Out of the Mouths of Babes: Links Between Linguistic Structure of Loss Narratives and Psychosocial

Functioning in Parentally Bereaved Children

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Author Note

Abstract

This study examined links between the language bereaved children use to describe the death of their caregiver and children's psychological/behavioral functioning and coping strategies. Participants included 44 children (54.5% male) aged 7 to 12 (M = 9.05) years who were bereaved by the death of a caregiver. Children were assessed via self- and caregiver-report measures and an in-person interview regarding the loss of their caregiver. Children's loss narratives gathered through in-person interviews were transcribed and subjected to textual analysis. Linguistic categories included pronouns and verb tense. Drawing from linguistic and self-distancing theories, we hypothesized that children's use of language reflecting self-distancing (third-person pronouns and past tense) or social connectedness (first-person plural pronouns) would be negatively associated with psychological/behavioral distress and avoidant coping. Similarly, we expected that children's use of self-focused language (first-person singular pronouns and present tense) would be positively associated with psychological/behavioral distress and avoidant coping. As hypothesized, preliminary findings suggest that children who employed more self-distancing language and used more social connectedness words reported less avoidant coping, rs = .40–.42. Also as hypothesized, children who employed more self-focused language had higher levels of self-reported posttraumatic stress symptoms, r = .54, and avoidant coping, r = .54, and higher parent-reported psychological/behavioral distress, r = .43. Implications for theory-building, risk screening, and directions for future research with bereaved youth are discussed.

Out of the Mouths of Babes: Links Between Linguistic Structure of Loss Narratives and Psychosocial Functioning in Parentally Bereaved Children

Although approximately 151 million children worldwide have experienced the death of a parent in their lifetime (UNICEF, 2013), the field of childhood bereavement remains in a relatively nascent state (Kaplow, Layne, Pynoos, Cohen, & Lieberman, 2012). The limited extant literature suggests that approximately 10% of bereaved youths in the general population are at risk for significant psychological and behavioral difficulties (Dowdney, 2000), including depression,

posttraumatic stress symptoms (PTSS), and substance abuse (Kaplow, Saunders, Angold, & Costello, 2010; Melhem, Walker, Moritz, & Brent, 2008). Notwithstanding these potential risks, empirical studies of the psychosocial mechanisms that may account for the development of bereavement-related difficulties versus healthy psychological functioning in children are only beginning to emerge (e.g., Howell, Shapiro, Layne, & Kaplow, 2015; Schoenfelder, Tein, Wolchik, & Sandler, 2015).

The current study investigated an often-overlooked psychosocial factor—the language children use to describe the death of their caregiver. Our aim was to explore associations between linguistic elements contained within children's loss narratives and indicators of children's psychological and behavioral functioning. Drawing primarily from the expressive writing and self-distancing literatures, we focused on bereaved children's use of specific pronouns and verb tenses previously identified as markers of adult mental and physical health (Tausczik & Pennebaker, 2010, Kross & Ayduk, 2011; Kross et al., 2014). In particular, we investigated whether, following the death of a caregiver, children's use of (a) self-immersed language (reflected by first-person singular pronouns and present tense) was associated with worse functioning (i.e., psychological and behavioral health; avoidant coping) and whether children's (b) self-distancing language (reflected by third-person pronouns and past tense) was associated with better functioning.

Language is the most common way people translate their thoughts and feelings into a form that others can understand (Tausczik & Pennebaker, 2010). In a bereavement context, children are faced with a number of potential grief-related tasks, including coming to terms with the death by making sense and meaning of the loss—a task that often requires the construction (Grassetti et al., 2014) or reconstruction of loss narratives facilitated by caregivers (Kaplow et al., 2012; Kaplow, Saxe, Putnam, Pynoos, & Lieberman, 2006). Although specific forms of parental communication (e.g., attunement, warmth) when discussing the death are inversely linked to children's depressive symptoms (Shapiro, Howell, & Kaplow, 2014), no studies to date have examined associations between the linguistic structure of children's loss narratives and their own psychological and

behavioral functioning.

Although language can be viewed as a behavioral indicator or marker of psychological functioning (Van Staden & Fulford, 2004), studies with adult populations have suggested that language may contribute to well-being given evidence that verbal or written processing of negative experiences predicts reduced psychological distress (Greenberg, 2004). In particular, interventions involving the construction of verbal narratives describing upsetting events are associated with mental and physical health benefits (Pennebaker & Graybeal, 2001). Similarly, interventions for children identify trauma narratives (e.g., Layne et al., 2008; Saxe, Ellis, & Kaplow, 2007; Scheeringa et al., 2017) and, more recently, loss narratives (Grassetti et al., 2014) as core components for treating PTSS and maladaptive grief reactions, respectively. Although few studies involving either adult or youth populations have explicitly examined potential language-related mechanisms of therapeutic change (see Kross & Ayduk, 2017 for a review), treatment developers have theorized that narrative construction can reduce psychological distress in bereaved individuals through a variety of therapeutic pathways. Specifically, it is thought that narrative construction–based therapeutic exposure can (a) promote acceptance of the physical reality and finality of the death, (b) create opportunities for family or group members to validate one another's experiences and beliefs and exchange social support, (c) desensitize or habituate youths to distressing memories and associated trauma reminders relating to deaths that occurred under traumatic or tragic circumstances (Saltzman et al., in press), and (d) help bereaved youths make sense and meaning of the death (Kaplow et al., 2006). Further, self-distancing theory suggests that the use of specific forms of language during narrative construction may be related to adaptive self-reflection and meaning-making (Kross & Ayduk, 2017).

Self-distancing is defined as reducing a person's egocentric involvement (i.e., relying heavily on one's own perspective) during an experience or in relationship to a stimulus (Kross & Ayduk, 2017). Researchers have examined the impact of viewing one's own negative thoughts and feelings from a self-distanced versus self-immersed (i.e., focusing almost exclusively on oneself) perspective.

Collectively, these findings suggest that self-distancing, in the context of reflecting on upsetting life events, is associated with a number of benefits, including lower levels of negative affect and physiological reactivity (e.g., Ayduk & Kross, 2008, 2010; Kross & Ayduk, 2008; Kross, Ayduk, & Mischel, 2005; Wisco & Nolen-Hoeksema, 2011). Self-distancing is also associated with reductions in intrusive ideation and rumination over time (Ayduk & Kross, 2010; Kross & Ayduk, 2008).

Experimental studies using self-distancing manipulation paradigms have suggested that the use of self-distancing language may contribute to these benefits by altering the way people cognitively represent negative life events (Kross & Ayduk, 2017). Specifically, self-distancing encourages people to focus on reconstruing their past experience (i.e., describing their experience from a "fly on the wall" perspective; Kross & Ayduk, 2011) while deemphasizing the recounting of emotionally arousing features of past events (i.e., describing what they were feeling at the time from a self-immersed perspective, as is often the case in exposure-based therapies). These findings have been observed in various populations including children (Kross, Duckworth, Ayduk, Tsukayama, & Mischel, 2011), adolescents (White, Kross, & Duckworth, 2015), adults (Ayduk & Kross, 2010; Kross et al., 2005), and a range of clinical populations (Kross, Gard, Deldin, Clifton, & Ayduk, 2012; Park, Ayduk, & Kross, 2016).

Despite evidence of potential health benefits associated with the use of self-distancing language, no research to our knowledge has systematically "unpacked" bereaved children's loss narratives pursuant to evaluating whether specific word use is linked to child psychological or behavioral functioning and/or coping. Accordingly, we explored this question by focusing on two linguistic structures theorized to be intrinsic to self-distancing theory: pronoun use and verb tense.

The use of first- versus third-person words can be placed on a theoretical continuum reflecting the degree of psychological distance from the self. Specifically, the fewer first-person singular (I, me) and the more third-person (he, she, they) pronouns people use as they describe negative life events, the greater psychological distance people create when reflecting on those

experiences (Kross et al., 2014; Nook, Schleider, & Somerville, 2017). Some researchers (e.g., Wimalaweera & Moulds, 2008) have cautioned that psychological distance may promote avoidance, which in turn may prevent processing of negative emotions and ultimately exacerbate psychological problems. Nevertheless, as noted earlier, empirical studies of adults' descriptions of adverse experiences have shown that less frequent first-person singular pronoun usage and more frequent third-person pronoun usage (both singular and plural; Kross & Ayduk, 2008; Kross et al., 2014; Nook et al., 2017) are associated with enhanced mental and physical health outcomes (Ayduk & Kross, 2010; Kross et al., 2012). Findings from such studies suggest that self-distancing may help people make meaning of negative experiences without becoming overwhelmed by negative affect (Kross et al., 2005; McIsaac & Eich, 2004). Moreover, several studies have explicitly examined the link between self-distancing and avoidance and found either no association (e.g., Kross et al., 2012; Penner et al., 2016) or an inverse association (e.g., Ayduk & Kross, 2009; Kross, 2009; Kross et al., 2012) between these constructs.

In contrast to first-person singular pronoun use (e.g., I and me), use of more first-person plural pronouns (e.g., we and us) has been shown to be positively associated with adaptive functioning in various populations, including healthier lifestyle practices among adolescents (Rew, Wong, Torres, & Howell, 2007) and a higher level of communication and cohesion in married couples (Simmons, Gordon, & Chambless, 2005). Theorists have suggested that plural pronouns convey a sense of group identity, solidarity, and unity (Brown & Gilman, 1960; Tausczik & Pennebaker, 2010), which may be particularly relevant for bereaved families, as connectedness and effective communication are associated with better psychological health in grieving youths (Howell et al., 2015; Shapiro et al., 2014).

As a second dimension of linguistic analysis, individuals who use more present-tense verbs to describe previous adverse events are more likely to experience intense negative emotional reactions (Cohn, Mehl, & Pennebaker, 2004; Kross & Ayduk, 2008). Present-tense verb use has been theorized

to reflect individuals' degree of immersion (i.e., lack of self-distance or temporal distance) in their emotional experience (Cohn et al., 2004). Discussing a distressing event as if it were happening in the present may signify that an individual is still grappling with the event and has not come to a resolution (Pasupathi, 2007). Youths who describe the deceased person in the present tense may be struggling with accepting the reality of the death—a marker of bereavement-related distress (Kaplow et al., 2012). Indeed, assumptions regarding the therapeutic benefit of both verbal tense (past vs. present) and pronoun usage (first- vs. third-person) undergird modern treatment approaches, as evidenced by narrative construction procedures that direct the client to dictate the narrative from the first person, present-tense perspective.

Drawing on the expressive-writing and self-distancing literatures, we theorized that children's use of first-person singular pronouns (e.g., I and me) and present tense verbs (e.g., is and be) when describing the death of their parent would reflect less perceived distance from, and greater self-immersion in, the death, respectively. We thus hypothesized that the use of these linguistic categories would correlate positively with children's problematic health indicators, including posttraumatic stress symptoms (PTSS), avoidant coping strategies, and parent-reported psychological and behavioral problems (Hypothesis 1). Conversely, we theorized that bereaved children's use of third-person singular (e.g., he and she) and plural pronouns (e.g., they and them) as well as past-tense verbs would reflect greater psychological and temporal distancing, whereas use of first-person plural pronouns (e.g., we and us) would reflect greater unity and social connectedness. We thus hypothesized that use of these speech elements would negatively correlate with the same health indicators, thereby reflecting positive psychological and behavioral functioning (Hypothesis 2).

Method

Participants

Participants included 44 children (54.5% male) who were recently bereaved by the death of a primary caregiver ($M = 103.43$ days, $SD = 56.16$). Children were recruited through bereavement support centers and hospital settings throughout the state of Michigan (United States) as part of a larger study designed to identify risk and protective factors associated with children's responses to

parental death (CIRCLE Project; PI: Kaplow). Inclusion criteria were (a) the child had experienced the death of a caregiver within the previous 6 months, (b) the child was between the ages of 3 and 12 years at the time of the death, (c) the child and primary caregiver both spoke English, and (d) the child did not have cognitive deficits judged to interfere with comprehension of assessments. Children from the same family were eligible to participate.

A total of 56 families were approached to take part in the study, and 41 agreed to participate (n = 89). For this study, 30 children under the age of 7 years were excluded given that they did not complete self-report measures, which left a sample of 59 participants. An additional 15 children were excluded due to the child's refusal to be videotaped (n = 8), technical difficulties (n = 6), or parental refusal to have the child videotaped (n = 1), producing an effective sample of 44 bereaved children. The 44 videotaped children did not significantly differ from the 15 children who were not videotaped with respect to age at time of interview, $t(57)$ = 1.31, p = .194; days since loss, $t(57)$ = -1.21, p = .231; gender, $\chi^2(1, N = 59)$ = 0.01, p = .935; or parent's cause of death, $\chi^2(1, N = 59)$ = 1.08, p = .300.

The 44 children ranged in age from 7 to 12 years (M = 9.05 years, SD = 1.83); their ethnicities were reported by primary caregivers as 75.0% Caucasian, 6.8% Black, 6.8% Asian, 4.5% Hispanic, and 6.8% mixed or other. Focal deaths included loss of biological father (68.2%), biological mother (29.5%), and biological grandparent identified as the primary caregiver (2.3%). Time elapsed since parental death ranged from 26 to 263 days prior to the interview (M = 103.43 days, SD = 56.16). Of note, four children were delayed in completing their 6-month interview, which expanded the time frame slightly. Surviving caregivers reported the circumstances of the death as anticipated deaths (e.g., cancer; 31.8 %), sudden natural deaths (e.g., heart attack, stroke; 25.0%), accidents (e.g., drowning; 15.9%), substance-related deaths (e.g., drug overdose; 15.9%), and suicide (11.4%). Children bereaved by a sudden death did not significantly differ from children bereaved by an anticipated death in relation to age at time of interview, $t(42)$ = 0.64, p = .526; days since the loss, $t(42)$ = 1.78, p = .089; or gender, $\chi^2(1, N = 44)$ = 0.17, p = .679.

Procedure

The University of Michigan Institutional Review Board approved all study procedures. Surviving caregivers provided informed consent, and children gave verbal assent. At the beginning of the study, caregivers completed measures of demographics and family history information as well as measures of the child's mental and behavioral health (e.g., child's age and ethnicity, parent's cause of death, and child's psychological and behavioral functioning). Children separately completed a battery of psychological and behavioral measures. After completing these measures, children participated in a semistructured in-person interview that contained 20 standardized interview questions regarding the loss of their caregiver, including the child's thoughts and feelings about the death (e.g., *"How did you feel when you found out about your mom/dad's death?,"* "What was the hardest or most upsetting part of your mom/dad's death for you?"; see Table 1 for other sample interview questions). Master's- or doctoral-level clinicians experienced in working with bereaved children conducted all semistructured interviews, which were videotaped for completeness and accuracy and transcribed verbatim. Families were financially compensated for their time.

Measures

Children's behavioral and psychological functioning. Primary caregivers ($n = 42$) completed the 113-item Child Behavior Checklist **(**CBCL; Achenbach & Edelbrock, 1983), a widely used observational measure of children's psychological and behavioral functioning that has also been used in prior research to examine problems in parentally bereaved youths (e.g., Lin, Sandler, Ayers, Wolchik, & Luecken, 2004). The CBCL has consistently demonstrated adequate reliability and validity (Achenbach, 1991). Caregivers rated how frequently their child experienced behavioral and emotional problems during the last 6 months on a 3-point scale of 0 (*not true),* 1 *(sometimes true),* or 2 (*often true*). *T* scores were calculated for internalizing problems (e.g., depression) and externalizing problems (e.g., aggression); *t* scores are standardized scores based on age- and gender-normed values. The range of *t* scores was 34 to 79 (*M* = 52.21, *SD* = 10.59) for internalizing problems and 33 to 74 for externalizing problems (*M* = 51.05, *SD* = 10.66). *T* scores greater than 60 on each scale meet the subclinical-to-clinical range, and 14 children from the current sample met clinical criteria for

internalizing and/or externalizing problems. For ease of interpretation, internalizing and externalizing *t* scores were summed to create a total problem *t* score (range: 74–153; *M* = 103.26, *SD* = 18.52); higher scores reflected worse functioning. Internal consistency for the current sample was Cronbach's α = .91 for items in the total problem *t* score.

Trauma exposure and PTSS. Children (*n* = 40) completed the 35-item UCLA PTSD Reaction Index (PTSD-RI; Steinberg, Brymer, Decker, & Pynoos, 2004), a measure of trauma exposure and associated PTSS. The UCLA PTSD-RI has been widely used to detect posttraumatic stress in youths who have been exposed to a variety of traumatic experiences, including the death of a loved one (e.g., Claycomb et al., 2016). The PTSD-RI has shown excellent internal consistency (Cronbach's α = .90) and test–retest reliability (*r* = .84) in multiple study samples (e.g. Roussos et al., 2005). Frequency of PTSS during the past month (e.g., "I have upsetting thoughts, pictures, or sounds of what happened come into my mind when I do not want them to") was measured on a 5-point scale ranging from 0 *(never happens)* to 4 *(happens most of the time)*. Item/symptom clusters (pertaining to each of the *DSM-IV* criteria) were summed to create a total severity score, with higher scores reflecting a higher level of PTSS. Current sample internal consistency was Cronbach's α = .90, with scores ranging from 1 to 55 (*M* = 25.38, *SD* = 16.43). A cutoff score of 38 has a sensitivity of 0.93 and specificity of 0.87 in detecting PTSD in children and adolescents aged 7 years and older. Nine children in the current study met or exceeded the clinical cutoff for PTSD.

Avoidant coping. The 11-item Active Inhibition Scale (Ayers, Sandler, & Twohey, 1998) was developed to measure avoidant coping in bereaved youths aged 8 to 16 years. Children (*n* = 43) rated how often they avoided or suppressed their emotions since the loss of their parent (e.g., "When you've been upset, you've acted like nothing was wrong") on a 5-point scale ranging from 0 (*never*) to 4 (*a lot*). Items were summed to create a total score, with higher scores indicating greater avoidant coping. The AIS has shown evidence of excellent internal consistency in prior studies of bereaved youths (Howell et al., 2015) as well as in the current sample (Cronbach's α = .91). The AIS was not

created for diagnostic purposes and does not include a clinical cutoff score; however, the average total score in our study sample (range: 0–42, M = 18.56, SD = 11.40) was similar to those reported in other studies that have used the AIS to assess avoidance in youths who have experienced adverse life events (e.g., Kaplow, Gipson, Horwitz, Burch, & King, 2014).

Interview transcriptions and text analysis. Research assistants transcribed participants' responses verbatim from videotaped interviews that focused on children's thoughts and feelings about the death of their parent (the Childhood Bereavement Semi-Structured Interview, 2009). We used the Linguistic Inquiry and Word Count (LIWC; Tausczik & Pennebaker, 2010), an extensively validated computerized tool for analyzing natural language, to code transcripts. The LIWC provides over 80 different psychological and grammatical categories as a percentage of total words and has been extensively validated as a tool to examine the psychological implications of words people use to talk about emotional experiences (Pennebaker, Mehl, & Niederhoffer, 2003), including bereavement and traumatic events (Eggly et al., 2015; Jaeger, Lindblom, Parker-Guilbert, & Zoellner, 2014; Lester, 2012; Pennebaker, Mayne, & Francis, 1997). Applying LIWC text analysis procedures, we excluded clinicians' questions or comments. All transcripts were checked for spelling errors. Total word counts for interviews ranged from 64 to 1,010 words (M = 348, SD = 259). All participants met the appropriate criteria for word count (Pennebaker, Boyd, Jordan, and Blackburn, 2015, recommended that any text with fewer than 50 words should be treated with skepticism).

We focused on LIWC categories that reflect pronouns and verb tense, which are components of language commonly linked to adult mental health in expressive writing and self-distancing paradigms. Specifically, we included six discrete LIWC categories: first-person singular (e.g., I and my), first-person plural (e.g., we and ours), third-person singular (e.g., she and her), and third-person plural (e.g., they and their) words, and past (e.g., went and had) or present-tense (e.g., is and does).

Data Analysis

We used the Statistical Package for the Social Sciences (SPSS; Version 24) for all analyses. Eight families had more than one child participate in the study. Although hierarchical linear modeling (HLM) is generally an ideal approach for controlling for each participant's membership within a family, we used partial correlations rather than HLM due to our small sample size and limited statistical power (Maas & Hox, 2005; Snijders, 2005). Given that all significant findings replicated when we randomly selected one child from families in which multiple children had participated, we included all 44 children in the final analyses. Across all analyses, only four children were missing scores on the UCLA PTSD-RI, two were missing scores on the CBCL, and one was missing an AIS score. Given the small amount of missing data, we used listwise deletion in all analyses.

We used G*Power to calculate statistical power for a partial correlation in the current sample (Faul, Erdfelder, Buchner, & Lang, 2009). Prior research led us to expect medium-to-large effects for correlations between language and psychological outcomes (Kross & Ayduk, 2017). A priori power analyses indicated that a sample size of 44 would be needed to detect an anticipated effect of $r = .41$ with 80% power given an alpha of .05 (two-tail), suggesting that power was sufficient to detect at least medium effects in the current study (also see Algina & Olejnik, 2003).

Results

Descriptive Statistics

Preliminary analyses (not shown in tables) suggested that child's age was negatively associated with word count, such that older children tended to say less in their interviews, $r(44) = -.38$, $p = .010$. Child's age further correlated negatively with both PTSS, $r(40) = -.32$, $p = .041$, and the use of present tense verbs, $r(44) = -.32$, $p = .034$, and correlated positively with third-person singular pronoun use, $r(44) = .38$, $p = .012$. Girls reported significantly higher PTSS levels than boys, $t(38) =$

3.12, p = .003. Thus, we controlled for child's age and gender in partial correlations to disentangle the effects of these demographic characteristics.

Theorized Linguistic Risk Markers

Table 2 presents descriptive statistics and partial correlations among study variables, controlling for child age and gender. Time since death and cause of parent's death (sudden versus anticipated) was not significantly associated with any primary variable. Word count was negatively associated with first-person plural words, r(44) = -.33, p = .049, but was not significantly associated with any of the other variables.

Supporting the assertion of Hypothesis 1 that less perceived distance from, and greater self-immersion in, the death would be positively associated with indicators of distress, children who used a greater proportion of present-tense verbs had higher levels of parent-reported psychological/behavioral problems. Further, children who used more first-person singular pronouns reported significantly higher levels of PTSS and avoidant coping. Contrary to Hypothesis 1, use of first-person singular pronouns did not significantly correlate with parent-reported psychological or behavioral problems.

Theorized Linguistic Protective Markers (Indicators of Positive Adjustment)

Supporting the assertion of Hypothesis 2 that linguistic indicators of psychological and temporal distancing, as well as social connectedness, would be negatively associated with indicators of distress, children who used more first-person plural pronouns exhibited lower levels of PTSS, avoidant coping, and parent-reported psychological/behavioral problems. Further, children who used more third-person plural pronouns reported less avoidant coping. Contrary to Hypothesis 2, neither third-person singular pronouns nor past-tense verbs correlated with any of our primary variables.

Discussion

Linguistic and self-distancing theories, which have focused almost exclusively on adults, propose that specific forms of language use carry differential utility as risk or protective markers for maladaptive versus adaptive functioning (Kross & Ayduk, 2008; Pasupathi, 2007). The results of our

study provide preliminary evidence in support of this proposition as it applies to childhood bereavement.

We hypothesized that the use of first-person pronouns and present tense would correlate positively with children's problematic health indicators (Hypothesis 1). Similar to findings previously reported in adult studies (e.g., Kross & Ayduk, 2008; Kross et al, 2014), we found children's use of self-focused (e.g., I and me) language when describing their loss to be associated with higher levels of PTSS (as stated by one child, "*I* still picture it – how he looked at the end. *I* wish he didn't have to be in pain. *I'm* upset that he died that way" [italics added]) as well as avoidant coping. These results are consistent with the proposition that children who are still grappling with distressing circumstances surrounding the death (reflected in higher levels of PTSS) may exhibit greater difficulty with distancing themselves when asked to discuss the death. Conversely, employing a larger percentage of first-person pronouns in loss narratives may be associated with higher levels of PTSS as a result of children's greater immersion in distressing memories (Kaplow et al., 2006).

Further, to our knowledge, this is the first study to report positive associations between use of present-tense language and adverse psychological outcomes in bereaved youths, as reported by caregivers. Use of more present-tense language when describing the death of a parent (e.g., "My dad *likes* to watch football" [italics added]) may similarly indicate that the child has not fully accepted the reality of the death (an important task of adaptive grieving; Kaplow et al., 2012), which can be associated with greater psychological or behavioral distress. Although this finding emerged even after controlling for age, it is notable that age was negatively correlated with the use of present-tense verbs such that younger children used present-tense verbs more frequently than older children. This finding may reflect developmental differences in the ability to fully comprehend the permanency of death.

We also theorized that bereaved children's use of third-person singular (e.g., he, she) and plural pronouns (e.g., they, them) as well as past-tense verbs would negatively correlate with the same health indicators, thereby reflecting positive psychological and behavioral functioning (Hypothesis 2). Youths who answered questions about their thoughts and feelings surrounding the death of their

parents using a greater proportion of "other-focused" language, particularly third-person plural pronouns (e.g., they and them) endorsed less frequent use of avoidant coping compared to those who used less "other-focused" language. This finding is consistent with those found in studies demonstrating that self-distancing linguistic strategies are associated with less emotional avoidance (Ayduk & Kross, 2009; Kross et al., 2012) and more engagement in constructive problem-solving (Ayduck & Kross, 2010). As one child stated, "No matter what, *their* dad loved *them,* and *they* have to think of the good things that happened… *they* can hold on to the good memories and just let the bad ones go" (italics added). Self-distancing theory suggests that the ability to view the death of a parent from an outsider's perspective may create enough psychological distance for children to be able to more fully and effectively process the emotions and cognitions associated with the loss and gain more insight into their own psychological experience (Kross & Ayduk, 2008). Given the correlational nature of our study, it is also possible that less avoidant youths (i.e., more expressive youths) tend to use more third-person plural pronouns to describe upsetting events. In contrast, our results did not support the hypothesis that third-person singular pronouns (e.g., he and she) would serve as protective markers. This may reflect the fact that constructing a loss narrative involves discussing the deceased person and his or her death, which necessarily involves the frequent use of third-person singular pronouns. Thus, the utility of third-person singular pronouns as protective markers may only be evident when the individual is describing himself or herself in the third person (as opposed to someone else), which speaks to the importance of future studies that can also examine the context of these linguistic variables.

Moreover, the negative correlations we observed between first-person plural pronouns (e.g., we, us, and our) and psychological/behavioral problems, PTSS, and avoidant coping is consistent with the proposition that social connectedness alleviates psychological distress and facilitates emotional expression (Kaminski et al., 2010). The use of more first-person plural pronouns may reflect the perception that the loss has occurred in the context of a socially

supportive environment, which in turn may be associated with decreased feelings of isolation, avoidance, and symptoms of psychological and behavioral distress. As one child stated, "*We all went to the funeral, but we were kind of in shock … we almost couldn't believe it was really happening*" (italics added). It is also possible that youths who are experiencing more severe emotional problems or engaging in avoidant coping may be less likely to seek social support or may feel more alone in their experiences.

Contrary to Hypothesis 2, use of past-tense verbs was not significantly associated with any measure of child functioning. However, describing a past event such as a death necessarily involves frequent use of past-tense verbs, which may have created a ceiling effect.

Our findings provide preliminary evidence that youths who make greater use of language that reflects both self-distancing and social connectedness (as evidenced by use of more third-person plural pronouns or first-person plural pronouns) when describing the death of a parent tend to experience lower levels of psychological and/or behavioral distress and less avoidant coping than youths who use less self-distancing and social connectedness language. This provides preliminary evidence that these linguistic elements may serve as protective markers soon after parental death. Conversely, our findings suggest that youths who use more language reflecting self-immersion (as evidenced by use of more present tense verbs and first-person singular pronouns) when describing the death of a parent tend to experience higher levels of psychological and/or behavioral distress and greater avoidant coping that youths who use less self-immersion language. This provides preliminary evidence that these linguistic elements may serve as risk markers soon after parental death. It is also possible that the use of self-distancing language reflects the child's own grief reactions, such as his or her ability to accept the permanence of the loss or make meaning of the death, reactions that may be more likely to develop with age and/or the passage of time (Kaplow et al., 2012).

Our findings carry at least four implications for designing future research studies and exploring clinical applications. First, the identification of specific linguistic markers of risk and protection carries implications for screening bereaved youths. If replicated, clinicians may be able to

detect youths who are at risk by observing the language children use while describing the death of a loved one (e.g., "I, me, mine" or "is, does, am"). Second, longitudinal studies of bereaved youths will be helpful in evaluating whether linguistic variables not only constitute risk markers (which are useful in screening for risk) but also serve as candidate causal risk factors. This is a vitally important distinction, as risk and protective markers differ from causal risk factors in that the latter require causal inference (something precluded by this cross-sectional study) and serve as potential intervention foci and candidate mechanisms of therapeutic change (Layne, Steinberg, & Steinberg, 2014). More broadly, longitudinal studies can build guiding theory and contribute to the empirical evidence base by testing for similar, versus differential, links between first-person singular words and third-person words (as predictors) and indicators of positive versus negative adjustment (as criterion variables). Third, future studies can pursue questions regarding the clinical utility of commonly used linguistic practices in trauma- or grief-focused interventions. These questions concern the utility of immersing patients in traumatic material as if the event were occurring in the here and now and asking patients to construct trauma or loss narratives in the first person with the intention of facilitating emotional processing. Rigorous treatment–outcome studies that manipulate the use of linguistic elements in narrative construction can help to clarify the potential causal contributions of language use to postloss adjustment. This will ultimately assist in addressing the question of whether loss narratives and their specific linguistic components (verb tense, pronouns) can effectively harness self-distancing principles to provide more therapeutic benefit.

As a fourth implication, future studies that rigorously examine the role of "social" language among bereaved youths may shed light on the potential opportunities provided by group- and family-based therapeutic modalities (Davies, Burlingame, & Layne, 2006; Saltzman et al., 2017) to reinforce communal themes of "we're all in this together" group solidarity and cohesion. Of particular interest, Grassetti and colleagues' (2014) evaluation of a group-based treatment for trauma and grief found that youths showed reductions in maladaptive grief scores and increases in-group cohesion only after they

constructed loss narratives. The authors called for studies to identify candidate "active ingredient" mechanisms of therapeutic change in the construction of loss narratives and exploration of whether these mechanisms differ from those that undergird construction of trauma narratives (Saltzman et al., 2017).

To our knowledge, this was the first study to examine linguistic variables as candidate risk and protective markers among parentally bereaved children. Due to the cross-sectional design of the study, we cannot rule out the possibility that language patterns reflect the child's prior processing of the death rather than causal mechanisms of adaptation. In addition, given our small sample size, rigorous longitudinal studies of larger, more diverse samples are needed to identify causal risk, protective, or promotive factors (Layne et al., 2014) and to clarify how they intersect in the context of bereavement. For example, older youths may be more inclined to use past-tense language due to their greater understanding of the permanence of death. Linguistic markers of risk and protection may thus apply to certain age groups but not others. Cultural factors, including notions of collective identity, social support, and culture-specific practices surrounding grief and mourning, may also play important roles in how children discuss death. Additional variables that warrant further study in relation to linguistic markers include dissociation, caregiver functioning, and a wider range of coping strategies. Further, studies that examine children's language in relation to grief reactions may profitably draw on multidimensional conceptions of grief (e.g., maladaptive vs. adaptive grief reactions; Kaplow et al., 2013) to clarify whether specific language patterns differentially relate to distinct grief reactions. Such studies will facilitate the construction of developmentally and culturally informed bereavement screening tools (Layne et al., 2017) and lay the foundation for assessment-driven interventions that address the needs of bereaved youths.

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LOSS NARRATIVES AND FUNCTIONING IN CHILDREN

Table 1

Sample Questions from the Childhood Bereavement Semi-Structured Interview

Question 1:	Can you tell me how your mom/dad died?
Question 2:	Were you with your mom/dad when she/he died?
	If yes, what do you remember about your mom/dad dying?
Question 3:	How did you feel when you found out about your mom/dad's death?
Question 4:	What was the hardest or most upsetting part of your mom/dad's death for you?
Question 5:	What was your favorite thing about your mom/dad?
Question 6:	How do you think your mom/dad (surviving parent) is coping?
Question 7:	Did you and your mom/dad have a chance to say goodbye to each other?
	If yes, what did you say to each other?
Question 8:	If you could say anything to your mom/dad right now, what would it be?

Table 2 *Descriptive Statistics and Correlations Among Primary Study Variables*

	CBCL[a]	PTSD-RI[b]	AIS[c]	1st PS	1st PP	3rd PS	3rd PP	PAT	PRT	WC[d]	COD[e]	TSD[f]
1. CBCL[a]	-	*0.31*	0.34*	0.20	-0.37*	-0.09	-0.09	0.11	0.34*	0.25	0.24	-0.18
2. PTSD-RI[b]		-	0.62**	0.54**	0.48**	0.14	-0.08	0.25	0.16	0.10	0.10	0.00
3. AIS[c]			-	0.54*	-	0.19	-	0.24	0.30	-0.05	0.05	0.11

	4	5	6	7	8	9	10	11	12
		*			0.42**			0.39**	
4. 1st PS	-	0.46**	-0.03	-0.37*	0.37*	0.28	0.10	0.23	-0.03
5. 1st PP		-	-0.15	0.02	0.41**	-0.20	-0.33*	-0.31	0.21
6. 3rd PS			-	-0.09	0.28	-0.22	-0.14	0.01	0.03
7. 3rd PP				-	0.11	-0.28	0.26	-0.05	-0.06
8. PAT					-	0.35*	0.12	-0.06	0.03
9. PRT						-	0.15	0.28	-0.12
10. WC[d]							-	0.16	-0.08
11. COD[e]								-	-0.46**

LOSS NARRATIVES AND FUNCTIONING IN CHILDREN

12. TSD[f]   -

M	103.26	25.38	18.56	8.14	1.71	7.23	0.65	8.07	7.78	347.59	0.32	103.43
SD	18.52	16.43	11.40	2.33	1.46	1.95	0.72	2.32	3.00	259.83	0.47	56.16

Note. For all variables, *n* = 44, except where noted. Partial correlations control for child's age and gender. Gender: 0 = female, 1 = male. CBCL = Child Behavior Checklist; PTSD-RI = UCLA PTSD Reaction Index; AIS = Active Inhibition Scale; 1st PS = first-person singular tense; 1st PP = first-person plural tense; 3rd PS = third-person singular tense; 3rd PP = third-person plural tense; PAT = past tense; PRT = present tense; WC = word count; COD = cause of death; TSD = time since death.

[a]*n* = 42. [b]*n* = 40. [c]*n* = 43. [d]Word count is the total number of words. [e]0 = sudden, 1 = anticipated. [f]Time since death in days.

[*]*p* < .05. [**]*p* < .01.