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Narrative Identity and Grief Reactions: A Prospective Study of Bereaved Partners

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Abstract

The purpose of the study was to explore relations between narrative identity and reactions to bereavement. Approximately 2-3 months after losing their partner, 161 older participants completed questionnaires measuring grief symptoms, positive affect, and neuroticism. They also described past and future chapters in their life stories and rated chapters on positive and negative emotional tone. Past chapters were coded for whether they were related to the loss of the partner and loss chapters were coded for positive/negative emotional tone. Future chapters were content coded for positive/negative emotional tone as well as whether the content reflected new roles and continuation of roles. At follow-up (5-6 months later), participants completed questionnaires measuring grief symptoms and positive affect. Individuals with more positive future chapters and future chapters emphasizing continuation of roles and activities experienced less severe grief reactions and more positive affect. Thus, narrative identity may be useful for understanding reactions to bereavement.

Keywords: grief; life story chapters; future thinking; positive affect; continuing roles

General audience summary

Individuals who lose a close other may experience prolonged grief. Understanding the psychological processes involved in coping with grief is important to identify individuals in need of help and to develop interventions.

Life story chapters are important periods in life stories, which support a coherent understanding of life and a sense of who one is as a person (e.g., “my marriage”). Individuals who have lost their spouse need to give up a planned future with their spouse and reconstruct their future life story chapters.

We examined life story chapters, grief, and positive affect in 161 individuals who had lost their spouse to cancer. We found less severe reactions to bereavement among individuals who emphasized positive emotions and continuation of roles in their future life chapters and who thought of the chapter concerned with the loss of their spouse as containing some positive aspects (e.g. “a beautiful conclusion to a good life”). The results suggest that constructing a positive future may be a central task for bereaved individuals. Interventions for individuals suffering from prolonged grief could include a focus on life stories.

Narrative Identity and Grief Reactions: A Prospective Study of Bereaved Partners

When a close other dies, individuals may experience this as losing a part of themselves, suggesting that identity may play a role for grief reactions (Maccalum & Bryant, 2013; Maercker et al., 2013; Prigerson et al., 2009; Stroebe & Schut, 1999). Grief encompasses yearning for and preoccupation with the deceased, and for some individuals grief reactions become persistent, referred to as prolonged grief (Lundorff, Holmgren, Farver-Vestergaard, Zachariae, & O'Connor, 2017; Maciejewski, Maercker, Boelen, & Prigerson, 2016; Stroebe & Schut, 1999).

Identity encompasses life stories, also termed narrative identity. Life stories refer to temporally, causally, and thematically coherent internalized accounts about important events in the individuals' past, present and future (Habermas & Bluck, 2000; McAdams, 1996). According to several authors, narrative identity may be important to understanding grief (Baddeley & Singer, 2010; Neimeyer, 2006), but few studies have directly examined this.

The purpose of the present study was to examine whether narrative identity is related to difficulties recovering from loss. Below, we describe narrative identity and develop hypotheses concerning connections between narrative identity and reactions to bereavement.

Narrative identity

Life stories have been argued to be central to identity, because they integrate past, present, and future experiences and provide explanations for who individuals are, how they have become who they are, and what direction their future lives are going in (McAdams, 1996). Studies show that when individuals describe their life stories, they spontaneously use temporally extended periods, such as marriage, as chapters to create an overall structure (McAdams, 2001; Thomsen, 2009). Chapters are rated as more important to identity than memories of circumscribed events and are more closely associated with other aspects of the

self (Steiner, Thomsen, & Pillemer, 2017; Thomsen & Pillemer, 2017), indicating that they are central to life stories. While individuals represent both past and future chapters in their life stories (Thomsen, Lind, & Pillemer, 2017), future chapters differ from past chapters, because they refer to possibilities rather than actual periods. Still, representation of future events play an important role in guiding goal pursuit (Szpunar, 2010).

A central feature of life chapters is emotional tone, which vary from happy to pessimistic (McAdams, 1996; Thomsen, Steiner, & Pillemer, 2016). The emotional tone does not just reflect life as it happened; it is a result of selection (is this period important to who I am?) and interpretation (was this period mostly negative or did it include positive aspects?) (McAdams, Reynolds, Lewis, Patten, & Bowman, 2001). Studies show that individuals who select negative events as central to identity suffer poorer well-being (Berntsen & Rubin, 2006). In addition, a recent review concluded that individuals who described key scenes in their life stories with positive emotional tones experienced greater well-being (Adler, Lodi-Smith, Philippe, & Houle, 2016). Similarly, studies have shown that individuals who perceive life chapters as positive report higher well-being and self-esteem (Thomsen et al., 2017; Steiner et al., 2017).

Narrative identity and grief reactions

Narrative identity may play a role in coping with grief. First, narrative identity is constructed through creating connections between past, present and future, and bereaved individuals may experience a major break in life story continuity because their close other can no longer be a part of their future life stories (Neimeyer, 2006). Thus, the task that bereaved individuals face is to let go of an anticipated future life story that their close other was a part of and construct a new and meaningful future (see also Crossley, 2000). How much the close other was a part of future chapters and the suddenness of the death, may affect

the reconstruction of future chapters, but seeing future chapters as containing positive aspects may generally be important to cope with grief. Although not directly concerned with life stories, previous studies support the idea that more positive and less negative cognitions about the future is related to better outcomes among bereaved individuals (Boelen & Huntjens, 2008; Boelen, van den Bout, & van den Hout, 2003; Golden & Dalgleish, 2012). Because the construction of future events is based on representations of past events (D'Argembeau & van der Linden, 2004; Szpunar, 2010), having more positive past life stories may help individuals to reconstruct their new future in a positive way. Hence, we expected that both more positive past chapters and more positive future chapters would be related to better outcomes in bereaved individuals. We included a measure of positive affect in addition to a measure of grief reactions, because experiencing positive affect is a part of recovering from loss (Stroebe & Schut, 1999).

A second way narrative identity may play a role in how bereaved individuals adapt to their loss is through the narration of the loss itself. The loss may be interpreted as only negative, with an emphasis of suffering and failure or it may be evaluated as also including positive aspects, such as support from family or the deceased finally finding peace. One study showed that participants with complicated grief were less likely to describe self-defining memories of the loss with redemption (a move from negative to positive content) and included more negative affect compared to bereaved participants without complicated grief (Maccalum & Bryant, 2008). Thus, depending on what aspects individuals include in their loss chapters, they may come to represent the loss as more or less positive and negative, which may be related to outcomes, both in terms of less severe grief and more positive affect.

The present study

To sum up, we expected that more positive and less negative past and future life story chapters would be associated with better outcomes in bereaved individuals. Focusing on life story chapters concerned with the loss, we expected that more positive and less negative loss chapters would be related to better outcomes. Emotional tone was assessed using both self-report and content coding. In addition, we explored the content of future chapters with a focus on new roles and continuing roles.

We were also interested in whether narrative identity would predict outcomes beyond neuroticism, which captures general tendencies towards negative thoughts and affect (McCrae & Costa, 2008) and predicts grief (Boelen, 2012). Hence, we controlled for neuroticism in analyses predicting outcomes from life chapters, thereby examining whether narrative identity was related to grief beyond is general negative affectivity (Adler et al., 2016).

Method

Participants

The participants at baseline were drawn from a sample of 182 bereaved partners, whose partner/spouse had died of cancer, but here we only include participants who completed the questionnaire concerned with past life story chapters. This sample consisted of 161 participants with a mean age of 65.29 years ($SD = 9.53$); 90 women, 66 men; and 5 missing values. On average 10.62 weeks had passed since their partner's death, when they completed the baseline questionnaire, but with some variation ($SD = 2.72$, range 2-20 weeks). Regarding their highest educational level, 24.8% had completed elementary school, 7.5% had completed high school, 31.1% had manual training, 30.4% had 3-4 years education after high school, and 5.0% had a university degree (2 missing values).

At follow-up, approximately 5-6 months after the return of the baseline questionnaire, 147 of the original participants (82 women, 62 men, and 3 missing values) completed the questionnaires, yielding a response rate of 91%.

The exact sample size was not determined a priori. When the study was initiated, we aimed to include 200 participants at baseline, but data collection was discontinued before reaching this number due to organizational changes at the recruitment place.

Recruitment

As a part of their standard follow-up procedures, the staff at The Palliative Care Team Funen, Odense University Hospital, telephoned 286 potential participants and asked whether they might be interested in participating in the study. When 2-3 months had passed since the partner's/spouse's death, individuals who had agreed to participate were sent a questionnaire and asked to complete it in their own time. If they had not returned the questionnaire after 3 weeks, they were sent a reminder. Of the 286 potential participants, 161 completed the part concerned with past chapters, yielding a response rate of 56%.

For the follow-up, participants were sent a questionnaire and asked to complete it in their own time. If they had not returned the questionnaire after 3 weeks, they were sent a reminder.

Materials and procedure

At baseline, the participants were sent a packet of questionnaires, which contained several scales. Only the scales measuring grief reactions, neuroticism, and positive affect as well as the questionnaire on past and future life story chapters (presented in that order) are of relevance here. At follow-up, the participants were again sent a package of questionnaires, where only the scales measuring grief reaction and positive affect are of relevance here. For all standardized scales (i.e. positive affect, grief reactions, and neuroticism), missing items

were substituted with the mean of the remaining completed items on the scale, if the participant had 50% or fewer missing items (Schafer & Graham, 2002). The number of participants with either replaced values/lost to analyses due to too many missing items were 4/6 (for grief reactions at baseline); 9/6 (for grief reactions at follow-up); 0/3 (for neuroticism); 11/6 (for positive affect at baseline); 6/6 (for positive affect at follow-up), resulting in differentially reduced N in analyses. In addition, 20 of the 161 participants did not complete any parts of the questionnaire about future chapters (several participants explained that this part was too difficult to think about).

Grief reactions. Prolonged Grief-13 (PG-13; Prigerson et al., 2009) was used to assess severity of grief reactions. The scale consists of 11 items measuring symptoms of prolonged grief. Four items measure the frequency of different symptoms of prolonged grief on 5-point scales from 1 = *not at all* to 5 = *several times a day* and seven items measure the degree of symptoms of prolonged grief on 5-point scales from 1 = *not at all* to 5 = *overwhelmingly so*. The two items addressing duration of symptoms and impact on daily functioning were not included in the total calculated for the present study. The scale has been found to show good psychometric qualities (Prigerson et al., 2009; Maciejewski et al., 2016) and in the present study the scale showed good internal reliability at both baseline and follow-up (Cronbach's alphas = .89 at both times).

Positive affect. The subscale for Positive Affect in the Positive and Negative Affect Schedule (PANAS, Watson, Clark & Tellegen, 1988) was used to assess positive affect. The scale is widely used and has shown good psychometric qualities, also in the Danish version (Olesen, Thomsen, & O'Toole, 2015). The scale consists of ten terms for positive emotions and participants indicate the frequency of each emotion within the last week on 1-5 point scales. The scale showed good internal reliability in the present study at both baseline and

follow-up (Cronbach's alphas = .91 and .92 respectively) and items were summed to form a total with higher scores indicating more positive affect.

Neuroticism. The neuroticism subscale of the NEO-PIr was used to assess individual differences in neuroticism (Costa & McCrae, 1992). The scale is one of the most often used measurements of neuroticism and has shown excellent psychometric qualities, also in the Danish version (Hansen, Mortensen, & Schiøtz, 2004). The scale consists of 12 items rated on 1-5 point scales, where participants indicate their level of agreement with the item. A total is calculated such that higher scores reflect higher levels of neuroticism. The scale showed good internal reliability in the present study (Cronbach's alpha = .86)

Life stories. A life story questionnaire was used to assess past and future chapters in participants' life stories (based on Thomsen et al., 2017). In the first part, participants were given the following instruction: "Please think about your life story and identify the 10 most important chapters in your life story. A chapter in your life story is a period in your life. It is important that the 10 chapters cover all your life story, please think about your entire life span. For each of the 10 chapters please describe the content with a couple of key sentences and answer the questions. You can include parallel chapters, that is, different chapters can refer to the same part of your life story. You can also include chapters that are not yet completed, that is, they are still ongoing. You can identify up to 10 chapters, if you have fewer than 10 chapters just describe the chapters you have. There is no right or wrong way to identify and describe chapters in your life story – it is completely up to you how to do it. Please start with the first chapter that comes to mind and stop when you think your chapters describe your life story or you have described 10 chapters. Examples of chapters are "school years", "teenage years", "bachelor", "become a parent". But it is up to you which and how many chapter you include in your life story". Participants were then provided with space for

describing up to ten chapters. For each chapter, they were asked to indicate the positivity and negativity on 5-point scales anchored with 1 = *not at all*, 3 = *to some degree*, 5 = *to a very high degree*: 1) To what degree would you describe the chapter as positive?; and 2) To what degree would you describe the chapter as negative?

Participants were then instructed to identify up to three future chapters using instructions similar to those for past chapters, but stating that the participant should think about her/his future life and identify three important chapters in her/his future life story (contact first author for detailed instructions). They were given space to describe three chapters and for each chapter they were asked to answer the following two questions on the same 5-point scales as for past chapters: 1) To what degree will the chapter be positive?; and 2) To what degree will the chapter be negative?

For past and future chapters, mean scores for positive and negative emotional tone were calculated and used in the analyses (labelled positive past chapters, negative past chapters, positive future chapters, and negative future chapters).

The use of self-report measures in the study of narrative identity is debated, where content coding is the norm. We have argued that self-report ratings are relevant because narrative identity refers to internalized representations of life stories that individuals can bring to mind and self-rate on the characteristics in question. Such self-ratings capture the subjective interpretations of events that are central to narrative identity. While self-report has known weaknesses, such as reflecting biased self-perceptions and strategic self-presentation, this method may be a useful supplement to content coding (see Holm & Thomsen, 2018; McAdams, 2018; Panattoni & McLean, 2018, for a full discussion of the use of self-report methods in research on life stories). The self-report questions used in the present study to measure positive and negative emotional tone have been used in previous studies where they

correlated in predictable and reliable ways with subjective well-being and personality traits (Jensen, Thomsen, O'Connor, & Mehlsen, under review); self-esteem and self-concept clarity (Steiner et al., 2017), symptoms of psychopathology, dissociation, and self-concept clarity (Holm & Thomsen, 2018), and the questions distinguished past life story chapters described by patients with bipolar disorder from chapters described by healthy controls (Pedersen, Straarup & Thomsen, 2018).

Coding

Past chapters were coded for whether their content was related to the loss or not. All chapters where descriptions of partner's illness, death, treatment, hospital stays, and other related terms constituted at least half of the content in a chapter were identified as having the loss as their content (see Appendix A for examples). The first author coded all past chapters and the reliability was examined by having a second rater code chapters for 28 participants. Interrater agreement was 99% ($\kappa = .92$). For each participant, ratings given for loss chapters yielded two variables: positive loss chapter and negative loss chapter. When participants had more than one chapter concerning their loss, the scores were calculated as means (69 participants described no loss chapters and were not included in analyses on loss chapters; 72 participants described one loss chapter; 15 participants described two loss chapters; two participants described three loss chapters; and one participant described five loss chapters; two participants were excluded from these analyses: One who only provided numerical rating for chapters with no descriptions and one who described all 10 chapters as related to the loss). Hence, analyses on loss chapters included a maximum of 90 participants.

In addition, loss chapters and future chapters were content coded on positive and negative emotional tone using a coding system that was developed for the present study, but inspired by previous studies (McAdams et al., 2001; contact first author for detailed coding

criteria). We focused on loss chapters and future chapters because initial analyses of the self-report measures indicated that loss chapters and future chapters were more consistently related to outcomes than past chapters (see Results section). While self-report of emotional tone captures subjective evaluations of the emotional tone of the chapter, content coding may supplement self-reporting by revealing emotional aspects of the chapter that are less accessible to immediate evaluation by the participant (McAdams, 2018; Panattoni & McLean, 2018). For both loss chapters and future chapters, a score of 0 was given if there were no positive/negative emotion and evaluation words; a score of 1 was given if there was 1 positive/negative emotion and evaluation word; and a score of 2 was given if there were 2 or more positive/negative emotion and evaluation words and an overweight of positivity/negativity. The first author coded all loss and future chapters and reliability was examined by having a second trained rater code chapters for 29 participants. Interrater agreement was 83% (intra class correlation = .88) for positive emotional tone and 90% (intra class correlation = .84) for negative emotional tone. For each participant, content coding for loss chapters yielded two mean variables: positive words loss chapters and negative words loss chapters as well as two mean variables for future chapters: positive words future chapters and negative words future chapters.

For more exploratory purposes, we content coded future chapters for whether they were concerned with new roles/relations/places/activities or not, and whether they were concerned with continuing or re-establishing roles/relations/places/activities or not. We focused on these themes because both establishing new roles and continuing valued activities have been suggested to be important in processing the loss and adapting identity (Holcomb, 2012; Stroebe & Schut, 1999). The coding criteria for the two dimensions were developed for the present study (contact first author for details). Each future chapter was given a score of 1 if it

contained reference to new roles, activities, relations, and living places (e.g., new partner, moving, starting new leisure activities, find new job, growing old, retirement), otherwise the chapter received a score of 0. Each future chapter was also given a score of 1 if it contained reference to continuing or re-establishing roles, relationships, activities, and living places (e.g., staying in the house, spend time with family and friends, continue job/leisure activities), otherwise the chapter received a score of 0. The two dimensions were coded independently of each other and chapters could contain reference to both new roles and continuing roles (or contain no reference to either of these themes). The first author coded all future chapters and reliability was examined by having a second trained rater code chapters for 26 participants. Interrater agreement was 88% ($\kappa = .77$) for new roles and 88% ($\kappa = .77$) for continuing roles. For each participant, content coding for future chapters yielded two mean variables: new roles future chapters and continuing roles future chapters.

Results

Below, we first report preliminary analyses on whether participants who dropped out of the study at follow-up differed significantly from participants who remained in the study and also examine gender and age differences for all variables. In addition, we give a brief description of the main content of past and future chapters and test whether number of loss chapters is related to any of the outcomes. Second, we compare scores on grief reactions and positive affect at baseline and follow-up. Third, we conduct correlation analyses to test our prediction that better outcomes at baseline and follow-up (lower grief reactions and more positive affect) would be related to more positive and less negative emotional tone of past and future life chapters as well as the loss chapter (both self-reported and content coded emotional tone). We also explored relations between new roles and continuing roles in future chapters and outcomes. Lastly, we conduct multiple regressions to examine whether the

emotional tone of the loss chapter and future chapters explain variance in grief and positive affect (at both baseline and follow-up) beyond neuroticism.

Preliminary analyses

Participants who dropped out of the study between baseline and follow-up scored significantly higher on grief reactions ($t(153) = 2.61, p = .01, d = .69$), tended to score lower on positive affect ($t(153) = 1.88, p = .06, d = .54$), and had fewer positive words in their loss chapters ($t(86) = 8.10, p < .0005, d = 1.22$) compared to the participants who remained in the study. There were no significant differences on the remaining variables or age (ts from .06 to 1.63, $ds < .42$) or on gender ($X^2(1) = .43, p = .51$) or education ($X^2(4) = 6.01, p = .20$). Overall, participants who dropped out seemed to be functioning more poorly, which may have implications for the generalizability of the remaining findings.

Women scored higher on grief reactions at both baseline (trend level) and follow-up compared to men ($ts(148$ and $137) = 1.82$ and $3.16, ps = .07$ and $.002, ds = .30$ and $.54$). Women also scored higher than men on neuroticism ($t(152) = 3.34, p = .001, d = .55$) and they had less positive and more negative past chapters ($ts(154$ and $153) = 2.36$ and $2.84, ps = .02$ and $.005, ds = .39$ and $.47$). In addition, women had more negative words in their loss chapters ($t(80) = 3.51, p = .001, d = .73$). There were no differences on the remaining variables (ts from .11 to 1.27, $ds < .23$). Based on these gender differences in grief reactions, we initially controlled for gender in the regression analyses predicting grief.

With respect to age, it did not correlate significantly with any of the outcome variables ($rs(138-151)$ from $-.13$ to $-.01$), but higher age was related to less positive self-reported future chapters ($r(125) = -.23, p = .008$). In addition, for the content coded dimensions of the chapters, higher age was related to more negative words in loss chapters ($r(88) = .24, p = .03$), to more positive and more negative words in future chapters ($rs(135) = .25$ and $.17, ps =$

.004 and .04), to lower score on new roles ($r(135) = -.25, p = .003$), and to higher scores on continuing roles ($r(135) = .18, p = .03$). Finally, higher age was related to lower neuroticism ($r(154) = -.18, p = .03$), with no significant relations for the remaining life chapter variables ($r(83-157)$ from $-.14$ to $.10$). Because age was not related to our outcome variables, we did not control for age in the regression analyses predicting grief and positive affect.

The participants identified on average 7.94 past chapters and 2.24 future chapters. Often mentioned content of past chapters was childhood, school, further education, employment, romantic relationships, marriage, and children, which is similar to previous studies (Thomsen et al., 2017). Often mentioned content for future chapters was social relations (children, grandchildren, and friends), travelling, hobbies, and plans for living space/moving (see Appendix A for examples). Number of loss chapters was not significantly related to any of the outcome variables ($r_s < +/- .10$).

Main analyses

The means for the variables are shown in Table 1. We first examined whether grief reactions and positive affect changed from baseline to follow-up. While grief reactions decreased significantly, the effect was only moderate ($t(135) = 5.12, p < .0005, d = .44$). Positive affect did not change significantly from baseline to follow-up ($t(135) = 1.35, p = .18, d = .12$).

We then examined relationships between the outcomes variables (grief reactions and positive affect) and the life chapter measures and neuroticism at baseline and follow-up using both self-report measures of chapters as well as content coding of chapters (see Table 2). We first focus on the self-report measures. In line with expectations, more severe grief reactions were related to less positive future chapters at both baseline and follow-up. Surprisingly, levels of grief were not related to the positivity or negativity of past chapters. Also as

expected, higher positive affect was related to more positive past chapters as well as more positive future chapters at both baseline and follow-up. As anticipated for the loss chapter, more severe grief and lower positive affect were related to rating loss chapters as less positive. Replicating previous studies, lower neuroticism was related to more positive affect and less severe grief reactions at both baseline and follow-up.

Focusing of the relations between outcomes and content-coded dimensions of chapters, the correlations generally showed the same pattern as for the self-reported characteristics of chapters, although fewer of the correlations were significant. More severe grief reactions were related to fewer positive words in loss chapters and fewer positive words in future chapters, but only at baseline. Higher positive affect was related to more positive words in loss chapters, but again, the correlation was only significant for the baseline measure. None of the other expected correlations reached significance. However, our exploratory analyses showed that participants who described their future chapters with more focus on continuing roles had less severe grief reactions (only at baseline) and more positive affect (both baseline and follow-up).

To examine whether the life chapter variables explained variance in grief reactions and positive affect beyond that of neuroticism, we conducted two stepwise multiple regressions with positive affect and grief as the outcome variables. Because of the high number of life chapter variables, we first entered the overall life chapter variables that were significantly correlated with the outcomes into two preliminary regression analyses to examine which life chapter variables explained most variance in the outcome measures (self-reported positive future chapters, negative words in future chapters, and continuing roles for the regression with grief reactions as the outcome; and self-reported positive past and future chapters as well as continuing roles for the regression with positive affect as the outcome). Those life chapter

variables that were significantly related to the outcome variable in these preliminary regressions were then entered into a stepwise multiple regression with the life chapter measures at the first step and neuroticism at the second step. Because our initial analyses showed that women experienced more severe grief reactions, we first conducted the regressions with control for gender. But since gender did not significantly predict grief in the regression analysis, here we report it without entering gender as a predictor variable. The results are shown in Table 3. Self-reported positive future chapters explained variance beyond that of neuroticism for grief reactions (step 1: $F(1, 122) = 7.15, p = .009$, Adj. $R^2 = .05$; step 2: $F(2, 121) = 46.48, p < .0005$, Adj. $R^2 = .43$). Both self-reported positive future chapters and continuing roles explained variance in positive affect beyond that of neuroticism (step 1: $F(2, 120) = 15.23, p < .0005$, Adj. $R^2 = .19$; step 2 $F(3, 119) = 30.23, p < .0005$, Adj. $R^2 = .42$).

Second, using a similar procedure we conducted two multiple regression analyses, but now entering neuroticism and the characteristics of loss chapters that were significantly correlated with the outcome variable as predictor variables (self-reported and content coded positivity of loss chapter). We analysed characteristics of loss chapters separately from overall life chapter characteristics, because the number of participants was reduced for these analyses (since 69 participants did not describe a loss chapter). Only for positive affect did the life chapter variables explain variance beyond neuroticism (see Table 4; for grief the β s for the two life chapter variables did not reach significance in the preliminary multiple regression and hence the stepwise multiple regression with neuroticism was not performed). Self-reported positivity of the loss chapters predicted variance in positive affect after controlling for neuroticism (step 1: $F(1, 79) = 9.65, p = .003$, Adj. $R^2 = .10$; step 2 $F(2, 78) = 15.38, p < .0005$, Adj. $R^2 = .26$).

We then examined whether the life chapter variables and neuroticism explained variance in the follow-up measures of grief and positive affect, when controlling for baseline levels of grief and positive affect respectively. In these regressions, we entered the overall life chapter variables significantly correlated with the follow-up measures of grief and positive affect. Only baseline grief and baseline positive affect were significant predictors in these models (grief reactions: $F(3, 107) = 32.36, p < .0005$; Adj. $R^2 = .46$; β s for grief at baseline (.69), neuroticism (.00), and self-reported positive future chapters (.01); positive affect: $F(5, 103) = 18.94, p < .0005$; Adj. $R^2 = .45$; β s for positive affect at baseline (.62), neuroticism (-.07), self-reported positive future chapters (.00), continuing roles (.09), and self-reported positive past chapters (-.03)).

Discussion

We found that bereaved individuals with more positive future chapters experienced more positive affect and less severe grief. Future chapters referring to continuing roles and narrating the loss chapter with a positive emotional tone were also related to higher positive affect. These effects remained significant when controlling for neuroticism, indicating that the emotional tone of narrative identity is not just an expression of a general tendency towards negative emotions. The findings were generally stronger for self-reported emotional tone compared to content coded emotional tone. When predicting grief and positive affect at follow-up, only baseline measures of grief and positive affect reached significance. It is possible that grieving and adaption of narrative identity for the partners to terminally ill individuals may have started before the actual death of the partner and that measuring narrative identity during the partner's illness would have increased its predictive value.

The results are consistent with the idea that constructing a positive future life story after the breach in continuity that bereaved individuals suffer may be important to cope with grief.

Previous literature has also emphasized that continuing valued roles and activities is important (Holcomb, 2012; Shear & Bloom, 2016). This idea was confirmed in the study, since future chapters referring to continuing roles and activities were related to more positive affect. Future chapters may be more closely associated with adapting to the loss than past chapters because the breach in continuity that the loss of the partner constitutes demands the construction of new future chapters. When these new chapters are constructed with a focus on continuing important roles and activities, they may help bereaved individuals reduce the breach. In addition, such positive future chapters may support planning of valued activities and support behavior needed to experience positive affect and taking a break from grieving.

Individuals who experienced more positive affect interpreted loss chapters in ways that emphasized positive emotions (see Appendix A). This is not to say, that they did not express negative feelings. In fact, negativity of loss chapters was not significantly related to any outcomes. This finding is consistent with studies connecting emotional qualities of memories to reactions to bereavement (Maccalum & Bryant, 2008). More broadly, the results are consistent with theories proposing that narrative identity may play a role in how individuals respond to loss (Baddeley & Singer, 2010; Neimeyer, 2006) and our findings emphasize that emotional qualities of the loss narrative and future chapters may be important.

Studies confirm that prolonged grief is distinct from other emotional disorders (Maccalum & Bryant, 2013). Hence, interventions targeting these disorders may need to be adapted to optimize treatment for individuals who suffer from prolonged grief (Boelen, Van den Hout & Van den Bout, 2013; Shear & Bloom, 2017). Neimeyer (2006) has argued that such treatment should target narrative identity. Although the present study needs to be replicated, the results suggest that therapists may help individuals with prolonged grief by a context-sensitive invitation to elaborate on the potentially positive aspects of the loss chapter

and future chapters. Although the future hold new task and new roles for bereaved individuals, our study indicates that focusing on continuing roles, relations, and activities when thinking about the future may benefit bereaved individuals.

The study has several strengths, such as a prospective design; the use of standardized measures of neuroticism, positive affect, and grief symptoms; including both self-report and content coding of life chapters; as well as a relatively large sample size. However, there are also some limitations. First, the study is correlational and did not test causal relations. Hence, our reflections on the utility of targeting narrative identity in intervention are necessarily speculative. Second, our self-report measures of narrative identity constituted single items measures with reduced reliability as a consequence, and future studies should include more nuanced scales to measure emotional tone. In addition, the chapter descriptions were short and did not allow more detailed content coding. Maybe as a result of the short descriptions and the less nuanced coding criteria, content coded emotional tone of chapters was less strongly associated with the outcomes compared to the self-reported emotional tone and future studies should focus on in-depth descriptions of the loss chapter and future chapters and code these for additional emotional qualities such as redemption (McAdams et al., 2001). Third, the sample size for some analyses was reduced due to missing values, making estimates of effect sizes less precise. Also, the most severely affected individuals dropped out of the study at follow-up, probably restricting the range in our outcome measures and reducing generalizability. Fourth, the sample consisted of adults who had lost their partner to cancer and although we believe that our findings are reliable, this needs to be tested empirically. Future studies should examine whether relations between narrative identity and reactions to bereavement differ in individuals who have lost their partners in a more sudden way (e.g., accidents) and in individuals with another relation to the deceased (e.g., children).

In conclusion, the way the loss and the future is storied are related to how individuals react to bereavement. Theories and interventions may benefit from considering narrative identity in understanding and treating individuals who have difficulties recovering from their loss.

Author contributions

Anette Damkier, Maja O'Connor, and Dorthe Kirkegaard Thomsen designed the study.

Anette Damkier and Marie Lundorff collected the data. Dorthe Kirkegaard Thomsen analyzed the data and wrote the first drafts of the paper. Anette Damkier, Maja O'Connor, and Marie Lundorff commented on and revised these drafts.

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Table 1

Means (SD) for grief, positive affect, self-reported and content coded life chapter

	Measure	<i>M (SD)</i>
Outcome measures	Grief, baseline	29.58 (8.86)
	Grief, follow-up	26.10 (8.05)
	Positive affect, baseline	30.77 (7.54)
	Positive affect, follow-up	31.66 (7.61)
Self-reported life chapter measures	Positive past chapters	4.01 (.59)
	Negative past chapters	2.10 (.70)
	Positive loss chapters	2.21 (1.24)
	Negative loss chapters	3.91 (1.29)
	Positive future chapters	4.12 (.83)
	Negative future chapters	1.93 (.89)
Content coded life chapter measures	Positive words loss chapters	.61 (.72)
	Negative words loss chapters	.58 (.69)
	Positive words future chapters	.80 (.70)
	Negative words future chapters	.27 (.49)
	New roles future chapters	.41 (.38)
	Continuing roles future chapters	.55 (.39)
Control measure	Neuroticism	29.49 (8.34)

characteristics, and neuroticism

Table 2

Correlations between outcomes measures (grief and positive affect) and self-reported and content coded life chapter measures as well as neuroticism (see Appendix B for 95 confidence intervals)

	Measure	Grief, baseline	Grief, follow-up	Positive affect, baseline	Positive affect, Follow-up	Neuroticism
Self-reported life chapter measures	Positive past chapters	-.14	-.15	.28**	.17*	-.26**
	Negative past chapters	.08	.05	-.14	-.13	.30**
	Positive loss chapters	-.25*	-.28*	.33**	.23*	-.17
	Negative loss chapters	.09	.07	-.17	-.10	.13
	Positive future chapters	-.25**	-.19*	.32**	.25**	-.15
	Negative future chapters	.10	.10	-.09	-.15	.14
Content coded life chapter measures	Positive words loss chapters	-.23*	-.12	.25*	.08	-.11
	Negative words loss chapters	.19	.15	-.03	-.03	.06
	Positive words future chapters	-.15	-.06	.09	.01	-.08
	Negative words future chapters	.22*	.09	-.15	-.05	.12
	New roles future chapters	-.03	-.06	-.13	-.13	.13
	Continuing roles future chapters	-.19*	-.11	.36**	.29**	-.21*
Control measure	Neuroticism	.55**	.36**	-.55**	-.38**	-

* $p < .05$; ** $p < .01$

Table 3

Stepwise multiple regressions predicting grief or positive affect from self-reported positive future chapters, continuing roles future chapters, and neuroticism

		Grief β			Positive affect β
Predictor			Predictor		
Step 1			Step 1		
Positive future chapters		-.24*	Positive future chapters		.21*
			Continuing roles		.34**
Step 2			Step 2		
Positive future chapters		-.15*	Positive future chapters		.17*
Neuroticism		.62**	Continuing roles		.22*
			Neuroticism		-.50**

*) $p < .05$; **) $p < .0005$

Table 4

Stepwise multiple regression predicting positive affect from self-reported positive loss chapters and neuroticism

Predictor	Positive affect β
Step 1	
Positive loss chapters	.33*
Step 2	
Positive loss chapters	.25*
Neuroticism	-.42**

*) $p < .05$; **) $p < .0005$

Appendix A

Examples of future chapters

Man, 57 years: Love life, new partner, maintain good relations to own and wife's family.

Another life.

Woman, 65 years: Selling the house is first priority, I am stuck here and can't get on with my life until I have sold it.

Man, 62 years: Continuing my circles, like playing basketball, walking with my walking friend, meet previous colleagues for Friday beers and lunch jazz. The weekly swimming and biking around the area.

Man, 68 years: Living with grief and bad conscience because I did not pay enough attention to the illness and my wife.

Man, 50 years: Build extra living room and make up garden and playground for the grandchildren so that the family can get together here

Examples of loss chapters

Woman, 72 years: Cancer doctor meetings, my husband's energy decreases, was hospitalized a week where the children and I took turns staying with him. Slowly passed away, miss him a lot after 49 years of marriage. The emptiness afterwards is the worst.

Woman, 65 years: My husband dies the [date] after 20 months of fighting cancer. I cared for him at home the whole time. He passed away in his own bed with children, son-in-law and grandchildren around him. The next day, we sang as he was carried from the house [it is a Danish tradition to sing a hymn at this occasion]. The grandchildren kissed him goodbye many times.

Man, 71 years: My wife became ill [date] and she was operated in the beginning of April and that did not go well and she died [date]. A terrible experience but still a beautiful conclusion to a good life.

Appendix B

95 confidence intervals for correlations presented in Table 2

	Measure	Grief, baseline	Grief, follow-up	Positive affect, baseline	Positive affect, Follow-up	Neuroticism
Self-reported life chapter measures	Positive past chapters	-.29 to .02	-.31 to .02	.13 to .42	.01 to .33	-.40 to -.11
	Negative past chapters	-.08 to .24	-.12 to .21	-.29 to .02	-.29 to .04	.15 to .44
	Positive loss chapters	-.44 to -.03	-.47 to -.06	.12 to .51	.01 to .43	-.37 to .05
	Negative loss chapters	-.13 to .30	-.15 to .29	-.37 to .05	-.31 to .12	-.09 to .33
	Positive future chapters	-.41 to -.08	-.36 to -.01	.15 to .47	.07 to .41	-.32 to .02
	Negative future chapters	-.08 to .27	-.09 to .28	-.26 to .09	-.32 to .03	-.04 to .31
Content coded life chapter measures	Positive words loss chapters	-.42 to -.02	-.33 to .10	.04 to .44	-.14 to .29	-.31 to .10
	Negative words loss chapters	-.02 to .39	-.07 to .35	-.24 to .18	-.24 to .19	-.15 to .26
	Positive words future chapters	-.31 to .02	-.23 to .12	-.08 to .26	-.17 to .19	-.24 to .09
	Negative words future chapters	.05 to .37	-.09 to .26	-.31 to .02	-.22 to .13	-.05 to .28
	New roles future chapters	-.20 to .14	-.23 to .12	-.29 to .04	-.30 to .05	-.04 to .29
	Continuing roles future chapters	-.35 to -.02	-.28 to .07	.20 to .50	.12 to .44	-.36 to -.04
Control measure	Neuroticism	.43 to .65	.21 to .50	-.65 to -.43	-.51 to -.23	-