Distinctions between Experiences of Anger and Sadness in Children's and Adolescents'

Narrative Accounts of Peer Injury

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Data Availability Statement: The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Abstract

Children's varied emotions following peer injury may reflect distinct ways of understanding and coping with such events. This study examined how children's references to anger and sadness in their accounts of peer injury were differentially related to narrative descriptions of their motivations, interpretations, evaluations, and behavioral responses, as well as the relationships in which harm occurred. We also explored how these associations between emotions and other narrative elements varied with age. The study was based on a corpus of 275 transcripts of oral narratives recounted by equal numbers of boys and girls across three age groups: 7, 11, and 16 years. In line with functionalist theories, anger was uniquely linked to maximizing attributions, indignation, and aggression, after accounting for age and gender. Sadness was related to harm in close relationships and relational goals, underlining the value placed on relationships with the offender, as well as a sense of powerlessness and confusion. Some associations between emotions and other narrative elements varied with age, suggesting that children's experiences of anger and sadness became increasingly agentic and relationally oriented. Findings suggest how narrative constructions of meaning about peer injury may serve as contexts for reflecting on how anger and sadness emerge from and are resolved through interpersonal relationships.

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When children are injured by the words or actions of their peers, they can experience a range of strong emotions (MacEvoy & Asher, 2012). As they try to make sense of being harmed, asking themselves what happened, what it meant, and what can be done about it, children's interpretive process is linked to different emotional reactions (Stein & Levine, 1989). In turn, emotions guide children's subsequent reflections on experiences, and children's interpretations of events can serve to regulate emotions (Thompson, 1994). In this respect, emotions and appraisals of situations are reciprocally linked, both as the event is occurring and in the aftermath of the experience (Campos, Mumme, Kermoian, & Campos, 1994; Fischer, Shaver, & Carnochan, 1990).

These connections between emotions and interpretations are evident as children and adolescents construct narrative accounts of autobiographical events (e.g., McLean & Breen, 2009; Walton & Davidson, 2017). In the course of telling stories about their experiences, children's feelings, thoughts, and goals vis-à-vis those experiences constitute the landscape of consciousness in their narratives (Bruner, 1990); in this way, the process of narration itself informs and shifts the meanings that children draw from emotionally-laden events. For instance, children's construction of narratives may help them to grasp how their emotions emerge from and are resolved through interpersonal relationships (Fivush, Berlin, Sales, Mennuti-Washburn, & Cassidy, 2003), and may also help them to regulate emotions (Wainryb, Pasupathi, Bourne, & Oldroyd, 2018). While these processes have been documented for emotions more generally, less is known about how children make sense of specific emotions in the context of particular types of interpersonal experiences. In this study, our focus was on children's accounts of anger and

sadness in their narratives of events in which they were harmed by the words or actions of their peers. While these two emotions are both common affective reactions to peer injury (e.g., MacEvoy & Asher, 2012), they may reflect distinct ways of experiencing and coping with peer injury. As such, our primary goal was to examine how children's references to anger and sadness were related to narrative descriptions of their own motivations, interpretations, evaluations, and behavioral responses, as well as to the relationship contexts in which harm occurred.

The emotional contours of children's experiences of peer injury may also change meaningfully with age. Inasmuch as emotions are related to children's interpretations of events, children's experiences of anger and sadness may shift across development, as they develop more sophisticated understandings of emotions themselves, as well as of their own and others' roles in conflict (Fischer et al., 1990; Pasupathi & Wainryb, 2010a). That is, there may be age-related variations in the associations between narrated emotions and other relational, behavioral, motivational, interpretive, and evaluative aspects of children's accounts. As such, an additional goal of this study was to examine whether age moderated the links between children's references to anger and sadness and these other narrative elements.

Variations in Emotional Reactions to Peer Injury

Functionalist theories posit that emotions are evoked predictably in response to specific types of personally significant events, and that they organize and regulate behavior (Campos et al., 1994). Past research confirms that negative emotional reactions of anger and/or sadness are often evoked in the context of peer injury (e.g., MacEvoy & Asher, 2012). Importantly, while these two emotional reactions are distinct, they may nevertheless occur in combination, given the complexity of children's psychological experiences of harm (e.g., Whitesell & Harter, 1996).

Particular emotions are argued to arise from specific beliefs and motivations. Anger is

expected to occur in response to blocked goals in service of energizing behavior aimed at identifying the cause of an aversive state and rectifying it; sadness may also be evoked when a goal is blocked, but it is more closely linked to the belief that the loss cannot be overcome (Stein & Levine, 1989). Given these features, anger may be more predictably evoked in interpersonal contexts wherein an agent is deemed to be responsible for causing harm (Whitesell & Harter, 1996); anger is also related to identifying and negatively evaluating the reasons for others' transgressive actions (e.g., illegitimate motives or malicious intentions; Habermas, Meier, & Mukhtar, 2009). For example, MacEvoy and Asher (2012) found that youth described feeling less angry in response to friendship transgressions when they made benign interpretations of others' actions, whereas this association was not evident for sadness.

In contrast to the agent-focused nature of anger, sadness may also arise frequently in non-interpersonal contexts (e.g., misplaced objects; Fivush et al., 2003). When sadness occurs in response to interpersonal harm, it may be closely related to the experience of "hurt feelings" among both children and adults (MacEvoy & Asher, 2012; Shaver, Schwartz, Kirson, & O'Connor, 1987). Hurt feelings are related to relational devaluation and rejection, and thus often occur in the context of close relationships (Leary & Springer, 2001). Due to their intimate nature, transgressions in close relationships may be experienced not only as angering but also as uniquely hurtful, due to people's expectations for treatment from others who know them well and care about them, and also because they interpret such harms as reflecting more deeply on their value (Leary et al., 1998; Whitesell & Harter, 1996).

Inasmuch as conceptual models posit that anger will be linked to motivations and behavioral responses aimed at engaging with issues, children experiencing anger may act to address problems in varied ways. This may include hostile or destructive responses, but also

strategies such as assertive confrontation (e.g., telling the person to stop) or efforts to involve third parties. Therefore, although anger has been linked to retaliatory motives and destructive behaviors (Kochenderfer-Ladd, 2004; McDonald & Asher, 2018; Murphy & Eisenberg, 2002), anger may not *necessarily* lead to aggression (Averill, 1983). In contrast, given that sadness is linked to a sense that a loss cannot be overcome, perhaps especially in the context of relational devaluation, these emotions may be accompanied by motivations that reflect the importance of the relationships in which harm has occurred, such as the desire to maintain friendships (MacEvoy and Asher, 2012). Sadness may also be linked to withdrawal, as youth experiencing sadness may be inclined to focus inwards on the experience (Izard, 1993).

Age Differences in Children's Emotional Experiences of Peer Injury

Broadly speaking, children's understandings and experiences of emotion change substantively with age, as they develop more abstract, psychologically-based, and differentiated understandings of emotion as well as more sophisticated, flexible, and autonomous regulatory strategies; these developmental patterns are evident for both anger and sadness (e.g., Labouvie-Vief, DeVoe, & Bulka, 1989). From childhood to mid-adolescence, youth also increasingly recognize that different emotions can be experienced simultaneously, and report experiencing them (Larsen, To, & Fireman, 2007; Nook, Sasse, Lambert, McLaughlin, & Somerville, 2018).

In contrast, less work has examined how children's experiences of discrete emotions may change differentially across childhood and adolescence. One documented pattern is that, in the context of interpersonal harm, younger children may report more sadness, whereas older children may report more anger. For example, Stein and Levine (1989) found that preschoolers more often inferred that a protagonist would experience sadness in the context of intentional harm than older children and adults, who instead anticipated that he/she would feel anger. These

developmental differences may be due to children's increasing focus on the agent who caused

the harm, as well as their own developing sense of agency (Pasupathi & Wainryb, 2010b). Since

hurt feelings are linked to a sense of vulnerability, such reactions may be intensified when

individuals experience a sense of diminished control (Vangelisti, 2007). Relatedly, in children's

first-person accounts of anger and sadness, Bamberg (2001) found that 9-year-olds and adults

more clearly distinguished between anger and sadness in terms of the blameworthiness and

agentivity of the antagonist than 5- to 6-year-olds. Furthermore, at least in North American

families, young children may receive more parental coaching and thus support for narrative

elaboration about sadness than anger (Fivush & Wang, 2005). Taken together, these findings

suggest that youths' descriptions of anger (rather than sadness) in the context of peer injury may

become more frequent with age.

Age-related variations in the connections between emotions and other relational,

motivational, interpretive, evaluative, and behavioral aspects of children's narrated experiences

have not been widely examined. Charting these patterns can reveal shifts in the meanings that

children construct in relation to different types of emotional events. In a sample of 5- to 11-year-

old children, Kochenderfer-Ladd (2004) found that the inverse association between anger and

various forms of constructive conflict resolution became stronger with age. In her study,

constructive conflict resolution strategies included a combination of confrontation, conciliatory

strategies, and taking time to cool off before responding. This finding suggests that, with age,

children may increasingly experience anger as incompatible with their capacity to resolve

conflict in adaptive ways. However, it is difficult to interpret these results in more detail without

knowing which type of conflict resolution strategy might have been most strongly driving the

effect. With regards to relationship-based patterns, across adolescence, youth increasingly report

a sense of violation particularly in response to transgressions in close friendships, as compared to harms from other peers (Whitesell & Harter, 1996). As children's close friendships become more selective, they also become increasingly intimate and based on trust (Berndt, 2004). Therefore, the potential for hurt feelings within the context of close relationships may increase with age, as children become more sensitive to the possibility of relational devaluation from others and its implications for their self-worth.

The Current Study

This study examined children's and adolescents' references to anger and sadness as they arose in their narratives of peer injury, and how these two emotions were differentially related to other relational, behavioral, motivational, and interpretive/evaluative elements of their accounts. Although anger and sadness may sometimes co-occur in children's narratives of being harmed, we expected that references to each emotion would nevertheless show unique patterns of association to other elements. We anticipated that descriptions of anger would be related to youths' interpretations and evaluations that emphasized their peers' culpability for harm (e.g., MacEvoy & Asher, 2012); specifically, we expected anger to be linked to *maximizing attributions* for others' transgressive actions and a sense of *indignation* at their treatment at the hands of others. We also expected anger to be related to behavioral efforts to engage with the person or problem, including *aggressive* responses (e.g., McDonald & Asher, 2018) as well as other active strategies such as *confronting* the peer and *seeking help or support* from others. In turn, we expected that more sadness would be described in the context of peer injury in *close relationships*, as compared to interactions with *acquaintances* (Leary & Springer, 2001). Relatedly, we anticipated that sadness would be associated with references to goals pertaining to *relationship maintenance,* as well as interpretations/evaluations reflecting the *betrayal* of

relationship expectations. We also expected sadness to be linked to references to the passive behavioral response of *withdrawal* and the interpretation/evaluation of *powerlessness* (reflecting a perceived lack of control to reinstate a blocked goal; Stein & Levine, 1989), but also efforts to gain *insight* by pondering the meaning of the experience, given the reflective focus of this emotion (Izard, 1993).

This study included narratives recounted by children in early-elementary school, late-elementary school, and mid-adolescence, allowing us to examine age-related changes across a period in which children's peer relationships are changing dramatically, and children are developing an increasingly sophisticated understanding of their emotional, psychological, and social worlds (Berndt, 2004; Pasupathi & Wainryb, 2010b). With increasing age, children may become more focused on others as agents responsible for harm (e.g., Stein & Levine, 1989); as such, we expected youths' references to anger (relative to sadness) to increase with age. We also examined whether age moderated associations between references to discrete emotions and other relational, interpretive/evaluative, motivational, and behavioral elements of youths' accounts. Analyses examining interactions with age were largely exploratory, given the paucity of past research addressing this issue. The small body of existing scholarship led us to expect that anger would be increasingly linked to maladaptive behavioral responses with age (such as *aggression*; Kochenderfer-Ladd, 2004), and that sadness would increasingly arise in the context of *close relationships* (Berndt, 2004; Whitesell & Harter, 1996). Otherwise, interactions with age were examined in an exploratory way. Further, past research documents gender differences in the experience and narration of affectively-laden experiences (e.g., Fivush, Brotman, Buckner, & Goodman, 2000; MacEvoy & Asher, 2012). As such, although age- rather than gender-

moderated associations were the focus of our study, we also considered whether gender qualified links between emotions and other narrative elements.

Method

Participants

To examine our research questions with adequate statistical power, we combined three existing corpora of youths' narrative accounts of peer injury (henceforth referred to as S1, S2, and S3; Wainryb, 2002a, 2002b; Wainryb, Recchia & Pasupathi, 2010), for a total combined *N* of 275 participants. Details regarding narrative prompts and the demographics of each sample are presented in Table 1 (see also Wainryb, Brehl, & Matwin, 2005; Wainryb, Komolova, & Brehl, 2014; Wainryb, Recchia, Faulconbridge, & Pasupathi, 2019). Each sample included youth residing in the same mid-sized city in the Western United States. Participants were recruited via flyers distributed in schools and community organizations. Each sample included subgroups of children in early elementary school, late elementary school and mid-adolescence and each age group included equal numbers of girls and boys. Parents provided written permission for their children to participate, and the children assented to participation.

Procedure

All participants were interviewed individually by well-trained student researchers. Children provided narratives of events when they had felt hurt, upset, or angered by the words or actions of their peers. The narrative prompt varied somewhat across samples, foregrounding different emotions to varying degrees (see Table 1); furthermore, S3 included two different narrative accounts of peer injury recounted by each child, one involving a transgression that they forgave and the other that they did not forgive (order counterbalanced). To avoid issues of dependency, equal numbers of forgiveness and nonforgiveness accounts were included in

analyses (crossed with age group and gender) by randomly selecting one narrative for each participant. Across all studies, children were prompted to describe "everything you remember about that time." Interviewers encouraged participants to continue by using general prompts (e.g., "uh huh?") or repeating verbatim the last part of what the child had said (e.g., "so then she hit you?"). When children reached the end of their narratives, interviewers asked "is there anything else you remember about that time?". All narratives were audiotaped and transcribed verbatim for analysis. The total corpus of 275 transcripts of children's open-ended narratives formed the focus of this study.

Coding

Coding captured five types of narrative elements: emotions, relationship contexts, behavioral responses to harm, motivations, and interpretations/evaluations. Coding was adapted from research on children's conflict narratives (e.g., Recchia, Wainryb, & Pasupathi, 2013) and emotional reactions to peer injury (e.g., MacEvoy & Asher, 2012) and elaborated based on 10% of the narratives. As outlined in the introduction, categories were developed to test specific hypotheses based on extant literature; we also examined exploratory links between emotions and other elements that appeared prominently in children's accounts and could be considered conceptually relevant to our questions of interest.

Interrater reliability was established on 20% of the data between two coders, one of whom was blind to hypotheses. Disagreements were resolved via discussion and consensus. Overall intraclass correlations (*ICC*s) and Cohen's *kappa*s (*K*) are reported below. Categories that occurred in less than 5% of the total sample (i.e., in fewer than 14 narratives) were not analyzed (i.e., were not included as dependent variables), as specified below. Coded examples of all categories are included in the Supplementary Materials.

Emotions. Emotions were measured as frequencies (i.e., the number of times that an emotion was referenced within a narrative), to capture the extent to which different emotions were emphasized in children's accounts. Analyses focused on narrators' references to feeling *sad* and *angry* as a result of the harm (*ICC*s = .94 and .97, respectively). Following Shaver et al. (1987), anger included descriptions such as feeling mad, angry, annoyed, or irritated; sadness included descriptions of feeling sad, hurt, bad, or left out (see Table 2 for overall frequencies). Some children also referred to undifferentiated negative emotions that could not clearly be categorized as angry or sad (e.g., upset), to other negative emotions (e.g., fear, shock) or to physical pain (e.g., it really hurt my leg). These references to other emotions arose less frequently than anger or sadness (*n* = 40 narratives; 15% of the sample) and were not analyzed further.

Relationship context. Children's references to their relationship with the offender (*K* = .93) were coded into mutually exclusive categories of *acquaintances* (e.g., teammates, classmates), *friends* (individuals labeled as friends without elaboration on relationship quality), *close relationships* ("good" or "best" friends, romantic partners, or peers with whom the narrator described a close, positive, or longstanding relationship), or *unclear/unspecified*. References to *disliked peers* occurred in only 4% of narratives and were not analyzed further.

Behavioral responses to harm. The presence (1) or absence (0) of the following responses were coded (*K* for individual categories > .84): *confrontation*, including assertive responses, seeking clarification, or expressing one's point of view; *withdrawal* included removing oneself from a situation or avoiding the offender; *aggression* included physical, verbal, or relationally aggressive responses; *conciliation* included responses aimed at reconciling with

the offender, such as apologizing; and *seeking intervention* involved engaging with an adult or peer for help or support.

Motivations. The presence (1) or absence (0) of the following motivations in the aftermath of the harm were coded (*K* for individual categories > .84): *relationship maintenance,* referring to the desire to preserve the relationship, *lack of desire to maintain relationship,* which referred to motivational de-investment or devaluation, and *de-escalation*, involving a self-focused (rather than relationship-focused) desire to avoid victimization, end the dispute, or avoid negative repercussions with third parties. *Avoidance,* the desire to avoid thinking about or dealing with the issue, occurred in only 4% of narratives and was not analyzed further. *Retaliatory desires* were coded but not analyzed, since they were directly elicited by the prompt in S3 and arose primarily in that dataset.

Interpretations/evaluations. The presence (1) or absence (0) of the following interpretations/evaluations were coded (*K* for individual categories > .71): *minimizing attributions* referred to the offender's reasons for harm that mitigated blameworthiness, whereas *maximizing attributions* magnified blameworthiness; *indignation* referred to evaluative expressions of affront or exasperation; *betrayal* referred to violations of relationship expectations; *acknowledging own role* referred to how the narrator may have contributed to the problem; *powerlessness* indicated a sense of resignation, constraint, or lack of control; *confusion* expressed uncertainty about the causes of the event; and *insight* referred to gaining a new understanding of oneself, others, or relationships.

Results

Plan of Analysis

All analyses are reported using two-tailed tests with an overall alpha level of $p < .05$. Preliminary analyses examining overall associations between narrative elements and (a) narrative prompts, (b) age group, and (c) gender are presented in Tables 2 and 3 of the Supplementary Materials.

Prior to testing our main hypotheses concerning associations between emotions and narrative elements, we used an ANOVA to examine associations between age group and the frequencies of narrative references to *angry* and *sad* feelings, with type of emotion as a within-subjects factor and age group as a between-subjects factor.

Then, we conducted a series of hierarchical logistic regressions to address our main research questions concerning (a) associations between emotions and other narrative elements, as well as (b) whether age moderated these associations. The presence (1) or absence (0) of references to specific relationship contexts, behavioral responses, motivations, and interpretations/evaluations were entered as dependent variables. Based on preliminary analyses (see Supplementary Materials), the main effect of narrative prompt was entered first as a control, followed by main effects of age and gender in the second step. Frequencies of references to each emotion (angry, sad) were entered in the third step. We did not control for narrative length because elaboration on particular forms of content constituted our variability of interest. Rather, references to both emotions were entered simultaneously in regression models to examine unique associations with youths' emphasis on a *particular type* of emotion. Interactions between age and emotions were tested in the fourth step, except in instances when sparse data precluded the testing of interactions (see Tables 4 and 5 of Supplementary Materials). Chi-square tests were assessed whether main effects of emotion and interactions between age and emotion significantly improved the models. Significant interaction effects were interpreted by examining point biserial

correlations between references to an emotion and the presence of a narrative element within specific age groups (controlling for other variables in the model).

In additional analyses, we tested whether gender moderated associations between emotions and other narrative elements. This was the case for two interpretations/evaluations; sadness was associated with both *maximizing attributions* and drawing *insights* for boys, but not for girls (see Supplementary Materials for details). Neither of these findings qualified the significant associations between emotions and narrative elements described below.

How are anger and sadness related to age?

The analysis revealed only a main effect of age, F (2, 272) = 8.45, $p < .001$, $\eta^2_p = .06$; references to emotions were more frequent in the mid-adolescent group than the early elementary group (Ms = .42, .66, and .93, for the early elementary, late elementary, and mid-adolescent groups, respectively). Contrary to our hypothesis, the magnitude of the age effect did not differ significantly across anger and sadness. As anticipated, references to the two types of emotions co-occurred in 33 narratives (12%); co-occurrence of the two emotions increased with age, χ^2 (2) = 11.91, $p = .003$, $\phi = .21$ (4%, 11%, and 21% of narratives in the three age groups, respectively). In most cases, the two emotions were described as separate but co-occurring responses to the same harmful act, rather than occurring sequentially or as provoked by different actions.

How are anger and sadness related to other narrative elements? Relationship contexts.

Overall associations between emotions and relationship contexts are presented in Table 2. Each relationship category was compared to a reference group that included all other relationship types. As expected, references to *sadness* were related to harm in *close relationships*. Unexpectedly, sadness was less frequently referenced in harms involving *friends* (Table 2).

Furthermore, there were two instances in which associations between emotions and relationship contexts were moderated by age. First, there was an interaction between *age and anger* for peer injury by *friends,* χ^2 (4) step = 10.07, *p* = .04. Anger was less often described for harm by friends in mid-adolescence, as compared to the two younger age groups (*OR*s = .42 and .57, for contrasts with early and late elementary groups, respectively, *p*s < .04). Specifically, while mid-adolescents' references to anger were somewhat less frequent in conflicts involving friends (*r* = -.16, *ns*), correlations for the early and late elementary groups were slightly positive (*r*s = .15 and .11, *ns*, respectively).

Contrary to expectations, there was not an overall significant inverse association between sadness and events involving *acquaintances*. Rather, there was an interaction between *age* and *sadness* for injury by *acquaintances,* χ^2 (4) step = 12.85, *p* = .01. Sadness was less common for harm by acquaintances in mid-adolescence, compared to the late elementary group (*OR* = .35, *p* = .03). While the correlation between sadness and referencing acquaintances was slightly negative among mid-adolescents (*r* = -.11, *ns*), it was slightly positive in the late elementary group (*r* = .21, *p* = .05).

Behavioral responses. Overall associations between emotions and behavioral responses are presented in Table 2. Partially in line with expectations, youths' references to *anger* were related to *aggression*; both *anger* and *sadness* were associated with *withdrawal* and *seeking intervention*[1]. Contrary to expectations, the association between anger and confrontation was not significant. In three additional instances, associations between emotions and behavioral responses were moderated by age.

First, as expected, *age and anger* interacted with regards to the likelihood of describing an *aggressive response,* χ^2 (4) step = 10.28, *p* = .04; the contrast between late elementary and

mid-adolescence was significant ($OR = 2.38$, $p = .01$). There was a significant association between references to anger and aggression in the mid-adolescent group ($r = .43$, $p < .001$), whereas the associations in the early and late elementary groups were negligible (r = .07 and -.01, respectively).

Second, there was an interaction between *age and sadness* for the response of *confrontation*, χ^2 (4) step = 14.90, $p = .01$. The early elementary group showed a distinct pattern from the late elementary group ($OR = 7.54$, $p < .05$) and mid-adolescents ($OR = 8.52$, $p = .03$). Whereas there was a negative correlation between sadness and confrontation among the youngest children ($r = -.27$, $p = .01$), there were positive associations in the late elementary (r = .13, *ns*) and mid-adolescent groups ($r = .31$, $p < .01$).

Finally, there was an interaction between *age* and *sadness* for *conciliatory strategies* (although χ^2 (4) step = 8.46, $p = .08$). The mid-adolescents showed a distinct pattern from the late elementary group ($OR = 3.39$, $p < .05$); it was only among mid-adolescents that there was a positive association between sadness and conciliatory strategies ($r = .22$, $p = .04$), whereas there were slightly negative but nonsignificant correlations in the early and late elementary groups (*r*s = -.16 and -.15, respectively).

Motivations. Overall associations between emotions and motivations are presented in Table 3. As expected, youths' references to *sadness* were related to the *desire to maintain relationships*; interestingly, they were also associated with the *lack of desire* to do so.

Interpretations/evaluations. Overall associations between emotions and interpretations/evaluations are presented in Table 3. As expected, *anger* was associated with *maximizing attributions* and *indignation*, and sadness was related to a sense of *powerlessness*. Partially in line with expectations, both *anger* and *sadness* were linked to a sense of *betrayal*[1].

Sadness was also associated with *confusion*. Contrary to expectations, overall, sadness was not significantly associated with drawing *insights,* although this predicted association did emerge for boys (see Supplementary Materials). There was also an interaction between age and anger in predicting *powerlessness,* χ^2 (4) step = 11.11, p = .03. The association differed between the early elementary children and mid-adolescents (*OR* = .37, p = .02). There was a positive correlation between anger and powerlessness in the early elementary group (r = .33, p < .01) whereas the correlation was negligible in mid-adolescence (r = -.06, *ns*).

Discussion

This study examined how anger and sadness were linked to chilidren's unique ways of making sense of their experiences of being harmed. We had expected that references to anger would increase selectively with age, but this hypothesis was not supported. Rather, with age, children referred more to both anger and sadness, which is consistent with narrative research suggesting that older children increasingly describe psychological and emotional dimensions of experiences (Pasupathi & Wainryb, 2010b). More interestingly, and as expected, children's narrative references to anger and sadness were uniquely linked to harm in different relationships, to different motivations and interpretations/evaluations, and to different behavioral responses (see Figure 1 for a summary). Some of these associations were in line with expected patterns, and others suggested intriguing avenues for future research. Furthermore, in some cases, the links between these emotions and other elements of children's accounts varied across age groups, suggesting age-related changes in children's constructions of meanings about anger and sadness as a result of being harmed by their peers.

Accounts of Anger in Response to Peer Injury

Consider the following narrative, recounted by Laura in the early elementary group in S1

(names are pseudonyms, and narratives are edited for length where indicated):

Out on the playground, this girl […] was teasing me […] I couldn't skip bars and now I can, but I used to not be able to, and she was teasing me because she could and she kept on doing it and she's like, "Too bad you can't do this." And you know, I sort of, I got really mad, but I knew I couldn't really do anything about it. […] I'd seen her done it to other kids too. And so, it got me mad and she, and she kept on doing it and so I went in, told my teacher about it and she told Mrs. Simpson or Mrs. Parker or whoever, and they told her. But it made me mad, it made me want to like beat her up, 'cause I've got in that position a lot of times […] I got hurt, actually, when I fell. Then she teased me about that. She's like, "Too bad you got hurt," or something that made me mad. […] And so now I'm always mad at her. […] She just seems to be mean to everyone. But nice to some people, like nice to her friends, but mean to other people. And that's what makes me mad too, because it's like . . . be nice to rich people and not be nice to poor people, just because there's a difference. So, that made me mad […]

Laura's anger is palpable throughout her narrative, and her account illustrates many of

the significant patterns in our findings. Her *attributions* maximize the offender's

blameworthiness; her *indignation* concerning the offender's preferential treatment of some

classmates is also evident. These patterns are consistent with research suggesting that anger often

occurs in the context of an agent's intentional harm and implies moral judgment (Habermas et

al., 2009; Stein & Levine, 1989). Laura's narrative is also consistent with the finding that youth

seek intervention from others when angry, in this case for an adult to stop the behavior. Theories

of anger suggest that it is linked to attempts to rectify a problem (Stein & Levine, 1989), and

seeking help and support from others might be one way to do so, while also providing validation

in the face of feeling wronged. It is perhaps for this reason that seeking intervention was also

independently (but unexpectedly) linked to sadness, since it might be jointly used for problem-

solving and support-seeking. It would be useful for future research to directly consider youths'

varying goals for seeking the intervention of others in the aftermath of peer injury, as a way of

capturing the emotional and instrumental needs that they are aiming to fulfill.

Other links to anger were moderated by age. As in Laura's account, younger children were more likely to describe a sense of *powerlessness* in conjunction with anger (e.g., "I couldn't really do anything about it"), such that there was a positive association between these narrative elements only in the early elementary group. In contrast, older children reported engaging in more *aggressive responses* in this context, with a positive association between aggression and anger evident only in the mid-adolescent group. These findings may hinge on age-related shifts in children's experiences of anger, provocation, and aggression. Specifically, children's accounts of anger are increasingly differentiated from those of sadness with respect to agentivity (Bamberg, 2001); more broadly, with increasing age, children develop more robust understandings of their own and others' agency in the context of harm (Pasupathi & Wainryb, 2010b), and become more sensitive to peer evaluation (Somerville, 2013). Therefore, younger children's responses to provocation may be less emotionally intense and that they might be accordingly less motivated to respond overtly. Alternatively, they may also be less easily able to identify how their responses to anger are guided by their sense of being treated unjustly by an intentional agent. Indeed, older children increasingly refer to others' deservingness as an explanation for their decisions to respond in retributive ways (Smith & Warneken, 2016). As such, although children's overall rates of aggressive behavior decline with age, in the specific context of being deeply hurt by a peer, it is plausible that anger and aggression may become more closely linked across development. This finding is also consistent with the age-related pattern observed in existing scholarship (Kochenderfer-Ladd, 2004).

Despite the observed link between anger and aggression, it is crucial to note that aggression was described relatively infrequently across all age groups. Scholars of emotion have taken pains to underscore that anger does not necessarily lead to aggression (Averill, 1983).

Relatedly, functionalist theories underline that anger can serve an adaptive purpose, and research with adults highlights the psychological and social value of experiencing and expressing moderate levels of anger (e.g., Tafrate, Kassinove, & Dundin, 2002). Thus, it may be important to more fully explore how children's experiences of anger can be developmentally meaningful. For instance, as Laura's account demonstrates, children's anger may signal to them that injustice has occurred and spur them to right a wrong.

Beyond the patterns illustrated in Laura's narrative, we observed an unexpected association between anger and *withdrawal*. This implies that the motivations underlying children's tendency to withdraw from conflict with others may be complex – in some cases, withdrawal may be more akin to "storming off" than to escape (e.g., "I went outside and just wouldn't talk to him"), and might sometimes even be driven by retaliatory motives (e.g., "I stopped playing with him for a while… that was my way of getting back at him").

Anger was also less often described in conflicts with *friends* by mid-adolescence (with the direction of the association shifting from slightly positive to negative, although none of the correlations was significantly different from 0). In part, this interaction effect may reflect children's evolving conceptions and experiences of friendship. Younger children may describe many playmates as friends, whereas older children's friendships become increasingly selective and based on trust (Berndt, 2004). As such, younger children's conflicts with friends may center more around situations involving thwarted goals or obnoxious behavior in shared play, particularly leading to anger. Children may also become increasingly skillful at navigating interactions with friends, thus leadings to fewer angry reactions with age. In contrast, as elaborated in the next section, transgressions by friends (especially close friends) among older

youth may more often involve broader violations of relationship expectations that instead evoke hurt feelings.

Accounts of Sadness in Response to Peer Injury

Alongside anger, children often described sadness in the aftermath of transgressions from peers. Consider the following account from Natalie in the mid-adolescent group in S1:

I've had this best friend since 7th grade. […] *I've always liked him, like a lot. And I found out that he liked me in freshman year. Then he didn't like me and... we stayed friends between this. And Sophomore year he went out with [Robyn] and that hurt me really bad.* […] *And he didn't talk to me or look at me or anything through that whole time. And afterwards, he called me, like a week after they broke up* […] *so I would console him or whatever - and of course I did. And so then we started becoming best friends again. Then in the summer, he told me that he didn't like me and... 'cause I liked him. And he told me that he didn't like me, and it devastated me. I was hurt so bad. And I...like I've been through this so many times. I was like, "I swear I'm never going to be your friend again." And so I was just so devastated that* [...] *I didn't know what else I could do.* […] *When he just stopped talking to me and stuff, it just hurt me so much.* […] *And then when he just started talking to me I was like, "What am I? I'm just here for your disposal. Like when you need me you can have me, and when you don't, you just brush me off."* [...] *I know it works that way but still, a part of me needs him. And so when he did call me after Robyn, and I was like, "Oh yay. He's confiding everything in me." And I was happy -- but then like every time, he just lets me down. And I just get hurt so bad. And even to this day we're friends. And I don't even know if it's the best relationship that we have, and I told him this before. Like, it's all me. I'm the one who puts everything into this relationship.*

A prominent feature of Natalie's account is the importance of this relationship. She describes a history of repeated harms, juxtaposed against her dedication to her friend, in part due to her (mostly unrequited) romantic interest. In this context, her narrative illustrates a number of observed associations with children's references to sadness. First, as expected, these emotions occurred more in *close relationships.* We had anticipated that sadness would be less prominent in the context of harms involving acquaintances, but perhaps due to their greater frequency in the dataset, we instead observed that sadness was inversely associated with harms in *friendships* that were not labelled as intimate/enduring. Relatedly, as expected, sadness was linked to motivations involving the *desire to maintain relationships* ("A part of me still needs him"); interestingly, it

was also related to the *absence of such desires* ("I swear I'm never going to be your friend again"). Although these two elements might seem at face value to be incompatible, Natalie's account demonstrates how they can be juxtaposed within the same experience. This latter association may be explained by the observed link between sadness and the interpretation of *relationship betrayal, which* is also painfully salient in Natalie's account, as her friend repeatedly fails to reciprocate her level of caring and commitment ("Every time he lets me down… what am I? here for your disposal?"). Not surprisingly then, she expresses *confusion* or uncertainty about the relationship ("I don't even know if it's the best relationship we have"). Taken together, all of these patterns are consistent with research suggesting that transgressions implying devaluation of important relationships evoke feelings of hurt and sadness, inasmuch as they pose challenges to youths' views of themselves and their relationships (Leary et al., 1998; Whitesell & Harter, 1996).

Functionalist theories of emotion suggest that sadness is associated with the belief that a loss cannot be overcome (Stein & Levine, 1989), and other research with adults suggests that the experience of diminished control is closely related to feeling hurt (Vangelisti, 2007). As expected based on these patterns, children's references to sadness were linked to a sense of *powerlessness*. Relatedly, and also as expected, descriptions of sadness were linked to *withdrawal*; in contrast to withdrawal in the context of anger, we speculate that the quality of withdrawal associated with sadness might be different, such that it may more directly imply the desire to retreat or escape ("I just went and hung out in the bathroom most of the recess"; "I hid behind a car").

With regards to the moderating role of age, *confrontation* was more positively linked to sadness among late elementary children and mid-adolescents, as compared to children in the

early elementary group. Relatedly, it was only among mid-adolescents that sadness was associated positively to *conciliatory* strategies to repair relationships. Further, by mid-adolescence, sadness was less likely to occur in conflicts with *acquaintances,* as compared to the late elementary years. Taken together, these patterns suggest that older children may be more relationally-focused in their experiences of sadness, as they consider active ways to mend serious breaches in important relationships (Berndt, 2004; Whitesell & Harter, 1996).

Limitations and Conclusions

By conducting secondary analyses of existing cross-sectional datasets, we were able to examine our effects of interest across a wide range of experiences of peer injury. Nevertheless, some of the narrative elements examined in this study occurred in relatively few accounts, thus leading to sparseness in some cells. The narrative prompts used across samples also varied in their likelihood of eliciting particular elements. As such, some interaction effects could not be tested or were tested with limited power, and the observed patterns should be replicated, especially vis-à-vis age-related changes in associations between emotion and other dimensions of youths' accounts. Related to this, it may be useful to complement this work with interview and questionnaire-based methodologies that could further examine connections between emotions and some behaviors, motivations, and interpretations/evaluations that were documented in youths' accounts but arose relatively infrequently. Additionally, findings were based on a homogeneous sample of middle class children and adolescents of largely European-American descent. Since children's experiences and responses to emotion are culturally variable (e.g., Cole, Bruschi, & Tamang, 2002), it will be important to examine how these patterns might differ among youth from other cultural backgrounds. Finally, although overall gender-related patterns in our study are consistent with past work (e.g., girls elaborated more on sadness than boys;

Fivush et al., 2000; see Supplementary Materials), gender did not typically moderate associations between emotions and other elements in children's narrative accounts. This is not to say that our data imply that emotional responses are not gendered, as our study did not focus on these differences and they may not have been entirely captured by our coding. For example, women report exerting more control over anger than men, and also use distraction more often as a coping strategy in dealing with anger (e.g., Brody & Hall, 2008). Thus, it may be useful to conduct additional research that aims to directly elucidate gendered responses to specific emotions in the aftermath of peer injury.

Although chronic experiences of peer victimization can exert a highly negative impact on children's social and psychological well-being (Juvonen & Graham, 2014), all children will sometimes experience feelings of anger, irritation, sadness, or hurt in light of the actions of their peers, playmates, and friends. Our data underscore that the construction of narratives surrounding these occasional experiences of peer injury can provide children with opportunities for social and moral learning about themselves (what kinds of things make me angry?), others (why do people sometimes do things that hurt me?), and relationships (how ought friends to treat one another?). Nevertheless, our study also reveals that the lessons that children learn from these situations are not uniform. Our findings suggest meaningful distinctions between children's experiences of anger and sadness that underline the heterogeneity of children's emotional reactions to being harmed by their peers, in ways that are intertwined with their interpretations and desires in particular relational and situational contexts. Furthermore, our results illuminate how children's and adolescents' narrative descriptions of their emotional reactions to being harmed are connected to their evolving understandings of their own and others' responsibility for and contributions to conflict, as well as developments in the intimacy and emotional significance

of their peer relationships. That is, experiences of both anger and sadness each became more agentic by mid-adolescence (vis-à-vis emerging associations with aggression rather than powerlessness in the case of anger, and confrontation in the case of sadness); in turn, experiences of sadness became less likely to occur in the context of harms by acquaintances, and were more closely linked to attempts at reconciliation with the offender. These results have implications for our understanding of the varied ways in which children's construction of meanings about their emotional experiences of peer injury might both reflect and contribute to their development and relationships.

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Table 1

Demographics Information and Narrative Prompts for Each Set of Youths' Narrative Accounts

	Period of Data Collection	Early Elementary	Late Elementary	Mid-Adolescence	Racial/Ethnic Background	Narrative Prompt
S1	2001-2002	*n* = 28 (14 girls); *M* age = 6.9 years (range = 6.3 - 7.4)	*n* = 28 (14 girls); *M* age = 10.9 years (range = 10.4 – 11.6)	*n* = 28 (14 girls); *M* age = 16.2 years (range = 15.4 – 17.3)	71% non-Hispanic White, 18% Hispanic, 4% Asian, 3% African American, 2% American Indian.	"A time when a child you know well, like a friend, did or said something and you felt hurt by it."
S2	2002	*n* = 28 (14 girls); *M* age = 7.5 years (range = 6.7 – 8.4)	*n* = 28 (14 girls); *M* age = 11.8 years (range = 10.7 - 12.5)	*n* = 28 (14 girls); *M* age = 16.8 years (range = 15.4 – 18.0)	74% non-Hispanic White; 4% Hispanic, 11% Asian, 11% other/mixed ethnicity.	"A time when a group of kids were doing something together and you wanted to join in, but they didn't let you join in and you got left out."
S3	2009-2011	*n* = 35 (18 girls); *M* age = 7.4 years (range = 6.4 – 8.5)	*n* = 37 (17 girls); *M* age = 11.5 years (range = 10.6 – 12.5)	*n* = 35 (17 girls); *M* age = 16.4 years (range = 15.3 - 17.9)	No individual information available due to school guidelines.	"A time when a friend or a kid you know well did or said something to you and it made you feel very hurt and angry. And you were so angry you wanted to get back at them" …[but you ended up forgiving them; *n* = 53] or [and you ended up not forgiving them; *n* =54].

Table 2

Associations Between Emotions and References to Relationship Contexts and Behavioral Responses in Youths' Narrative Accounts

Dichotomous dependent variables	χ^2 (2) step	Odds ratio for link to anger [95% CI]	Odds ratio for link to sadness [95% CI]
Relationship Contexts			
Acquaintances	.48	.92 [.72-1.18]	1.03 [.79-1.33]
Friends	6.05*	1.01 [.83-1.24]	.74 [.58-.96]*
Close Relationships	14.49**	1.12 [.86-1.46]	1.70 [1.25-2.32]**
Behavioral Responses			
Confrontation	3.27	1.03 [.82-1.32]	1.26 [.97-1.63]
Withdrawal	12.38**	1.41 [1.13-1.78]**	1.27 [1.01-1.61]*
Aggression	7.36*	1.40 [1.09-1.80]**	1.18 [.88-1.57]
Conciliation	.47	1.10 [.83-1.46]	1.04 [.73-1.48]
Seeking Intervention	8.15*	1.36 [1.05-1.76]*	1.31 [1.01-1.71]*

Note. * $p < .05$ ** $p < .01$. Diffeerent behavioral responses could co-occur within the same narrative. Effects for anger and sadness are based on logistic regression analyses which control for the main effects of narrative prompt, gender, and age group.

Table 3

Associations between Emotions and References to Motivations and Interpretations/Evaluations in Youths' Narrative Accounts

Dichotomous dependent variables	χ^2 (2) step	Odds ratio for link to anger [95% CI]	Odds ratio for link to sadness [95% CI]
Motivations			
Relationship Maintenance	7.78*	.86 [.54-1.38]	1.58 [1.13-2.21]**
Lack of Desire to Maintain Relationship	8.44*	1.16 [.85-1.58]	1.53 [1.10-2.13]*
De-escalation	.66	1.13 [.83-1.56]	.94 [.62-1.42]
Interpretations/Evaluations			
Minimizing Attributions	.77	.98 [.75-1.27]	.88 [.64-1.20]
Maximizing Attributions	8.43*	1.37 [1.09-1.73]**	1.11 [.88-1.40]
Indignation	11.95**	1.50 [1.18-1.89]***	1.14 [.88-1.47]
Betrayal	15.33***	1.33 [1.01-1.75]*	1.75 [1.22-2.50]**
Acknowledging Own Role	.26	1.03 [.74-1.43]	.90 [.58-1.40]
Powerlessness	9.05*	1.29 [.95-1.75]	1.45 [1.09-1.92]*
Confusion	7.63*	1.22 [.93-1.59]	1.41 [1.07-1.87]*
Insight	2.99	1.18 [.89-1.56]	1.20 [.92-1.57]

Note. *p < .05 **p < .01 ***p < .001. Different motivations and interpretations/evaluations could co-occur within the same narrative. Effects for anger and sadness are based on logistic regression analyses which control for the main effects of narrative prompt, gender, and age group.

(Figure 1 included in a separate document)

Figure 1. Summary of significant associations between emotions and other narrative elements. + and – denote positive or negative associations. Brackets indicate emotion x age interactions; > and < denote differences in associations with emotion across age groups; Abbreviations indicate early elementary (EE), late elementary (LE), and mid-adolescent (MA) groups.

Associations with Anger

+ Aggression [MA > LE]
+ Indignation
+ Maximizing attributions

[Friends: EE, LE > MA]
[Powerlessness: EE > MA]

Associations with both Anger and Sadness

+ Withdrawal
+ Seeking intervention
+ Betrayal

Associations with Sadness

- Friends
+ Close relationships
+ Relationship maintenance
+ Lack of desire to maintain relationships
+ Powerlessness
+ Confusion

[Acquaintances: LE > MA]
[Confrontation: MA, LE > EE]
[Conciliation: MA > LE]

Footnote

[1]Three narrative elements were uniquely associated with both anger and sadness. Since these two emotions sometimes co-occurred, we examined whether anger and sadness interacted in their association with these elements. None of these interaction effects was significant, suggesting that the combination of anger and sadness was not uniquely associated with the presence/absence of other elements.

Supplementary Table 1

Examples of Coding Categories and Interrater Reliabilities for Individual Codes

	Example	Interrater Reliability (ICC for emotions, Cohen's Kappa for other elements)
Emotions[1]		
Anger	Mad, annoyed, irritated, frustrated	.97
Sad/hurt Feelings	Hurt, sad, bad, left out	.94
Relationship Contexts		.93
Acquaintances	Classmate, teammate, neighbour	
Friends	Friend	
Close Relationships	Best friend, close friend, enduring friendship, romantic relationship	
Disliked Peers	"we don't get along"; "he was a real bad bully"	
Behavioral Responses		
Confrontation	"I told her to stop it"	.94
Withdrawal	"I kind of wandered away"	.91
Aggression	"I spread a rumor about her"	.90
Conciliation	"I said 'I'm sorry, I shouldn't have done that'"	.91
Seeking Intervention	"I went and told the person who supervises at recess"	.84
Motivations		
Avoidance	"I just didn't want to be involved with any of it"	1.0
Retaliation	"from then on, I wanted to get back at him"	1.0
Relationship Maintenance	"I was like, [name] is one of my best friends, I can't do this"	1.0
Lack of Desire to Maintain Relationship	"I just don't like her anymore"	.84
De-escalation	"I didn't want to start a problem"	.91
Interpretations/ Evaluations		
Minimizing Attributions	"he wouldn't try to purposely hurt me"	.76
Maximizing Attributions	"they just felt like being rude to me"	.79
Indignation	"what right does he have to insult my artwork when he's not even trying?"	.86
Betrayal	"it hurt, because you can't really just bust a friendship like that"	.82
Acknowledging Own Role	"I just annoyed him a little too much"	.71
Powerlessness	"I knew I couldn't do anything about it"	1.0
Confusion	"I'm like 'I don't really know what's going on'"	.78
Insight	"then I figured out, you know, sometimes we have to be alone"	1.0

[1] Emotion coding included only references to emotions themselves; behaviors indirectly suggesting emotion (e.g., crying) were not included in this category.

Supplementary Table 2

Associations between Narrative Prompt, Gender, Age Group, and Elaboration and Emotion References in Youths' Narratives

	Narrative Prompt				Gender		Age Group		
	S1	S2	S3-forgiveness	S3-nonforgiveness	Female	Male	Early Elementary	Late Elementary	Mid-Adolescence
	M (SE)	*M* (SE)	*M* (SE)	*M* (SE)	*M* (SE)	*M* (SE)	*M* (SE)	*M* (SE)	*M* (SE)
Narrative Length (words)	268.38 (23.78)	202.82 (23.78)[a]	310.26 (30.02)[b]	346.69 (29.72)[b]	323.15 (19.25)[a]	240.93 (18.93)[b]	158.36 (23.50)[a]	279.54 (23.14)[b]	408.22 (23.50)[c]
Emotions (number of references)									
Anger	.50 (.13)[a]	.24 (.13)[a]	1.17 (.17)[b]	1.17 (.17)[b]	.70 (.11)	.66 (.11)	.36 (.13)[a]	.72 (.13)	.96 (.13)[b]
Sad/hurt	1.01 (.13)[a]	.61 (.13)	.55 (.16)	.30 (.16)[b]	.96 (.10)[a]	.36 (.10)[b]	.47 (.13)[a]	.59 (.13)	.91 (.13)[b]

Note. Dissimilar alphabetic superscripts indicate significant pairwise differences as a function of narrative prompt, gender, or age group at *p* < .05 (two-tailed) with a Bonferroni correction.

Supplementary Table 3

Associations between Narrative Prompt, Gender, Age Group, and Youths' References to Relationship Contexts, Behavioral

Responses, Motivations and Interpretations/Evaluations

	Narrative Prompt				Gender		Age Group		
	S1	S2	S3-forgiveness	S3-nonforgiveness	Female	Male	Early Elementary	Late Elementary	Mid-Adolescence
Relationship Contexts									
Acquaintances	17 (20%)	25 (30%)	15 (28%)	20 (37%)	37 (27%)	40 (29%)	27 (30%)	33 (36%)+	17 (19%)-
Friends	42 (50%)	32 (38%)	21 (40%)	22 (41%)	56 (41%)	61 (44%)	42 (46%)	35 (38%)	40 (44%)
Close Relationships	15 (18%)	9 (11%)	14 (26%)	9 (17%)	30 (22%)+	17 (12%)-	6 (7%)-	13 (14%)	28 (31%)+
Behavioral Responses									
Confrontation	22 (26%)	5 (6%)-	19 (36%)+	16 (30%)	43 (32%)+	19 (14%)-	12 (13%)-	22 (24%)	28 (31%)+
Withdrawal	20 (24%)	22 (26%)	11 (21%)	7 (13%)	30 (22%)	30 (22%)	21 (23%)	23 (25%)	16 (18%)
Aggression	15 (18%)+	2 (2%)-	3 (6%)	11 (20%)+	12 (9%)	19 (14%)	6 (7%)	11 (12%)	14 (15%)
Conciliation	7 (8%)	3 (4%)-	13 (25%)+	6 (11%)	20 (15%)+	9 (7%)-	12 (13%)	11 (12%)	6 (7%)
Seeking Intervention	13 (16%)	7 (8%)	6 (11%)	4 (7%)	20 (15%)+	10 (7%)-	13 (14%)	10 (11%)	7 (8%)
Motivations									
Relationship Maintenance	3 (4%)	3 (4%)	7 (13%)+	1 (2%)	11 (8%)+	3 (2%)-	2 (2%)	3 (3%)	9 (10%)+
Lack of Desire to Maintain Relationship	10 (12%)	3 (4%)	5 (9%)	9 (17%)	17 (13%)	10 (7%)	4 (4%)-	3 (3%)-	20 (22%)+
De-escalation	7 (8%)	2 (2%)	5 (9%)	3 (6%)	10 (7%)	7 (5%)	3 (3%)	7 (8%)	7 (8%)
Interpretations/ Evaluations									
Minimizing Attributions	11 (13%)	9 (11%)	17 (32%)+	8 (15%)	28 (21%)	17 (12%)	10 (11%)	14 (15%)	21 (23%)
Maximizing Attributions	27 (32%)	27 (32%)	7 (13%)	14 (26%)	38 (28%)	37 (27%)	12 (13%)-	27 (29%)	36 (40%)+
Indignation	14 (17%)	7 (8%)-	9 (17%)	17 (32%)+	27 (20%)	20 (14%)	5 (6%)-	15 (16%)	27 (30%)+

Betrayal	17 (20%)	13 (16%)	6 (11%)	5 (9%)	25 (18%)	16 (12%)	2 (2%)-	8 (9%)-	31 (34%)+
Acknowledging Own Role	6 (7%)	9 (11%)	7 (13%)	2 (4%)	10 (7%)	14 (10%)	2 (2%)-	12 (13%)	10 (11%)
Powerlessness	7 (8%)	17 (20%)+	3 (6%)	2 (4%)	17 (13%)	12 (9%)	5 (6%)	6 (7%)	18 (20%)+
Confusion	10 (12%)	5 (6%)	7 (13%)	7 (13%)	14 (10%)	15 (11%)	4 (4%)-	11 (12%)	14 (15%)
Insight	9 (11%)	8 (10%)	9 (17%)	6 (11%)	19 (14%)	13 (9%)	1 (1%)-	9 (10%)	22 (24%)+

Note. When a χ^2 indicated a significant omnibus association between variables, superscripts denote when observed frequencies were either significantly greater than (+) or less than (-) expected frequencies, based on adjusted standardized residuals ($p < .05$, two-tailed). Different behavioral responses, motivations, and interpretations/evaluations could co-occur within the same narrative.

Supplementary Table 4

Interactions between Age Group and Emotion in Predicting References to Relationship Contexts and Behavioral Responses in Youths'

Narrative Accounts

Dichotomous dependent variables	χ^2 (4) step	Anger x Late Elementary Group OR [95% CI]	Anger x Mid-Adolescent Group OR [95% CI]	Sadness x Late Elementary Group OR [95% CI]	Sadness x Mid-Adolescent Group OR [95% CI]
Relationship Contexts					
Acquaintances	12.85**	3.73 [.88-15.87]	3.46 [.80-14.94]	1.33 [.66-2.66]	.46 [.17-1.26]
Friends	10.07*	.74 [.38-1.44]	.42 [.21-.84]*	.84 [.42-1.68]	.72 [.38-1.36]
Close Relationships	3.71	--	--	.74 [.30-1.80]	1.56 [.61-3.98]
Behavioral Responses					
Confrontation	14.90**	2.49 [.59-10.59]	2.77 [.65-11.84]	7.54 [1.04-54.52]*	8.52 [1.18-61.37]*
Withdrawal	5.83	1.35 [.74-2.46]	1.88 [.99-3.57]	1.45 [.70-2.98]	1.11 [.59-2.07]
Aggression	10.28*	.81 [.39-1.68]	1.93 [.91-4.09]	.61 [.15-2.44]	1.30 [.49-3.46]
Conciliation	8.46	.94 [.46-1.93]	1.33 [.66-2.66]	.70 [1.58-3.12]	2.37 [.86-6.51]
Seeking Intervention	2.73	.87 [.45-1.68]	.59 [.27-1.30]	1.30 [.56-2.99]	1.14 [.57-2.29]

Note. * $p < .05$ ** $p < .01$. Different behavioral responses could co-occur within the same narrative. Interactions between emotion and age are based on the fourth step of logistic regression analyses which control for the main effects of narrative prompt in the first step, gender and age group in the second step, and emotion frequencies in the third step. Values are not reported in cases when sparseness precluded the testing of interaction effects. Odds ratios in the table above are reported with the early elementary group used as the reference category for age. In other words, these findings are based on comparisons between the early elementary group and the two older groups. When the overall x^2 step was significant, distinctions between the late elementary and mid-adolescent groups were also tested. We did so by switching the reference category from the early elementary group to the late elementary group. When significant pairwise differences between the late elementary and mid-adolescent group emerged, they are reported in the text.

Supplementary Table 5

Interactions between Age Group and Emotion in Predicting References to Relationship Contexts and Behavioral Responses in Youths'

Narrative Accounts

Dichotomous dependent variables	χ^2 (4) step	Odds ratio for Anger x Late Elementary Group [95% CI]	Odds ratio for Anger x Mid-Adolescent Group [95% CI]	Odds ratio for Sadness x Late Elementary Group [95% CI]	Odds ratio for Sadness x Mid-Adolescent Group [95% CI]
Motivations					
Relationship Maintenance	1.74	--	--	.40 [.09-1.79]	.50 [.16-1.55]
Lack of Desire to Maintain Relationship	7.15	3.32 [.55-20.19]	1.45 [.27-7.92]	.58 [.09-3.86]	1.05 [.42-2.65]
De-escalation	--	--	--	--	--
Interpretations/ Evaluations					
Minimizing Attributions	2.47	1.54 [.51-4.66]	1.52 [.52-4.47]	.70 [.21-2.33]	1.19 [.50-2.88]
Maximizing Attributions	2.58	.94 [.52-1.68]	.88 [.50-1.55]	.58 [.28-1.22]	.61 [.32-1.15]
Indignation	2.83	.90 [.48-1.67]	1.07 [.57-2.02]	1.04 [.39-2.75]	.69 [.29-1.66]
Betrayal	3.32	1.14 [.37-3.52]	.96 [.32-2.87]	.44 [.12-1.58]	.79 [.23-2.76]
Acknowledging Own Role	--	--	--	--	--
Powerlessness	11.11*	.76 [.38-1.54]	.37 [.17-.82]*	.34 [.09-1.21]	.65 [.27-1.59]
Confusion	1.03	1.21 [.49-3.03]	1.00 [.40-2.49]	.72 [.25-2.06]	.84 [.35-2.04]
Insight	--	--	--	--	--

Note. * $p < .05$ ** $p < .01$. Different motivations and interpretations/evaluations could co-occur within the same narrative. Interactions between emotion and age are based on the fourth step of logistic regression analyses which control for the main effects of narrative prompt in the first step, gender and age group in the second step, and emotion frequencies in the third step. Values are not reported in cases when sparseness precluded the testing of interaction effects. Odds ratios in the table above are reported with the early elementary group used as the reference category for age. In other words, these findings are based on comparisons between the early elementary group and the two older groups. When the overall x^2 step was significant, distinctions between the late elementary and mid-adolescent groups were also tested. We did so by switching the reference category from the early elementary group to the late

elementary group. When significant pairwise differences between the late elementary and mid-adolescent group emerged, they are reported in the text.

Supplementary Analyses of Gender as a Moderator of Associations between References to Emotion and Other Narrative Elements

To test the role of gender in moderating associations between youths' references to emotion and other aspects of their narrative accounts, additional hierarchical logistic regression models were run. As with analyses reported in the main text, the main effects of narrative prompt were entered first, followed by age and gender in the second step, with frequencies of the two emotions (angry, sad) entered in the third step. Interactions between gender and emotions were tested in the fourth step. Girls were used as the reference group for analyses. The presence (1) or absence (0) of references to specific relationship contexts, behavioral responses, motivations, and interpretations/evaluations were entered as dependent variables. Chi-square tests were used to assess whether interactions between gender and emotion significantly improved the models. Significant interaction effects were interpreted by examining point biserial correlations between references to a given emotion and the presence of a narrative element within each gender (controlling for the other variables in the regression model).

Relationship contexts. Gender did not significantly moderate any associations between references to emotions and relationship contexts.

Behavioral responses. Gender did not significantly moderate any associations between references to emotions and behavioral responses.

Motivations. Gender did not significantly moderate any associations between references to emotions and motivations.

Interpretations/evaluations. Gender moderated associations between references to emotions and interpretations/evaluations in two instances. First, gender moderated the association between references to *sadness* and the presence of *maximizing attributions* in youths'

narratives, $OR = 1.93$, $CI = 1.01\text{-}3.72$, $p < .05$, although χ^2 (2) step $= 5.03$, $p = .08$. Specifically,

these two variables were positively associated for boys ($r = .18$, $p = .04$) but not for girls ($r = .02$,

ns).

Second, gender moderated the association between references to sadness and the

tendency to draw *insights*, $OR = 2.49$, $CI = 1.05\text{-}5.89$, $p = .04$, although χ^2 (2) step $= 5.51$, $p =$

.06. Specifically, sadness was associated with the tendency to draw insights for boys ($r = .20$, $p =$

.02) but not for girls ($r = .10$, *ns*).