Representations of Attachment Relationships, the Self, and Significant Others in Middle Childhood

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Abstract
Introduction: This research examines the interrelations of attachment security, feelings towards the self, and attributions about others in middle childhood. Methods: Five-to-nine-year-old children (n=176) completed the Separation Anxiety Test, which provided a measure of attachment security and a puppet interview was used to assess feelings towards the self. A subset of 89 participants received vignettes of social situations with ambiguous outcomes to assess the emotional valence of children’s attributions. Results: Secure children saw themselves more positively than insecure children. Children who were secure made more positive attributions about the intentions of others, regardless of whether the protagonist was a peer, parent, or teacher. Conclusion: The results suggest that attachment style is related to feelings about the self and attributions about the social behavior of others, and thus may provide a foundation for generalized social expectations that underlie working models of social behavior of significant others.

Key words: attachment, attributions, middle childhood, self, peers

Résumé
Introduction: Cette étude analyse les relations d’attache ment sécure, les sentiments face au soi et les attributions des enfants. Méthodologie: Cent soixante-seize enfants de cinq à neuf ans ont rempli le Separation Anxiety Test qui mesure l’attachement; ils ont participé à une entrevue avec marionnettes destinée à évaluer les sentiments envers le soi. Un sous-groupe de 89 sujets a reçu des vignettes sur des situations sociales à l’issue ambiguë destinées à évaluer la valence émotionnelle de leurs attributions. Résultats: Les enfants dont le lien d’attachement était sécure avaient une perception d’eux-mêmes plus positive que les autres et des attributions plus positives face aux autres, qu’il s’agisse d’un pair, d’un parent ou d’un enseignant. Conclusion: Le style d’attachement a un rapport avec l’image de soi et les attributions face au comportement social des autres; ces constatations peuvent servir de fondement aux attentes sociales générales qui sous-tendent les modèles actifs de travail social des personnes-clés de l’entourage.

Mots clés: attachement, attributions, enfance, soi, pairs

There is considerable interest in the predictive link between relationship processes in childhood and psychiatric disorders (e.g., Guillon et al., 2003), particularly those marked by aggression, anti-social behaviour, and delinquency (Donnellan et al., 2005). For example, relationship problems that are associated with attachment disorganization show strong predictive validity from infancy to later psychopathology and social maladjustment (Green & Goldwyn, 2002). Before similar kinds of predictive studies from childhood are conducted, however, more needs to be known about how attachment relationships are related to children’s thoughts and feelings about themselves and their interactions with social partners within those relationships.

These processes can be examined through Bowlby’s (1969/82) Attachment Theory lens, which proposes that children develop representations of attachment figures and themselves through parent-child social interactions. In infancy the balance of exploration and proximity-seeking is associated with attachment styles, however, as language and higher-order thought processes develop in childhood (e.g., Symons, 2004), these attachment styles become encapsulated in cognitive representations of how people behave within social relationships. During this developmental transition to middle childhood, attachment style assessment expands to reflect the importance of perceived availability and support from the secure base rather than proximity of the attachment figure during this period (see Bretherton, 1991; Kerns & Richardson, 2005; Meins, 1997).

Bowlby suggested that cognitive representations can be equated to a set of social expectations that have a powerful influence on beliefs and feelings about the self. For example, when needs are met either inconsistently or in an angry fashion by parents, children may come to believe they are not worthy of care. When needs are met consistently, children come to expect they are worthy of care and they can count on others in times of need, which is an element of a secure attachment. There is thus a theoretical basis by which interactions between children and attachment figures serve as a basis for cognitive representations (i.e., working models) of the self (Bowlby, 1969/82). Research, in turn, has shown that a secure attachment style predicts more positive feelings about the self (e.g., Bohlin et al., 2000; Clark & Symons, 2000), which can promote positive interpersonal relationships later in life (Easterbrooks & Abeles, 2000; Fordham & Stevenson-Hinde, 1999; Hinde et al., 2001).

Security of attachment with caregivers in the preschool period has been found to relate to relationships with peers and teachers (e.g., DeMulder, Denham, Schmidt, & Mitchell, 2000), and friendships in middle-childhood (e.g., Booth-Laforce et al., 2006). For example, children with insecure attachments to their mothers have...
been found to demonstrate more angry-aggressive behavior with peers and teachers, are viewed as being less socially competent, and are less well-liked than children who are secure (Cohn, 1990; DeMulder et al., 2000). Raikes and Thompson (2008) have found that attachment security at 24 and 36 months of age predicts children’s enhanced social problem-solving skills and reduced loneliness. Secure children tend to approach peer interactions with a set of positive expectations, anticipate positive responses from their peers, and are likely to experience more positive peer relationships than those with negative expectations (Schneider et al., 2001). However, a negative attribution style may well be the mechanism by which insecurity manifests itself in negative social interactions.

One method of addressing the children’s representations of relationships involves assessing how children interpret a social event that has obvious negative outcome, but the intent of the protagonist is not at all clear (Crick & Dodge, 1994). Research has examined attributions of the social behavior of peers (e.g., Cassidy et al., 1996), but attachment theory serves as a generalized model of expectations that could underlie social problems with other social partners in addition to peers. The current study will expand on research that has examined the relation between attachment and attribution style by examining peer, parent, and teacher social partners.

The Current Study

This research examines feelings towards the self and attributions of the behavior of others in middle childhood; a crucial period of transition in attachment security. The first goal of this research is to relate attachment representations to feelings about the self. Children were asked to respond to structured questions about a series of pictures of parent-child separations from the Separation Anxiety Test, and feelings about the self were assessed using a puppet interview. It was predicted that children’s security and positive self-feelings would be significantly related.

The second goal of this study was to extend the link between attachment representations and expectations about others’ behavior to include children’s attributions of parent, teacher, and peer relationships. To address this second goal, children responded to attributions about ambiguous social events with a variety of social partners. It was expected that children with higher attachment security scores would make more positive attributions about the intentions of others.

Method

Participants

Participants were 176 children in grades primary (kindergarten) to three aged 5 to 9 years (Range 62-106 months, M=87.79, SD=10.86). Ninety-three children (53%) were female and all spoke English as a first language. Participants were recruited from elementary schools and had to be a student in a primary, first, or second grade classroom – there were no exclusion criteria. Their racial composition was predominantly White, which is typical of this region of Atlantic Canada. A wide socio-economic status range was represented (Blishen, et al., 1987) although most participants were middle class (M=49.0, SD=12.8, Range 23-101). The attribution story component of this study was added to the protocol half way through data collection, so 89 children (61% female) completed this measure and everyone completed the other measures. One child withdrew from the study during data collection.

Measures

Feelings towards self

In the Puppet Interview (Cassidy, 1988), a puppet is asked questions about the child’s worthiness or self-esteem. Questions are answered by the child because the puppet, “Woozle”, has lost its voice so the child talks for Woozle. In this fashion, the child answers 20 standardized questions about herself or himself, for example “Woozle, are you ever disappointed in [child’s name]?”. The Puppet Interview has been found to have good concurrent validity (Verschueren et al., 1996; Verschueren & Marcoen, 1999) and predictive validity (Verschueren et al., 2001).

In the present study, children’s responses to each question were given quantitative scores in relation to how positively the children spoke about themselves. A high score (i.e., most positive) receives a value of six and the lowest score is scored as one. Feelings towards self is based on the average ratings of 15 of the questions in which higher scores indicate more positive feelings. The possible range of scores was therefore 1 to 6 (M=4.18, SD=1.45).

The child’s responses to each question were transcribed verbatim from the videotape of each session for coding. They were coded by the first author and a blind undergraduate research assistant. The inter-rater agreement on feelings towards self was high, r (174) = .90, p < .001. The blind score was used in all analyses.

Attachment security

The Separation Anxiety Test (SAT; Hansburg, 1972; Klagsbrun & Bowlby, 1976) is a semi-structured interview that taps children’s thoughts and feelings regarding attachment processes. The Slough, Goyette, and Greenberg (1988) adaptation of the Klagsburn and Bowlby (1976) version was used, with photographs by Greenberg (1985). In this version, a series of pictures are shown to the children that depict separations between a gender-matched child and his or her parent(s) and the order of presentation is specified by other studies (see Slough & Greenberg, 1990).

For each picture, children were asked a series of closed- and open-ended questions regarding the pictured child. The Slough et al. (1988) scoring method was used...
to assess three features of children’s responses. The attachment security scale assesses children’s ability to express vulnerability or their needs around the separation; scores range from 3 to 12, high scores indicate secure attachment themes, $M=9.27$, $SD=1.96$.

Blind and second raters scored verbatim transcripts and high inter-rater reliability was found on the SAT scale scores, with correlations ranging from .91 to .94. Cohen’s $\kappa$ (Cohen, 1960) was calculated on the allocation of individual responses between coders to the 21 subcategories across participants and yielded a $\kappa$ of .83. The blind rater’s scores were used in the analyses. The blind rater was a graduate student.

Receptive language

The Peabody Picture Vocabulary Test – Third Edition (PPVT- III; Dunn & Dunn, 1997) is a widely recognized non-verbal multiple-choice test designed to evaluate receptive language and vocabulary in young children and adults. The children’s standard scores ranged from 74 to 146 ($M=108.18$, $SD=12.13$).

Attributions

Peer attributions. To assess children’s attributions about their peers’ intent in ambiguous situations, the children were read five stories (Cassidy et al., 1996; Dodge & Frame, 1982), in which children were asked to pretend that they were the child in the story. In each scenario, a same-sex peer caused a clearly negative event to happen to the child but the peer’s intent was ambiguous. The first two questions tapped the child’s thoughts about peer intent; the next two questions tapped the child’s thoughts related to peer behavioral consequences to the event, and the last two questions tapped the child’s thoughts of peer feelings toward the child and the event. Negative codes were given when the child attributed a negative intention to the peer’s actions, when they felt the child should be punished for their actions, and when the child felt that the peer did not feel some degree of remorse for their actions and did not like the child.

For each of the six questions, the children’s responses were summed across all five stories to obtain a total score for each kind of question (possible range 0-5). Alphas for each question ranged from .58 to .77, $M=.65$, and these were summed for each story to get a score from 0 to 6. Given high internal consistency in attributional style across stories, a = .87, attributions about peers was defined as the summed rating across stories in which a higher score indicated a more positive attributional style, with a possible range of 0 to 225. A blind researcher and the first author coded all responses from transcripts. Inter-rater agreement for the three summary scores ranged from $rs (88) = .90$ to .98. The blind coder’s data were used in all analyses.

Parent and teacher attributions. Five stories about situations which involved parents and five about teachers were adapted from the peer vignettes. The action in each of the five stories remained the same, but the focus changed to parents and teachers. Positive and negative representations were coded with the same coding system used for the peer-related representation stories. Alphas for each of the parent questions ranged from .52 to .84, $M=.72$, and teacher questions ranged from .64 to .89, $M=.80$. A total score was summed across all six questions for parents ($a = .81$) and teachers ($a = .91$). Different blind undergraduate coders scored the transcripts and inter-rater agreement on the three summary scores of parent and teacher stories were all acceptable, $rs > .89$, and average scores were thus created for both attributions about parents and attributions about teachers.

Attributions for peers, parents, and teachers were highly related, Cronbach’s alpha = .83, so an attributions about others score was created by summing the peer, parent, and teacher scores ($M=65.89$, $SD=16.95$, Range 24 – 90).

Procedure

Participants were seen for two half-hour periods at school. All of the children completed the PPVT-III in the first session as a warm-up task and the SAT in the second session. Half the children received the Puppet Interview in session 1 and half in session 2, and there were no differences in dependent measures based on order of presentation. The peer and parent attribution story sets were completed in session 1 and the teacher attribution story set was completed in session 2 for those participants that completed this measure.

Results

Intercorrelations of the measures

Table 1 contains an intercorrelation of the dependent measures. Age, gender, and receptive language were unrelated to each other according to bivariate correlations. Age was significantly correlated with the attributions about others as older children reported more positive attributions about the ambiguous behavior of social partners. Girls made more positive attributions about others, $M=68.80$, $SD=16.05$, than did the boys, $M=61.40$, $SD=17.55$, $t(87)=2.05$, $p < .05$. Receptive language was unrelated to dependent measures.

Intercorrelations of attachment security, feelings about self, and attributions towards others were examined as partial correlations controlling for age and gender, and these are also in Table 1. Attachment security was positively related to both positive feelings towards self and positive attributions about others. Children who felt more positively towards themselves also reported more positive attributions about others.

Children reported more positive attributions about their parents’ intentions, $M=25.46$, $SD=4.91$, than they did about either their teachers’ intentions, $M=22.30$, $SD=7.50$, $t(88)=5.29$, $p < .001$ or their peers’ intentions,
= 18.12, \( \text{SD} = 6.97; t(88) = 11.56, p < .001 \) respectively.

They also attributed more positive intentions to their teachers’ than they did of their peers’ intentions, \( t(88) = 6.99, p < .001 \).

**Predicting feelings towards the self and attributions about others**

Hierarchical regression analyses were conducted to predict feelings towards the self and attributions about others from gender and age at step 1 and attachment security at step 2. These are in Table 2. Background variables did not predict feelings towards the self at step 1 of the equation. However, relatively more secure children had more positive feelings about themselves, with 23% of the additional variance predicted.

Girls and relatively older children made more positive attributions at step one of the regression equation, explaining 10% of the variance. At step 2, relatively more secure children made relatively more positive attributions about the social behavior of others. When attachment security was entered at the second step, the predictive equation was significant as the attachment scale explained an additional 25% of the variance. Insecurity was associated with negative attributions.

**Discussion**

This study demonstrates strong positive intercorrelations between children’s attachment security assessed using the SAT, positive feelings about themselves, and positive attributions of the social behavior of others. Secure children thus had a more positive appraisal of self and other, and similar results have been found in other studies using different attachment measures (e.g., Clark & Symons, 2000; Verschueren & Marcoen, 1999; Verschueren et al., 1996).

Using ambiguous attribution stories with a variety of social partners, the children made similarly positive attributions across social partners, and those who made positive attributions were more secure. The consistency in representations of others may be due to a general working model, which would be predicted by social information processing across a variety of situations and not restricted to one specific kind of social relationship (Bretherton, 1991; Crick & Dodge, 1994). In order for the emphasis to then be placed on the attachment relationship, there must be links made between children’s representations of their family system and their representations of other important figures such as peers (Schneider et al., 2001).

The relation of positive feelings of self and other lends support to Bartholomew’s (1990) suggestion that young children’s concepts of self and other may be confounded, making it challenging for children in this age group to separate their attachment figure’s availability from their feelings of love-worthiness. At each new developmental phase, children are continually appraising the balance between being connected to others and being independent and autonomous (Cicchetti, et al., 1990). A developmental study of these two dimensions may help to elucidate the changes occurring across time and better understand children’s conceptions of each and when they became more individuated aspects of their identity. On the other hand, given that secure children are positive on both dimensions, and approximately 60% of children can be

### Table 1. Intercorrelations of dependent measures

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<td>2. Gender</td>
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<td>3. Receptive language</td>
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<td>5. Feelings towards self</td>
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<td>6. Attributions about others</td>
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**Note.** *p < .05, **p < .01, ***p < .001. \(^1\) partial correlations controlling for age and gender. Gender codes: girls = 1, boys = 2.

### Table 2. Hierarchical regressions predicting positive feelings and attributions from security

<table>
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<th>Step Variable</th>
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<td>Gender</td>
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<td>2. Attachment security</td>
<td>.24</td>
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**Note.** + *p < .10, *p < .05, **p < .01, ***p < .001. \( R^2 \text{inc} \) is equal to the additional proportion of variance accounted for at a given step of the equation.

\( M = 18.12, SD = 6.97; t(88) = 11.56, p < .001 \) respectively. They also attributed more positive intentions to their teachers’ than they did of their peers’ intentions, \( t(88) = 6.99, p < .001 \).
categorized as “secure” using a variety of methods, a correlation between the two dimensions should be expected.

There are limitations of this study. First, while similar associations were found for attachment constructs and attributions of the behavior of the respective behavior of peers, parents, and teachers, there was shared method variance in the attribution stories that may account for the similar responses. On the other hand, there were advantages to these stories in that the vignettes had some ecological validity: they contained the kinds of stories that can cause behavioral disruptions in middle childhood, such as physical confrontations during recess caused by a child misattributing the innocent social behavior of a child or teacher. Insecure children see the social world through malevolent glasses, and this can cause social problems if the child misattributing the behavior of a peer. In these instances, the negative self-representations of others could be a resiliency factor, along with other important factors including biological predispositions, the ability to regulate emotions, metacognition and intelligence, and the broader social network of a child.

Second, the current data are cross-sectional and there are different developmental pathways possible. Children who are securely attached may elicit in others more positive responses for a variety of reasons, including, but not limited to, their expectations of others. The relation between positive feelings of the self and positive attributions indicates that children who feel good about themselves also have positive expectations of others. Positive self-feelings may lead them to develop more positive relationships with others including their peers (e.g., Bohlin et al., 2000). This explanation would be consistent with Hinde et al.’s (2001) contention that self-perception is based on how someone believes others to perceive them, given the emotional valence of the attributions. However, the reverse pattern could also be important. Children who feel poorly about themselves may make it challenging for either parents to develop and maintain a good parent-child relationship or peers to establish a friendship. In these instances, the negative self-representation would be the cause, rather than the effect of the relationships. Finally, the negative self-representations and the negative representations of others could be caused by a third variable such as academic performance, family disruption, or trauma. Distinguishing between these potential pathways would require longitudinal data in which alternative directional accounts could be compared. If the relation is spurious due to a general response style of being “positive about everything”, then this would pose a problem for attachment theory as more generalized personality and mood constructs may account for these findings as opposed to security.

Third, the current study relied on single measures of attachment security and self-representation. It would have been valuable to include another measure that provided attachment categorical styles appropriate for this age group, although few “gold standards” of attachment exist in the preschool period (see Kerns & Richardson, 2005). An observational measure of attachment style would have provided concurrent behavioral indicators rather than relying solely on children’s representations of their attachment relationship. However, the current method provides a clinically useful method for practitioners working with children in psychiatric settings. Although responses to separation pictures and puppets were subjected to complex coding, the bases of the responses in terms of secure-base behavior with parents and positivity of self-reflection would be readily apparent to someone with familiarity with Attachment Theory.

Despite these limitations, a number of conclusions can be drawn. This research highlights the inter-relatedness of thoughts about self and other within the broader context of positive social development. It suggests that children’s representations of how to cope with separations from caregivers are related to thoughts about self and other’s intentions, which is predicted by Bowlby’s (1969/1982) attachment theory. A negative attribution style for social interactions may well be a social-information processing precursor to current and later peer problems and externalizing behavior problems. These are central issues within common psychiatric problems in childhood and adolescence that reflect acting out behaviors. However, these processes are complicated. A disorganized attachment does not necessarily equate with an attachment disorder and while security of attachment is desirable, it is not a guarantee for mental health in the future. Secure attachment can therefore be thought of as a resiliency factor, along with other important factors including biological predispositions, the ability to regulate emotions, metacognition and intelligence, and the broader social network of a child.

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