

Negative and atypical story content themes depicted by children with behaviour problems

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Background: Specific thematic content arising from children's doll play is often considered to give clinically meaningful information regarding their mental state, but has received little systematic enquiry. This exploratory study examined the negative and atypical content themes in the attachment story narratives of children with behaviour problems, and their associations with child symptomatology and parental depressed mood. **Method:** Videotaped mother-child attachment doll play completions of 77 children from a clinical sample were blind coded for negative content themes. Mothers completed questionnaires for maternal depression and child behaviour. **Results:** Children rating positive for behaviour disorder were more likely to represent maternal injury, role reversal and marked maternal sadness. Severe behavioural symptoms were associated with more pervasive negative themes. Half of the overall sample depicted child accidents and maternal unresponsiveness, whereas child aggression, child anger and maternal absence were rare. Girls with depressed mothers showed an absence of particular negative representations (e.g., child sadness) compared to boys. **Conclusions:** Specific atypical themes are associated with the extent of child psychopathology and may be modified by exposure to maternal depressed mood. The methodological limitations in this exploratory study are also discussed. **Keywords:** Conduct disorder, maternal depression, doll play, mother-child relations, story stems.

Research using 'story stem' or doll play completions has gained momentum in recent years as an approach to investigating young children's social understanding and functioning, particularly regarding how they perceive family relationships (Bettmann & Lundahl, 2007; Bretherton & Oppenheim, 2003; Page, 2001). This type of structured task is a developmentally appropriate choice given the propensity that young children have for spontaneous storytelling and symbolic play, at a developmental period when language ability is not yet sufficiently advanced for detailed self-report and interview methods. The measures that utilise this methodology vary in the constructs they assess, but tend to share a common procedure: the demonstration of a set of structured story beginnings or 'stems', typically facilitated with dolls representing the self and others, to elicit the child's play and narrative completion ('story completion'). Responses are rated, usually along continuous rating scales, with respect to *a priori* constructs of interest. The theoretical assumption that underpins these ratings is that the story responses enacted reflect the child's mental representations of self and others and/or how they deal with the world. Considerable literature supports the validity of story stem techniques (e.g., Bretherton & Oppenheim, 2003; Green, Stanley, Smith, & Goldwyn, 2000; Page, 2001).

Despite the rich and elaborate narrative data often produced from story stems, relatively little is known about the significance of their specific thematic con-

tent. Standard coding systems, as used in research, typically evaluate narratives against *a priori* theory-based criteria. Specific unusual and recurrent content themes, which are often very salient features to the observer, tend to be lost within such systematic rating. The prominence of negative, dysregulated and atypical themes by children with behaviour problems may reflect different possible meanings – a history of emotional communication difficulties, a metaphoric or emotional representation of perceptions, or a perceived reality in a more literal sense. Non-clinical studies suggest that particular themes, such as frightening and violent story themes (e.g., depictions of death), are observed more often in vulnerable groups, such as externalising children with ambivalent attachments (Stacks, 2007) and neglected preschoolers (Venet, Bureau, Gosselin, & Capuano, 2007). A small study of adopted children, who had previously been maltreated, found that those whose adoptive mothers had an insecure attachment mental state ($n = 12$) produced more aggression, bizarre, rejection and injury/death themes in their stories than those of secure mothers (Steele, Hodges, Kan-iuk, Hillman, & Henderson, 2003).

There has been little previous research into the specific characteristics of story stem representations in children with behaviour problems, although several studies have examined broad-brush narrative content. For instance, using selected stems from the McArthur Story Stem Battery (MSSB; Bretherton & Oppenheim, 2003), child behaviour (and other) problems in non-clinical samples have been correlated with more aggressive narratives (Laible, Carlo,

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Torquati, & Ontai, 2004; Von Klitzing, Kelsay, Emde, Robinson, & Schmitz, 2000; Woolgar, Steele, Steele, Yabsley, & Fonagy, 2001) and more negative representations of parents (Oppenheim, Emde, & Warren, 1997; Stadelmann, Perren, Von Wyl, & Von Klitzing, 2007). A clinical sample study of the conflict/distress narratives of 41 boys with behaviour problems, compared with a control group ($N = 25$), found them to be substantially more aggressive, even after controlling for age, verbal IQ and storytelling ability (Hill, Fonagy, Lancaster, & Broyden, 2007). What exactly these aggressive and negative representations contain has not been a focus of study, but may be important to distinguish if we are to understand the clinical significance of these stem completions. Given the moderate to high co-occurrence of maternal depression and child conduct problems (Beck, 1999; Green, Stanley, & Peters, 2007), parental representations may also reflect a mother's real-life depression. Studies on the effects of maternal depression have shown, using other story stems, that exposed children are more likely to portray doll play representations of role reversal (Murray, Woolgar, Briers, & Hipwell, 1999) and more aggressive narratives (Trapolini, Ungerer, & McMahon, 2007).

This study sought to extend our understanding of specific negative and atypical content in the distress stories produced by a young school-age sample referred to clinical services a year earlier. To achieve this aim, the standardised procedure of the Manchester Child Attachment Story Task (MCAST) was administered and, rather than using the standard rating system, stem completions were empirically coded for a range of negative content themes, including negative emotions (in mother or child doll), negative events (to the mother or child doll), role reversal (between mother and child doll) and bizarre events. The objectives of this exploratory study were: (1) To identify the kinds of specific negative/atypical story content that characterise the story completions of children clinically referred for behaviour problems; (2) To determine whether the pattern of occurrence or pervasiveness of particular themes are related to current behavioural symptomatology in this sample, or depressed mood in their mothers.

Method

Participants

Participants were 77 children (60 boys and 17 girls) with mean age 8 years, 5 months (range 4.4–11.4 years), living in a large urban area (Manchester and Salford, UK), who had been part of an initial cohort of 141 consecutive clinical referrals with externalising disorder for a trial of parent training (Harrington et al., 2000). The current sample represents most of the families from the initial cohort who participated in a one-year follow-up after mothers had received the intervention; the children themselves did not directly receive any intervention. All children had received a structured clinical assessment at intake to confirm

diagnosis and their symptomatology had been quantified using a standard parent-rated questionnaire (Eyberg Child Behaviour Inventory; Eyberg & Ross, 1978). This follow-up sample did not differ from the original cohort in terms of lone parenthood, socioeconomic status, or clinical characteristics. Mothers, all of whom were the primary caregiver, had mean age of 31.6 years (range 22–46 years). Thirty-seven mothers (48%) were lone parents; 31 (40%) reported the child having always lived with the father as well. Based on the occupation of the highest social status adult, 31 (40%) households were in professional/non-manual and 41 (53%) in manual occupations (never worked: $n = 5$). The study was approved by the Salford Research Ethics Committee, and parents provided informed consent.

Measures

Child negative and atypical story content themes. The Manchester Child Attachment Story Task (MCAST; Green et al., 2000) was developed to examine child attachment representations in relation to a specific primary caregiver, and has been investigated in clinical and normative samples (e.g., Barone et al., 2009; Futh, O'Connor, Matias, Green, & Scott, 2008; Green et al., 2007). The instrument consists of four 'stems' (and a practice stem) intended to activate the child's primary attachment representations. Administration involves a doll house, and dolls chosen by the child to represent the child and mother. The trained administrator presents each scenario in a way designed to induce a level of arousal and distress, prompting the child to resolve the scenario during their story completion. Features that draw the child into the scenario are: choice and identification of child doll by using the child's name (e.g., 'Daniel-doll'); a stem structure that allows child involvement; and careful administrator mood/arousal induction to evoke mild distress. Non-leading prompts facilitate story completion, followed by probes about the child- and mum-doll's thoughts and feelings. Because the fourth story stem was missing from a substantial portion of the sample (due to refusal by the child, time constraints or other external reasons), only responses to the first three stems were coded. Four children refused the third stem, so their results were analysed based on the available data. In the three stems, the scenarios involved the child doll having a nightmare, hurting his/her knee and with a stomach ache.

The standard MCAST coding procedure uses a variety of attachment-relevant scales that rate both content (e.g., proximity seeking, parenting sensitivity) and process features (narrative coherence, disoriented phenomena, arousal) to arrive at a formal classification of attachment using categories standard in the attachment literature. However, for this study, a new protocol was developed to classify story content themes (independent of MCAST attachment coding), and refined through piloting. Negative/atypical story themes were selected by the first author (who is trained and experienced at MCAST administration/coding) for their negative or unusual quality in relation to the stem scenario. Such themes have potential consequences both for the child/dyad as played out in the story, and clinically with regard to their implications for emotional and behavioural regulation. Theme selection was also informed by the literature on story stems

Table 1 Negative and atypical story content theme definitions

Maternal representations	
Aggression	Verbal or physical aggressive actions directed at the child
Anger	Anger represented verbally through narration or tone of voice
Accidents	Physical accident(s) not caused intentionally by an external source
Sadness	Marked sadness incongruent to original scenario shown verbally or by situation
Death/injury	Death or very serious injury represented and expressed verbally
Unresponsiveness	Poorly timed, negative or non-response to child signalling of distress
Fear	Fearfulness for the child or something else, represented verbally
Absence	Absence of representation
Child representations	
Aggression	Verbal or physical aggressive actions directed at the mother
Anger	Anger represented verbally through narration or tone of voice
Accidents	Physical accident(s) not caused intentionally by an external source
Sadness	Marked sadness incongruent to original scenario shown verbally or by situation
Death/injury	Death or very serious injury represented and expressed verbally
Fear	Fearfulness represented verbally
Role reversal	Assuming the parent role (e.g., caregiving) or confusion of identity with mother (e.g., refers to child doll as mum doll)
Event representations	
Monsters	Presence of a monster or monsters, or other bizarre and scary creatures
Imposters/illusions	Unrealistic event in which a person, object or event is not what they seemed
Events: no agent	Bizarre event with no agent (e.g., furniture flying around the room)

(mainly anger/aggressive responses) and attachment (e.g., pervasive fear, role reversal). Each theme was defined and operationalised (Table 1) such that they could be coded 0 (absent), 1 or 2, according to pervasiveness in, and impact on, each story. For example, a code of 1 in 'maternal death or very serious injury' refers to a single temporary occurrence (e.g., mother dies briefly before returning to the story that is unaffected by the death), whereas a code of 2 refers to that with negative consequences for the child, or which occurs more than once (e.g., mother dies and the child is sad to bury her).

Each MCAST videoclip was coded by first taking detailed notes of the narrative blind to case information. Using the notes with tape reviews, each stem response was coded for each theme, where present attributing 1 or 2 points, as per the coding scheme, such that summing all (3) stories provides a 0–6 prevalence score for each theme. This process was conducted separately and blind to the standard MCAST coding to prevent any influence of attachment coding on this analysis. To establish inter-rater reliability (IRR), 18 randomly selected videotapes (23%) were coded independently by a blinded trained coder. IRR was not calculated for themes with fewer than 5 cases. Binary agreement (theme present/absent) was achieved in 72–100% of cases within each theme. Kappa scores showed substantial to excellent agreement in maternal death, maternal fear, child sadness, child death, child fear and bizarre events ($k = .62$ – 1.0). Moderate agreement was achieved in all other themes ($k = .40$ – $.58$). Disagreements were resolved through consensus coding.

Child symptomatology. Child disruptive behaviour problems were assessed using the Eyberg Child Behaviour Inventory (ECBI; Eyberg & Ross, 1978), which rates on a scale of 1 (never) to 7 (always) how often each of 36 common behaviour difficulties occurs with their child. The sum of item ratings (range: 36–252) provides a behaviour intensity score. The standardised measure has established reliability and validity, with a quoted clinical cut-off score of 127.

Maternal depressed mood. Mothers also completed the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) as a self-rating of maternal depressed mood. We used the scores as scale data due to a lack of consensus regarding a clinical cut-off in this group, and because we were interested in the impact of maternal mood generally within a child psychopathology sample.

Procedure

A research psychologist trained in the MCAST administered the videotaped task at the participant's home without the presence of family members. Questionnaire and sociodemographic data were collected from the primary caregiver.

Results

Frequency and pervasiveness of negative and atypical themes

Story content themes were first examined as binary outcomes due to their (expected) relatively low frequencies. Atypical events (see Table 1) were combined into a 'bizarre events' category due to their infrequency. Eighty-three percent of participants ($n = 64$) demonstrated at least one negative/atypical theme in the task. Table 2 shows the number of children depicting each content theme; child accidents and maternal unresponsiveness were represented at least once by a large proportion of the sample (49% and 55% respectively), whereas maternal absence, child anger and child aggression were rare. Girls were more likely than boys to depict maternal anger in their stories and, at trend level, maternal death and child death (Table 2). Chi square tests showed that there was no association between the presence of any theme and marital status (lone

Table 2 Number of children who expressed negative and atypical content themes in their stories

	Total (<i>N</i> = 77)	Male (<i>n</i> = 60)	Female (<i>n</i> = 17)	<i>X</i> ² (<i>df</i> = 1)	<i>p</i>
<i>Maternal sadness</i>	25 (33%)	20 (33%)	5 (29%)	.09	ns
Maternal aggression	15 (20%)	12 (20%)	3 (18%)	*	ns
<i>Maternal anger</i>	27 (35%)	17 (28%)	10 (59%)	5.41	.02
Maternal death	15 (20%)	9 (15%)	6 (35%)	*	.08
<i>Maternal unresponsiveness</i>	38 (49%)	29 (48%)	9 (53%)	.11	ns
Maternal fear	14 (18%)	12 (20%)	2 (12%)	*	ns
Maternal accidents	18 (23%)	15 (25%)	3 (18%)	*	ns
Maternal absence	3 (4%)	3 (5%)	0	*	ns
<i>Child sadness</i>	32 (42%)	23 (38%)	9 (53%)	1.16	ns
Child aggression	6 (8%)	4 (7%)	2 (12%)	*	ns
Child anger	4 (5%)	2 (3%)	2 (12%)	*	ns
Child death	19 (25%)	12 (20%)	7 (41%)	*	.07
Child fear	17 (22%)	13 (22%)	4 (24%)	*	ns
<i>Child accidents</i>	42 (55%)	32 (53%)	10 (59%)	.16	ns
Child role reversal	20 (26%)	16 (27%)	4 (24%)	*	ns
Bizarre events	18 (23%)	14 (23%)	4 (24%)	*	ns

*Fisher exact test

parent versus other), social class (professional/non-manual versus manual/never worked), or maternal work status (any employment versus other).

Analyses of variance were conducted to examine whether children who depicted particular themes were younger than those who did not (age missing: *N* = 2), and to test for gender interactions. Children who depicted the following themes were significantly younger: maternal death ($F(1, 71) = 10.52; p = .002$), maternal unresponsiveness ($F(1, 71) = 8.10; p = .006$), child death ($F(1, 71) = 10.91; p = .001$); child accidents ($F(1, 71) = 4.33; p = .04$) and bizarre events ($F(1, 71) = 10.60; p = .002$). One gender interaction was found: girls who did not depict any bizarre events were slightly older than boys who did not, but girls who presented such themes were younger than boys who did ($F(1, 71) = 4.37; p = .04$). No effects of maternal age were found.

Each response, assigned a 0–2 score, was summed across the 3 stems to provide a ‘pervasiveness’ score. The following themes were combined (and divided by two) for subsequent analyses as their scores were highly inter-correlated (all $p < .001$): maternal aggression and anger (‘parenting hostility’; Spearman $r = .53$); maternal sadness and child sadness (‘sadness’; $r = .52$), maternal accidents and maternal death/very serious injury (‘maternal injury’; $r = .53$), and maternal fear and child fear (‘fear’: $r = .40$). Role reversal and maternal accidents were highly correlated ($r = .58$) but analysed separately since we were also interested in role reversal outside of accident scenarios. The most pervasive themes, among those who depicted such themes, were maternal unresponsiveness ($n = 38$; mean: 2.1; SD: 1.1), child aggression ($n = 6$; mean: 2.0; SD: 1.1), child death ($n = 19$; mean: 2.1; SD: 1.1) and child accidents ($n = 42$; mean: 2.2; SD: 1.1).

Table 3 Number (%) of children depicting negative/atypical content themes by BD

	Behaviour disorder screen		χ^2 (<i>df</i> = 1)	<i>P</i>
	BD ⁺ <i>n</i> = 57	BD ⁻ <i>n</i> = 20		
Sadness	32 (56%)	7 (35%)	2.65	.10
Parenting hostility	24 (42%)	7 (35%)	.31	ns
Maternal injury	23 (40%)	1 (5%)	8.62	.003
Mat unresponsiveness	30 (53%)	8 (40%)	.95	ns
Fear	18 (32%)	5 (25%)	.31	ns
Child death	16 (28%)	3 (15%)	*	ns
Child accidents	32 (56%)	10 (50%)	.23	ns
Child role reversal	19 (33%)	1 (5%)	6.18	.01
Bizarre events	16 (28%)	2 (10%)	*	.13

*Fisher exact test

Content themes and child disruptive behaviour

The mean parent-rated ECBI score was 153.54 (SD: 40.07). Seventy-one percent ($n = 43$) of boys and 82% ($n = 14$) of girls scored above the standard clinical cut-off for behaviour disorder (BD⁺), totalling 74% of the sample. Total theme pervasiveness was positively correlated with ECBI score (Spearman rank $r = .25; p = .03$). Chi squared and Fisher exact tests examined whether BD⁺ children were more likely to show particular themes (Table 3), excluding themes with <10 occurrences in the sample. More BD⁺ children depicted maternal injury ($p = .003$) and role reversal ($p = .01$) than BD⁻ children, with a trend for sadness. A post-hoc examination revealed an effect for *maternal* sadness specifically (47% vs. 25%; $X^2 = 6.22; p = .01$). To explore whether stronger effects would result from increasing the threshold of theme presence/severity, re-analyses using Fisher exact tests based on more severe/repeated depictions (pervasiveness scores of 2 +) revealed similar effects in role reversal and maternal sadness (both $p = .05$) and a trend in maternal injury ($p = .1$); these significance levels held for role reversal and maternal injury when based on pervasiveness scores of 3 + , and a trend was found for bizarre events ($p = .1$). To explore possible gender interaction effects, we re-analysed the data using ANCOVA with theme presence as an independent variable and ECBI score as the dependent variable, but no gender interaction effects emerged.

Using Spearman rank correlations to explore possible associations between the pervasiveness scores of each theme and behaviour symptomatology, we found that ECBI score was associated with maternal injury ($r = .28; p = .01$) and role reversal scores ($r = .30; p = .007$).

Content themes and maternal depressive mood

BDI scores were positively skewed ($N = 77$ (1 missing); mean = 10.62; SD = 10.14) and moderately correlated with ECBI scores (Spearman rank: $r = .24; p = .04$), although mothers of BD⁺ children (mean = 11.39; SD = 10.91) did not have significantly higher

BDI scores than those of BD⁻ children (mean = 8.45; SD = 7.40; $F(1,74) = 1.25$; $p > .05$). As previous literature suggests that there are gender differences in maternal depression effects on children, analyses were conducted by gender. Among girls, BDI scores were negatively correlated with total theme pervasiveness ($N = 17$; $r = -.56$; $p = .02$); no such association was found among boys ($N = 59$; $r = .06$; $p > .05$). BDI scores were examined by theme presence and gender, covarying for ECBI score, which found lower BDI scores with the presence of child aggression ($F(1, 71) = 5.87$; $p = .02$) and sadness ($F(1, 71) = 6.57$; $p = .001$). Gender interactions emerged for sadness ($F(1, 71) = 10.76$; $p = .002$, accounted for mainly by *child* sadness: $F(1,71) = 8.25$; $p = .005$), maternal injury ($F(1, 71) = 6.92$; $p = .01$), and – at borderline – role reversal ($F(1, 71) = 3.36$; $p = .07$). In all instances, mothers of girls who showed the theme had lower BDI scores than mothers of girls who did not, whereas the BDI scores of mothers of boys who showed the theme were slightly higher than those of mothers of boys who did not.

Among boys ($N = 59$), BDI score was positively correlated with role reversal scores (Spearman $r = .26$; $p = .05$) and, at trend level, with maternal injury scores ($r = .24$; $p = .07$). Among girls ($N = 17$), BDI score was negatively associated with child aggression ($r = -.51$; $p = .04$) and sadness scores ($r = -.56$; $p = .02$).

Discussion

Clinicians have for many years been using the content of children's play to infer aspects of mental state and preoccupation as part of assessment and treatment, but such inferences have usually been theoretically or clinically driven rather than the result of empirical investigation. Although this study is exploratory in nature, and the findings preliminary, it is among the first to examine empirically the negative and unusual content features in the doll play narratives of a clinical sample with behaviour problems. Not only did we find that particular negative themes were commonly depicted between individuals within this sample, but also that the extent to which these kinds of themes are depicted appears to reflect the child's level of (parent-rated) symptomatology. However, when interpreting negative themes, caution must be taken to avoid assuming that the events portrayed necessarily reflect a literal representation of generalised or specific memories – BD status was not distinguished by child hostility, nor was maternal depression by sadness. Rather, the themes enacted are likely to reflect the complex perceptions and expectations of children with BD regarding the mother–child relationship in the context of child distress.

However, the precise meaning of negative themes remains difficult to interpret due to the lack of background psychosocial and developmental (e.g.,

cognitive and language ability) data available to this exploratory study. Despite this major shortcoming, the findings offer a number of implications of clinical value. Notably, children with clinical-level disorder in our sample could be differentiated by their use of role reversal, maternal injury and maternal sadness themes. Also, the more pervasive each of these themes were, the more severe the disruptive behaviour. The presence of role reversal themes in a third of the sample who screened positive appears counter-intuitive given that it refers to the child taking on the parental role (e.g., by caring for or preoccupation with the mother). However, previous studies also link role reversal with behaviour problems and controlling behaviour toward parents or peers (Leon, Wallace, & Rudy, 2007; Macfie, Houts, McElwain, & Cox, 2005; Peris, Goeke-Morey, Cummings, & Emery, 2008), explained perhaps by to a sense of child 'entitlement' that arises from this dynamic. Such play may reflect the tendency of children with BD to use this interpersonal strategy to meet their own needs for attention in distress while meeting the parent's need for dependence (Main & Cassidy, 1988). Representations of maternal sadness and injury, however, have not been studied systematically in this group. Although children with BD may show less mentalising of emotions in doll play involving aggressive contexts (Hill et al., 2007), the MCAST protocol specifically prompts for the mother's feelings, and the coding for sadness included behavioural depictions (e.g., crying).

Another notable finding was the relatively high amount of death and serious injury content (in both mother and child dolls) in the overall sample. Although any interpretation is at best speculative given the lack of available background data, their fairly common appearance suggests that such depictions are unlikely to represent literal events alone (e.g., hospitalisations). Given the lack of association between such maternal events and child events, these themes do not appear to reflect arbitrary aggressive activity either. Further in-depth study is warranted. One possibility is that such themes signal more metaphorical or 'magical' thinking in relation to physical or emotional unavailability or vulnerability in the person depicted. A rational understanding of death is not developed until at least the age of 7 (Slaughter, 2005).

The findings further suggest that clinicians need to be mindful of other contextual factors that operate in a way that is not always intuitive. Children's story stem narratives need to be taken alongside other forms of evidence, since the *absence* of specific themes in some contexts may be equally telling. The gender by maternal depression interaction effects that emerged are consistent with the notion that girls of depressed mothers tend to avoid portraying particular negative themes, such as negative emotions in the child doll (aggression, sadness). Girls in our sample who depicted maternal injury and role reversal were unlikely to have depressed mothers, while

boys depicting such themes more pervasively were exposed to higher maternal depression. Although our findings clearly require replication, they are consistent with previous findings from a community sample that girls exposed to recent maternal depression tended to depict idealised mother–child relationships (Murray et al., 1999), and go further to suggest that the doll play of girls with behavioural problems and who are exposed to maternal depression may appear to be positive and prosocial when this subgroup may actually be highly vulnerable.

A surprising finding was the lack of child anger and aggression representations in this sample, contrasting with previous research (Hill et al., 2007; Trapolini et al., 2007; Woolgar et al., 2001; Von Kitzing et al., 2000). It may be that children with behaviour problems depict anger and aggression in particular situations, such as conflict and dilemma contexts (as in some MSSB stems), but not in the MCAST context of attachment-related distress. Further examination of our data found that child anger occurred only in the child illness stem, underlining the importance of stem context. Other factors may also contribute to the lack of child aggression/anger. Firstly, we were only concerned with rating representations of child-to-mother aggression. Other studies of aggression in play have included accident and death depictions, the child's own real-life aggression, or aggression directed at other characters or elsewhere. Secondly, compared with similar studies, the sample was somewhat older, so may have had a greater capacity to inhibit aggressive acts, moderate their narratives, and use more covert tactics within an ambivalent strategy. Thirdly, many mothers in our sample had moderate levels of depression; our findings suggest that child exposure to depression is linked to a reduced likelihood of depicting child aggression. Finally, we cannot discount the possibility of effects for the parenting intervention that the families had received. Nevertheless, three-quarters of the sample rated positive for current BD, and maternal anger was quite commonly depicted. A higher proportion of girls than boys depicted maternal anger. This may reflect the girls' superior verbal skills, or their tendency to develop ambivalent, conflictual attachments at around this age as part of a general developmental shift (Del Giudice, 2008).

A number of methodological limitations require consideration in an exploratory study of this kind.

Different story stem contexts are likely to elicit different kinds of theme (e.g., Hill et al., 2007). Since the MCAST presents parent–child scenarios in the context of child distress, the themes portrayed are not generalisable to other contexts (e.g., the wider family or peer relationships). Regarding sampling issues, this was initially a non-selected clinical referral sample of children with high levels of externalising disorder, representative of clinical child and adolescent mental health services (CAMHS) practice at this age. At the time of this study (one year following referral), the range of symptom severity for study was wider (an advantage for external validity), yet most of the children continued to show symptomatology above clinical threshold. Parents had received parent training, which may have altered concurrent parent–child interactions; this increases variability for study but reduces validity in relation to new clinical referral samples. Without a non-clinical comparison group, we do not know the prevalence of negative/atypical themes we might expect in the general population; thus, group differences are likely to be underestimated. The expected under-representation of girls made gender differences difficult to investigate. Atypical themes are, by their nature, relatively rare, and in a larger sample we may have seen BD effects also in less frequent themes (e.g., bizarre events, child death). In this exploratory study, multiple analyses may have increased the potential for Type I errors. Despite these shortcomings, these preliminary data support the analysis of MCAST narrative themes in supplementation with the standard attachment coding to provide potentially clinically relevant information about a child's mental state, preoccupations and possibly idealisations.

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Key points

- Previous doll play studies have shown that aggressive and negative family representations related to childhood behaviour problems, but little is known about specific content themes.
- Child-to-mother hostility representations were rare in the overall sample in response to distress stems.
- Depictions of maternal injury, role reversal and child sadness in the context of distress distinguished the group of children with behaviour disorder (BD).
- Girls' depictions of child sadness, maternal injury, child aggression and role reversal (but not boys) were associated with less maternal depressed mood, independent of BD.

References

- Barone, L., Del Giudice, M., Fossati, A., Manaresi, F., Actis Perinetti, B., Colle, L., & Veglia, F. (2009). Psychometric properties of the Manchester Child Attachment Story Task: An Italian multicentre study. *International Journal of Behaviour Development*, 33, 185–190.
- Beck, A.T., Ward, C., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, 4, 53–63.
- Beck, C.T. (1999). Maternal depression and child behaviour problems: A meta-analysis. *Journal of Advanced Nursing*, 29, 623–629.
- Bettmann, J.E., & Lundahl, B.W. (2007). Tell me a story: A review of narrative assessments for preschoolers. *Child and Adolescent Social Work Journal*, 24, 455–475.
- Bretherton, I., & Oppenheim, D. (2003). The MacArthur Story Stem Battery: Development, administration, reliability, validity, and reflections about meaning. In R.N. Emde, D. Oppenheim, & D. Wolf (Eds.), *Revealing the inner words of young children: The MacArthur Story Stem Battery and parent-child narratives*. Oxford: Oxford University Press.
- Del Giudice, M. (2008). Sex-biased ratio of avoidant/ambivalent attachment in middle childhood. *British Journal of Developmental Psychology*, 26, 369–379.
- Eyberg, S., & Ross, A.W. (1978). Assessment of child behaviour problems: The validation of a new inventory. *Journal of Child Clinical Psychology*, 7, 113–116.
- Futh, A., O'Connor, T.G., Matias, C., Green, J., & Scott, S. (2008). Attachment narratives and behavioral and emotional symptoms in an ethically diverse, at-risk sample. *Journal of the American Academy of Child and Adolescent Psychiatry*, 47, 709–718.
- Green, J., Stanley, C., & Peters, S. (2007). Disorganized attachment representation and atypical parenting in young school age children with externalizing disorder. *Attachment and Human Development*, 9, 207–222.
- Green, J., Stanley, C., Smith, V., & Goldwyn, R. (2000). A new method of evaluating attachment representations in the young school-age children: The Manchester Child Attachment Story Task (MCAST). *Attachment and Human Development*, 2, 48–70.
- Harrington, R., Peters, S., Green, J.M., Byford, S., Woods, J., & McGowan, R. (2000). Randomized comparison of the effectiveness and costs of community and hospital based mental health services for children with behavioural disorders. *British Medical Journal*, 21, 1047–1050.
- Hill, J., Fonagy, P., Lancaster, G., & Broyden, N. (2007). Aggression and intentionality in narrative responses to conflict and distress story stems: An investigation of boys with disruptive behaviour problems. *Attachment and Human Development*, 9, 223–237.
- Laible, D., Carlo, G., Torquati, J., & Ontai, L. (2004). Children's perceptions of family relationships as assessed in a doll story completion task: Links to parenting, social competence, and externalizing behaviour. *Social Development*, 13, 551–569.
- Leon, K., Wallace, T., & Rudy, D. (2007). Representations of parent-child alliances in children's family drawings. *Social Development*, 16, 440–459.
- Macfie, J., Houts, R.M., McElwain, N.L., & Cox, M.J. (2005). The effect of father-toddler and mother-toddler role reversal on the development of behavior problems in kindergarten. *Social Development*, 14, 514–531.
- Main, M., & Cassidy, J. (1988). Categories of response to reunion with the parent at age 6: Predictable from infant attachment classifications and stable over a 1-month period. *Developmental Psychology*, 24, 415–426.
- Murray, L., Woolgar, M., Briers, S., & Hipwell, A. (1999). Children's social representations in dolls house play and theory of mind tasks and their relation to family adversity and child disturbance. *Social Development*, 8, 179–200.
- Oppenheim, D., Emde, R.N., & Warren, S. (1997). Children's narrative representations of mothers: Their development and associations with child and mother adaptation. *Child Development*, 68, 127–138.
- Page, T.F. (2001). The social meaning of children's narratives: A review of the attachment-based narrative story stem technique. *Child and Adolescent Social Work Journal*, 18, 171–187.
- Peris, T.S., Goeke-Morey, M.C., Cummings, E.M., & Emery, R.E. (2008). Marital conflict and support seeking by parents in adolescence: Empirical support for the parentification construct. *Journal of Family Psychology*, 22, 633–642.
- Slaughter, V. (2005). Young children's understanding of death. *Australian Psychologist*, 40, 179–186.
- Stacks, A.M. (2007). Defensive dysregulation in preschool children's attachment story narratives and its relation to attachment classification and externalizing behavior. *School Psychology International*, 28, 294–312.
- Stadelmann, S., Perren, S., Von Wyl, A., & Von Klitzing, K. (2007). Associations between family relationships and symptoms/strengths at kindergarten age: What is the role of children's parental representations? *Journal of Child Psychology and Psychiatry*, 48, 996–1004.
- Steele, M., Hodges, J., Kamuik, J., Hillman, S., & Henderson, K. (2003). Attachment representations and adoption: Associations between maternal states of mind and emotion narratives in previously mistreated children. *Journal of Child Psychotherapy*, 29, 187–205.
- Trapolini, T., Ungerer, J.A., & McMahon, C.A. (2007). Maternal depression and children's attachment representations during the preschool years. *British Journal of Developmental Psychology*, 25, 247–261.
- Venet, M., Bureau, J.-F., Gosselin, C., & Capuano, F. (2007). Attachment representations in a sample of neglected preschool-age children. *School Psychology International*, 28, 264–293.
- Von Klitzing, K., Kelsay, K., Emde, R.N., Robinson, R., & Schmitz, S. (2000). Gender-specific characteristics of 5-year-olds' play narratives and associations with behaviour ratings. *Journal of the American Academy of Child and Adolescent Psychiatry*, 39, 1017–1023.
- Woolgar, M., Steele, H., Steele, M., Yabsley, S., & Fonagy, P. (2001). Children's play narrative responses to hypothetical dilemmas and their awareness of moral emotions. *British Journal of Developmental Psychology*, 19, 115–128.

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