Research Reports

Romanian Children’s Representations of Negative and Self-Conscious Emotions in a Narrative Story Stem Technique

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Abstract

This research uses children’s story-stem play narratives to investigate dimensions of negative emotional expression. Fifty-one Romanian children between 6 and 11-years old participated in the study. Children’s narratives were coded for three basic negative emotions and five self-conscious emotions. Parents completed a general questionnaire for demographic data and the amount of time they spent with their children. Differences were found for frequencies of negative emotional representations in relation to the specific story-stems in which they occurred. Girls were more likely than boys to enact in their narratives guilt feelings coupled with apology following some wrongdoing. Children who spent more time with parents enacted significantly less anger and fear. Simultaneous expressions of multiple negative emotions were observed in the narrative responses of these middle childhood-aged Romanian children. While findings should be viewed with caution, owing to the small and homogeneous sample, new directions for future research with this assessment method are indicated.

Keywords: story stems, representations, negative emotions, self-conscious emotions, middle-childhood

Young children’s experience and expression of specific negative emotions have been a growing focus in the developmental psychological literature. By negative emotions, we refer to emotional responses to unpleasant circumstances, including the specific emotions of anger, disgust, guilt, fear, sadness, and shame (Colombetti, 2005). A specialized sub-set of this literature is the study of how children represent emotional experience through creative expression in various forms such as the stories they tell. Young children’s developing capacities for the representation of experience provide researchers with opportunities for understanding complex phenomena that would otherwise be very difficult for children to communicate directly. Studies have linked children’s representations of negative emotions to physiological and behavioral indicators (e.g., Kochanska, 2001; Wan & Green, 2010), patterns of language usage (e.g., Melzi & Fernández, 2004), and parenting (e.g., Lagacé-Séguin & d’Entremont, 2006). Many characteristics of children’s representations of negative emotions have also been studied. Within this literature, associations between children’s verbalized representations of negative emotions and attachment security and their emotional understanding have been the most studied (Fivush & Wang, 2005). Taken together, the existing
evidence supports the contention that children’s representations of negative emotionality as expressed in relationship contexts can be reliably assessed.

Basic Negative Emotions

Paul Ekman, one of the most influential researchers in the field of emotional facial expression and the theory of basic negative emotions, has identified three specific negative emotions, also called primary aversive emotions, anger, fear, and sadness (Ekman, 1992, 1999). These are expressed universally in all humans via facial expressions, regardless of race, culture, sex, ethnicity, or national origin (Ekman, 2003). For this reason, they are known as basic negative emotions (Johnson-Laird & Oatley, 1989). Basic negative emotions appear within the first nine months of life (Campos, Barrett, Lamb, Goldsmith, & Stenberg, 1983). They have a significant role in children’s social development (Izard, 1992) in that understanding their expression is always dependent on the social relational contexts in which they occur. As reactions to disagreeable circumstances, the basic negative emotions also stimulate preparation for action to improve such circumstances (Rutherford, Chattha, & Krysko, 2008).

Self-Conscious Emotions

In addition to the basic negative emotions, children develop self-conscious emotions (Lewis, 1994) as they move into the pre-school years. Self-conscious emotions emerge from how children evaluate their actions in connection to social norms or how they think others will evaluate their actions. Thus, self-conscious emotions are a unique class of emotions because they involve more complex perceptions of motivation and appraisal (Bretherton, Fritz, Zahn-Waxler, & Ridgeway, 1986). Lewis (1994) identifies the specific self-conscious emotions of shame and guilt. Whereas basic negative emotions occur when children react more directly to external circumstances (Russell & McAuley, 1986), self-conscious emotions occur when children evaluate themselves in relation to some perceived normative social standard (Lewis, 2000).

The expression of negative and self-conscious emotions at extreme levels may be indicators of persistent problems with emotion regulation which could be associated with deleterious effects on a child’s development. In simple terms, emotional and/or behavioral problems corresponding to these dimensions have long been associated in the developmental literature with externalizing and internalizing problems (Achenbach & Edelbrock, 1981). The fact that a child may express these emotions, however, should not be equated with simply good or bad. Children’s capacities to express a range of emotions, especially those associated with disturbing experiences, are a hallmark of good mental health, as long as this does not overwhelm the child or reflect persistent problems in emotion regulation (Boris & Page, 2012). Concern should arise, therefore, when extreme levels of negative and self-conscious emotions are observed. Children appear to learn to modulate and regulate emotional expression in their early caregiving relationships (Kopp, 1982). Long-standing dysregulated emotion may be evidence of persistent problematic interactions with caregivers.

The study of young children’s experience of self-conscious emotions has been increasing during the past three decades due to the development of new assessments. Unlike the basic negative emotions, the expressions of self-conscious emotions are not as easily identifiable through facial expressions (Izard, 1977), thus, it is difficult to assess them directly (Tangney & Dearing, 2002). The most widely used assessments for measuring self-conscious emotions are child-report assessments, global adjective checklists, scenario-based assessments, statement-based assessments, and researcher-report assessments of children’s nonverbal behavior (Tracy, Robins, & Tangney, 2007). These methods rely on either direct questions or researcher observations. In contrast, projective and representational assessments attempt to assess children’s perceptions indirectly by tapping into their...
schematic memories of familiar experiences (Hodges, Steele, Hillman, & Henderson, 2003). A presumed advantage of such methods is that they may mitigate the obstacle of limited self-reflective capacities commonly found in young children. Among recent developments in representational assessments for children, narrative story-stem techniques have acquired an extensive empirical literature (see Emde, Wolf, & Oppenheim, 2003).

**Narrative Story Stem Techniques**

Narrative story stem techniques are representational assessments primarily designed to assess young children’s internal working models of attachment, caregiving, or other close relationships (Bretherton, Ridgeway, & Cassidy, 1990). Bowlby’s (1973) concept of internal working model refers to the extracted and synthesized assumptions and expectations children have formed about the availability and supportiveness of caregivers, as well as their own worthiness to receive care. The organization of these memories serves as an unconscious “lens,” or cognitive filter, through which the young child views himself/herself, others, and relations with others.

The emergence of language and symbolic play in early childhood indicates new capacities for representational thought, including more complex organizations of internal working models (Appelman, 2000). As the maturing child develops greater sophistication in autonomous capacities, the nature of represented experience with caregivers becomes increasingly influential for the achievement of emotional security. Because of the significance of these qualitative changes in cognitive and emotional capacities in early and middle childhood, assessments of children’s perceptions and well-being should target their represented experience (Main, Kaplan, & Cassidy, 1985). Accumulated evidence has established that narrative story stem techniques are an important method to access children’s internal working models and accomplish this aim (Emde, 2003).

Narrative story-stem techniques present children aged approximately 4 through 10 with brief story-stems that depict highly emotional, moral, and/or relationship-oriented scenarios. Each story-stem typically features a familiar, mild conflict, enacted with the aid of props and family figurines to facilitate their comprehension (Page, 2001). Each story is begun by the interviewer by moving the family figurines and props. Once the story-stem has been presented, the child is asked by the interviewer, “Please, show and tell me what happens next!” In order to indicate that the child should continue or end the story, the interviewer uses standard prompts throughout the protocol (e.g., “Does anything else happen in the story?” or “Is that the end of the story?”). Indications of the end of each story occur when the child addresses the main point, signals that s/he ends the story, or does not continue the story after the prompts.

Narrative story-stem tasks have demonstrated validity as assessments of young children’s representations of attachment and parent-child relationships. A substantial literature has demonstrated associations between young children’s narrative responses and their current attachment security to their mothers as reflected in the Strange Situation assessments of attachment in infancy (Bretherton, Ridgeway, & Cassidy, 1990; Cassidy, 1988) and middle childhood (Moss, Bureau, Béliveau, Zdebik, & Lépine, 2009). Children’s narrative responses have also been shown to be associated with qualities of parent-child interactions observed at home (Bretherton et al., 2013; Dubois-Comtois & Moss, 2008).

A number of story-stem protocols have been developed to access children’s experiences and perceptions (Bettmann & Lundahl, 2007). The most widely applied of these are the MacArthur Story Stem Battery (MSSB; Bretherton, Oppenheim, Buchsbaum, Emde, & The MacArthur Narrative Working Group, 1990), the Attachment Story Completion Task (ASCT; Bretherton, Oppenheim, et al., 1990), and the Manchester Child Attachment Story Task.
Many researchers have also adapted story-stem protocols to coincide with the topics of their studies and research questions (e.g., Pass, Arteche, Cooper, Creswell, & Murray, 2012).

According to Hodges and colleagues (2000), the narratives children create in response to story stem assessments are more than a simple copy of their experiences of parent-child relationships. They may elicit how children reflect upon reality or how they create imaginary situations about the realities of their family life. Thus, through representational methods such as story stem protocols, children can explore and express their understanding of family roles and personal family experiences that may transcend their literal reality (Hodges, Steele, Hillman, Henderson, & Neil, 2000). The representational nature of story-stem protocols may also provide a sense of detachment from the direct recall of emotionally intense experience, which can allow children a sense of control and safety. Administrators, therefore, must be trained to be sensitive to this potential dimension of some children's experience, and assist them to engage in the protocol, or not, as they may choose.

Negative Emotionality in Narrative Story-Stem Research

The research to date with narrative story-stem techniques has involved primarily Western samples, though the study of non-Western children has been growing in recent years, notably in South Korea and Japan (e.g., see Katsurada, 2007). Cultural variations in the ways in which children make use of this method are an important and on-going focus for research, to which this study contributes. Approaches to coding children's narratives tend to vary with the interest of researchers. However, all approaches involve at some level assessment of qualities of emotional expression enacted in the narratives, with particular attention to negative emotions. For example, Wan and Green (2010) used The Manchester Child Attachment Story Task (MCAST; Green et al., 2000) with a sample of 77 clinically-referred children in the UK. They assessed associations between the negative and atypical story content themes and child disruptive behavior and maternal depressed mood. Children's narrative responses were coded with a new procedure developed by the first author, a classification of negative and atypical story content themes (e.g., maternal/child anger, maternal/child sadness, maternal/child fear). The results of the study indicated that 83% of the children displayed at least one negative and/or atypical story content theme. Representations of children as aggressive or angry, however, were rare. Children's representations of negative story content themes were associated with severe behavioral symptoms reported by their mothers. Children in the clinical range of behavior disorders had a tendency to represent more maternal sadness, as well as role-reversal and maternal injury. Compared to boys, girls with depressed mothers enacted fewer total negative representations.

Toth and colleagues (2000) also investigated associations between story-stem representations and children's behavioral problems. They coded story-stem representations of moral-affiliative (e.g., guilt) and conflictual themes (e.g., aggression) in the MacArthur Story Stem Battery (MSSB; Bretherton, Oppenheim, et al., 1990) in a sample of 65 preschoolers (43 maltreated and 22 non-maltreated). They drew their story-stem coding protocol from the MacArthur Narrative Coding Manual (Robinson, Mantz-Simmons, Macfie, & The MacArthur Narrative Working Group, 1992) and the Narrative Emotion Coding Manual (Warren, Mantz-Simmons, & Emde, 1993). The findings of the study indicated that maltreated children, in comparison with non-maltreated children, represented fewer moral-affiliative themes and more conflictual themes.

Warren, Emde, and Sroufe (2000) investigated the play narratives of 35 nonclinical children in relation to mother ratings of child anxiety when the children were 6 years of age. Their study demonstrated that children’s negative story endings, typified by fear or other negative emotion, significantly predicted separation anxiety, overanxious,
and avoidant disorder symptoms at a 12-month follow-up. Their coding of children’s negative story endings was based on the Narrative Emotion Coding system (NEC; Warren et al., 1993), which has been a particularly significant contribution to the study of anxiety symptoms in young children’s story stem narratives. Using the NEC, Warren (2003) demonstrated associations between negative emotions, narrative incoherence, and children’s inability to resolve the central problems of the story stem narratives.

Consistent with these findings in younger children, von Klitzing, Kelsay, Emde, Robinson, & Schmitz (2000) used the MacArthur Story Stem Battery (Bretherton, Oppenheim, et al., 1990) and coding system to code content themes and coherence in the narrative responses of a nonclinical sample of 652 same-sex twins. The findings indicated that child’s emotionally incoherent responses and dysregulated aggression were positively associated with parent ratings of externalizing symptoms with the Child Behavior Checklist (CBC; Achenbach & Edelbrock, 1981).

Some limited research with story-stem methods has included analyses of representations of social emotions. Aksan and Goldsmith (2003), for example, investigated associations between maternal reports of temperament and children’s guilt representations in two affectively-focused narratives presenting peer transgression and stealing scenarios. This study involved a nonclinical sample of 114 five-year-old girls. Four components (i.e., confession, punishment, repair, and withdrawal) reflected children’s guilt in the narratives, coded on a 5-point scale. The findings indicated that components of temperamental characteristics were associated with more confession representations but fewer withdrawal representations. In contrast, none of the temperamental characteristics was associated with punishment representations or repair representations. Similar to the Aksan and Goldsmith study, Luby and colleagues (2009) also used narrative story-stems to specifically measure children’s expressions of self-conscious emotions. In their study, 4 story-stems taken from the MSSB were used with a sample of European-American depressed preschoolers between 3 and 5 years of age. Representations of shame and guilt, as coded with the MacArthur Narrative Coding Manual (Robinson, Mantz-Simmons, Macfie, Kelsay, & The MacArthur Narrative Working Group, 2002), were significantly associated with preschool depression.

Although studies on representations of negative emotionality in early childhood have received growing interest in story stem research, questions remain about the extent of variability of such expressions. In addition, there has been relatively little attention paid to variations in representational expressions of emotion in middle childhood-aged children. Furthermore, much remains to be learned about how such expression may vary cross-culturally.

**Gender and age differences in children’s responses to narrative story stems** — Previous findings indicate gender differences in analyses of children’s narrative representations in story-stem protocols, including the use of negative themes. The Luby et al. (2009) study referenced above also examined gender differences in positive and negative emotional reactivity. They found that, in contrast to comparison groups, boys within the depressed/at risk groups displayed a predominance of reactive anger. On the other hand, girls showed a predominance of reactive sadness. Earlier studies with typically developing children also indicated boys displaying higher levels of manifestations of anger than girls (Zahn-Waxler, Shricliff, & Marceau, 2008). These studies also found girls displaying higher levels of fear, sadness, and guilt than boys (Carter, Briggs-Gowan, Jones, & Little, 2003; Zahn-Waxler et al., 2008). Similarly, boys’ narrative responses have been shown to be characterized by more aggressive and fewer prosocial themes than girls’ (Hodges, Steele, Hillman, & Henderson, 2003; Hodges et al., 2000; Page & Bretherton, 2001). Furthermore, Luby and colleagues (2009) found that girls used more shame and guilt representations than boys on the MSSB.
The middle childhood years bring more sophisticated abilities to understand and interpret basic and self-conscious emotions (Denham, Bassett, & Wyatt, 2007). Emotional expression is more pronounced with increasing age. Growing socialization pressures require ever more complex dimensions of communication of intention and need (Chaplin & Aldao, 2013; Kopp, 1982). Luby et al. (2009) revealed that older children represented more frequent expressions of shame than younger children. Drawing on the literature on gender and age differences, we anticipated gender and age influences on narrative qualities. Boys’ tendencies to express more aggression and less fear, sadness, shame, and guilt than girls at this age have been documented (Gillian, 1982).

Amount of time parents spend with their children and children’s expression of negative emotionality in narrative stems — We originally intended to examine the children’s story-stem responses in relation to an index of relationship qualities in their families. However, due to restrictions we faced in time and resources, we were extremely limited in the amount of data we were able to gather from families. We therefore decided to ask only one simple question regarding the amount of time parents spent per day with their children. We focused on this one simple dimension in the assumption that the busy lives of middle-class parents where both parents work outside the home are likely to present fewer opportunities for positive interactions for many young children. This may have negative consequences for their emotional lives. While admittedly a crude measure, we assumed that total amount of time spent could, for most children, capture an important dimension of needed parental contact. We therefore expected that a measure of time spent with parents would vary negatively with children’s representations of negative emotions.

Purpose of the study — Based on attachment theory and previous lines of work, the present study was designed to investigate children’s narrative representations of negative and self-conscious emotions in middle childhood. This age period has not been studied extensively despite its theoretical significance. It is among the first studies in the literature on children’s narrative representations, along with Wan and Green (2010), to systematically examine these dimensions of emotional expression simultaneously. The study is also unique in that, for the first time, narrative representations among a sample of Romanian children were studied. The first goal of the study therefore was to describe the frequencies of children’s representations of negative and self-conscious emotions in relation to the specific story-stems in which these occur. We expected that the emotional valences presented in the story-stems themselves would influence the emotions the children expressed in their narratives, essentially a priming effect. Such correspondences could have important implications for the ways in which narrative protocols are presented and the conclusions drawn from them.

We also examined the child characteristics of gender and age, and the amount of quality time typically spent with parents, in relation to the expression of negative and self-conscious emotions in narratives. We hypothesized that boys would be more likely to represent anger than girls, whereas girls would be more likely to represent fear and sadness than boys in their stories. Regarding gender differences in children’s representations of self-conscious emotions, we hypothesized that girls would be more likely to represent shame and guilt than boys. We also hypothesized that older children would represent higher frequencies of negative emotions. Older children have advanced understanding and capacities for communication, such as conveying requests for help, comfort, or support and for addressing social wrongdoing in relation to significant social partners. Finally, we hypothesized that the more time children spend with their parents, the lower frequencies of negative emotions they would represent in their narratives.
Method

Participants
The first author recruited a sample consisting of 51 children (32 boys/19 girls) and their parents from Richard Wurmbrand College, in Iasi, Romania. The age of participants ranged from 6 to 11 (\(M = 8.47, \ SD = 1.10\)). The children were recruited from the school’s four first- through fourth-grade classes. Eight children were in the first grade, 15 children were in the second grade, 15 children were in the third grade, and 13 children were in the fourth grade. There were 16 to 28 children in each class.

Measures

Representations of negative and self-conscious emotions — Children’s representations of negative and self-conscious emotions were assessed with the Narrative Story-Stem Task (NSST). This is a generic term we use for the basic method underlying story stem protocols. Ten specific story-stems were employed in the reported study (see Table 1 for a short description of the stories).

A beginning story, Birthday party, is used so that the child can become familiar with the protocol. An ending story, Family fun, is used to detach the child from the protocol. Both beginning and ending stories are positively emotionally charged, and are not included in coding or data analyses.

Coding the story stem task responses — Children’s representations of negative and self-conscious emotions were coded in the following procedure. The first author transcribed all of the children’s story-stem completions and identified all instances of the children’s enactments of the three basic negative emotions. Each of the 10 story-stem narratives was then scored for frequencies of each of the 3 negative emotions for each child on 3-point scales. Zero (0) represented none (i.e., there was no indication of a representation of negative emotion), 1 represented minimal (i.e., there was one indication of a representation of negative emotion), and 2 represented elaborate (i.e., there was more than one indication of a representation of negative emotion). Three summary content theme scores were derived by summing the scores for each emotion theme across all the stories; the score for each summary content theme, therefore, had a potential range of 0 to 20.

The coding of children’s representations of self-conscious emotions followed the same sequence as that for negative emotions. The five self-conscious themes - shame-self, shame-others, guilt-repairing, guilt-apologizing, and guilt-feelings were adapted from Luby et al. (2009). Shame-self was identified when the child was described as experiencing negative self-evaluation and global self-worth (e.g., “being ashamed”). Shame-others was identified when the child was described as experiencing global negative remarks about another character in the narrative (e.g., “Shame on you!”), in effect blaming others for shameful behavior. Guilt-repairing was identified when the child was described as having guilt feelings following some wrongdoing and trying to repair it physically or verbally (e.g., “I'll fix it.”). Guilt-apologizing was identified when the child was described as having guilt feelings following some wrongdoing and therefore, trying to apologize (e.g., “I'm sorry!”). Guilt-feelings were identified when the child was described as having guilt feelings following some wrongdoing, but without repair or apology (e.g., “I felt bad.”). The scoring procedure was the same as for representations of negative emotions. Five summary content theme scores were derived with potential values of 0-20.

Reliability analyses of children’s representations of negative emotion codes and self-conscious emotion codes were conducted on 20% of the sample (10 transcripts translated into English). Coding reliabilities of 0.90, 0.90,
Table 1  
*Short Descriptions of the Story Stems*

<table>
<thead>
<tr>
<th>Story Stem</th>
<th>Story Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birthday party</td>
<td>Warm-up: The mother calls everyone to the table to have a birthday party. The younger child has a birthday (not coded).</td>
</tr>
<tr>
<td>Spilled juice</td>
<td>The family of four (a younger sibling, an older sibling, a mother, and a father) is sitting around the dinner table, and the younger sibling reaches across the table for some juice and accidentally spills the pitcher of juice.</td>
</tr>
<tr>
<td>Hurt knee</td>
<td>The two siblings and the parents go to the park. The younger sibling sees a rock and wants to climb it. On the way up, the child falls down and cries out that he has hurt his knee.</td>
</tr>
<tr>
<td>Monster</td>
<td>The mother tells the older child that it is time to go to bed. The child goes into the bedroom and reports seeing a monster.</td>
</tr>
<tr>
<td>Departure</td>
<td>The parents tell the children that they are going on a trip over night and that the grandma will stay with them. The child is asked to physically make the car, which carries the parents, drive away.</td>
</tr>
<tr>
<td>Reunion</td>
<td>The investigator drives the car back onto the table, and leaves the parents in the car and says that the parents are back from their trip over night.</td>
</tr>
<tr>
<td>Headache</td>
<td>The mother and younger child are sitting on the couch with the TV on. Mother turns off the TV and asks for quiet, saying she has a headache. The child's friend comes and asks to play inside.</td>
</tr>
<tr>
<td>Bathroom shelf</td>
<td>The mother goes briefly to the neighbor's, telling both children not to touch anything on the bathroom shelf while she is away. After the mother leaves, the younger child cuts his/her finger on the toy box and asks the older for a band aid.</td>
</tr>
<tr>
<td>Uncle Peter</td>
<td>The mother is sitting on the couch, crying. The mother tells the younger child that she is sad because Uncle Peter has died.</td>
</tr>
<tr>
<td>Three's a crowd</td>
<td>The older child and friend are playing in the wagon. When the younger child enters the scene and asks to join them, the friend tells the older child that if (s)he allow the younger child to play, (s)he will not be his/her friend anymore.</td>
</tr>
<tr>
<td>Ball play</td>
<td>The older sibling and his friend are playing with the ball. Suddenly, the older sibling cries, “Ouch! That hurt my hand!”</td>
</tr>
<tr>
<td>Family fun</td>
<td>Wind-down (not coded)</td>
</tr>
</tbody>
</table>

*From the Attachment Story Completion Task (ASCT; Bretherton, Oppenheim, et al., 1990).*

*From the Attachment Story Completion Task (ASCT; Bretherton, Oppenheim, et al., 1990) revised by Granot and Mayseless (2001).*

*From the MacArthur Story-Stem Battery (MSSB; Bretherton, Oppenheim, et al., 1990).*

*From Zahn-Waxler et al. (1994).*

*Adapted from Warren, Emde, and Sroufe (2000).*

0.79, and 0.77, respectively, were attained using the kappa statistic. The second coder was unaware of the children’s demographic data and the study hypotheses. All interrater disagreements were resolved by discussion.

**Children’s demographic information and time spent with parents** — The information to assess the children’s ages, grades, and how many hours per day they spend with their parents was collected from the parent consent form and a general questionnaire. The exact wording of the question pertaining to time spent per day was, “How many hours per day do you spend with your child?” The amount of time children spent with their parents ranged from 2 to 12 hours ($M = 4.68$, $SD = 1.61$). The consent form included both the description of the study and children’s demographic information.

**Procedure**

The study’s use of human subjects was approved by the University Internal Review Board. Permission to conduct the study was obtained from the local school board in Iasi. Parent consent forms and the parenting questionnaires
were distributed to teachers during a regular faculty meeting. Teachers gave the consent forms and the parenting questionnaires to the parents of all first through fourth graders. Interested parents returned the consent forms and the parenting questionnaires either to the teachers or to the first author.

The first author, a native speaker of Romanian, had previously translated the story stem task from English into Romanian. A second native Romanian speaker checked the translation of the script for accuracy. The first author administered the story stem task. She spent several hours in the participating classrooms before administering the protocol so that the children could become familiar with her. She administered the NSST at the school, during their regular school hours, in one session per child. She invited each child out of the classroom to an experimental psychology laboratory where she sat across a little table from the child to administer the story stems. Each individually video-taped session lasted about 40 minutes. The first author also transcribed the children’s responses to the story stems verbatim, in Romanian, from the videotapes. She also included a summary of all nonverbal actions that the children made with the bear family figurines. Finally, she translated the Romanian transcripts into English. A second native Romanian speaker also fluent in English checked the transcripts and translations for accuracy.

Data Analysis

Statistical analyses were performed using SPSS version 19. Frequency distributions were used for analyzing the occurrence of children's representations of negative and self-conscious emotions. In the second step of the statistical analysis, Pearson correlations coefficients were computed to analyze associations between emotions, children’s age, and the amount of time children spent with parents. A chi-square test of independence was performed to examine the relation between gender and each of the emotion variables. Finally, Generalized Linear Models with Poisson distribution (McGullagh & Nelder, 1997) were used to test the association between the frequency of each emotion response, examined as dependent variables, and children’s age, gender, and amount of time typically spent with parents as independent covariates. Missing data for children's age and time spent with parents reduced the sample size for the multi-variate analyses to 38. Poisson models are often known as log-linear models and are used for frequency data (Coxe, West, & Aiken, 2009). Square-root data transformations were performed to improve normality for the emotion variables. Log transformation was performed for the amount of time children spent with their parents. An alpha level equal to 0.05 as criterion for significance was used.

Results

Frequencies of Children’s Representations of Negative and Self-Conscious Emotions in Relation to Specific Story-Stems

Representations of the negative and self-conscious emotions identified a priori were found in the children’s narratives (see Figure 1). The most frequently represented negative emotion was sadness (112 occurrences). The second most frequently represented negative emotion, fear, occurred approximately half (50 occurrences) as often as sadness. Representations of sadness were followed by representations of anger (22 occurrences). Five stories, Monster in the bedroom (28 occurrences), Uncle Peter (27 occurrences), Spilled juice (27 occurrences), Three’s a crowd (21 occurrences), and Bathroom shelf (21 occurrences) elicited the most negative emotions. They were followed by Departure (16 occurrences), Headache (14 occurrences), Ball play (13 occurrences), Hurt knee (12 occurrences), and Reunion (5 occurrences). In terms of the specific stories that elicited the greatest number of specific negative emotions, the Uncle Peter story (26 occurrences) elicited the most representations of sadness. The Monster story (20 occurrences) was the most powerful in eliciting fear. The Spilled Juice story (7 occurrences)
was the most powerful in eliciting anger. These emotional responses closely match the emotional valences of the story stems. The Uncle Peter story-stem portrays the mother crying over the death of Uncle Peter. The Monster story-stem presents the child calling out in fear of a monster in the bedroom. Finally, the Spilled Juice story presents the child accidentally spilling juice at the supper table.

With respect to self-conscious emotions, the most frequently represented self-conscious emotion was guilt-apologizing (122 occurrences). It was also the most frequently represented emotion overall. The second most frequently represented self-conscious emotion was shame-others (81 occurrences). It was followed by guilt-repairing (69 occurrences), which occurred approximately half as often as guilt-apologizing, and shame-self (58 occurrences). There were few representations of guilt-feelings (14 occurrences). Five stories, Spilled juice (75 occurrences), Headache (58 occurrences), Bathroom shelf (56 occurrences), Three’s a crowd (47 occurrences), and Ball play (33 occurrences) elicited the most self-conscious emotions. With reference to the specific stories that elicited the greatest number of specific self-conscious emotions, Spilled juice elicited the most representations of guilt-apologizing (28 occurrences), guilt-repairing (36 occurrences), and guilt feelings (4 occurrences). Three’s a crowd elicited the most occurrences of shame-others (17 occurrences). Bathroom shelf (14 occurrences) elicited the most representations of shame-self (14 occurrences). Headache also elicited 4 occurrences of guilt-feelings.

Descriptive Results and Bi-Variate Analyses Between Study Variables

The bi-variate analysis results between study variables are presented in Table 2.

As expected, the basic negative emotion variables, anger, fear, and sadness, were intercorrelated; these were, in fact, the strongest found, suggesting a qualitative difference between this group of emotions compared to the others. Furthermore, fear and sadness were extremely intercorrelated (.82), indicating a specific and distinct association of these dimensions of emotional expression compared to others. The two shame-based self-conscious emotion variables were also intercorrelated. Two of the guilt-based emotions were correlated, guilt-repairing and guilt feelings. Among the self-conscious emotion variables, shame-self and shame-others were also correlated with anger. Guilt-feelings was also correlated with fear and sadness. Contrary to our hypothesis, our bi-variate results did not find an age distinction for children’s representations of negative and self-conscious emotions. One marginally positive association at the 0.10 probability level was found for children’s expression of guilt combined with an effort to repair, where older age was associated with more frequent representations of this emotion. The amount of time children spent with their parents was negatively related to children’s representations of anger and
### Table 2

**Descriptive Statistics for Emotion Variables and Correlations between Emotions and Child-Related Variables (N = 51)**

<table>
<thead>
<tr>
<th>Emotion Variable</th>
<th>M</th>
<th>SD</th>
<th>Actual Range</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>Age</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Anger</td>
<td>.31</td>
<td>.58</td>
<td>0-2</td>
<td>.59***</td>
<td>.50***</td>
<td>.35**</td>
<td>.35**</td>
<td>.01</td>
<td>-.07</td>
<td>.18</td>
<td>-.06</td>
<td>-.39*</td>
<td></td>
</tr>
<tr>
<td>2. Fear</td>
<td>.64</td>
<td>.77</td>
<td>0-2</td>
<td>.82***</td>
<td>.27*</td>
<td>.33*</td>
<td>.12</td>
<td>.16</td>
<td>.34*</td>
<td>-.01</td>
<td>-.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Sadness</td>
<td>1.05</td>
<td>1.06</td>
<td>0-3</td>
<td>.26†</td>
<td>.34*</td>
<td>.18</td>
<td>.25†</td>
<td>.28*</td>
<td>-.10</td>
<td>-.20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Shame-self</td>
<td>.68</td>
<td>.85</td>
<td>0-3</td>
<td>.36**</td>
<td>.13</td>
<td>-.05</td>
<td>-.10</td>
<td>-.12</td>
<td>-.41**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Shame-others</td>
<td>.82</td>
<td>.97</td>
<td>0-3</td>
<td>.22</td>
<td>.06</td>
<td>.04</td>
<td>-.22</td>
<td>-.18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Guilt-repairing</td>
<td>.85</td>
<td>.80</td>
<td>0-2</td>
<td>.17</td>
<td>.32†</td>
<td>.27†</td>
<td>.18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Guilt-apologizing</td>
<td>1.28</td>
<td>.91</td>
<td>0-3</td>
<td>.16</td>
<td>-.01</td>
<td>-.14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Guilt-feelings</td>
<td>.18</td>
<td>.50</td>
<td>0-2</td>
<td>.13</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Note:** Anger variable was non-normally distributed, after square root transformations, with skewness of 1.51 (SE = .33) and kurtosis of .61 (SE = .66). Guilt-feelings variable was also non-normally distributed with skewness of 2.58 (SE = .33) and kurtosis of 5.17 (SE = .66).

*p ≤ .1. *p ≤ .05. **p ≤ .01. ***p ≤ .001.

shame-self. Children whose parents reported spending more time with them were rated as displaying fewer expressions of these emotions. No other significant associations were found between the amount of time and emotion variables.

The only significant gender distinction was found for guilt combined with an apology, $\chi^2 = 15.12$ (N = 51; p < .05). Consistent with our hypothesis, boys were less likely to express guilt combined with an apology than were girls.

### Multi-Variate Analyses: Child Characteristics in Relation to Representations of Negative and Self-Conscious Emotions in Story-Stems

The multi-variate analysis results are presented in Table 3.

### Table 3

**Coefficient Estimates from Poisson Regressions and Associated Significance Tests for Effects of Child Gender, Child Age, and Time Child Spends with Parents on Basic Negative Emotions and Self-Conscious Emotions in the Narrative Story Stem Technique (N = 38)**

<table>
<thead>
<tr>
<th>Emotion Variable</th>
<th>Gender b</th>
<th>Wald $\chi^2$</th>
<th>Age b</th>
<th>Wald $\chi^2$</th>
<th>Time b</th>
<th>Wald $\chi^2$</th>
<th>Likelihood Ratio $\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger</td>
<td>.71</td>
<td>1.17</td>
<td>.26</td>
<td>1.37</td>
<td>-.73</td>
<td>9.54**</td>
<td>12.19**</td>
</tr>
<tr>
<td>Fear</td>
<td>-.36</td>
<td>1.18</td>
<td>.44</td>
<td>7.18**</td>
<td>-.46</td>
<td>6.94**</td>
<td>12.88**</td>
</tr>
<tr>
<td>Sadness</td>
<td>-.13</td>
<td>.34</td>
<td>.10</td>
<td>.88</td>
<td>-.22</td>
<td>4.94*</td>
<td>ns</td>
</tr>
<tr>
<td>Shame-self</td>
<td>.16</td>
<td>.20</td>
<td>-.05</td>
<td>.11</td>
<td>-.32</td>
<td>4.45*</td>
<td>7.43*</td>
</tr>
<tr>
<td>Shame-others</td>
<td>.28</td>
<td>1.07</td>
<td>-.23</td>
<td>4.04*</td>
<td>.06</td>
<td>.65</td>
<td>ns</td>
</tr>
<tr>
<td>Guilt-repairing</td>
<td>.08</td>
<td>.08</td>
<td>.24</td>
<td>3.75*</td>
<td>.06</td>
<td>.45</td>
<td>ns</td>
</tr>
<tr>
<td>Guilt-apologizing</td>
<td>-.40</td>
<td>3.90*</td>
<td>.14</td>
<td>2.05</td>
<td>-.13</td>
<td>2.62</td>
<td>7.58*</td>
</tr>
<tr>
<td>Guilt-feelings</td>
<td>.10</td>
<td>.02</td>
<td>.56</td>
<td>3.93*</td>
<td>-.02</td>
<td>.01</td>
<td>ns</td>
</tr>
</tbody>
</table>

*p < .1. *p < .05. **p < .01.

Two of the multivariate equations were only marginally significant, those predicting shame-self and guilt-apologizing. The significant independent variables in each of these, time spent with parents and child gender, respectively, were also found to be significantly related to these emotion variables in the bi-variate analyses. Two other equations were significant at the .01 level, those predicting anger and fear (likelihood $\chi^2$ ratios of 12.19 and 12.88, respect-
ively). Significant independent variables in these equations were time spent with parents and child age. Time spent with parents was associated, negatively, with frequencies of anger ($b = -.73, \chi^2 = 9.54$) and fear representations ($b = -.46, \chi^2 = 6.94$). Child age was positively associated with fear representations ($b = .44, \chi^2 = 7.18$).

**Discussion and Conclusions**

Based on attachment theory and previous lines of work, the current study investigated children’s representations of negative and self-conscious emotions with a narrative story stem technique. Our findings contribute to the important and on-going focus of cross-cultural story-stem research by investigating dimensions of negative emotional expression in Romanian children in middle childhood. In addition, differences were found for frequencies of negative emotional representations in relation to the specific story-stems in which they occurred. As expected, the emotional valences presented in the story-stems themselves were associated with the emotions the children expressed in their narratives. For example, the Uncle Peter story was the most powerful story in eliciting and representing sadness, very likely because it presented a scenario of the death of a family member. These findings thus provide evidence for a priming effect in NSST protocols whereby specific story stems are likely to evoke specific emotional responses. It may be that such a priming effect is particularly potent for children who have sensitivities to the emotions in question (e.g., prior exposure to sadness or grief). As such, researchers and practitioners working with story-stem protocols would be well-advised to select story stems based on their interest in the evocation of specific emotional responses and their understanding of their subjects’ prior exposure to significant emotional experience.

With respect to gender differences in children’s expressions of negative and self-conscious emotions, girls were more likely than boys to have guilt feelings coupled with apology following some wrongdoing, as hypothesized and previously found (Luby et al., 2009). Differences in socialization of gender roles have been discussed as explanations for similar findings, particularly girls’ heightened risk for internalizing emotional problems (Luby et al., 2009). The use of narrative methods such as the NSST to identify these tendencies should be a continuing focus for research. Our results did not confirm other differences in emotional expression between genders, however. This may have been a characteristic of our sample. Past research has found tendencies for girls to include more sadness, fear, and shame themes (Luby et al., 2009) and fewer anger themes in their narratives (Zahn-Waxler et al., 2008). The Romanian children in our study, however, did not conform to this pattern. Future research with culturally diverse samples should consider this question.

The finding that the highest bi-variate correlation was found for fear and sadness is consistent with theory and assessment in that these two emotions are regarded as uniquely “internalizing” emotions (Achenbach & Edelbrock, 1981). It is also interesting to note that representations of anger were associated with the highest number of other emotions, including the two shame-based emotional representations, but not the guilt-based representations. This is also consistent with theory in that the experience of guilt is distinct from shame; guilt involves more of a sense of responsibility to others. The correlation of guilt feelings with fear and sadness and not anger, may be an indicator of a constellation of internalizing emotions. Furthermore, the relative differences in magnitudes of the inter-correlations between the basic negative emotions (anger, fear, and sadness) and the self-conscious emotions (the shame-based variables and guilt-feelings) provide evidence for qualitative differences between these classes of emotion variables. That such differences are discernible at the representational level supports the theoretical assertion of developmentally-based differences in the origins and function of these emotions.
Perhaps the most surprising of our findings involve the measure of the time children reportedly spent with their parents. The data obtained from this single, simple question yielded the study’s most potent findings. In particular, children who reportedly spent more time with parents enacted significantly less anger and fear, and to a lesser extent sadness and shame-self, in their narratives. Children’s age also contributed significantly to the obtained variation in enactments of fear, suggesting a greater level of familiarity with fear in narratives among older children.

We have no data to show that extreme expressions of negative or self-conscious emotions in these narrative responses are associated with actual emotional or behavioral regulatory problems. There have been ample demonstrations of such linkages, however, in prior studies. Hill, Fonagy, Lancaster, and Broyden (2007) point out that associations between children’s “dysregulated aggressive responses” to narrative story-stem protocols and externalizing behavioral problems are among the “most robust” findings of the story-stem literature. Our findings suggest that narrative representations similar to what in other studies has been strongly associated with behavioral dysregulation may vary with this simple index of the parent-child relationship. Replication of this is needed with other samples, and future studies would be greatly enhanced by the addition of independent assessments of children’s behavior. We were also limited by our sample size to explore potential complexities within this finding. For example, it is conceivable that the actual relationship of the measure of time spent with parents and children’s representations of negative emotions is not linear. Future research on this issue should explore such a possibility.

Overall, the results of the present study support the idea that children’s responses to this narrative measure reflect their capacities for a wide range of specific emotional expression (Bretherton, Prentiss, & Ridgeway, 1990; Oppenheim, Emde, & Warren, 1997). The present study extends research on representations of negative emotionality with the NSST to middle childhood. This age period has not been studied extensively in this regard despite its theoretical significance. It is among the first studies in the literature on children’s narrative representations to systematically examine dimensions of negative emotional expression simultaneously. It is also the first study to examine these representations among a sample of Romanian children.

Limitations and Future Research

Although the study allowed for investigating children’s representations of negative and self-conscious emotions in a Romanian cultural context using the story-stem task, the sample size was small and homogenous, hence findings are not generalizable to other populations. It is also likely that the small sample size limited the statistical power of the bi-variate and multi-variate analyses. As a next step, it will be important to examine children’s expression of these emotions in larger and more diverse samples. The study is also cross-sectional in design, thereby precluding claims about long term implications of findings from this investigation alone. Future researchers will need longitudinal studies in order to assess changes in representations of negative emotionality over time.

Despite the limitations of the current study, the results add an important dimension to the research field of children’s narratives. NSST methods can elicit a surprising range of emotional expression from children, which provides unique opportunities to understand their emotional lives. Future research should continue to explore linkages of these expressions of emotion with the circumstances within which children live. Important social and developmental indices of their adjustment and well-being should also be considered for future research.

Notes

i) Richard Wurmbrand College is one of the first private Christian K-12 schools in Romania. According to the Romanian Ministry of Education and Research (2001) statistics, less than 2% of elementary school students attend private schools in Romania.
ii) Previous research has documented important differences between U.S. and Eastern European (including Romanian) cultural ideals for children and parents (Nesteruk & Marks, 2009; Nesteruk, Marks, & Garrison, 2009).

iii) Qualitative and theoretical work indicates that parents are also beneficially impacted in myriad ways by time spent with children (Palkovitz, 2002; Palkovitz, Marks, Appleby, & Holmes, 2003).

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Competing Interests
The authors have declared that no competing interests exist.

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References


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