and the number of hospice patient deaths the participant has experienced. In the personal domain, it assesses the number of personal deaths (i.e., friends and family) the person has experienced.

Major Variables of Interest: Meaning-Making

Situational and global meaning-making were assessed through content-coding of memory narratives and life lessons, respectively. The codebooks for both variables were developed for the current project by iterating between theory and the gathered data. That is, codebooks were initially constructed using Park and Folkman's (1997; Folkman, 2001; Park, 2000) theoretical constructs of situational and global meaning-making. The collected data were then systematically reviewed, and codebook categories were revised and expanded to reflect the material produced by participants. This combined method of codebook development assures that coding is grounded in theory while also being fully representative of gathered data.

Memory narratives and life lessons were content-analyzed by separate pairs of coders. Coders were trained on the content analytic schemes using a pilot set of memory narratives and life lessons collected specifically for the purpose of coder training. Pilot data were obtained using the same procedure as detailed above but participants were 40 college students (31 female, 9 male, mean age = 18.5, SD = .75). Inter-rater reliability was assessed using the pilot memory narratives and life lessons: coders rated 15% of the total study memory narratives and life lessons for the respective reliability checks. For narrative coding (i.e., situational meaning-making), Kappa = .78. For life lesson coding (i.e., global meaning-making), Kappa = .75. After reaching reliability, coders worked independently but met regularly to discuss any discrepancies

and resolve disagreements. A second reliability check was computed on study data as reported below.

Coding of narratives for situational meaning-making

The initial coding scheme included six categories of situational meaning-making strategies. These categories were reiterated with collected narratives to ensure the coding scheme adequately represented the data. One category (downward comparisons) was subsequently removed because it did not appear in any narrative. The final coding scheme thus had five categories of situational meaning-making strategies:

Benefit finding. Something positive is mentioned as resulting from the situation, e.g., “It’s a good thing he died. He was suffering so much.” This code appeared 45 times across the 104 narratives.

Responsibility assignment. Some person or group is named as being responsible or at fault for how the situation unfolded, e.g., “He knew how dangerous smoking was and yet he didn’t want to quit.” This code appeared three times in the narratives.

Development of a religious explanation. Some type of religious framework is used to explain the situation, e.g., “He died because God wanted him in heaven. God takes the best ones first.” This code appeared 12 times in the narratives.

Development of a spiritual/supernatural explanation. The situation is explained using spiritual or supernatural constructs, e.g., a person believes that the flickering of a light bulb at the time of the father’s death was the father’s spirit saying goodbye. This code appeared nine times in the narratives.

Personal growth. Personal growth is reported as resulting from the situation, e.g., “The death of my father was extremely difficult but I am now confident that I have the strength to get through such tough experiences.” This code appeared seven times in the narratives.

Coders first read each participant's entire memory narrative to get its gist. They then read the memory narrative one idea unit at a time (Baker-Brown et al., 1992), determining whether it contained a manifestation of situational meaning-making. Examples of manifestations identified by coders are presented in Table 3-2. If a narrative contained several distinct idea units, each unit was coded separately. After the entire memory narrative was read and coded, coders summed up the number of times situational meaning-making was found. Each memory narrative thus received one score signifying the extent to which the narrative contained any type of situational meaning-making. Kappa for situational meaning-making = .81.

Coding of life lessons for global meaning-making

Life lessons were content-coded to assess whether they represent worldview-related lessons (i.e., global meaning-making) or event-specific lessons. The initial coding scheme included five categories of worldview-related life lessons. These categories were reiterated with collected life lessons to ensure that the theoretically chosen codes adequately represented the data. Codes that were not present with sufficient frequency were removed from the coding scheme.² The decision to also code for event-specific lessons developed using a bottom-up approach whereby gathered data was examined to determine what other categories of lessons (other than worldview-related lessons) were present in the data. Event-specific lessons were present in many narratives and thus this category was added. The final life lesson coding scheme was comprised of the following codes:

Worldview-related lessons. The lesson communicates the presence of global meaning-making (i.e., lessons relating to core beliefs about life) which can occur in two forms. *Order-*

² Categorical (Chi-square) analyses require a minimum frequency count of 5 per cell. As a result, three types of worldview-related lessons (i.e., three manifestations of global meaning-making) that were initially included in the coding scheme were removed because they did not meet this requirement: benevolence-related lessons, self-worth-related lessons, and sense-of-control lessons.

related lessons express that events occur and unfold as they are supposed to, that there is a reason why things occur as and when they do, and that the world functions according to perceivable rules and laws, e.g., “I learned that there’s a reason for everything.” Such lessons appeared 14 times in the 87 reported lessons. *Purpose-related lessons* express that one’s life has meaning and that one knows what is important to strive for and prioritize, e.g., “I learned that my family is the most important thing in the world.” Such lessons appeared 35 times.

Event-specific lessons. These lessons apply only to the type of experienced event. While they are important, they do not concern one’s core beliefs about life and therefore do not signify global meaning-making, e.g., “I learned that depression hurts the entire family.” Such lessons appeared 31 times.

Other/Uncodable. Lessons that did not fit the above categories or were too abstruse to comprehend were not included in analyses. Such lessons appeared seven times.

Coders independently read each life lesson and determined the coding category that fit most adequately. They did not have reference to a lesson’s corresponding memory narrative when assigning codes. A life lesson could only receive one code, making this a categorical coding scheme. Examples of each type of lesson are presented in Table 3-3. Kappa for life lessons, i.e., global meaning-making = .72.

Major Variables of Interest: Non-narrative Memory Characteristics

To assess non-narrative characteristics of the two types of memories, participants completed a version of the Memory Qualities Questionnaire (MQQ; Bluck, Levine & Laulhere, 1999). The MQQ included eight items anchored on a Likert scale, with 1= *not at all*, 2= *a little*, 3= *somewhat*, 4= *quite a bit*, and 5= *extremely*. An exploratory factor analysis (EFA) using principal axis factoring and varimax rotation was performed to determine the underlying factor structure of the MQQ in the given data. Employing Kaiser’s (1960) rule of extracting factors

with eigenvalues greater than one, and inspection of the scree plot, a two-factor solution emerged which accounted for 64% of the variance. Factor one, *Personal Significance* (eigenvalue = 2.77, 35% of variance), was comprised of four items assessing the vividness, importance, memorability, and emotionality of a memory. Cronbach's alpha for item ratings of the low point memory = .80, of the death memory = .86. Factor two, *Positive Re-experiencing* (eigenvalue = 2.37, 29% of variance), was comprised of four items assessing how positive the event was when it occurred, how positive the memory feels when recalled now, how often one privately recalls the memory, and how often one shares the memory with others. This factor combines items assessing whether the remembered event is positive with items assessing how often a person re-experiences the memory by thinking or talking about it. Cronbach's alpha for item ratings of the low point memory = .75, of the death memory = .65. Given this factor structure, Aim 3 analyses explore differences in Personal Significance and Positive Re-experiencing of death and low point memories.

Table 3-1. Example excerpts from memory narratives

Memory type	Example
Death	<p>1.) That morning lasted forever, I was in shock, I couldn't believe that he wasn't here anymore. That experience made me realize how life can be short and unexpected, and that everything while we are in this world is an uncertainty.</p> <p>2.) And I often feel she was handling her illness much better than I. She didn't want sympathy and felt she had to be the strong one both to me as well as her family. I often ask myself if when that time comes for me, will I be as strong?</p> <p>3.) I was debating whether or not to stay the night... I asked myself how I would feel if I left and he died in the night. Then I remembered what he had said to me three days earlier about how he was doing a good job of dying and I had come in and messed it up. I felt he needed me to leave so I went home after I said goodbye.</p>
Low point	<p>1.) My wife and I received an anonymous letter one Saturday telling us our son was using drugs very heavily... We were shocked, though started to understand some of the problems our family had been experiencing... I suppose words aren't enough to express the isolation, disappointment and fear I felt at that time.</p> <p>2.) I am walking down the main street of the town to which we have recently moved... I am feeling totally lost and abandoned, I don't know anyone locally to call... I don't know what to do, I've never felt so lost and helpless... I can not even consider the future, the past is a blur, the present is like a big black hole.</p> <p>3.) Departing my family at our home on a cold December morning to travel to an airport and then on to Vietnam... Just prior to leaving my two young daughters cried and told me "Not to go Daddy." That particular moment remains with me always.</p>

Table 3-2. Examples of situational meaning-making from memory narratives

Type of meaning-making	Memory type	Example
Benefit found	Death	My aunt's death <u>brought us together</u> .
	Low point	<u>Luckily, he was there to support me</u> and help make me feel better.
Responsibility assigned	Death	My father was diagnosed with...lung cancer. <u>He was a smoker</u> .
	Low point	That was...my first wife. <u>She cannot help herself or change</u> , even now.
Religious explanation	Death	I felt surrounded by <u>God's presence</u> then as I do now.
	Low point	The closer I dangled to the ground, the more I realized that <u>God was keeping me</u> on the saddle.
Spiritual/supernatural explanation	Death	Though she seemed to have left us, <u>her spirit</u> was somewhere in there.
	Low point	<u>I had a horrible feeling about going there</u> .
Personal growth	Death	I think it gave me a desire to try to figure out why he was so fearful...it <u>affected me so profoundly</u> .
	Low point	This...really <u>made me realize</u> how important our personal relationship is with one another.

Note: Underlining emphasizes definitive aspect of each meaning-making strategy.

Table 3-3. Examples of life lessons (global meaning-making)

Life lesson	Memory type	Example
Worldview: Order-related <i>Feeling of order and structure.</i>	Death	The Lord is always by your side and will take care of your loved ones if you will let him.
	Low point	If it was meant to be, it will be.
Worldview: Purpose-related <i>Feeling of purpose and priority.</i>	Death	Live each day to the fullest.
	Low point	Be thankful for life and respect all facts of life.
Event-specific <i>Relevant only to reported event.</i>	Death	Death can be peaceful.
	Low point	Don't drink too much.

CHAPTER 4

RESULTS

The results are divided into two sections. The first section reports preliminary analyses, in which the quality of the narrative data was assured, the existence of methodologically derived covariates was empirically examined, and order of administration effects were tested. In the second section, the results of a series of ANOVAS and Chi-square analyses investigating the study's major aims are presented. These analyses examine differences between the two memory types (Death, Low point) with regards to situational meaning-making, global meaning-making, and non-narrative memory characteristics. The analyses also explore whether level of experience with death (Trainee vs. Experienced hospice volunteers) affects the relationships between the main variables of interest.

Preliminary Analyses

Quality of the Narrative Data

Death and low point memory narratives were examined to determine whether participants wrote about assigned topics. Six participants failed to produce low point narratives, instead sharing a memory of a death-related experience as their low point. To preserve data, their scores on the low point dependent variables (low point situational meaning-making, low point global meaning-making, low point MQQ personal significance, and low point MQQ positive re-experiencing) were replaced by sample means or, for the categorical variable, the sample mode. Although it has been suggested to have some disadvantages, sample mean replacement is a standard procedure for replacement of missing data (Field, 2005).¹ All participants followed the death memory instructions appropriately.

¹All analyses were performed with and without the replaced values. Results remained the same except in Aim 3, where the loss of power due to reduction of N resulted in non-significant results ($p = .056$) for the MQQ positive re-experiencing factor.

Identification of Covariates

Possible covariates were chosen on a conceptual and methodological basis, and then verified empirically. Ideal covariates are those with a significant correlation with dependent variables and little correlation among covariates (Stevens, 2002). For Aim 1, it was plausible that the amount of situational meaning-making found in the narratives would be related to length of narrative (i.e., longer narratives may exhibit higher levels of situational meaning-making) and year of the recalled event (i.e., how long ago the event occurred). Analyses verified that year of event was not correlated with amount of situational meaning-making. Length of narrative was significantly correlated with amount of situational meaning-making in low point narratives ($r = .42, p < .01$). To control for the influence of this covariate, a dependent variable was computed for Aim 1 by dividing the number of manifestations of situational meaning-making (for both the death and low point memories) by the number of words in the respective narrative and multiplying by 100 for standardization purposes.

For Aim 2, the presence of covariates was not investigated because Chi-square analyses cannot incorporate the influence of a covariate. Furthermore, life lessons were one sentence long, making length of lesson an implausible covariate. For Aim 3, it was plausible that non-narrative memory characteristics would be related to year of the recalled event (e.g., more recent memories might be rated higher on personal significance and positive re-experiencing). Analyses showed that year of event was significantly correlated with scores on the MQQ Positive Re-experiencing subscale for the death memory ($r = .42, p < .01$), but not with MQQ Personal Significance for either memory. That is, more recent death memories were rated as more positive and more likely to be rehearsed. To control for the influence of year of event on MQQ Positive Re-experiencing, a dependent variable was computed by dividing MQQ Positive

Re-experiencing scores (for both the death and low point memories) by year of event and multiplying by 100 for standardization purposes.

Order Effects

Due to the counterbalanced administration of death and low point protocols, analyses were performed to determine the existence of order effects. Separate 2 (Order: Death memory first, Low point memory first) X 2 (Memory type: Death, Low point) repeated-measures ANOVAs were conducted, with memory type as the repeated measure. Dependent variables were the amount of situational meaning-making and the MQQ subscales (Personal Significance, Positive Re-experiencing). In these analyses, order effects are identified by examining the memory type by order interaction term: a significant interaction reveals that order of administration affected participants' responses differentially across memory types. No significant order effects were found. The existence of order effects was also examined for type of life lesson learned. Chi-square analysis using a 2 (Order: Death memory first, Low point memory first) X 2 (Type of life lesson: Worldview-related, Event-specific) contingency square was performed to determine if type of life lesson was independent of order of administration. No order effects were found.

Major Analyses

A series of analyses was conducted to examine differences between the two memory types on situational meaning-making (Aim 1), global meaning-making (Aim 2), and non-narrative memory characteristics (Aim 3). The analyses also explore whether level of experience with death (Experienced, Trainee hospice volunteer) affects the relationships between the main variables of interest.

Aim 1: Situational Meaning-Making

Death memory narratives were predicted to contain more instances of situational meaning-making than low point memory narratives. Data were analyzed using a 2 (Memory type: Death, Low point) X 2 (Level of experience: Experienced, Trainee hospice volunteers) repeated-measures ANOVA with type of memory as the repeated measure. As determined by preliminary analyses, the dependent variable was amount of situational meaning-making adjusted for length of memory narrative. The ANOVA revealed a main effect for memory type, $F(1, 50) = 11.16, p < .01, r = .43$ (see Figure 4-1). As predicted, death narratives had more instances of situational meaning-making ($M = .83, SD = .90$) than low point narratives ($M = .34, SD = .50$).

Aim 2: Global Meaning-Making

Initial analyses determined whether there were differences between the two types of memories with regards to the likelihood of having learned any kind of lesson from each of the two remembered experiences. A chi-square analysis was conducted using a 2 (Lesson: Learned, Not learned) X 2 (Memory Type: Death, Low point) contingency table. Individuals were equally likely to learn a lesson from death-related and low point events.

The Aim 2 hypothesis was specifically that frequency of learning a worldview-related lesson would be greater for death memories than for low point memories. A 2 (Lesson: Worldview-related, Event-specific) X 2 (Memory type: Death, Low point) Chi-square contingency table showed no significant effects. Contrary to predictions, worldview-related lessons were not more likely to be learned from death than low point experiences. As a result of the high number of worldview-related lessons produced by participants (61% of all reported lessons were worldview-related), a further chi-square analysis was conducted by splitting the worldview-related lessons category into subcategories to examine the frequencies of learning

purpose-related and significance-related lessons by type of memory (Death, Low point). No significant effects emerged.

To test the possible effects of level of experience with death on type of lesson learned, separate Chi-square analyses were conducted for each memory type. A 2 (Level of experience: Experienced, Trainee hospice volunteers) X 2 (Lesson: Worldview-related, Event-specific) contingency square was set up for each memory (Death, Low point). There was no significant effect.

Since death and low point memories produced comparable numbers of life lessons, a series of chi-square analyses were conducted across memory type (i.e., death and low point memories were collapsed) to investigate overall patterns of learning life lessons from challenging experiences (i.e., both death and low point). Analyses first assessed the overall frequency of having learned a life lesson from one's experience. Of 104 recalled memories (52 low point, 52 death-related), participants reported learning some kind of a life lesson in 87 cases. Learning a life lesson occurred more frequently (84%) than the expected value, $\chi^2 (1) = 47.11, p < .01$.

Analyses also examined the types of lessons learned. A Chi-square analysis revealed that participants reported a greater than expected frequency of worldview-related lessons (61%) and less than expected frequency of event-specific lessons (39%), $\chi^2 (1) = 4.05, p < .05$. As a result of the high frequency of worldview-related lessons, chi-square analysis was also used to follow up this effect in terms of the likelihood of learning each of the two subcategories of worldview-related lessons (i.e., purpose-related and significance-related lessons). The Chi-square analysis revealed that participants reported a greater frequency of purpose-related lessons (71%) and a lower frequency of significance-related lessons (29%), $\chi^2 (1) = 9.00, p < .01$. For descriptive purposes, 4-1 shows the frequency of learning each type of life lesson by memory type.

Aim 3: Non-narrative Memory Characteristics

This aim explored differences between death and low point memories on non-narrative memory characteristics. There was no directional hypothesis. As described in the methods section, MQQ items assessing non-narrative memory characteristics formed two factors, Personal Significance and Positive Re-experiencing. For the Personal Significance factor, a 2 (Memory type: Death, Low point) X 2 (Level of experience: Experienced, Trainee hospice volunteers) repeated-measures ANOVA was performed. MQQ Personal Significance served as the dependent variable.² The analysis revealed no significant effects.

For the Positive Re-experiencing factor, a 2 (memory type: Death vs. Low point) X 2 (Level of experience with death: Experienced vs. Trainee hospice volunteers) repeated-measures ANOVA was performed. As determined by preliminary analyses, the dependent variable was MQQ Positive Re-experiencing adjusted for year of event. The ANOVA revealed a main effect for memory type, $F(1, 43) = 26.76, p < .001, r = .62$ (see 4-2). Death memories were rated higher on Positive Re-experiencing ($M = .17, SD = .05$) than low point memories ($M = .12, SD = .05$).

² Unlike for the Positive Re-experiencing factor, year of memory was not a significant covariate for Personal Significance. Personal Significance was therefore not adjusted for year of memory.

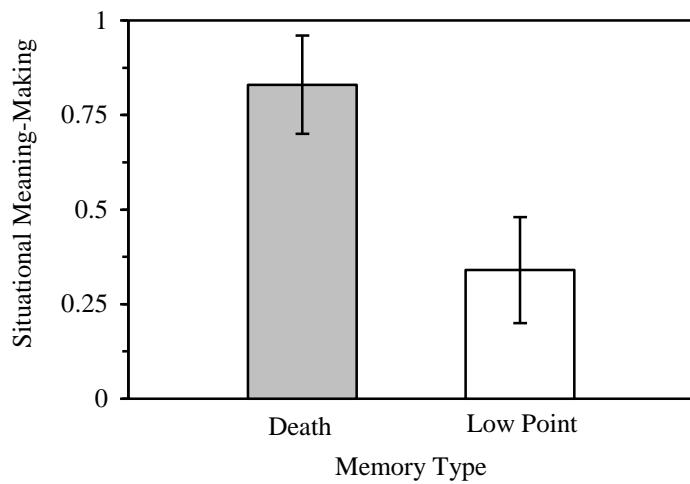


Figure 4-1. Situational meaning making in death and low point memory narratives. (Note. Means are reported. Error bars represent 95% confidence interval of the mean. Dependent variable is standardized by adjusting for length of narrative and multiplying by 100.)

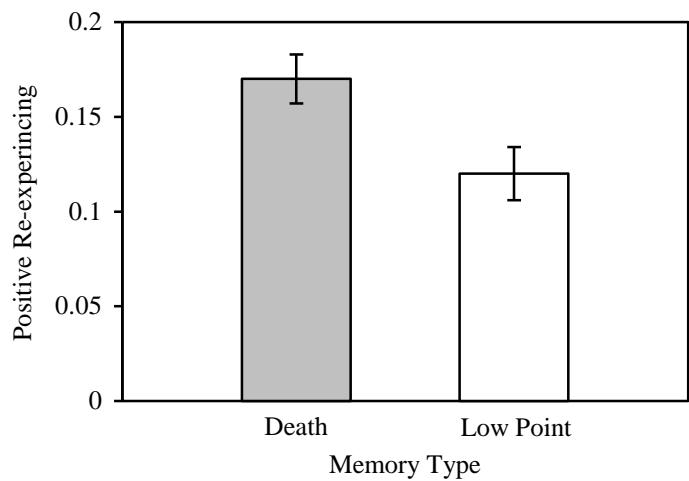


Figure 4-2. MQQ positive re-experiencing of death and low point memories. (Note. Means from the Positive Re-experiencing scale of the MQQ are reported. Error bars represent 95% confidence interval of the mean. Dependent variable is standardized by adjusting for year of memory and multiplying by 100.)

Table 4-1. Frequency of learning a life lesson

Type of Lesson	Death	Low Point	Total
Worldview-related	24	25	49
Significance-related	9	5	14
Purpose-related	15	20	35
Event-Specific	16	15	31
Other/Uncodable	4	3	7
Total	44	43	87

Note: Seventeen events did not result in the learning of a lesson.

CHAPTER 5 DISCUSSION

The current study investigated differences in situational meaning-making in memory narratives of death and low point experiences, global meaning-making in life lessons learned from death and low point experiences, and non-narrative memory characteristics of death and low point memories. Hypotheses were rooted in the notion that experiences with death, in comparison to low point experiences, are unique because they are likely to challenge worldview beliefs (i.e., core beliefs about life's order and purpose; Janoff-Bulman, 1992; Park & Folkman, 1997; Parkes, 1975) and thereby undermine the thematic coherence of an individual's life story (Bluck & Habermas, 2000).

In order to reaffirm worldview beliefs and reestablish the thematic coherence of the life story, individuals rely on two meaning-making strategies (Park & Folkman, 1997). *Situational meaning-making* is the re-framing of an experience in a way that reaffirms worldview beliefs. *Global meaning-making* is the learning of life lessons that refine worldview beliefs (i.e., lessons regarding life's order and purpose). Individuals are particularly likely to use these strategies when dealing with death-related experiences. As a result, many years later memories of these experiences, and the life lessons associated with them, should be imbued with these meaning-making strategies. The current study thus compared death and low point memories, and their associated life lessons, with regards to manifestations of meaning-making. Memories of death and low point experiences may also differ on non-narrative memory characteristics (e.g., memory vividness or emotional intensity), and the study also examined the potential for such differences.

Participants wrote memory narratives of death and low point experiences, shared life lessons they had learned from each experience, and provided ratings of non-narrative

characteristics of their memories. As predicted, death memory narratives exhibited more manifestations of situational meaning-making. Death memories were also rated as affectively more positive and were more frequently thought about and shared with others. No differences were found between death and low point life lessons with regards to global meaning-making.

The results are discussed in more detail below.

Differences Regarding Situational Meaning-Making

Experiences with death become increasingly common in adulthood, and the ways individuals integrate these experiences into their life story has bearing on their development (Bluck & Habermas, 2000; Hooker & McAdams, 2003). The study examined adults' memory narratives to determine how individuals have made meaning and integrated death and low point experiences into their life story. Studies that assess meaning-making typically possess high demand characteristics because they directly ask participants whether any benefits or personal growth have arisen from the loss. To remedy this problem, study participants were simply asked to write open-ended memory narratives.

Results show that death narratives exhibit more situational meaning-making than low point narratives. That is, death narratives demonstrated strategies such as benefit finding, focus on personal growth, or religious and spiritual reframing. This finding is in line with research suggesting that individuals frequently see positive outcomes arising from death-related experiences (Calhoun & Tedeschi, 2001). For example, in a study of bereaved college students, the majority of participants (71%) reported a positive change in life goals (Edmonds & Hooker, 1992). Similarly, other research has found that most bereaved individuals are able to find something positive six-months post-loss, such as growth in character or closer familial relations (Davis, Nolen-Hoeksema, & Larson, 1998).

Most studies reporting such effects assess meaning-making relatively soon after the occurrence of the loss. The current study, however, examined meaning-making a considerable time after the loss: situational meaning-making was found in memories of events that occurred an average of 27 years ago. The results thus extend the importance of Park & Folkman's (1997) assertion that meaning-making plays an important role in the initial stages of coping with bereavement. Meaning-making also becomes an integral aspect of how events are storied and recalled over time (Bluck & Habermas, 2000). When a person thinks about or shares a memory of a death-related experience months or years after its occurrence, the memory is still imbued with instances of meaning-making such as the finding of benefits, personal growth, or religious insights. In other words, this meaning-making is brought forward in time within a person's memory. The finding is important because it suggests that death-related experiences are indeed unique from other low point experiences, and their integration into the life story is more reliant on meaning-making strategies. Since adult development is governed by the way individuals make meaning of and integrate their experiences, this finding suggests that death-related experiences may have unique influences on development. In particular, it suggests death-related experiences may foster personal growth or increase religious or spiritual conviction.

It is conceivable that experiencing personal growth or increased religious conviction would foster adjustment to bereavement. The current study did not assess the relation of meaning-making to psychological adjustment. Other studies have, however, found that making meaning is crucial to adaptive coping. Finding meaning in one's loss has been shown to be related to decreased depression and fewer post-traumatic stress disorder symptoms (Davis, Nolen-Hoeksema, & Larson, 1998), less intense grief (Schwartzberg & Janoff-Bulman, 1991), improved immune system functioning (Bower, Kemeny, Taylor & Fahey, 2003), higher

subjective well-being (Stein, Folkman, & Trabasso, 1997), and more frequent positive emotional states (Moskowitz, Folkman, Collette, & Vittinghoff, 1996). These studies examined meaning-making and adjustment relatively soon after bereavement. Future research using the current study's methodology might examine the relationship between meaning-making and adjustment over the longer term, identifying whether individuals whose memory narratives demonstrate situational meaning-making continue to show positive well-being over time. Such a finding would suggest that these strategies are not only important in short-term adjustment but also promote and maintain long-term coping with the loss of a loved one.

Differences Regarding Global Meaning-Making

Participants learned equal numbers of worldview-related lessons from death and low point experiences. The learning of worldview-related lessons was quite frequent, occurring in relation to 55% of the death-related experiences and 58% of the low point experiences. This finding suggests that global meaning-making is used in relation to challenging experiences in general, not only in relation to death-related experiences. While this is contrary to some theoretical propositions (global meaning-making has been suggested to be utilized predominately in very stressful or traumatic events; Janoff-Bulman, 1992; Park & Folkman, 1997) a number of studies do suggest that changes akin to the learning of life lessons result from low point or challenging experiences. Positive changes have been found in recent immigrants (Weiss & Berger, 2006), children experiencing parental divorce (Wallerstein, 1985), and in college students dealing with academic difficulties and relationship dissolution (Park, Cohen, & Murch, 1996).

While the current study's findings are in line with this previous research, a novel contribution of the current study is that the worldview-related lessons were obtained in relation to experiences that had transpired an average of 27 years ago. This suggests that life lessons can

persist in memory for long periods of time (Pillemer, 1998). By recalling these memories years later, individuals may activate the associated lessons to direct and guide their current behavior (Bluck & Alea, 2002). That is, these memories become *directive* (Pillemer, 1992) because the lessons that are associated with them can provide guidance when similar situations arise in the months and years after the initial event.

A closer inspection of worldview-related lessons revealed that participants shared more purpose-related lessons (35/49, 71%) than order-related lessons (14/49, 29%). That is, they were particularly likely to learn lessons regarding what to strive for and prioritize in life. The study participants were largely in late midlife or the young-old years (mean age of 66) and shared memories of events that occurred an average of 27 years ago (i.e., memories of midlife events). The finding that participants predominately shared purpose-related lessons is consistent with a view of middle age as a time when individuals are faced with the competing demands of family and career and face the developmental task of determining their direction and priorities in life (Staudinger & Bluck, 2001).

An alternate explanation for the equal learning of worldview-related lessons from death and low point experiences is that it is a result of demand characteristics. Unlike the indirect assessment of situational meaning-making, in this part of the study participants were directly asked to report whether they had learned life lessons from their experiences. Thus, some participants may have reported having learned a lesson regardless of whether one was actually learned. Studies indeed show that when reminded of negative events, people are motivated to find positive consequences in order to decrease feelings of vulnerability (Davis & McKearney, 2003). While this explanation is plausible, it is not convincing given that a large subset of the shared memories (16%) did not have an associated life lesson. Many participants were

comfortable with simply saying they had not learned a lesson. Furthermore, if demand characteristics significantly motivated participants to invent lessons, participants would have been equally likely to invent worldview-related and event-specific lessons. In fact, inventing event-specific lessons would have probably been easier. The majority of reported lessons, however, were worldview-related. It thus appears unlikely that demand characteristics were the major driving force behind the equal occurrence of life lessons learned from death and low point experiences.

Future research might examine the authenticity of reported lessons by determining to what extent the lessons actually influence behavior. Park, Cohen, and Murch (1996) examined a similar issue regarding reports of personal growth by asking participants' family members to rate to what extent the personal growth reported by participants was exemplified in day-to-day life. They found a significant but small correlation ($r = .21$) between perceived personal growth and objective personal growth (as judged by participants' significant others). A similar methodology could be used to examine whether the lessons participants reported in the present study guide current behavior.

Differences on Non-narrative Characteristics

As well as examining meaning-making (i.e., narrative characteristics), the study also explored differences between death and low point memories on non-narrative memory characteristics. No differences between the two memories were found with respect to personal significance. It appears that participants chose to share memories that were equally important, memorable, emotional, and vivid. This finding is in line with existing studies showing that when individuals are asked to share various types of memories from their lives, they tend to share equally important memories (Conway & Holmes, 2004; Demiray, Gulgoz & Bluck, 2007). The current study's findings thus suggest that while death may be unique in many ways, other events

such as challenging low points are also personally significant. Note that this similarity in personal significance also rules out the possibility that the greater level of situational meaning-making in death memory narratives can be attributed to death memories simply being more personally significant.

Death memories did show higher levels of positivity and re-experiencing. Participants reported that their death memories were affectively more positive and that these memories were thought about and shared with others (i.e., re-experienced) more frequently than low point memories. The co-occurrence of positivity and re-experiencing is common. Numerous studies have found that people are more likely to re-experience positive than negative memories (e.g., Walker, Skowronski & Thompson, 2003; Rubin & Berntsen, 2003) possibly because doing so improves their mood (Gillihan, Kessler & Farah, 2007). What is surprising, given cultural conceptions of death, is that death memories were rated as positive and more likely to be shared. Since North American culture predominately views experiences with death as stressful, one might expect that memories of these experiences would be rated as both more negative and less likely to be shared than other low points in life.

It is possible that the positive tone of these death memories is a consequence of using situational meaning-making strategies to make sense of these events. Participants' death memories were imbued with benefit finding, responsibility allocation, and focus on personal growth. Reframing one's experience with these types of meaning may make one's memory of an experience more positive. Thus, it is possible that death-related experiences were initially perceived as negative, but as participants made meaning of these experiences, the memories took on more positive qualities. While this interpretation is speculative, it is noteworthy that

situational meaning-making coded from the death narratives was modestly but significantly correlated with self-reported positivity of the memory ($r = .19$, $p < .05$).

The interpretation that death memories were rated as more positive as a result of participants engaging in meaning-making is consistent with Levine's (1997) research on reconstructed memory for emotion. She suggests that remembered emotion is highly influenced by a person's current appraisal of the remembered event. That is, the emotion associated with a memory is only partially based on how a person felt about an event when it occurred: the way a person feels or thinks about the event *now* heavily influences the way he or she remembers having felt when the event occurred. In two studies of memories of public events (the 1992 presidential election and the 1995 O. J. Simpson murder trial), Levine showed that participants' judgments of how they initially felt about these events were distorted by their appraisal of these events at the time of the study (Levine, 1997; Levine, Prohaska & Burgess, 2001). Although these results concern public events (as compared to the personal memories in this study), the general principle is the same. The valence of an event can change if a person has developed new appraisals of the event (i.e., has engaged in meaning-making).

The interpretation that death memories are more positive due to the use of situational meaning-making strategies is also in line with the communicative theory of emotions (Oatley & Johnson-Laird, 1987), which suggests that negative emotions function to motivate action and coping. While positive emotions signal that things are generally going well and goals are being met, negative emotions communicate the presence of a threatening event and the need to mobilize cognitive resources in an attempt to re-establish goals. Thus, experiencing the death of a loved one may initially spur individuals to engage in situational meaning-making. As the negative event is reconstructed through the making of new meaning, it becomes perceived as

emotionally more neutral or even as emotionally positive. Numerous studies indeed show that negative emotions fade in intensity over time, purportedly as a person makes meaning and copes with the event (e.g., Walker, Skowronski, Gibbons, Vogl & Thompson, 2003).

As mentioned, the explanation that death memories are positive as a result of situational meaning-making is speculative considering that the current study did not longitudinally examine emotion and did not assess the direction of influence between situational meaning-making and affect. Prospective studies are needed to longitudinally examine whether death-related events become recalled as more positive as a result of using situational meaning-making over time.

An alternate explanation for death memories being rated as more positive is the study's sample. Hospice volunteers frequently report that they became interested in volunteering as a result of a positive experience with the death of a significant other (Claxton-Oldfield, Jefferies & Fawcett, 2004). It is thus possible that the participants actually shared memories of death-related experiences that were relatively quite positive. While this explanation is plausible, and may in part drive the effect, death and low point memories may also differ on affective positivity in the general population (i.e., the current sample may have simply produced more robust effects). The use of hospice volunteers is a good starting point for examining characteristics of death related memories. Future studies should examine to what extent differences in memory affect and meaning-making exist between death and low point memories in a variety of samples (e.g., health professionals, police, individuals of different ages).

Conclusion

The loss of a loved one is a stressful experience that is sometimes even seen as life-altering (Davis, Lehman, & Wortman, 1995; de Vries, Davis, & Wortman, 1997). Death-related experiences are unique in comparison to other difficult low point experiences because they remind individuals of their own mortality (Yalom & Lieberman, 1991) and challenge core beliefs

about life's order and purpose (Janoff-Bulman, 1992; Park & Folkman, 1997; Parkes, 1975).

The current study contrasted death and low point experiences using a novel method, the comparison of autobiographical memories of both types of experiences. Findings reveal that death memories differ from low point memories in several ways: death memories are more likely to be imbued with situational meaning-making strategies, are rated as more affectively positive, and are thought about and shared more often. The study suggests that the way individuals make meaning of death-related experiences has long-term significance: not only are meaning-making strategies important immediately after the death but they are also an integral aspect of how these experiences are recalled and encapsulated in memory over time.

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BIOGRAPHICAL SKETCH

Michael Mackay completed his Master of Science degree in psychology at the University of Florida in August 2008. He is currently a Van Fleet fellow pursuing a Doctor of Philosophy degree in clinical psychology at the University of Memphis. Michael completed his Bachelor of Arts in psychology at the University of British Columbia, Canada. Recently, he finished the Directive Memories Project, which compared experienced and inexperienced hospice volunteers with regards to their attitudes toward death. Michael also volunteers at Haven Hospice, where he provides support to dying patients and assists with the hospice's bereavement support groups. After graduation, he plans on continuing research in the areas of bereavement and constructivism, as well as working with grieving individuals to foster their adjustment to bereavement.