Self-defining memories in complicated grief

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Abstract

There is increasing attention to the mechanisms underpinning maladaptive responses to bereavement. This study indexed self-defining memories in bereaved individuals with and without complicated grief (CG). Participants with and without complicated grief (N = 40) were asked to describe three self-defining memories. Results showed that CG participants provided more self-defining memories involving the deceased. Both groups were equally likely to report their loved one's death as a self-defining moment, however, the no-CG group showed more evidence of benefit finding in their memory narratives and experienced less negative emotion on recall. The findings suggest that CG is associated with distinctive patterns of autobiographical memory that are linked to self-identity. The pattern is consistent with self-memory system models of autobiographical remembering, and suggests that grieving individuals who experience ongoing yearning for their loved one view their self-identity as more closely linked to the deceased are more distressed by memories involving the loss.

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In recent years, complicated grief (CG, alternately known as prolonged grief) has been recognised as distinct and debilitating consequence of bereavement (Boelen & van den Bout, 2007; Boelen, van den Bout, & de Keijser, 2003; Lichtenhal, Cruess, & Prigerson, 2004; Prigerson, Frank, et al., 1995; Prigerson, Shear, et al., 1995). The syndrome is characterised by a persistent yearning for the deceased, difficulty accepting or believing the loss, bitterness, loss of trust, and loss of perceived meaning in life that is ongoing for at least 6 months after the death (Prigerson, Frank, et al., 1995; Zhang, El-Jawahri, & Prigerson, 2006). Although 10–15% of bereaved individuals develop CG (Bonanno & Kaltman, 2001; Stroebe, Schut, & Stroebe, 2007), relatively little is known about the cognitive mechanisms underlying the syndrome.

The yearning for the deceased person is typically associated with painful memories of the deceased (Raphael & Martinek, 1997). Accordingly, it is possible that autobiographical memories of the deceased may be one factor underpinning the maintenance of CG. The most common index of autobiographical memory is the autobiographical memory cueing task (e.g., Williams, 1995). In this task, participants are provided with cue words and asked to recall a specific personal memory in response to each word. Most studies measure the specificity of recalled memories. A specific memory is defined as a memory for an event that may have lasted just a few seconds, minutes or even hours, but not longer than a day (Williams & Dritschel, 1992). There is convergent evidence that people with depression and post-traumatic stress disorder display over-general retrieval of memories (Brittlebank, Scott, Williams, & Ferrier, 1993; Harvey, Bryant, & Dang, 1998; McNally, Lasko, Macklin, & Pitman, 1995; Sutherland & Bryant, 2008; Williams & Scott, 1988). More recently, over-general memory has been found in individuals with CG (Golden, Dalgleish, & Mackintosh, 2007). Over-general memory is seen as an important phenomenon as it is related to impaired problem solving ability (Evans, Williams, O'Loughlin, & Howells, 1992; Williams, Barnhofer, Crane, & Beck, 2005), impaired ability to specifically image the future (Dickson & Bates, 2006; Williams et al., 1996), and is a risk for developing symptomatology following stressful life events (Bryant, Sutherland, & Guthrie, 2007).

The autobiographical memory cueing task has provided important insights into the nature of autobiographical memory disturbances in psychological disorders. However, it does not necessarily index memories that are personally important to the individual (Jansari & Parkin, 1996). Employing an alternate approach, Singer and Moffitt (1991–1992) developed a method of investigating autobiographical recall that indexed self-defining memories. These are recollections that represent exemplar memories of experiences that reflect one's identity (Blagov & Singer, 2004). Self-defining memories are defined as memories that are affectively intense, repetitive, vivid and comprise enduring concerns about oneself (Singer & Salovey, 1993). They are a central feature of the autobiographical self because they are essential for the development of an internalised life story (Thorne, McLean,
CG participants were seeking treatment for their grief symptoms at the Traumatic Stress Clinic in Sydney. No-CG participants responded to an advertisement seeking volunteers for a research project investigating grief experiences. Participants were excluded from this study if they met criteria for a current diagnosis of PTSD. Additional exclusion criteria for the no-CG group included a current diagnosis of major depression.

**Diagnostic interview**

*Complicated grief assessment (Zhang et al., 2006)* is a clinician administered semi-structured interview for assessing CG. The CGA interview is based on the self-report Inventory of Complicated Grief (Prigerson, Maciejewski, et al., 1995). The interview assesses for the presence of separation distress (Criterion A) and other symptoms including a difficulty accepting the death, numbness, bitterness, difficulty engaging in life and a sense of purposelessness and meaninglessness (Criterion B). A diagnosis of CG is given if Criterion A and B have been met for at least 6 months and there is evidence of serious day to day impairment in functioning (Criterion C). This measure also provides CG severity score.

*Clinical Administered PTSD Scale-2* (CAPS-2; Blake et al., 1995). The CAPS-2 is a structured clinical interview that indexes the 17 symptoms described by the DSM-IV PTSD criteria. Each symptom is rated on a five-point scale in terms of severity and frequency of the symptoms in the past month.

*Structure clinical interview for the DSM-IV* (SCID-IV; First, Spitzer, Gibbon, & Williams, 2002). The depression model of the SCID was used in this study to assess for the presence of major depression.

**Procedure**

Participants underwent a clinical assessment conducted by a Master’s level Clinical psychologist during which they were administered the CGA, CAPS-2 and SCID-IV Depression Module to determine diagnostic status. They returned one week later and completed a self-defining memory task based on Blagov and Singer (2004). A self-defining memory was defined to participants as a memory for an event that was important to them and had some relation to who they were as a person. They were told that “it might be a memory that you would tell someone if you wanted that person to understand you on a fundamental level. It may be positive or negative or both in how it makes you feel, the important thing is that is a memory that helps you understand who you are as a person or conveys how you have come to be that person”. Participants were asked to recall three self-defining memories and describe them in turn to the experimenter. If participants described a general category of events (e.g., my family) they were prompted to try to recall a specific event (“Can you tell me about a specific event or time that comes to mind as self-defining?”). After describing each memory participants was asked once if there was anything they would like to add to their description. They were then asked to rate how positive and negative they felt as they recalled the memory on two separate 7-point Likert scales (1 = not at all positive/negative, 7 = extremely positive/negative). Responses were audio-taped and transcribed for coding.

Memories were coded as being “Deceased Related” or “Other”. “Deceased Related” memories included memories that revolved around the deceased person (e.g., “the day we got married”, “when he was born”) or the death (“watching her last breath”, “planning his funeral”). “Other” included all other memories. Following McAdams et al. (2001) memories specifically relating to the person’s death were further coded as redemption or non-redemption narratives. A memory was coded as “redemption” if the narrative included a negative event followed by specific positive consequences. Examples included recognising the importance of
family and succeeding in developing better relationships with surviving relatives, developing a closer relationship with God, realising personal strength and coping ability. A second independent rater coded 20% of memory responses. The mean kappa reliability coefficient was .95 for content and .81 for redemption ratings.

**Results**

**Participant characteristics**

Table 1 indicates that participants in the two groups did not differ in terms of age or time since the death. Chi square analysis revealed no differences between groups in terms of relationship to the deceased or suddenness of the death. As expected, CG participants had significantly higher scores than no-CG participants on the CGA ($t(24.56) = -21.04, p < .001$). In the CG sample, 13 (65%) participants met diagnostic criteria for major depression according to the SCID.

**Memory content**

The proportions of Deceased Related and Other memories recalled by participants are presented in Table 2. A 2 (Participant Condition) x 2 (Memory Content) mixed model ANOVA revealed a significant main effect for Content, $F(1, 38) = 6.32, p < .017$, and a significant Group x Content interaction, $F(1, 38) = 4.64, p < .04$. Overall, “Other” memories were most frequently recalled. However, CG participants recalled a greater number of “Deceased Related” memories than no-CG participants ($t(28.98) = -2.16, p < .04$).

A comparison between the proportion of Deceased Related memories provided by individuals who’s loved one had died suddenly ($M = 41, SD = .34$) with those who had had time to prepare for the death ($M = .36, SD = 2.8$) indicated no difference.

**Redemption narratives**

To examine the relationship between benefit finding following bereavement and adjustment we examined memories that focused on the death. Overall, 9 (45%) CG participants and 9 (45%) no-CG participants nominated their loved one’s death as a self-defining memory. The proportion of death memories containing redemption sequences differed significantly across groups ($p < .007$, Fishers Exact Test): Seven (77%) participants in the no-CG group spontaneously provided a description of a death memory that was coded as redemptive. None of the death memories of the CG group were coded as redemptive. A 2 (Participant Condition) x 2 (Emotional Rating) mixed model ANOVA was also conducted on participants positive and negative emotion ratings for death memories. This revealed a significant main effect for Emotion ($F(1, 19) = 5.34, p < .04$) and a significant interaction effect ($F(1, 19) = 13.48, p < .003$). Follow up comparisons indicated that the CG group ($M = 6.50, SD = .67$) rated their emotions on recalling death memories as significantly more negative than the no-CG group ($M = 3.00, SD = 1.80$) [$t(9.68) = -5.54, p < .001$]. There was no significant difference between the positive emotion ratings of the CG ($M = 2.58, SD = 2.46$) and no-CG groups ($M = 3.89, SD = 1.76$).

**Discussion**

This study indexed the self-defining memories of bereaved individuals with and without CG. As predicted, participants with CG reported more self-defining memories that were related to the deceased. It appears that bereaved individuals with CG perceive their self-identity as being more strongly influenced by their deceased loved one than bereaved individuals who do not have CG. This pattern of results is consistent with propositions from Conway and Pleydell-Pearce’s self-memory system model. This model predicts that CG, which is associated with strong feelings of yearning, would be associated with a self-identity that is related to the deceased.

The finding that individuals with CG view their self-identity more closely linked with the deceased than bereaved individuals without CG is consistent with attachment based theories of bereavement (e.g., Bowlby, 1980). Attachment theories argue that the individuals who are most vulnerable to grief problems are those who are more psychologically entwined with the deceased; that is, those who are dependent on the attachment figure for their sense of emotional security and appraise themselves as unable to cope without that person (Field & Sundin, 2001; Fraley & Bonanno, 2004; Mikulincer, Shaver, & Pere, 2003). This result also accords with empirical evidence that CG is associated with elevated levels of dependency on the deceased (Johnson, Vanderwerker, Bornstein, Zhang, & Prigerson, 2006). The current finding provides a potential cognitive mechanism to explain ongoing dependency and attachment to the deceased. Specifically, if people with CG construct an identity that is heavily intertwined with the deceased, they will be more likely to recall memories consistent with this “self” and related to the deceased. This will focus their attention toward the absence of the person and trigger yearning and distress.

Perhaps surprisingly, there was no difference in the frequency with which bereaved individuals with and without CG reported the death of their loved one as a self-defining memory. In contrast, Sutherland and Bryant (2005) found that individuals with PTSD were more likely to report the traumatic event as self-defining than trauma exposed individuals who did not develop PTSD. Sudden deaths were not related to preferential retrieval of Deceased Related memories in this study. It is possible that the death of a loved one is an important event in the life of any individual, regardless of their subsequent recovery, and accordingly is regarded as self-defining. It is worth noting that intrusions about the death are more common following traumatic than non-traumatic deaths (Kaltman & Bonanno, 2003). Whereas sudden or traumatic deaths may lead to more intrusive memories, the tendency to

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<td><strong>Participant characteristics</strong></td>
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* Sudden denotes a death that occurred with less than one week’s forewarning.

Note: Standard deviations appear in parentheses.

**Table 2**

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<th>Complicated grief</th>
<th>No-CG</th>
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<tr>
<td>Deceased</td>
<td>.48 (.37)</td>
<td>.28 (.20)</td>
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<tr>
<td>Other</td>
<td>.52 (.37)</td>
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Mean proportion of Deceased Related and Other memories.
ascribe self-defining status to memories of the deceased may exist for all bereaved individuals.

Although there was no difference in the frequency with which participants reported their loved one's death as self-defining, no-CG participants were more likely to report a redemptive sequence in this memory; no-CG participant reported a positive outcome in a death memory. A number of researchers have suggested that meaning making is related to adaptation as it assists in affect regulation (Blagov & Singer, 2004). Consistent with this proposal, the no-CG participants rated their negative emotions on recalling the death as less intense than the CG group. This finding is also consistent with a growing body of literature showing positive correlations between benefit finding and adaptation to negative life events (Bauer & McAdams, 2004; McAdams et al., 2001) and bereavement in particular (Davies et al., 1998).

Interestingly, less than half of CG and no-CG participants reported the death as a self-defining memory. This was particularly surprising considering that CG participants were attending for treatment of a condition that is characterised by preoccupation with the loss of the loved one. It is possible that some bereaved individuals, and especially those with CG, did not report the death as a self-defining memory because they were avoiding the memory in order to minimise any distress associated with recalling it. Emerging theories argue that complicated grief symptoms arise from the poor integration of the memory of the loss into the autobiographical memory database (Boelen et al., 2006; Shear & Shair, 2005). Current theories of autobiographical memory hold that the autobiographical knowledge database is organised hierarchically into three levels: lifetime periods, general events and event-specific knowledge (Conway & Pleydell-Pearce, 2000). When specific events are integrated into the database they become conceptually linked with related existing autobiographical information and self-representations. Events that are poorly integrated into the database may remain isolated and have less potential to impact self-identity. The apparent underreporting of the death as a self-defining memory may reflect the hypothesised lack of integration. Although some models posit that this poor integration can result in preferential retrieval of loss-related memories because they are distinct and readily activated by triggers, these memories may also be avoided to minimise associated distress (Boelen et al., 2006; Ehlers & Clarke, 2000). Alternatively, it is possible that some bereaved people do not consider the death as a pivotal event in their self-construct; this is particularly likely in individuals who have successfully adapted to the loss. There is a need to better understand the mechanisms by which people who have and have not adapted to bereavement integrate the memories of the deceased into their autobiographical memory knowledge base, and how this integration interacts with self-constructs.

We recognise that the inferences that can be drawn from this study are limited by the cross-sectional nature of the data. Given the ongoing impact of the death on the individual with CG, it is understandable that memories of the deceased were recalled as self-defining. It is not possible to determine whether the memories of CG participants are a vulnerability factor or consequence of having CG. In this context, we note that we did not index lifetime diagnoses, and so we cannot rule out the possibility that memory retrieval was influenced by prior symptom patterns. It is also possible that the relationship between self-defining memories and CG is mediated by a third variable. In addition, we cannot rule out the possibility that the presence or absence of a redemption sequence in a memory narrative may simply reflect the actual events of the loss rather than a particular strategy employed by individuals. It is also possible that benefit finding in memory narratives reflects a greater assimilation of the death into the autobiographical memory system rather than actual growth. There is a need for prospective and experimental studies to examine these issues.

Notwithstanding these issues, these results have potential clinical implications. The findings indicate that CG involves distinctive patterns of autobiographical memory related to self-image. Current theories highlight the importance of emotional processing in the resolution of grief (e.g., Boelen et al., 2006; Shear & Shair, 2005). However, a self-image that is dominated by the deceased is likely to lead to persistent yearning and a preoccupation on loss-related memories. This retrieval pattern could reinforce an individual's dependent self-image, reduce the likelihood of engaging in emotional processing and prolong the grief response. Treatment strategies, such as cognitive therapy, that aim to correct maladaptive perceptions of the self and develop alternate self-representations may reduce the preoccupation with the deceased and promote recovery. Further study of the mechanisms underpinning these retrieval patterns may shed light on more targeted interventions for people suffering CG.

Acknowledgments

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References
