

Self-Identity After Bereavement

Reduced Self-Clarity and Loss-Centrality in Emotional Problems After the Death of a Loved One

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Abstract: There is evidence that both the centrality of a loss-event as well as reduced self-concept clarity are involved in emotional problems after the death of a loved one. One issue that is still unexplored is the relative importance of these two concepts in predicting bereavement outcome. The current study examined the degree to which both concepts contribute to emotional distress after loss, both concurrently and longitudinally. Data were available from 124 individuals, all bereaved within the previous half year, who completed measures of prolonged grief, post-traumatic stress, and depression at inclusion into the study and again 6 months later. Loss-centrality and self-unclarity were associated with all three outcome measures, in cross-sectional analyses. Longitudinal analyses indicated that loss-centrality predicted symptom levels of prolonged grief, self-unclarity predicted symptom levels of depression, and both loss-centrality and self-unclarity were associated with posttraumatic stress 6 months after baseline. Implications of these findings are discussed.

Key Words: Centrality of event, self-concept clarity, grief, depression, posttraumatic stress

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Deaths of loved ones are inevitable events in people's lives. Most people adjust to bereavement without persistent problems. In an estimated 5% of bereaved people, reactions of acute grief, dysphoria, and distress—occurring transiently in initial periods of many grieving processes—develop into severe mental health problems, including prolonged grief disorder (PGD), posttraumatic stress disorder (PTSD), and/or depression (Prigerson et al., 2009; Shear, 2015). Several grief-focused theories and treatments have been developed (Shear, 2015). These are effective for many but not all bereaved individuals with loss-related psychopathology (see, e.g., Wittouck et al., 2011). This underlines the need to further our understanding of factors predicting poor bereavement outcome that may be targets for treatment.

The current study was concerned with the role of self-concept clarity and loss-centrality in predicting bereavement outcome. Self-concept clarity refers to a person's conception of his/her characteristics, self-view, and attributes as distinct, cohesive, and consistent (Campbell et al., 1996). Lower self-concept clarity has been found to be associated with different negative outcomes, including depression and anxiety (Bigler et al., 2001). Event-centrality refers to an individual's perception of how central a particular negative event (e.g., the death of a loved one) is to his/her life story, self-identity, and meanings assigned to subsequent experiences (Rubin et al., 2014). Event-centrality is strongly associated with PTSD after traumatic events (Rubin et al., 2014).

Self-clarity and event-centrality can both be considered as *structural aspects* of the self-concept, other examples of which include self-complexity and self-concept differentiation (Campbell et al., 2003).

Structural aspects of self can be distinguished from *content aspects* of the self-concept, referring to beliefs and evaluations about the self (Campbell et al., 2003). There is evidence that content aspects of self influence grief, with research showing self-devaluation and negative self-related cognitions to be associated with persistent post-loss psychopathology, including PGD and depression (Golden and Dalgleish, 2012). Few studies have examined structural aspects of self, including self-clarity and loss-centrality, in recovery from loss. Yet, recent theorizing suggests that these aspects are important. For instance, in terms of the cognitive behavioral model developed by Boelen et al. (2006), a loss may cause uncertainty about the self, which may persist and cause severe distress until self-identity is revised incorporating the loss. Similarly, in terms of the cognitive attachment model by Maccallum and Bryant (2013), disturbances in grief are strongly associated with the degree to which the bereaved person's identity is entwined with the deceased. There is some evidence that self-clarity and loss-centrality affect recovery from loss. For instance, Boelen et al. (2012) found that declines in self-clarity from pre-loss to post-loss were associated with acute distress after loss and that a continued sense of unclarity after loss maintained PGD. In another study, Boelen et al. (2012) found that stronger loss-centrality assessed within the first year of bereavement was associated with symptom levels of PGD, PTSD, and depression 1 year later, controlling for baseline symptom levels.

One unexplored issue is the relative importance of self-clarity and loss-centrality in predicting bereavement outcome. This issue is important for shaping theorizing about grief and treatment options for those failing to recover; for instance, if both concepts would be independent predictors of poor bereavement outcome, that would imply that both are valuable targets for treatment. Accordingly, the current study examined the degree to which both concepts contributed to emotional distress after loss, both concurrently and longitudinally. To this end, bereaved individuals who were in the first 6 months of bereavement completed self-report measures of self-clarity, loss-centrality, and symptoms of PGD, PTSD, and depression (T1) and again completed symptom measures 6 months later (T2). Based on recent theorizing and evidence, cited previously, we predicted that greater self-unclarity and loss-centrality would both be associated with PGD, PTSD, and depression both concurrently and prospectively, even when controlling for the shared variance between self-unclarity and loss-centrality. A further prediction was that self-unclarity and loss-centrality would interact in predicting post-loss distress. Although no prior studies examined this empirically, one could reason that people for whom the loss is more central to self and who also experience lower self-clarity (e.g. “Who am I now my partner died?”) have more problems to adjust personal roles, goals, and attributes that were co-defined by the lost person, and consequently experience more loss-related distress, compared with people with less loss-centrality and a more certain and stable sense of self.

METHODS

Data were available from 124 bereaved individuals enrolled in the context of an on-going study on cognitive behavioral processes in grief, through announcements on Dutch Internet sites. After completing

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an online application form, potential participants were sent a personal log-in code and a reference to secured online questionnaires. In the period of data collection for this study, approximately 50% of all people completing an application form continued completing the questionnaires. Participants bereaved less than 1 year were invited to complete follow-up measures as part of a longitudinal monitoring of recovery. Included in the current study were data from 124 participants who were bereaved maximally 6 months at inclusion in the study and completed follow-up measures 6 months later. The sample comprised 69.4% women. Participants had a mean age of 58.5 years ($SD = 13.5$); 59 participants (47.6%) had had primary/secondary education, and 65 (52.4%) had been to college or university. The mean time since loss (at T1) was 3.6 months ($SD = 1.2$); 67 participants (54%) had lost a spouse/partner, 8 (6.5%) a child, and 49 (39.5%) some other relative. Losses were caused by natural causes (e.g. illness, myocardial infarction) in 111 cases (89.5%) and unnatural cause (suicide, accident, or homicide) in 13 cases (10.5%). The sample size was sufficiently large for multiple regression analyses expecting at least a medium effect size with a set of eight predictor variables (six sociodemographic and loss-related variables, plus loss-centrality and self-unclarity) performing all significance tests at $\alpha = 0.05$ (Cohen, 1992).

PGD symptoms were assessed using the Prolonged Grief Disorder Scale (PGD Scale). The PGD scale is an 11-item measure of criteria for PGD (Prigerson et al., 2009). Accordingly, items represent one separation distress symptom, nine cognitive and emotional symptoms, and one functional impairment symptom. Participants rate how often symptoms occurred in the preceding month on 5-point scales (1 = never, 5 = always). The PGD scale was developed and validated in the context of prior research (e.g., Boelen et al., 2012). In the current sample, Cronbach α was 0.92 at T1 and 0.93 at T2. PTSD symptoms were assessed with the PTSD Symptom Scale–Self-Report version. This is a 17-item measure of PTSD, as defined in *DSM-IV* (American Psychiatric Association, 2000). With the death of their loved one as the anchor event, participants rate the frequency of symptoms on 4-point scales (0 = not at all, 3 = five/more times per week/almost always). English (Foa et al., 1993) and Dutch versions (Engelhard et al., 2007) have good psychometric properties. In the current sample, the α was 0.88 at T1 and 0.89 at T2. Depression symptoms were assessed using the depression subscale of the Hospital Anxiety and Depression Scale–Depression Scale. This measure asks respondents to rate the presence of seven depression symptoms during the preceding week on 4-point scales. English (Zigmond and Snaith, 1983) and Dutch versions (Spinoven et al., 1997) have shown adequate psychometric properties. In the current sample, α values were 0.93 and 0.92 at T1 and T2, respectively.

Loss-centrality was assessed using the 7-item Centrality of Event Scale (CES; Berntsen and Rubin, 2006). Participants rated the extent to which the loss was central to their everyday inferences, life story, and identity (e.g., “I feel that this event has become part of my identity”)

on 5-point scales (1 = totally disagree, 5 = totally agree). Items were summed such that higher scores reflected stronger loss-centrality. The CES has adequate psychometric properties (Berntsen and Rubin, 2006; Boelen, 2012). In the current study, the internal consistency (α) was 0.90 (T1). Self-concept clarity was assessed using the self-concept clarity scale developed by Campbell et al. (1996); this measure asks respondents to rate their agreement with 12 statements (e.g., “Sometimes I think I know other people better than I know myself”) scored on 5-point scales (1 = strongly disagree, 5 = strongly agree). Items were summed such that higher scores reflected lower clarity about the self (or greater self-unclarity). Psychometric properties are adequate (Boelen et al., 2012; Campbell et al., 1996). In this study, the α was 0.84 (T1).

RESULTS

Symptoms decreased significantly from T1 to T2. PGD: $M_{T1} = 27.3$ ($SD_{T1} = 9.6$), $M_{T2} = 23.3$ ($SD_{T2} = 9.5$), $t(123) = 7.81$; PTSD: $M_{T1} = 13.7$ ($SD_{T1} = 8.8$), $M_{T2} = 11.1$ ($SD_{T2} = 8.3$), $t(123) = 6.39$; depression: $M_{T1} = 6.0$ ($SD_{T1} = 5.1$), $M_{T2} = 5.1$ ($SD_{T2} = 4.8$), $t(123) = 3.69$, all p -values were less than 0.001. At T2, $n = 5$ (4%) participants passed the threshold for “PGD caseness,” according to the scoring rule by Prigerson et al. (2009) where PGD caseness is defined as a score of 4 or 5 on the “yearning-symptom,” a score of 4 or 5 on the “impairment in functioning” item, and a score of 4 or 5 on at least 5 of the 9 “cognitive, emotional, and behavioral symptoms.” At T1, no “PGD cases” could be identified because none of the participants passed the 6 months time frame, which is a criterion for PGD.

Correlations between variables are shown in Table 1. Self-unclarity and loss-centrality were moderately correlated (i.e., $r = 0.27$, $p < 0.01$). Correlations of self-unclarity with concurrent and prospective symptoms were also moderate (range, 0.44–0.52), whereas correlations of loss-centrality with symptoms were large (>0.55).

We carried out three hierarchical regression analyses predicting symptom levels of PGD, PTSD, and depression at T1, respectively. Sociodemographic and loss-related variables, and loss-centrality, self-unclarity, and the interaction between loss-centrality and self-unclarity were entered to the equations simultaneously. Outcomes are summarized in Table 2. The three regression models were all significant. Lower education, self-unclarity, and loss-centrality explained unique variance in PGD-severity; both self-unclarity and loss-centrality emerged as strongest independent variables, explaining 7% and 15% of variance in PGD-severity, respectively, beyond the other variables in the equation. Female sex, self-unclarity, and loss-centrality explained unique variance in PTSD-severity. Again, self-unclarity and loss-centrality were the strongest correlates, explaining 9% and 14% of unique variance. The regression with depression as dependent variable showed that self-

TABLE 1. Correlations Between Variables Assessed

	Lower Self-Clarity T1	Loss-Centrality T1	Prolonged Grief T1	Posttraumatic Stress T1	Depression T1	Prolonged Grief T2	Posttraumatic Stress T2
Loss-centrality T1	0.27**						
Prolonged grief T1	0.47***	0.70***					
Posttraumatic stress T1	0.52***	0.71***	0.80***				
Depression T1	0.48***	0.60***	0.77***	0.79***			
Prolonged grief T2	0.44***	0.69***	0.81***	0.74***	0.74***		
Posttraumatic stress T2	0.52***	0.66***	0.73***	0.85***	0.73***	0.82***	
Depression T2	0.50***	0.56***	0.68***	0.69***	0.82***	0.79***	0.79***

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

TABLE 2. Regression Analyses Predicting PGD, PTSD, and Depression at T1

	Prolonged Grief					Posttraumatic Stress					Depression				
	$F(10,123) = 20.66; R^2 = 0.64; p < 0.001$					$F(10,123) = 23.35; R^2 = 0.67; p < 0.001$					$F(10,123) = 11.99; R^2 = 0.52; p < 0.001$				
	B	SE	Beta	<i>t</i>	ΔR^2	B	SE	Beta	<i>t</i>	ΔR^2	B	SE	Beta	<i>t</i>	ΔR^2
Sex	1.14	1.32	0.05	0.86	0.002	3.25	1.15	0.17	2.81**	0.023	1.29	0.83	0.12	1.56	0.010
Age	-0.06	0.05	-0.08	-1.11	0.004	-0.06	0.05	-0.09	-1.31	0.005	-0.04	0.03	-0.10	-1.17	0.006
High education	-3.24	1.13	-0.17	-2.86*	0.026	-0.22	0.99	-0.01	-0.22	<0.001	-0.01	0.71	0.00	-0.02	<0.001
Deceased is partner	2.96	1.54	0.15	1.93	0.012	1.92	1.34	0.11	1.43	0.006	0.74	0.96	0.07	0.77	0.003
Deceased is child	1.56	2.55	0.04	0.61	0.001	1.11	2.23	0.03	0.50	0.001	0.98	1.59	0.05	0.62	0.001
Cause is unnatural	3.34	1.91	0.11	1.75	0.010	2.29	1.67	0.08	1.37	0.005	1.43	1.20	0.09	1.19	0.006
Months since loss	-0.38	0.47	-0.05	-0.80	0.002	-0.78	0.41	-0.11	-1.90	0.010	-0.10	0.30	-0.02	-0.33	<0.001
Self-unclarity	0.38	0.08	0.29	4.80***	0.072	0.38	0.07	0.32	5.52***	0.088	0.23	0.05	0.32	4.56***	0.089
Loss-centrality	0.65	0.09	0.53	6.85***	0.147	0.57	0.08	0.51	6.88***	0.136	0.28	0.06	0.42	4.67***	0.094
Self-unclarity × loss-centrality	0.01	0.01	0.06	1.06	0.004	0.02	0.01	0.11	1.91	0.011	0.01	0.01	0.09	1.22	0.006

ΔR^2 = change in R^2 when controlling other variables in equation. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

unclarity and loss-centrality were the only variables predicting unique variance—both explaining 9%—in depression beyond the other variables in the equation.

Next, we carried out three hierarchical regression analyses predicting symptom levels of PGD, PTSD, and depression at T2, respectively. The same independent variables were entered to the equations simultaneously, together with symptom levels at T1. Outcomes are summarized in Table 3. The three regression models were all significant. In all three models, T1 symptom severity explained a unique and considerable proportion of unique variance in T2 symptom severity. The model predicting T2-PGD showed that loss-centrality was the only variable predicting a significant amount (*i.e.*, 1.7%) of variance in PGD at T2 beyond PGD at T1. The model predicting T2-PTSD showed that (more) time since loss, greater self-unclarity, and greater loss-centrality explained unique variance in PTSD at T2, beyond baseline PTSD. Finally, self-unclarity was the only variable explaining unique variance in T2 depression (*i.e.*, 1.5%) beyond depression at T1. In the cross-sectional

and prospective analyses, the interaction between loss-centrality and self-unclarity did not emerge as significant predictor of symptom levels.

DISCUSSION

The current study used a longitudinal design to enhance our understanding of the role of reduced self-clarity and loss-centrality in predicting emotional distress after loss. Our cross-sectional analyses indicated that a greater sense of unclarity about the self and centrality of the loss were both associated with symptom levels of PGD, PTSD, and depression—when controlling for the shared variance between these two structural aspects of the self-concept, as well as for several sociodemographic and loss-related variables. These findings accord with prior research showing that bereaved individuals for whom the loss is more central to self-identity experience more pervasive distress (Boelen, 2012) and prior evidence that deficits in self-clarity are associated with PGD-severity (Boelen et al., 2012). Our findings also accord with the

TABLE 3. Regression Analyses Predicting PGD, PTSD, and Depression at T2

	Prolonged Grief					Posttraumatic Stress					Depression				
	$F(11,123) = 25.94; R^2 = 0.72; p < 0.001$					$F(11,123) = 35.36; R^2 = 0.78; p < 0.001$					$F(11,123) = 26.38; R^2 = 0.72; p < 0.001$				
	B	SE	Beta	<i>t</i>	ΔR^2	B	SE	Beta	<i>t</i>	ΔR^2	B	SE	Beta	<i>t</i>	ΔR^2
T1 symptom severity	0.58	0.08	0.59	7.03***	0.12	0.71	0.07	0.75	9.65***	0.189	0.68	0.07	0.72	10.10***	0.254
Sex	1.60	1.16	0.08	1.37	0.005	-0.37	0.94	-0.02	-0.40	<0.001	-0.78	0.60	-0.08	-1.32	0.004
Age	<0.001	0.05	<0.001	0.00	<0.001	0.06	0.04	0.10	1.57	0.005	0.02	0.02	0.07	0.99	0.002
High education	0.95	1.03	0.05	0.92	0.002	0.27	0.78	0.02	0.35	<0.001	0.53	0.51	0.05	1.04	0.003
Deceased is partner	1.95	1.37	0.10	1.42	0.005	-2.23	1.06	-0.13	-2.10	0.009	0.76	0.69	0.08	1.11	0.003
Deceased is child	1.27	2.25	0.03	0.56	0.001	-3.10	1.75	-0.09	-1.77	0.006	0.58	1.14	0.03	0.51	0.001
Cause is unnatural	-0.79	1.71	-0.03	-0.46	0.001	-0.29	1.32	-0.01	-0.22	<0.001	-0.16	0.86	-0.01	-0.19	<0.001
Months since loss	0.49	0.42	0.06	1.18	0.003	0.86	0.33	0.13	2.62*	0.014	0.20	0.21	0.05	0.96	0.002
Self-unclarity	0.10	0.08	0.08	1.37	0.005	0.13	0.06	0.11	2.10*	0.009	0.09	0.04	0.14	2.42*	0.015
Loss-centrality	0.26	0.10	0.21	2.59*	0.017	0.19	0.08	0.18	2.49*	0.012	0.06	0.05	0.10	1.35	0.005
Self-unclarity × loss-centrality	0.01	0.01	0.04	0.72	0.001	-0.01	0.01	-0.06	-1.16	0.003	0.00	0.00	-0.03	-0.46	0.001

ΔR^2 = change in R^2 when controlling other variables in equation. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

cognitive attachment model by Maccallum and Bryant (2013) proposing that the degree to which the bereaved person's identity is entwined with the deceased is critical to PGD. More broadly, our findings add to growing evidence about the importance of event centrality in post-event psychopathology (Rubin et al., 2014) and the role of self-concept clarity in psychopathology (Bigler et al., 2001; Campbell et al., 2003). Our findings that self-clarity and loss-centrality are independently associated with loss-related distress, when controlling for the shared variance between the concepts, attest to the incremental validity of these concepts.

Interesting findings emerged in our prospective analyses. We found greater loss-centrality (but not self-unclarity) to predict PGD-levels at 6 months after baseline, when controlling for baseline PGD-severity. Further, we found both greater loss-centrality and self-unclarity to predict PTSD-severity 6 months beyond baseline. Finally, reduced self-clarity (but not loss-centrality) predicted depression at 6 months while controlling baseline depression. The findings replicate prior evidence that loss-centrality is associated with the maintenance of symptoms of PGD and bereavement-related PTSD (Boelen et al., 2012). The current findings indicate that loss-centrality and reduced self-clarity have differential associations with PGD and depression. That is, we found loss-centrality, but not self-unclarity, to be involved in the maintenance of PGD. Conversely, reduced self-clarity but not loss-centrality was found to be associated with elevated depression. This suggests that both concepts have independent explanatory value in understanding different aspects of bereavement outcome. Apparently, when bereaved individuals perceive the loss as more central to their identity and life story, this maintains separation distress, difficulties accepting the loss, and other hallmark features of PGD symptoms, but not depressive symptoms. Conversely, the degree to which a person experiences the self-concept as unclear or unstable in the face of loss seems to contribute to dysphoria and other symptoms of depression, but not PGD.

There are several limitations that should be considered. First, caution should be applied in generalizing the current findings, taking into account that the sample was self-selected, relatively highly educated, and with an overrepresentation of women. As a related limitation, caution should be applied in generalizing the findings to clinical groups with severely disturbed grief, given that our sample was a nonclinical sample. It is possible that associations between loss-centrality, low self-clarity, and loss-related psychopathology are more pronounced in more severely distressed samples. A further limitation is that because of our reliance on self-report measures, shared method variance may have affected the associations between dependent and independent variables. Finally, our sample may have been too small to detect small effects. For instance, in the regression predicting T2-depression, the association of self-unclarity but not loss-centrality reached statistical significance although the magnitudes of the associations were comparable. It would be useful to further explore associations with larger samples.

Notwithstanding these considerations, the current findings extend our understanding of structural aspects of self involved in recovery after bereavement. If replicated, the findings may have clinical implications. For instance, interventions targeting loss-centrality (e.g., graded activation focused on actively continuing valued roles and activities that are not associated with the lost person) may be fruitful to diminish PGD symptoms. Interventions countering low self-clarity (e.g., helping to identify personal values and goals, and taking constructive action toward these goals) may be particularly indicated to target depression. Both types of interventions may be useful for bereavement-related PTSD.

DISCLOSURE

The author declares no conflict of interest.

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