Perceived security, self-representation, and dyadic child-parent and child-peer play interactions
A longitudinal study

Perceptie van de relatie met ouders, zelfrepresentatie en dyadische ouder-kind en kind-kind spelinteracties
Een longitudinale studie

(met een samenvatting in het Nederlands)

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1.1 Introduction

Research over the last several decades has highlighted the assumption that children's family and peer contexts are related to each other (e.g., Parke & Ladd, 1992; Parke & O'Neil, 1999). Whether and how these social worlds are interconnected is less well understood. In the present thesis, the relation between family and peer contexts is examined. More specifically, it is studied whether children's perceived security of the relationship with both parents as well as their self-representation are reflected in children's interactions with parents and peers. Therefore, children's perceived security of the relationship with parents and self-representation were assessed during interviews at school. Furthermore, to assess child-parent and child-peer interaction, the child was videotaped while playing with his or her mother, father, or a peer, respectively, during a free play situation and a dominoes task. These tasks were observed afterwards, and scored on several characteristics such as shared positive emotions, mutual responsiveness, and control behavior. Children participated at ages seven and nine, so it was possible to study not only cross-sectional relations, but also longitudinal associations. In the next sections, first several theoretical perspectives will be reviewed, followed by a discussion of the main concepts and the relations between the main concepts. Thereafter, the project design is presented. In the final section the outline of this thesis will be given.

1.2 Theoretical background

Several perspectives exist that relate the two social worlds of childhood, that of family and that of peers. In the next paragraphs, these theoretical perspectives will be discussed.

Attachment theory

According to attachment theory (Bowlby, 1969, 1973), it is assumed that children develop a 'sense of self' and a 'sense of others'. Both are assumed to be based on former experiences in interactions with parents. On the basis of early experiences a child forms internal mental representations of the self and of the relation with others. Bowlby (1969) coined the term "internal working model" for these representations. He stated that children who have secure experiences with important adults, in a warm and responsive relation, develop an internal representation of those experiences on which future relations are based. They also develop a positive sense of self. Thus, in this line of reasoning, early experiences with primary caregivers provide children with internal working models, on which feelings about the self as well as expectations about relationships with others are based (Ladd, 1992). These internal representations serve also as a model for expectations of future relationships (Bretherton & Munholland, 1999).

The social-cognitive perspective

A related point of view is the social-cognitive perspective, which focuses on the internal representation of past relationships, but not in a specific attachment context. Central idea is that past interpersonal experiences may influence current behavior and the processing of new social information. These internal representations are called relational schemas, which are defined as 'cognitive structures representing regularities in patterns of interpersonal relatedness' (Baldwin, 1992, p. 461). In other words, people develop social-cognitive schemas of their relationships, which help them understand and react in subsequent interactions with others. These cognitive structures exist of images of the self and of others, and of expectations about patterns of interactions.

Social learning theory

A third theoretical approach is that of social learning theory (Bandura, 1977; Schneider, 1993). In this perspective it is assumed that children observe and imitate parental behavior so that they get equipped for social living. Children are modeling adult behavior and are reinforced in their social behavior by their parents as well as by themselves (self-reinforcement) and their peers. That is, the child is not only reinforced in his behavior by others, but also actively evaluates observed actions and their possible consequences (Schaffer, 1998). It is thought that child-parent interactions of children that are better accepted by peers, are characterized by specific behaviors, like positive affect and synchrony. For instance, during synchronic interaction with a parent, a child learns to balance initiations and compliance to others' initiations, which might be a skill that is important to generalize to interactions with peers (Harrist & Waugh, 2002).

Continuity of adaptation

Another theoretical perspective to think about this relation is in developmental tasks and 'continuity of adaptation' (Sroufe, 1979, p. 838). Sroufe argues that in the course of their development, children have to face subsequent developmental 'issues', such as 'physiological regulation', 'establishing an effective attachment relationship' and 'management of impulse, sex role identification, and peer relations'. Skills achieved during earlier tasks can be used during later developmental tasks. For example, in infancy, it is important for children to develop a secure attachment relationship with parent(s). Children who have been able to manage a secure relationship with parents, and who have developed confidence in the attachment relationship, will be better able to achieve and maintain relationships with peers, a subsequent developmental issue (see also Van Aken, 2004). In other words, when problems arise during the development of a secure attachment relationship with parent(s), and children are not able to accomplish this

developmental task in a proper way, children will have a higher chance of getting problems during subsequent interactions with peers.

General Sociability Hypothesis

A fifth point of view suggests that constitutional differences (such as temperament) between children could explain differences in peer acceptance as well as in other domains, like attachment classification (e.g., Lamb & Nash, 1989; Hinde & Stevenson-Hinde, 1988). In this perspective, which is called the General Sociability Hypothesis by Lamb and Nash (1989), two components are distinguished. Firstly, the emphasis is on individual differences in sociability. Secondly, it is assumed that children develop social skills with mother parallel to social skills with peers. It is suggested that 'sociability is consistent across type of partners and over time' (Lamb & Nash, 1989, p. 235; Schneider, 1993). This implies that sociable children are not only sociable during interactions with their mother, but also with other children. Furthermore, it is expected that sociability is a relatively stable person characteristic, so that children who are sociable at a young age (as infants) are more sociable at an older age.

The domain-specific perspective

In the five above mentioned theoretical approaches, it is thought that the two social worlds of children (i.e., that of family and that of peers) are related in one way or the other. However, it might also be possible that these worlds are not related at all (e.g., Goudena, 1991). In this perspective, it is assumed that the development of sociability with mother and peers proceeds independently. Some studies found that certain behaviors of infants or children are particularly seen during interaction with mothers and other behaviors particularly with peers (e.g., Vandell, 1980). Hinde, Tamplin, and Barrett (1993), for example, found different structures of relationships between children with mother, sibling, peer, and teacher. The differences were on several aspects, such as reciprocity and control, and reflected the nature of the relationships concerned. For instance, interactions with mother were more reciprocal, whereas interactions with peers and siblings were more complementary.

In sum, it might be that the two social worlds of children, that is of parents and of peers, are separate worlds, which are not related to each other. However, íf the worlds of family and peers are related, several theoretical perspectives exist, which have been discussed in the previous paragraphs.

In the studies presented in this thesis, we assume that the two social worlds of children áre related. Therefore, based on former studies (e.g., Franz & Gross, 2001; Youngblade & Belsky, 1995) in which a relation between these social worlds is assumed, we use both an attachment and a social learning perspective. Central question in the

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present thesis is whether children's internal working models of the relationship with parents and of the self are reflected in specific observable characteristics of child-parent and child-peer interaction during early and middle childhood (at ages seven and nine). Based on attachment theory, the focus will be on the idea of children developing internal working models of attachment on the basis of early interactional experiences with primary caregivers. According to Bowlby (1973), these internal working models consist of two components: 1) the internal working model of the attachment relationship or attachment figure, and 2) the internal working model of the self, being a person worth of affection and loved by the attachment figure (see also Maier, Bernier, Pekrun, Zimmermann, & Grossmann, 2004; Verschueren & Marcoen, 1999). Based on the social learning perspective, the idea of modeling parental behavior will be the focus. It is assumed that children learn and practice certain skills during interaction with their parents, which are later used during interactions with peers.

1.3 Main concepts

In Figure 1.1, the main concepts and relations, as studied in chapters 2, 3, 4, and 5 of this thesis, are shown. It should be noted that Figure 1.1 functions as a heuristic schema, and will not be used as a model tested completely. With respect to relation A, which is
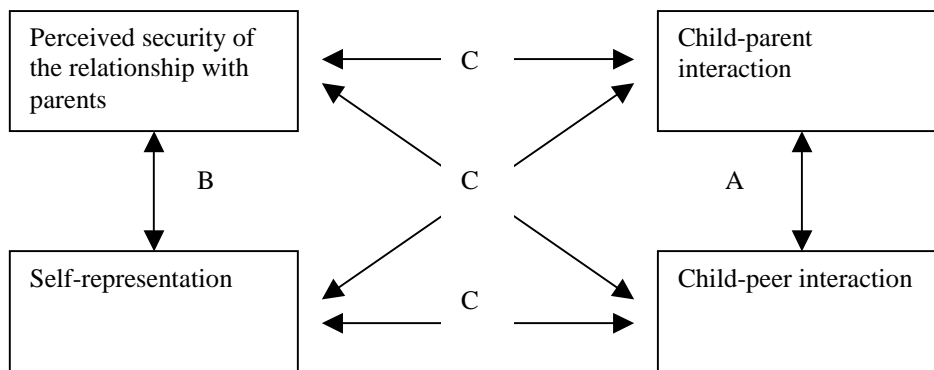
Figure 1.1: Expected relations between child-parent and child-peer interaction, perceived security and self-representation

elaborated in chapter 2, observed characteristics of child-parent interaction will be compared with observed characteristics of child-peer interaction. It is expected that some behaviors (such as mutual responsiveness) will be displayed more during child-parent interaction, whereas other behaviors (like shared positive emotions) will be displayed more during child-peer interaction. With respect to the consistency of individual differences in behavior over different contexts, we expect a medium to high correlation

between dyads with the same target child. Furthermore, an influence of peer preference on the differences is expected, because peer preference is found to be correlated to several observed characteristics of child-parent interaction such as mutual responsiveness and positive emotions.

The relation between perceived security of the relationship with parents and self-representation (Figure 1.1, relation B) is studied in chapters 3 and 4. Regarding the assumption that children have internal working models of the relationship with attachment figures, and of the self, we expect high positive correlations between perceived security of the relationship with parents and self-representation. Furthermore, we expect that mother and father contribute individually to the development of specific aspects of the self. For instance, we expect perceived security of the relationship with mother to be related to global self-representation (i.e., positiveness of the self), whereas we expect perceived security of the relationship with father to be related to more specific domains of the self.

With regard to relations C, children's perceived security of the relationship with parents and self-representation will be related to observed characteristics of child-parent and child-peer interaction (chapter 5). We expect that dyads with children who are more positive about the relationship with parents or about the self, will show more positive behaviors like mutual responsiveness and shared positive emotions during child-parent and child-peer interaction. Furthermore, it is expected that observed characteristics of child-parent and child-peer play interaction at age nine will be predicted by perceived security of the relationship with parents at age seven.

In the chapters 3, 4, and 5, we will present data of interviews and videotapes of the children twice, at ages seven and nine. Therefore it is possible to study the stability of concepts over two years. Furthermore, it could also be examined how and which concepts influence each other over time. This will give us more insight in the development of interconnections between family and peer contexts.

In the next sections, the main concepts of this thesis will be described. Subsequently, relations A, B, and C will be further discussed and for each relation the research questions, as studied in chapters 2, 3, 4, and 5, will be given. Furthermore, a short overview of the subjects and measures is presented. Finally, an outline of the present thesis will be given.

1.3.1 Perceived security of the relationship with parents

The central idea in attachment theory is that the physical proximity and psychological availability of an attachment figure provide a secure base for a child (Bowlby, 1969). The attachment figure serves as a safe haven from which children explore the world, for example by play or other (social) behaviors. Consequently, on the basis of early experiences with caregivers, a child forms internal working models of the attachment relationship (Bretherton & Munholland, 1999).

The perception of the relationship with parents is assumed to be mostly shaped by the availability of the parent (Bretherton, 1987). As Kerns, Tomich, Aspelmeier, and Contreras (2000, p. 614) indicate, 'availability is a function of the degree to which there is open communication between the child and the attachment figure, the attachment figure is physically accessible, and the figure is responsive to the child's bids for help'.

In infancy and early childhood, the quality of the attachment relationship is often measured by observing actual attachment behavior (Strange Situation). When children grow older, mostly representations or perceptions of the attachment relationship are measured. In the next paragraphs, the different levels of consciousness of representations and perceptions are discussed. That is, representational measures are meant to measure in an indirect manner how children see the attachment relationship with parents. With respect to perceptions, children are directly asked how they perceive and what they think of the relationship with their parents.

Representational measures are used for younger children because it is assumed that children under the age of eight are (cognitively) less able to answer reliably on direct questions about the relationship with parents. With these measures, it is assessed how a child represents information about the attachment relation (see Kerns et al., 2000). Cassidy (1988), and Verschueren and Marcoen (1994), for instance, have developed a story completion task. During this story completion task, the interviewer plays the beginning of several attachment related stories, and the child has to finish the stories by means of a doll family. It is assumed that the child reveals the quality of the attachment relationship with his or her own parents in the doll stories played. Another measure that has been developed is the Separation Anxiety Test (Klagsburn & Bowlby, 1976; Hansburg, 1980; Resnick, 1993) in which children's representations of the child-parent attachment relationship are assessed. Six pictures depicting mild and severe child-parent separations are shown to the child and for each picture the child is asked 1) how the child on the picture feels and why the child is feeling that way, and 2) what the child in the picture is going to do. On the basis of the answers given by the child, security of attachment representation is coded, as secure, insecure-avoidant, or insecure-bizarre/ ambivalent.

After the age of eight, children are assumed to be better able to reveal their actual perception of the relationship with parents, and therefore other (self-report) measures, aimed at tapping that perception can be administered. Kerns, Klepac, and Cole (1996), for instance, have developed and validated the Security Scale, which measures the perceived security of child-mother and child-father attachment in middle childhood. Items of the Security Scale tap a) the degree to which the parent is perceived as responsive and available, b) the child's perception of being able to rely on the attachment figure in times of stress, and c) children's perception of the ease and interest in communicating with the attachment figure.

In the present thesis, at age seven, a representational measure of perceived security will be administered, whereas at age nine a representational measure and a measure aimed at tapping children's perception of the relationship with parents will be administered. Furthermore, we chose to use the term 'perceived security of the relationship with parents' for both the representational measures and the perceptional measure, because the underlying concept in both kinds of measures is the availability of the parent, and the extent to which children feel secure in the child-parent relationship. To be more specific, in chapter 3 continuous scores of perceived security, measured by the Kerns Security Scale will be used in the analyses in which perceived security of the relationship with parents and self-representation are related. In chapter 4, again the continuous scores of the KSS are used, added with classifications obtained by administering the SAT. In chapter 5, only classifications will be used, and therefore only the SAT will be administered.

1.3.2 Self-representation

The other component of the internal working model, as indicated by Bowlby (1969, 1973), is the internal working model of the self. As discussed in attachment theory, the child also forms an internal working model of the self on the basis of experiences with attachment figures. Self-representation is defined by Harter (1999, p. 3) as "attributes or characteristics of the self that are consciously acknowledged by the individual through language- that is how one describes oneself". These characteristics can be focused on the self in general or on several domains of the self. In the literature, a distinction is made between these two kinds of self-representation (i.e., global and domain-specific self-representation). With global self-representation the "overall evaluation of one's worth or value as a person" (Harter, 1999, p. 5) is meant. Global self-representation is not simply a sum of self-representation across different domains. Domain-specific self-representation reflects "the individual's sense of adequacy across particular domains such as cognitive competence, social competence, or athletic competence" (Harter, 1999, p. 5). Especially in the literature about self-representation in early and middle childhood, this distinction between global and domain-specific self-representation is a central point of the discussion. Do young children possess a global self-representation and if so, are they able to reveal it? From a cognitive perspective, it can be assumed that children under the age of eight are thinking about themselves in terms of concrete characteristics, whereas children in middle childhood (eight to eleven years) are better able to describe themselves in more general terms, that are based on the integration of specific characteristics (Harter, 1999; Harter & Pike, 1984). More recently, however, researchers (e.g., Gadeyne, Ghesquiere, Onghena, & Verschueren, 2000) have stated that it is very well possible that children under the age of eight do have a global self-worth. These authors argue that the measures used should be adequate and age-appropriate, resulting in the use of *representational* measures.

Representational measures are aimed at assessing how a child represents information about the self. Verschueren and colleagues (1994, 1999) and Cassidy (1988), for instance, have developed the Puppet Interview to probe the representation of the global self. Harter and Pike (1984) have developed the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children to probe the young child's feelings about the self on four specific domains.

After the age of eight, *perceptional* measures aimed at self-representation can be administered. With these measures, the child is more directly asked about the self. The Self-Perception Profile for Children (Harter, 1985), for instance, is aimed at tapping the self-representations on five specific domains. Furthermore, global self-worth is administered in the sixth scale. Another measure that focuses on self-representation is the Ease of Access to Self-Evaluations (EASE; Easterbrooks & Abeles, 2000). The EASE is designed to measure whether a child (in middle childhood) gives easily answers to questions about the self, or whether a child is reluctant to give answers.

In the present thesis, similar to the assessment of perceived security of the relationship with parents in which representational and perceptional measures were used, the assessment of self-representation also consists of representational (PI; PSPCSA) and perceptional (SPPC; EASE) measures. Somewhat confusingly, in the literature several terms are interchangeably used for self-representation or self-perception (see Harter, 1999). Some measures we use are called representational at age seven and perceptional at age nine although they have used the same format (e.g., Pictorial Scale and SSCP). To avoid confusion of terms, we have chosen to use the term self-representation for both the representational and the perceptional measures. In chapters 3 and 4, that focus on the relationship between perceived security of the relationship with parents and self-representation, global as well as domain-specific measures will be administered. We have chosen to use both, because we were interested whether perceived security of the relationship with parents was related to both general self-representation and domain-specific self-representation, or that perceived security was more related to one and not to the other kind of self-representation. In chapter 5, in which the relation between (global) self-representation, perceived security, and dyadic play interactions is studied, we have chosen to use only the measure of global self-representation, because for this question, we were interested in a global sense of self, not aimed at particular domains.

1.3.3 Child-parent and child-peer interaction

Children's social experiences with parents and peers may be distinguished in three levels (Hinde, 1997; Van Aken, 2003; Rubin, Bukowski, & Parker, 1998). The first level is the level of interactions. Interactions can be defined as interchanges between two persons. Children have several dyadic interactions with others lead to a social exchange of some duration. Studies on the interactional level are mainly about sociability, aggression,

helpfulness, and withdrawal. The second, more complex level, is the relationship level. A relationship consists of successive interactions between two familiar individuals. The nature and course of each interaction is influenced by past interactions and future expectations of the relationship. The third and most complex level is the group level. A group is 'a collection of interacting individuals who have some degree of reciprocal influence over one another', for example a school class (Rubin et al., 1998, p. 626). In general, it can be said that relationships consist of several interactions, that are influenced by past and future experiences in the interactions. A group consists of multiple relationships (dyadic or existing of relations between multiple actors), plus other phenomena that characterize a group.

In the present thesis, the focus will be on observed interactions of children with parents and peers. Interactions of children and their mother, children and their father, and children and a peer were observed. These interactions are considered to be a "window to intersubjectivity". With "window to intersubjectivity" we mean that by using observational methods, insight may be obtained in how child, parent, or peer share and experience their ideas and behavior. The observation of child-parent and child-peer interactions is seen as an indicator of real-life child-parent and child-peer interaction and relationship (see also Gardner, 2000). We have chosen for *play* interactions because during play children and parent or peer are free to do what they want, without being restricted by rules of a game or task (see De Koeyer, 2001; MacDonald & Parke, 1984). In this way it is, for instance, possible to study different kinds of play, like fantasy play or constructive play. During play, the parent is also able to serve as a "co-player" and thereby more horizontal qualities of child-parent interaction could occur (see Russell, Pettit, & Mize, 1998). According to Russell et al. (1998) these horizontal qualities could explain the link between the family and peer context. The observation categories used were therefore aimed at capturing horizontal qualities, such as shared positive emotions, simultaneous play, mutual responsiveness, and balance of control. Total control behavior and discord were added as indicators of verticality. These characteristics were observed during both child-parent and child-peer play interaction. In this manner it was possible to compare child-parent and child-peer interaction.

For the observation of child-parent interaction, both parents were observed separately while playing with their child. For the child-peer interaction, the subject played with a familiar, but 'neutral' class mate. We have chosen a 'neutral' peer play partner, because we were interested in social competence in general and not in a specific relation like a friendship. Playing with a best friend might provoke other behaviors, such as cooperation and conflicts. The criteria used for selection of a 'neutral' classmate were being of the same gender as the target child, having an average sociometric status, and not being either 'very well liked' or 'not liked at all' by the target child, as indicated by the target child.

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1.4 Relations between the main concepts

In the next sections, the relations A, B, and C from Figure 1.1 will be discussed. Furthermore, for every relation the research questions that have been examined in the connected chapters 2, 3, 4, and 5 of this thesis will be mentioned.

1.4.1 The relation between observed child-parent and child-peer play interaction

With respect to relation A in Figure 1.2, it will be examined whether child-parent and child-peer interactions differ or are similar on several observed characteristics which are scored in both kinds of interactions.
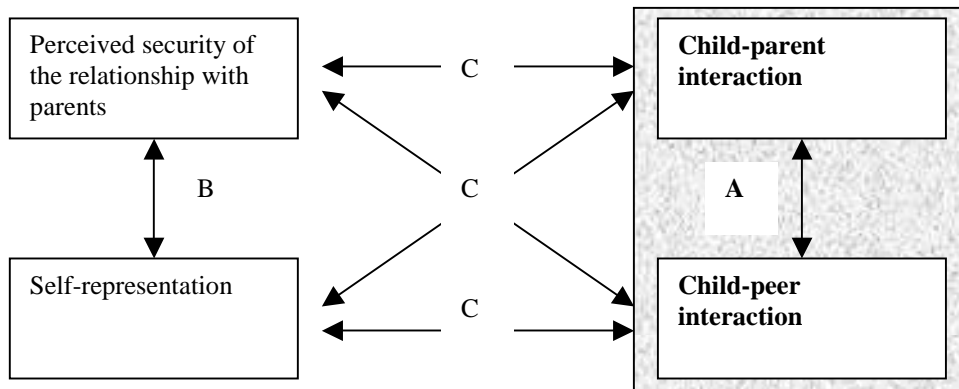

Figure 1.2: Relation A: Expected relation between child-parent and child-peer interaction

In an extensive review, Russell et al. (1998) have tried to create a synthesis between the view that child-parent interaction is characterized by verticality (a-symmetry) and the view that child-peer interaction is characterized by horizontality (symmetry). The authors point out that child-parent relationships might contain horizontal qualities similar to those present in child-peer relationships. From such a perspective, child-parent relationships allow children to experience, learn about, and practice some of the skills that are involved in relationships with peers. The horizontal qualities in child-parent interaction that Russell et al. (1998) are focusing on are reciprocity and shared power. These horizontal qualities are in particular displayed within contexts such as play and control exchanges. More specifically, during child-parent play the following 'opportunities for horizontal qualities to occur' (Russell et al., 1998, p. 325) are thought to be relevant: 'matching of affective states', 'turn-taking', 'synchronous exchanges', 'joint determination of the content and direction of play', and 'parent and child being mutually compliant during the play' (Russell et al., 1998, p. 325).

In chapter 2, it will be examined whether child-parent and child-peer interaction are different or similar with respect to specific observed characteristics. It is expected that some behaviors (such as mutual responsiveness) will be displayed more during child-parent interaction, whereas other behaviors (like shared positive emotions) will be displayed more during child-peer interaction. With respect to the consistency of individual differences in behavior over different contexts, we expect a medium to high correlation between dyads with the same target child. Furthermore, it is studied whether gender has an effect on the found differences or similarities. Moreover, when studying the relation between child-parent and child-peer interaction, in most studies peer preference (i.e., sociometric status) is used as an indicator of child-peer interaction (e.g., Black & Logan, 1995; Putallaz & Hefflin, 1990; Pettit & Clawson, 1996). Therefore, in addition to the comparison of child-parent and child-peer interactions on observed characteristics, we also examined the effect of peer preference, which was entered into the analyses as a covariate. It is expected that in child-parent or child-peer dyads involving children who are more preferred by their peers, more 'positive' behaviors like shared positive emotions or mutual responsiveness will be displayed, than in dyads with children who are less preferred by their peers.

1.4.2 Self-representation and perceived security of the relationship with parents

In relation B in Figure 1.3, the relation between perceived security and self-representation will be examined. Several studies have focused on this relation in younger children. In a study by Cassidy (1988), for instance, it was found that children who were classified as securely attached during infancy described themselves more positively during a puppet-interview and self-interviews, and could also admit some imperfections. Verschueren, Marcoen, and Schoefs (1996) found a relation between self-representation and the security of children's representation of attachment to mother. It appeared that five-year-old children who were more positive about themselves, tended to perceive their relationship with mother as more secure. On the other hand, children who thought more negative about themselves, were more insecure and negative about the relationship with their mother. In another study by Verschueren and Marcoen (1999) it was found that children who had secure representations of their relationship to mother were more positive about themselves. In chapter 3, it will be examined whether perceived security of the relationship with parents and self-representation are related at ages seven and nine. Positive associations are expected. Furthermore, stability of perceived security and self-representation is examined. We expect moderate stability of perceived security of the relationship with parents and self-representation. One reason that stability will not be perfect is the necessary use of different measures at ages seven and nine.
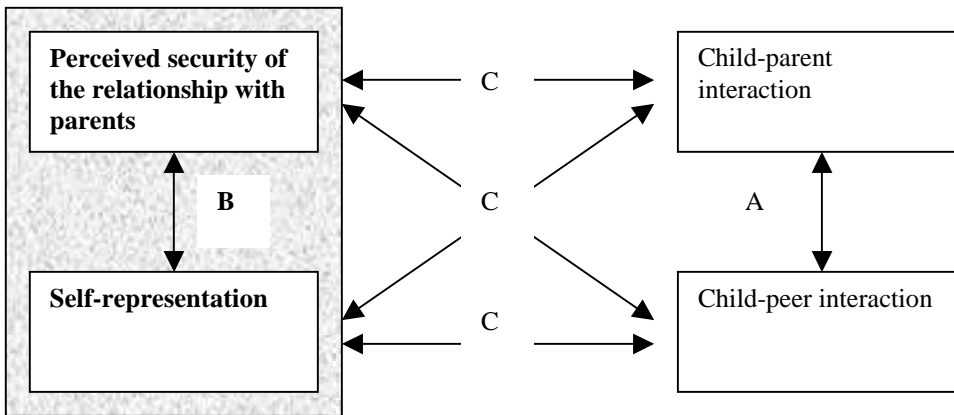
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Figure 1.3: Relation B: Expected relation between perceived security and self-representation

In chapter 4, perceived security of the relationship with both parents will be related to global and domain-specific self-representation. In most of the studies relating perceived security of the child-parent relationship with self-representation, only the perception of the *child-mother* relationship was related to aspects of the self. Multiple attachments to mother and father, in relation to the self, have seldom been assessed, although Bowlby (1982) already assumed that both parents have differential influences on the development of children, and more specific on the development of the self (see also Grossmann et al., 2002; Lamb, 1997). Verschueren and Marcoen (1999) have found that the quality of the child-mother relationship predicted the child's positiveness of the self better than the quality of the representation of the child-father relationship. On the other hand, the quality of the child-father relationship better predicted children's (teacher rated) anxious/withdrawn behavior. In chapter 4, it will be examined whether self-representations will be (better) predicted by perceptions of the child-mother or child-father relationship. We expect mother and father to have a unique contribution to (aspects of) the self. Furthermore, joint perceived security and stability of perceived security will be related to self-representation. It is expected that children who have a positive perception of both parental relationships are more positive about the self, compared to children with two negative perceptions of the relationship with parents. Children with one positive and one negative perception will be in between.

1.4.3 Dyadic play interaction, self-representation and perceived security (relations C)
With relations C in Figure 1.4, it is examined whether differences in children's perceived security and self-representation are reflected in observed characteristics of child-parent and child-peer play interaction.
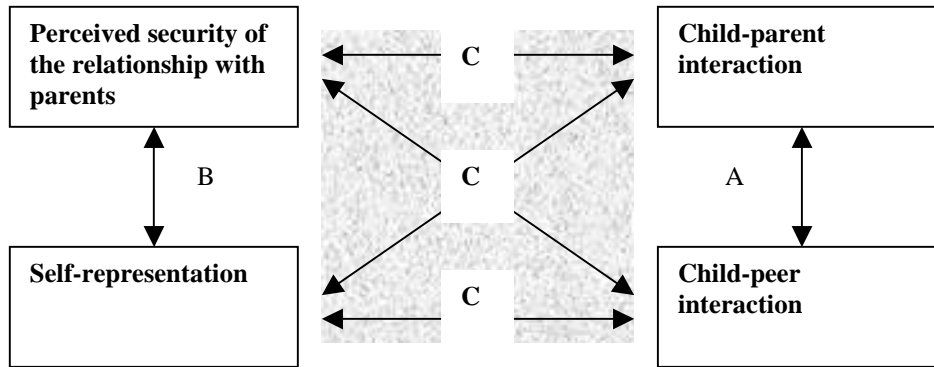
Figure 1.4: Relations C: Expected relations between child-parent and child-peer interaction, perceived security and self-representation

In several studies, ambiguous relations between perceived security of the relationship with parents and observed child-parent interaction were found. Cassidy, Berlin, and Belsky (1990), for instance, found that three-year-old children who perceived their relationship with mother as more secure, showed more positive affect and less negative affect during free play interaction with mother. However, in a study of Youngblade and Belsky (1992) perceived security measured during infancy with the Strange Situation was not related to positive and negative affect during child-parent interaction when children were three-years-old. De Wolff and Van Ijzendoorn (1997) found that attachment security was strongly related to mutual responsiveness during child-mother interaction.

Studies in which self-representations and child-parent interaction are related are scarce. The only studies we have found, have focused on other aspects of child-parent interaction, such as parenting behavior (e.g., Coopersmith, 1967), but have not *observed* child-parent interaction in a free play situation as will be done in the present thesis.

In chapter 5, it will be examined whether perceived security of the relationship with parents, and self-representations are related to observed characteristics of child-parent and child-peer play interaction. It is expected that dyads with children who are more positive about their relationship with parents or about the self, will show more positive behaviors like mutual responsiveness and shared positive emotions during child-parent and child-peer interaction. Furthermore, it is studied whether perceived security or self-representation assessed at age seven are predictive of observed characteristics of child-parent and child-peer interaction at age nine.

1.5 Project design

1.5.1 Participants

The studies presented in this thesis are part of the Utrecht Social Development Project (USDP; e.g., Van den Oord & Rispens, 1999; Van den Oord, Rispens, Goudena, & Vermande, 2000; Goudena & Gerrits, 2003; Gerrits, Van den Oord, & Voogt, 2001; Vékony, Van Aggelen-Gerrits, Goudena, & Van Aken, 2004). The USDP is a longitudinal study of social development during early and middle childhood. Children were visited at school every other year from Kindergarten to 5th grade (four- to eleven-year-olds). The interviews were aimed at factors that were related to (positive or negative) social competence. The project included four waves and about 1100 children participated in each wave (about 500 children participated in all four waves). In the present thesis, which include data of 1st and 3rd grade (seven- and nine-year-olds), a smaller sample of about seventy children was recruited from the 1100 children of the large part of the USDP. The initial recruitment was already done in Kindergarten in a study by De Koeyer (2001). However, because some children were held behind in Kindergarten or were a year ahead (due to the Dutch system in which children enter school during the whole school year), some of the children of De Koeyer's study were not in 1st grade anymore when we collected data. Therefore, additional sampling took place in 1st grade. Including the children who participated in Kindergarten, 138 children and their parents were asked to participate in 1st grade. Permission was obtained for 69 children. Reasons for refusing permission included infringement on privacy, lack of time, and participating in other research. Because the reasons were various and mainly not related to the subject of the study, we do not expect selective nonresponse bias (see Gerrits, Van den Oord, & Voogt, 2001).

Besides participating in the school interview, assessed in the larger part of the USDP, children were also visited twice at home to videotape play interaction with mother and father, separately. Furthermore, these children were interviewed at school about self-representation and perceived security of the relationship with parents. Play interaction with a same gender classmate was also videotaped in the school setting. More detailed descriptions of the subsamples may be found in the specific studies reported in the next chapters.

1.5.2 Measures

In Table 1.1, an overview is given of the concepts and measures used in the different studies presented in this thesis. For reasons of age-appropriateness, it was necessary to use different measures for ages seven and nine. This will be discussed at the appropriate places in the empirical chapters. It was aimed at finding appropriate equivalents measuring the same concepts.

Table 1.1
Overview of instruments and coding categories used at ages seven and nine

	Age seven	**Age nine**	**Chapter**
Child-parent and child-peer interaction	*Observations* - Mutual responsiveness - Shared positive emotions - Total control - Balance of control - Simultaneous play - Discord	*Observations* - Mutual responsiveness - Shared positive emotions - Total control - Balance of control	2, 5
Self-representation	*Interviews*	*Interviews*	
Domain-specific	*Pictorial Scale of Perceived Competence and Social Acceptance* - Cognitive competence - Peer acceptance - Physical competence - Maternal Acceptance	*Self-Perception Profile for Children* - Cognitive competence - Social acceptance - Athletic competence - Physical appearance - Behavioral attitude - Global self-worth	3, 4
Global	*Puppet Interview* - Positiveness - Openness	*Ease of Access to Self-Evaluations* - Openness	3,4,5
Perceived security of the relationship with parents	*Attachment Story Completion Task* - Mother - Father	*Kerns Security Scale* - Mother - Father	3,4,5
		Separation Anxiety Test	4,5
Verbal Competence	*Rakit*	*Rakit*	3,4,5

1.6 Outline of this thesis

Central questions presented in this thesis are a) whether child-parent and child-peer interactions are similar or different on several observed characteristics, b) whether children's internal working models of the self and of the relationship with others [i.e., self-representation and perceived security of the relationship with parents] are related, and c) whether children's perceived security of the relationship with parents as well as children's self-representation are reflected in children's interactions with parents and

peers. The results of the relations A, B, and C as presented in Figure 1.1 are discussed in four empirical studies. In chapter 2, it is studied whether child-parent and child-peer interactions of seven-year-old children are different or similar on shared positive emotions, total control, balance in control, simultaneous play, mutual responsiveness, and discord. In chapter 3 it is examined whether perceived security of the relationship with parents is related to global and domain-specific self-representation, cross-sectionally and longitudinally at ages seven and nine. Individual and joint contribution of perceptions of the child-mother and child-father relationship to global and domain-specific self-representation at ages seven and nine are studied in chapter 4. In the last empirical study, reported in chapter 5, it is examined whether differences in perceived security of the relationship with parents and self-representation are reflected in child-parent and child-peer interactions. In the final chapter, a summary of conclusions and a general discussion will be presented.

Chapter 2
Child-parent and child-peer interaction: Observational
similarities and differences at age seven

Perceived security of the relationship with parents		C		Child-parent interaction
B		C		A
Self-representation		C		Child-peer interaction
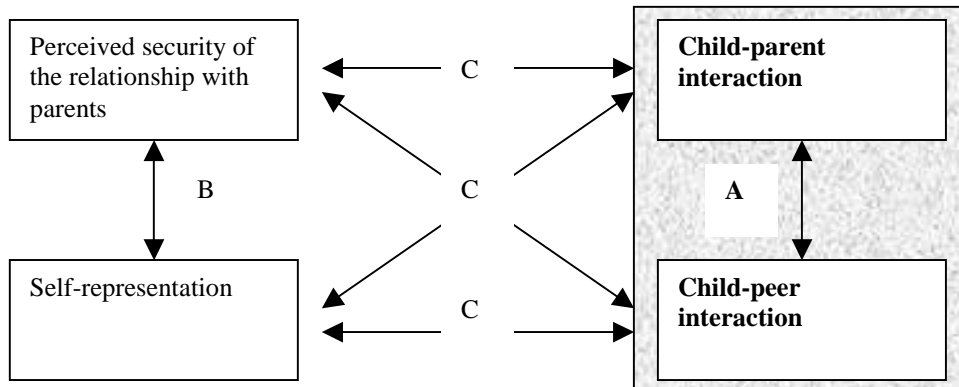
Chapter 2
Child-parent and child-peer interaction: Observational similarities and differences at age seven[1]

Abstract

According to Russell, Pettit, and Mize (1998), child-parent interaction may contain horizontal qualities, similar to child-peer interactions. To study this, child-parent and child-peer play interactions were compared on several observed horizontal and vertical characteristics in 55 7-year-old children interacting with their mother, father, and a classmate, respectively. Characteristics on which the interactions were compared, were shared positive emotions, total control behavior, balance of control, simultaneous play, mutual responsiveness, and discord. Significant differences between observed child-parent and child-peer interactions were found. Horizontal as well as vertical qualities were found in both types of interaction. The child-parent interaction consisted primarily of mutual responsiveness (i.e., a horizontal quality), and total control, whereas in the child-peer interaction balance of control, shared positive emotions, simultaneous play, and discords were most often found. No main effect of peer preference or gender was found. However, several interaction effects of context with gender and peer preference were found. Consistency between child-parent and child-peer context was low, indicating that dyads with the same target child were displaying different behavior in different contexts.

2.1 Introduction

Research over the last several decades has highlighted the assumption that children's family and peer contexts are related to each other (see Parke & Ladd, 1992; Parke & O'Neil, 1999). How these social worlds are interconnected is less well understood. One line of research consists of studies linking observed child-parent interaction to children's peer interactions. The central idea behind these studies is that children can practice certain skills and attitudes during interaction with a parent, which are transferred to interactions with peers. Behaviors shown and skills used during child-parent interaction, are assumed to be used during interactions with peers or friends. As a consequence, difficulties children may have regarding social competence are thought to originate in certain characteristics of the child-parent relationship (e.g., Isley, O'Neil, Clatfelter, & Parke, 1999; Boyum & Parke, 1995; McDowell & Parke, 2000; Harrist, Pettit, Dodge, & Bates, 1994; Lindsey, Mize, & Pettit, 1997; De Koeyer, 2001; Lindsey & Mize, 2000; Black & Logan, 1995).

Studies carried out from such a perspective may be divided according to three different approaches. Firstly, some studies connect observed child-parent interaction with children's peer rated acceptance (i.e., children's sociometric status; e.g., Putallaz & Hefflin, 1990; Pettit & Clawson, 1996). Characteristics of child-parent interaction that are related to sociometric status of children are, for example, expressed affect (e.g., Isley et al., 1999; Boyum & Parke, 1995; McDowell & Parke, 2000), synchrony (e.g., Harrist et al., 1994; Lindsey et al., 1997), reciprocity (e.g., Pettit & Lollis, 1997; De Koeyer, 2001) and play behaviour (pretense or physical play; Lindsey & Mize, 2000). Isley et al. (1999), for instance, found that the expression of positive affect by the child as well as by the mother and father was positively related to social competence rated by peers and teachers (see also Cassidy, Parke, Butkovsky, & Braungart, 1992).

Secondly, both child-parent and child-peer interaction may be observed, focusing on characteristics that are different for the child-parent and the child-peer setting, respectively (e.g., Moore, Maclean, & Keenan, 2000; Mize & Pettit, 1997; Leve & Fagot, 1997; Pettit, Brown, Mize, & Lindsey, 1998). Leve and Fagot (1997), for example, related observed parental warmth and scaffolding to children's observed positive peer relations (i.e., getting along and having fun during a play, a cooperative and a competitive task).

In the third approach, the *same* characteristics are observed during both child-parent and child-peer interaction. However, to our knowledge, this has seldom been done (e.g., Black & Logan, 1995; Lindsey & Mize, 2001). Black and Logan, for instance, compared mean proportions of turn-taking skills (e.g., relevant turns, irrelevant turns, initiatory turns) and utterance types (e.g., statements, explanations, expression of feeling) during child-parent interaction with those during child-peer interaction. The subjects in their study interacted with mother, father, and with peer(s) during dyadic and triadic peer interaction. Black and Logan (1995) found that communication patterns children use in

conversation with their parents are mostly similar to those used with peers. They also found differences in communication patterns between children from different sociometric status. More responsive communication during child-parent interaction was related to more responsive communication with peers as well as to higher sociometric status. More non-responsive communication patterns during interaction with parents were related to negative aspects of children's communication with peers and to rejected sociometric status.

In sum, the linkage of child-parent and child-peer interactions may be studied by relating observations of child-parent interaction to children's sociometric status, or by comparing observations of both child-parent and child-peer interaction. In the last case, the observational categories may be different or the same for each context.

Looking for similarities and relationships between child-parent and child-peer interaction is not the only way to approach these two worlds of childhood. Some authors (e.g., Piaget, 1932; Hinde, 1979) have argued that the child-parent relation differs fundamentally from relationships with peers. The child-parent relation is thought to be characterized by a-symmetry, whereas the child-peer interaction implies symmetry in the interaction (see also Hartup, 1989; Rubin & Coplan, 1992; Kuczynski, 1997). As a consequence, the assumption is that peer skills are mainly acquired in actual relationships with peers. Thus, the origin of social competence with peers is not assumed to lie in the child-parent relationship.

In an extensive review, Russell and colleagues (1998) have tried to create a synthesis between the view that child-parent interaction is characterized by verticality (a-symmetry) and the view that child-peer interaction is characterized by horizontality (symmetry). The authors point out that child-parent relationships might contain horizontal qualities similar to those present in child-peer relationships. In such a perspective, child-parent relationships allow children to experience, learn about, and practice some of the skills that are involved in relationships with peers. The horizontal qualities in child-parent interaction that Russell et al. (1998) are focusing on are reciprocity and shared power. These horizontal qualities are in particular displayed within contexts such as play and control exchanges. More specifically, during child-parent play the following 'opportunities for horizontal qualities to occur' (Russell et al., 1998, p. 325) are thought to be relevant: 'matching of affective states', 'turn-taking', 'synchronous exchanges', 'joint determination of the content and direction of play', and 'parent and child being mutually compliant during the play' (Russell et al., 1998, p. 325).

The present study empirically investigates the horizontality-verticality conceptualization, as proposed by Russell et al. (1998), with a sample of seven-year-olds. In a play setting, both child-parent and child-peer interaction were observed. We used observation categories that aimed at capturing the horizontal qualities as discussed by Russell et al. (1998), such as shared positive emotions, simultaneous play, mutual

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responsiveness, and balance of control. Vertical aspects were analyzed with an emphasis on control aspects of the interaction. A second setting (a dominoes task) was used to see whether restraints (a circumscribed task; a speed instruction) put on the participants will have an effect on the behaviors observed during child-parent and child-peer interaction. We have chosen seven-year-olds, because in other studies comparing child-parent and child-peer interaction children were younger (e.g., 24 to 60 months in Black and Logan's study [1995]) and we were interested whether we could find similar results for children who were older and had more opportunities to interact with peers. The present study is situated within the third research tradition of observational studies of child-parent and child-peer interaction that we mentioned before, i.e., we used the same observation categories for both child-parent and child-peer interaction.

There are four research questions we will try to answer in the present study. Firstly, we will compare observations of child-mother and child-father interaction with child-peer interaction. Observations of child-parent interaction at home are compared with observations of child-peer interactions at school, during two different activities (a free play situation and a dominoes task). We expect that during child-parent interaction more mutual responsiveness and unbalanced control behavior will be displayed. We expect more mutual responsiveness in this context, because parent and child might be more tuned in to each other, based on a long history (as shown in more mutuality), whereas the child-peer interaction is a more constructed context, mostly not based on an enduring relationship. The expectation of unbalanced control behavior in child-parent interactions results from the idea that the child-parent relation is a vertical relation in which more control will be displayed by the parent (Russell et al., 1998). We expect more balance of control behavior, more shared positive emotions, and more discord during child-peer interactions because of the horizontal character of relationships with peers. In addition, we controlled for potential confounding variables (such as child age and verbal competence) which have been related to the child-parent or child-peer interaction characteristics.

Furthermore, we compared child-mother with child-father interactions on the observed characteristics. It might be possible that we find differences between child-mother and child-father interaction, because from other studies (e.g., Lindsey & Mize, 2001; Pettit et al., 1998) it appears that the content and function of the child-mother interaction differs from the child-father interaction. For example, Lindsey and Mize (2001) found mother and child playing more pretend play, whereas fathers and children were more engaged in physical play.

Our second research question concerns the possibility that differences between child-parent and child-peer interaction may be influenced by the gender of the child or the way the child is preferred by peers. It might be, for instance, that boys and girls have different relational priorities that shape their interactions (see Maccoby, 1990; Ladd, 1999) or that parents and peers behave differently with boys and girls. The influence of

peer preference is based on prior research on which we expect children who are preferred more by their peers to show more shared positive emotions during child-peer interaction (e.g., Boyum & Parke, 1995; Ilsey et al., 1999), and more mutual responsiveness (e.g., Harrist et al., 1994, Lindsey et al., 1997) during child-parent interaction than children who are less peer preferred. To study this, peer preference is entered in the analyses as a covariate, to see whether the continuity between child-parent and child-peer interactions is different for children differing in peer preference.

With our third research question we examine whether there is a main effect of peer preference on the observed characteristics of child-parent and child-peer play interactions, as is generally done in most studies that are relating child-parent and child-peer interactions. We expect that child-parent and child-peer dyads with more peer-accepted children will show more positive behavior such as mutual responsiveness (e.g., Lindsey et al., 1997), shared positive emotions (e.g., Isley et al., 1999; Boyum & Parke, 1995) and balance in control behavior than dyads with less peer-accepted children, and less negative behavior such as discord and control behavior during child-parent as well as child-peer interaction.

Our last research question concerns the consistency of individual differences in behavior over different contexts (i.e., child-mother, child-father, or child-peer interaction). We examined whether the different dyads, consisting of the same target child with a different partner (i.e., mother, father, or peer), show a high correlation on the characteristics of the observed interactions. We expect a medium to high correlation between the three contexts, implying that in dyads with the same target child, the same behaviors will be observed across contexts.

2.2 Method

2.2.1 Participants

Parents of 138 children were asked to participate in the study. Permission was obtained for 69 children (66 in two-parent families) from 20 elementary schools. Reasons for refusing permission included lack of time, infringement on privacy, and participating in other research. Because the reasons were various and mainly not related to the subject of the study, we do not expect selective nonresponse bias (see Gerrits, Van den Oord, & Voogt, 2001). The present study describes data of 55 children from whom we have video recordings of interactions with at least one parent (some fathers did not want to participate) and with a 'neutral' classmate. We have used observations of children playing with a familiar classmate who was neither very well liked, nor not liked at all by the target child, because we were interested in the linkage between child-parent and child-peer interaction in general and in how a child constructs relationships with peers. In this manner we could study whether child-parent interaction was related to peer relations in general, and not to a specific relation like a friendship. Children for whom we could not

find a classmate fitting our criteria were excluded from the analyses. The criteria used for selection of a 'neutral' classmate were being of the same gender as the target child, having an average sociometric status, and not being either 'very well liked' or 'not liked at all' by the target child, indicated by the target child in an earlier phase of the study. There were 27 boys and 28 girls with a mean age of 86 months (range 79-96 months). They all were Caucasian and came from middle to higher social economic families.

2.2.2 Procedure child-parent and child-peer interaction

Children were visited twice at home for videotaping a 15-minute play interaction with mother and father separately. Child-peer play interaction was videotaped at school. After a short acquaintance and explanation of the procedure, child and parent or peer took their place at a (dining) table (in an angle of 90 degrees). Two tasks were done: a free play task and a dominoes task. The examiner was not in the room during the video-taping. For the first task, a standard set of toys, containing building blocks, wild animals, a Playmobil doll family and a kitchen with accessories was put in front of the child and parent/peer in a standard way. The toys were chosen to be attractive for girls as well as for boys. Participants were told that they could play together with the toys as they would like to do. For the dominoes task, she put colored dominoes and a picture of an 'eight' (drawn on a piece of paper) on the table. The participants were told to put the dominoes on the drawn eight as quickly as possible. Because of the possible movements of the paper and the instability of the dominoes, it was possible that the stones fell down before the task was completed. This might lead to some discord.

2.2.3 Measures
Peer preference

Peer preference was determined using peer ratings (Asher, Singleton, Tinsley, & Hymel, 1979). To improve the reliability of these peer ratings, photographs were taken of all children in a class. For the ratings, the interviewer pointed to a picture and asked the child whether s/he plays a lot, sometimes or never with the child on the picture. On the basis of the scores children received (3 for plays a lot with, 2 for plays sometimes with and 1 for plays never with), ratings were averaged for every child in a classroom. Because of different class sizes, standard scores of the peer ratings were computed within each classroom. Individual scores ranged from –2.20 to 2.97.

Child-parent and child-peer interactions.

Seven minutes of the free play task (starting after 3 minutes) and 4 minutes of the dominoes task were coded, using a computerized observation system (The Observer 3.0 for Windows, Noldus Information Technology, 1997). The coding system for observation of the interactions was based on the coding system of De Koeyer (1998; 2001). The free

play task was coded for mutual responsiveness, shared positive emotions, total control, balance of control, and simultaneous play. The dominoes task was coded for shared positive emotions, total control, balance of control, and discord[2]. Every characteristic was coded independent of the other characteristics by several highly trained students, who were blind with respect to children's peer preference. For each characteristics 15 per cent of the interactions were coded separately by the assistants and the first author. Interobserver reliabilities (Cohen's Kappa) ranged from .66 to .89 (for mutual responsiveness and shared positive emotions during child-peer play, respectively). In the analyses, proportions will be used, because due to mechanical defects not every interaction was of the same length.

Mutual responsiveness. Every 10-second episode the level of mutuality between child and parent or peer was coded, using a 5-point scale: Totally mutual (child and parent/peer are exchanging at least 3 subsequent verbal turns and share the same focus of attention), mostly mutual, partly mutual, mostly not mutual and totally not mutual (child and parent/peer are not exchanging any relevant verbal turns and are not sharing the same focus of attention). Mutual responsiveness consists of the sum of proportions of totally mutual and mostly mutual. Therefore, it consists of sharing at least two successive verbal turns, and sharing of the same nonverbal focus of attention.

Shared positive emotions consist of smiling and laughter for 2 seconds or more by both partners in the same 10-second episode.

Total control consists of the sum of the proportions of gentle and firm control of both partners. Gentle control is coded when one individual is trying to influence the other, but without the use of power, for example by using suggestions. Firm control is coded when one individual is trying to influence the other by using a demand, but without the use of negative emotions

Balance of control consists of the proportion of total control (i.e., the sum of gentle and firm control) of the child divided by the sum of the proportions of total control of both partners. That is, a balance of .30 means that the child exerted 30% of the control attempts.

Simultaneous play consists of every 10-second episode in which both partners play at least 3 seconds of fantasy play or greater than 5 seconds of other play.

Discord. Discord is coded real time per dyad, into three nominal categories: neutral (i.e., discord caused by actions or verbal expressions without bad intentions), instrumental (i.e., discord caused by disagreement of the possession of objects or space), or personal (i.e., discord caused by disagreement of play or other personal activities). Because of infrequent incidence of neutral and instrumental discord, the total amount of discord (i.e.,

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[2] The dominoes task was not coded for mutual responsiveness, because the instruction was already to do the task together.

the sum of frequencies of neutral, instrumental and personal discord) is used in further analyses.

A more detailed version of the coding system can be found in Appendix A.

2.3 Results

2.3.1 Comparison of mean level of observed characteristics of child-mother and child-father interaction with child-peer interaction

In order to address our first question, multivariate analyses of variance (MANOVA's) with repeated measures were computed on the mean proportions shown in Table 2.1, comparing child-mother with child-peer interaction, and child-father with child-peer interaction, separately, on each of the observed characteristics. Context (i.e., child-mother, child-father or child interaction with a "neutral" child) was the within-group measure, child gender the between group factor and peer preference was a covariate. A main effect of context was found for all characteristics of child-mother free play compared to child-peer free play. More balance of control, $F(1,52) = 8.60$, $p = .01$, more shared positive emotions, $F(1,51) = 38.81$, $p = .00$, and more simultaneous play, $F(1,52) = 16.83$, $p = .00$ were found during child-peer free play than during child-mother free play. On the other hand, more mutual responsiveness and more total control were found during child-mother free play than during child-peer free play, $F(1,51) = 22.69$, $p = .00$ and $F(1,52) = 8.28$, $p = .01$, respectively.

Comparing the child-father free play interactions with the child-peer free play interactions, a main effect of context was found for balance of control, shared positive emotions, simultaneous play, and mutual responsiveness. More balance of control, $F(1,45) = 6.68$, $p = .01$, more shared positive emotions, $F(1,43) = 14.83$, $p = .00$, and more simultaneous play, $F(1,45) = 21.79$, $p = .00$, were found during child-peer free play interaction, than during child-father free play. More mutual responsiveness was found during child-father free play interaction, $F(1,44) = 17.44$, $p = .00$, than during child-peer free play. This main effect of context remained after controlling for age of the child, that appeared to be significantly correlated to mutual responsiveness during child-father free play interaction.

For the dominoes task, a main effect of context was found on all four features in comparing child-mother as well as child-father interaction with child-peer interaction. More balance of control, $F(1,53) = 28.70$, $p = .00$, more total control, $F(1,53) = 22.18$, $p = .00$, more shared positive emotions, $F(1,53) = 5.84$, $p = .02$, and more discords, $F(1,53) = 5.15$, $p = .03$ were shown during child-peer interaction compared to child-mother interaction. This same pattern was also found when comparing child-peer to child-father interaction during the dominoes task. More balance of control, $F(1,45) = 43.71$, $p = .00$,

Table 2.1
Mean proportions and standard deviations of characteristics during child-mother, child-father, and child-peer interaction during free play task and dominoes task.

	Child-Mother (N=55)	Child-Father (N=48)	Child-Peer (N=55)
	Mean (SD)	*Mean (SD)*	*Mean (SD)*
Shared positive emotions			
Free play	.09[a] (.08)	.11[a] (.11)	.24[b] (.15)
Dominoes	.23[a] (.12)	.17[b] (.14)	.31[c] (.18)
Total control			
Free play	.38[a] (.15)	.35[ac] (.15)	.31[bc] (.13)
Dominoes	.20[a] (.09)	.23[a] (.13)	.33[b] (.17)
Balance of control			
Free play	.37[a] (.19)	.38[a] (.19)	.49[b] (.22)
Dominoes	.34[a] (.22)	.30[a] (.21)	.59[b] (.24)
Simultaneous play			
Free play	.38[a] (.21)	.36[a] (.21)	.54[b] (.20)
Mutual responsiveness			
Free play	.32[a] (.20)	.30[a] (.17)	.18[b] (.13)
Discord			
Dominoes [d]	1.77[a] (1.69)	1.75[a] (1.62)	2.59[b] (2.01)

Note. Mean proportions within a row not sharing at least one superscript are significantly different. For example, for total control during the free play task, the child-mother differed significantly from the child-peer interaction. The child-father interaction does not differ significantly from the child-mother nor from the child-peer interaction.

Due to co-occurrence of the characteristics, the proportions do not sum up to 1.0.

[d] For discord, frequencies are used instead of proportions, because we were interested in the number of discords and not in the duration of the discords.

more total control, $F(1,45) = 9.40$, $p = .00$, more shared positive emotions, $F(1,43) = 12.26$, $p = .00$, and more discords, $F(1,45) = 4.60$, $p = .04$ were found during child-peer interaction, than during child-father interaction. The main effect of context on shared positive emotions was no longer significant when controlling for verbal competence[3], which appeared to be significantly related to shared positive emotions

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[3] Verbal competence was assessed by using two subtests of a Dutch intelligence test (RAKIT, Revision Amsterdam Intelligence Test for Children; Bleichrodt et al., 1984). One subtest assesses receptive vocabulary, the other verbal fluency. The scores on both tests are standardized, with a mean of 15 and a standard deviation of 5. A single measure of verbal competence was computed by taking the mean of both standard scores. The mean score for verbal competence was 16.2 (range 8-26).

during child-father dominoes task.

We also compared child-mother with child-father interaction using multivariate analyses of variance (MANOVA's) with repeated measures. Context (i.e., child-mother interaction or child-father interaction) was the within group measure, child gender the between group factor and peer preference was a covariate. Comparing child-mother and child-father interaction on the characteristics of the free play task as well as on the dominoes task, no significant differences were found between child-mother and child-father interaction except on shared positive emotions during the dominoes task, $F(1,43) = 5.25$, $p = .03$. More shared positive emotions were displayed during the child-mother dominoes task compared to the child-father dominoes task.

2.3.2 Effects of child gender and peer preference

With respect to our second research question, in which we study the effects of gender and peer preference on the differences between contexts, several interaction effects were found. An interaction effect of context with gender was found for balance of control in comparing child-mother free play interaction with child-peer free play interaction, $F(1,52) = 6.24$, $p = .02$. Girls showed more balance of control during child-peer free play interaction than boys. No gender effect was found during child-mother free play interaction. An interaction effect of context and peer preference was found for mutual responsiveness, replicated for child-father versus child-peer free play interaction, $F(1,44) = 4.90$, $p = .03$, and for child-mother versus child-peer free play interaction, $F(1,51) = 4.76$, $p = .03$, in separate analyses. Children who were more accepted by peers, showed, compared to less accepted children, more mutual responsiveness during child-peer free play interaction compared to child-mother and child-father free play (see Figure 2.1). In Figure 2.1 we see similar patterns during child-mother and child-father interaction compared to child-peer interaction. Children high on peer preference show mutual responsiveness to a similar extent during child-parent and child-peer interactions, contrary to low peer preferred children, who show more mutual responsiveness during child-parent interaction and less during child-peer interaction.

An interaction effect of context and peer preference was found for simultaneous play, but only for the child-father interaction, $F(1,45) = 4.77$, $p = .03$. Children who were more preferred by peers showed less simultaneous play during child-peer free play than during child-father free play, compared to children who were less preferred by peers.

For shared positive emotions during the dominoes task, an interaction effect of peer preference with context was found for both child-mother as well as child-father interaction compared to child-peer interaction (respectively, $F(1,53) = 4.60$, $p = .04$, and $F(1,43) = 10.04$, $p = .00$). Children who were more accepted by peers, showed more shared positive emotions during the dominoes task with a peer than during the dominoes task with their parents.
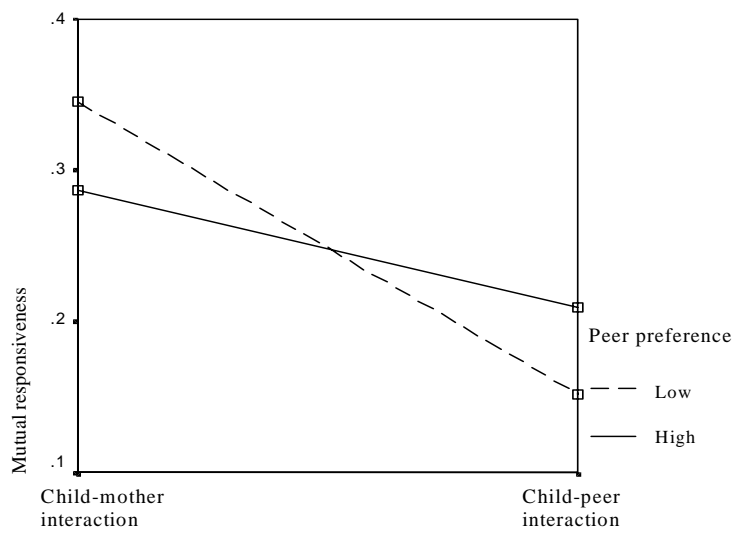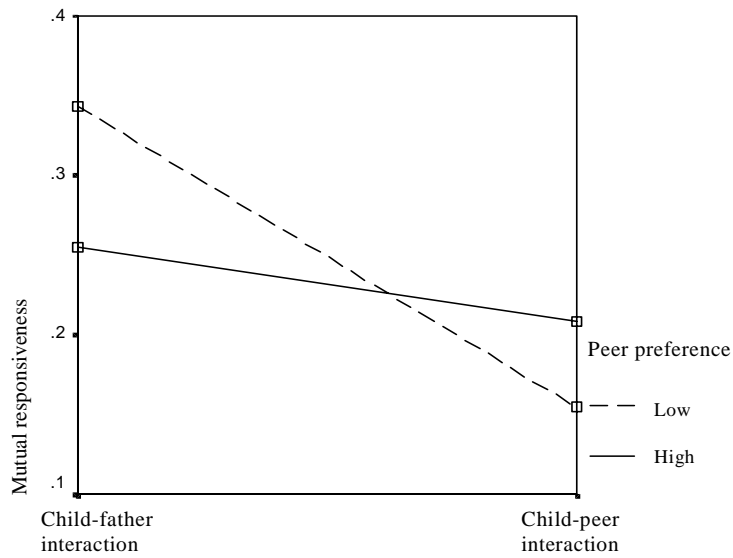
Figure 2.1. Mutual responsiveness during child-parent and child-peer interaction for high and low peer preferred children.

2.3.3 Peer preference and child-parent and child-peer interaction

In order to address our third research question, in which we related peer preference with observed characteristics of child-parent and child-peer play-interactions, multivariate analyses of variance (MANOVA's) were done to test whether there was a main effect of

peer preference or gender on the observed characteristics for each of the interactions. In these analyses, gender was treated as a fixed variable and the continuous peer preference rating was treated as a covariable. The observed characteristics of child-parent and child-peer interaction were entered as the dependent variables. Contrary to our expectation, no main effects of peer preference or gender were found for the child-mother, child-father, and child-peer free play task and the dominoes task.

2.3.4 Consistency of behavior over different contexts

Thus far, we have compared the means of the characteristics of play in the different contexts. However, these results do not indicate whether the different dyads (i.e., the same target child with a different partner) display the same proportion of behaviors in the three different contexts. Therefore, to address our last research question about the consistency of behavior over different contexts, correlations were computed between the

Table 2.2
Correlations among observed characteristics of child-mother versus child-peer, child-father versus child-peer and child-mother versus child-father interaction

	Child-mother vs child-peer (N=55)	Child-father vs child-peer (N=48)	Child-mother vs child-father (N=48)
Shared positive emotions			
Free play	.14	.17	.08
Dominoes	.14	.37*	.24
Total control			
Free play	-.05	-.06	.10
Dominoes	-.08	-.07	.38*
Balance of control			
Free play	.14	-.04	.01
Dominoes	.05	.26°	.11
Simultaneous play			
Free play	-.07	-.03	.33*
Mutual responsiveness			
Free play	-.01	-.07	.45**
Discord			
Dominoes	-.08	-.00	-.05

Note. Correlations were conducted controlling for peer preference.
° $p < .10$, * $p < .05$, ** $p < .01$

characteristics during free play and the dominoes task in the different contexts (see Table 2.2). It was found that children who displayed more shared positive emotions with their father during the dominoes task also displayed more shared positive emotions during the dominoes task played with the peer ($r = .37$, $p = .01$). The correlation of the proportion of balance of control during child-father and child-peer interaction during the dominoes task nearly reached significance ($r = .26$, $p = .09$). Other correlations between the observed characteristics of the child-parent and child-peer interactions were low to medium in size and not significant.

Comparing child-mother interaction with child-father interaction, it turned out that children who showed more simultaneous play with their mothers, showed also more simultaneous play with their fathers ($r = .33$, $p = .03$). Children who displayed higher mutual responsiveness with their mothers, also showed more mutual responsiveness with their fathers ($r = .45$, $p = .00$) during the free play task. Another significant correlation was found for total control during the dominoes task during child-mother and child-father interaction ($r = .38$, $p = .01$). No other significant correlations were found. This implies little consistency of behaviors over the three contexts.

2.4 Discussion

The results of the present study show clear differences between child-mother and child-father interaction on the one hand and child interaction with a "neutral" peer on the other hand. During child-peer interaction more shared positive emotions, more total control (during the dominoes task), more balance of control, more simultaneous play, and more discord were shown as compared to child-mother and child-father interaction. More total control was shown during child-mother free play interaction and more mutual responsiveness was shown during child-mother as well as child-father interaction compared to child interaction with a "neutral" peer. These results support the ideas suggested by Russell et al. (1998) that the child-parent relationship contains horizontal qualities. In the present study, for instance, horizontal qualities like mutual responsiveness, shared positive emotions, and balance of control were found in the child-parent interactions. Moreover, even more mutual responsiveness was found during child-parent interaction than during child-peer interaction. Another assumption of Russell et al. (1998) is that a play-situation would be the context in which horizontal qualities in child-parent interaction can be assessed. This idea is also confirmed in the present study, in which two different play situations were used to measure horizontality and verticality in child-parent and child-peer interaction.

Child-mother and child-father interaction were also compared on the observed characteristics. It was found that these interactions did not differ in mean levels of observed behavior, except on shared positive emotions during the dominoes task, which were more shown in child-mother interaction.

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With respect to our second research question, in which we examined the effects of gender and peer preference on the differences between contexts, an interaction effect of context with gender and several interaction effects of context with peer preference were found. For instance, we found a pattern indicating that children high on peer preference showed more or less the same level of mutual responsiveness and simultaneous play during child-parent and child-peer interaction, whereas less peer preferred children differed more on these characteristics during child-parent and child-peer interaction. For mutual responsiveness, it seems as if parents of less peer preferred children are more responsive to their child, but the child is less responsive during interaction with a peer. It might be that those parents are aware of their children being less liked by peers and therefore are themselves more responsive to the child during child-parent interaction. Also, less socially competent children may feel more comfortable in interaction with their parents and therefore show more mutual responsiveness in that kind of interaction. Similar results and explanations were provided by Goudena and Vermeulen (1997) who compared, among other things, high and low social status children and their mothers on fantasy play. They found no difference between high and low social status children and their mothers with respect to the number and complexity of fantasy play utterances. The explanation the authors present is that during play, low status children may feel more secure with a responsive parent than with a neutral peer. Therefore, it could be that these low status children, amongst whom, for example, temperamentally shy children, behave more socially competent and engaged during interactions with adults than with peers.

Contrary to our expectations for our third research topic we did not find any main effect of peer preference on the observed characteristics. The first explanation for this result might be the large variability on these characteristics within the groups of better and less well accepted children. Therefore, significant differences between the groups of better and less well accepted children are difficult to detect. Another explanation might be that the peer preference rating is based on a combined judgment of the group, whereas the observed characteristics of the child-parent and child-peer interaction are dyadic measures. This means that data from different conceptual levels (i.e., the group level and the dyadic level) are analyzed. It might be that in the group other behaviors are important than in dyadic interaction (see also Hinde, 1997; Scholte, Van Aken, & Van Lieshout, 1997). It is imaginable that less well accepted children (according to findings achieved with sociometric procedures) are well able to interact dyadically with another peer, but have problems in a group, for instance when entering a group (Volling, MacKinonnon-Lewis, Rabiner, & Baradaran, 1993). Not finding a main effect of peer preference might also be explained by the age of the children. The children in our study were two to four years older than children in other studies (e.g., Black and Logan, 1995). It might be that the effect of peer preference becomes less evident when children get older.

As from the present study appears, it might be that child-parent and child-peer interaction could be considered as separate contexts, at least for the present age group and the specific situation. These results empirically support the ideas of Piaget (1932) and Hinde (1979) that child-parent and child-peer relationships are distinct domains. It might be that behaviors are domain-specific and therefore some behaviors seem more relevant for child-parent interaction, whereas others are more relevant for child-peer interaction (Harris, 1995). These ideas were also supported by our findings indicating a low consistency of behaviors between the child-parent and child-peer context. In other words, children who, for instance, show more shared positive emotions with their parents, are not necessarily the children who show more shared positive emotions with a peer.

Some comments in regard to the limitations of the study are worth mentioning. Firstly, with fifty-five parents and children our sample is relatively small, and therefore it would be necessary to enlarge the sample in replication research. Secondly, the peer that played with the child during the child-peer interaction was selected on several criteria of which one was an average sociometric status. In other words, this child was a known classmate, but was neither 'very good' nor 'not very good' friends with the subject. It might be that if we had asked our subjects to play with their best friend, the differences between child-parent and child-peer play would decrease. However, as we were interested in a child-peer interaction with a 'neutral' child, these criteria were used (see also Black & Logan, 1995). In future studies it might be relevant to involve both child-parent interactions as well as interactions with a peer and a best friend to find out whether these social contexts differ.

In summary, several studies have underlined the relation between child-parent and child-peer relationships. The present study is a contribution to the empirical study of horizontality and verticality during child-parent and child-peer interactions. As Russell et al. (1998) have suggested, child-parent relationships could contain horizontal qualities. In the present study, we have found several horizontal qualities such as mutual responsiveness, shared positive emotions and balance of control during child-parent play interaction. Furthermore, little consistency between contexts was found, indicating that in dyads with the same target child, different proportions of specific behaviors were found. Future research will be necessary to study which linking paths can be discovered between the (horizontal) qualities of the child-parent interaction and similar manifestations during child-peer interactions.

Chapter 3
Self-representation and perceived security of the relationship
with parents at ages seven and nine

Perceived security of the relationship with parents	C	Child-parent interaction
B	C	A
Self-representation	C	Child-peer interaction
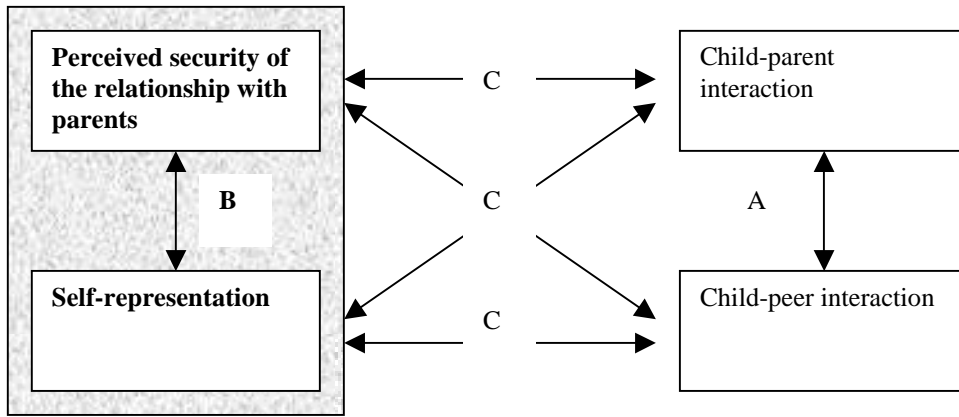
Chapter 3
Self-representation and perceived security of the relationship with parents at ages seven and nine[1]

Abstract

Self-representation and perceived security of the relationship with parents were studied in 64 children at ages seven and nine. Results showed significant positive relations between perceived security in child-mother and child-father relationship and self-representation at age seven, as well as at age nine. Furthermore, moderate stability between ages seven and nine was found for the perceived security of the relationship with mother, but not for the relationship with father. Perceived security of the relationship with mother, as well as with father at age seven was found to be predictive for the openness during an interview about global self-representation at age nine. That is, seven-year-old children who perceived their relationship with their parent as more secure were more open at age nine, when asked about themselves. When examining the reverse question, whether self-representation at age seven is predictive of perceived security of the relationship with parents at age nine, no significant predictions were found.

3.1 Introduction

According to attachment theory (Bowlby, 1969, 1973), the development of the self is related to experiences in the relationships with attachment figures. On the basis of these early experiences a child forms internal mental representations, which Bowlby (1969) named "internal working models". These internal working models consist of two components: 1) the internal working model of the attachment relationship or attachment figure, and 2) the internal working model of the self, being a person worth of affection and loved by the attachment figure (see also Maier, Bernier, Pekrun, Zimmermann, & Grossmann, 2004; Verschueren & Marcoen, 1999). Children who have secure experiences with important adults, within a warm and responsive relation, develop an internal representation of those experiences on which future relations are based. They also develop a positive and open self-representation, because they experience that they are worth to be loved and treated with warmth and respect (Cassidy, 1988). Thus, in this line of reasoning early experiences with primary caregivers provide children with internal working models, on which feelings about the self as well as expectations about (future) relationships with others are based (Bretherton & Munholland, 1999).

Classical attachment studies mainly consisted of assessing attachment behavior during infancy by means of the Strange Situation and predicting, for example, social acceptance or self-esteem in middle childhood or adolescence (see Schneider, Atkinson, & Tardif, 2001). It was found, for instance, that securely attached infants, compared to insecurely attached infants, are more socially and behaviorally competent, and present less behavior problems when they are older (e.g., Suess, Grossmann, & Sroufe, 1992; Fagot & Kavanagh, 1990; Erickson, Sroufe, & Egeland, 1985; Bohlin, Hagekull, & Rydell, 2000; Easterbrooks & Lamb, 1979). However, in addition to predictive studies originating in infancy, studies on the quality of the attachment relation later in childhood might be interesting (see also Kerns, Tomich, Aspelmeier, & Contreras, 2000). In the last ten to fifteen years some empirical studies have been carried out to examine concurrent relations between self-representation and the relationship with parents, in early and middle childhood, and adolescence (see Cassidy, 1988; Verschueren & Marcoen, 1999; Verschueren, Marcoen, & Schoefs, 1996; Clark & Symons, 2000; Easterbrooks & Abeles, 2000). In these studies, several methods have been used to measure concurrent attachment behavior or representations of the attachment relation in early and middle childhood, and in adolescence. Main and Cassidy (1988), for instance, have developed a classification system that can be used at age six to assess attachment organization on the basis of unstructured reunions with parents. Verschueren and Marcoen (1994) have developed a story completion task, in which early childhood children have to complete attachment related stories by means of a doll family. Kerns, Klepac, and Cole (1996) have developed and validated the Security Scale, which measures the perceived security of child-mother and child-father attachment in middle childhood. The Separation Anxiety Test either for

four- to seven-year-old children (Klagsburn & Bowlby, 1976), or for adolescents (Hansburg, 1980), has been adapted by Resnick (1993) to a version for pre-adolescents. Thus, several measures are now available to study children's (attachment) relationship with parents during early and middle childhood.

In the present study, concurrent measures of the perceived security of the relationship with parents were administered when children were seven and nine years old. The stability of the perceived security of the relationship with parents was studied, and in addition related to the self-representation. For self-representation, we have chosen to use a measure of global self-representation, as well as domain-specific measures of self-representation. This choice is related to the discussion whether young children possess a global self-representation and if so, whether they are able to reveal it. From a cognitive perspective, it can be assumed that children under the age of eight are thinking about themselves in terms of concrete characteristics, whereas children in middle childhood (eight to eleven years) are better able to describe themselves in more general terms, that are based on the integration of specific characteristics. Harter (1999), for instance, has indicated that children under the age of eight describe themselves by referring to certain competencies on specific domains. Due to cognitive limitations, children in the pre-operational stage are not well able to describe their self in general terms and therefore would not have a global self-worth. Furthermore, they are very positive in their self-descriptions. They are overestimating their abilities, are thinking in opposites and valuing various competencies, which are not integrated into one general self-concept. Although they are aware that others are valuing them, they have not yet internalized these evaluations. According to Harter, they lack the ability to develop an overall concept of their self-worth. Older children in middle childhood are, on the other hand, able to describe themselves in terms of competencies. They can give more global evaluations, reflecting in higher-order generalizations or concepts. They are aware that different situations could provoke a different value of the self, that is, that they can be simultaneously positive about some aspects of the self, and negative on other aspects.

More recently, however, researchers (e.g., Gadeyne, Ghesquiere, Onghena, & Verschueren, 2000) have stated that it is very well possible that children under the age of eight can reveal their global self-worth. These authors argue that the measures used should be adequate and age-appropriate. Cassidy (1988) has developed a Puppet Interview in which children have to answer questions about themselves by means of a hand puppet. Verschueren, Schoefs, and Marcoen (1994) have used an adapted version of this Puppet Interview. They found children under the age of eight to be able to reveal a global sense of self-worth.

In the present study, the relation between self-representation and perceived security of the relationship with both mother and father is examined at ages seven and nine with the same children. Therefore, concurrent associations between these concepts,

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as well as stability of these concepts can be assessed. For both ages we assessed domain-specific as well as global self-representation. Therefore, it was possible to study whether domain-specific or global self-representations are in the same way or differently related to perceived security of the relationship with parents. Perceived security was administered for each parent separately. We have used representational measures because of our interest in the way children think about the relationship with parents. Actual attachment behavior was not our focus. It is possible that the ideas or perceptions children have of their relationship with their parents are actually more important for how they think about themselves than attachment *behavior* might be.

The first aim of the present study is to examine whether there is a relation between perceived security of the relationship with parents and self-representation at ages seven and nine (cross-sectional analyses). To our knowledge, there are hardly any studies that have focused on this relation at these ages. We expect that children who perceive their relationship with parents as more secure, are more positive about themselves (at both ages).

Our second aim is to examine the stability and predictive relation of these concepts. More specific, we examine a) whether there is stability in the self-representation between ages seven and nine, and b) whether there is stability in the perceived security of the relationship with parents between ages seven and nine. We expect a moderate stability because of the necessary use of different measures at ages seven and nine (see Kerns et al., 2000). Moreover, moderate stability is expected because of the cognitive changes children are assumed to make between ages seven and nine. Furthermore, we will examine c) whether self-representation at age nine is predicted by the perceived security of the relationship with parents at age seven, and d) whether the perceived security of the relationship with parents at age nine is predicted by the self-representation at age seven. Based on attachment theory, we expect that children who perceive their relationship with parents as positive and secure at age seven have a more positive self-representation at age nine, compared to children who perceive their relationship with parents as negative or insecure.

3.2 Method

3.2.1 Participants

Parents of 138 children were asked to participate in the first wave of this study (1999). Permission was obtained for 69 children from 20 elementary schools. Reasons for refusing permission included lack of time, infringement on privacy, and participating in other research. Because the reasons were various and mainly not related to the subject of the study, we do not expect selective nonresponse bias (see Gerrits, Van den Oord, & Voogt, 2001).

In 2001 these parents were again asked to participate in the second wave of this study. Sixty-five of the sixty-nine children and their parents were willing to participate (nonresponse rate of 6 %). Reasons for refusing were children who would not participate anymore (two times), divorce of parents (and therefore stress at home; one time), and moving (one time). The present study describes data of 64 children (34 boys and 30 girls) for whom we had data of both waves. The mean age during the first wave was 86 months (range 79 - 95 months). During the second wave participants were two years older. Children were all from Caucasian ethnicity and came from middle to higher socio-economic families. All, except three girls, came from intact families.

3.2.2 Measures

For reasons of age-appropriateness, it was necessary to use different measures to assess self-representation and perceived security of the relationship with parents at ages seven and nine. In Table 3.1 an overview of the measures is given.

Table 3.1

Overview of instruments measuring the self-representation and perceived security of the relationship with mother and father

	Age seven	*Age nine*
Self-representation		
Domain-specific	Pictorial Scale of Perceived Competence and Social Acceptance	Self-Perception Profile for Children
	- Cognitive competence	- Cognitive competence
	- Peer acceptance	- Social acceptance
	- Physical competence	- Athletic competence
	- Maternal Acceptance	- Physical appearance
		- Behavioral attitude
		- Global self-worth
Global	Puppet Interview	Ease of Access to Self-Evaluations
	- Positiveness	
	- Openness	- Openness
Perceived security of the relationship with parents	Attachment Story Completion Task	Kerns Security Scale
	- Mother	- Mother
	- Father	- Father
Verbal Competence	Rakit	Rakit

Assessment of self-representation at age seven

Pictorial Scale of Perceived Competence and Social Acceptance

The Pictorial Scale of Perceived Competence and Social Acceptance (PSPCSA; Harter & Pike, 1984) was administered to measure domain-specific self-representations in four- to seven-year-old children. In the present study a Dutch translation of the PSPCSA (Van den Berg, in Steinbusch & Streppel, 1985) was administered. The PSPCSA consists of four domains: a) cognitive competence, b) peer acceptance, c) physical competence, and d) maternal acceptance. The questions are accompanied by pictures of same-sex children for boys and girls. Children first have to choose one of the two pictures and then have to indicate whether the situation on the pictures is totally applicable to the interviewed child or partly. An example question is "This girl/boy is already good in reading, and this girl/boy is not yet good in reading. Which girl/boy is most like you?". The answers are rated on a 4-point scale, with higher ratings indicating higher perceived competence or acceptance. The internal consistency of the four scales in the present study is $\alpha = .65$ for cognitive competence, $\alpha = .79$ for peer acceptance, $\alpha = .29$ for physical competence and $\alpha = .66$ for maternal acceptance. Because of the low internal consistency of the physical competence scale, this scale will not be used in further analyses. The other alpha's are comparable to the ones reported in other studies (see Harter & Pike, 1984; Verschueren et al., 1996, 1999; Swennenhuis & Veerman, 1995).

Puppet Interview

During the Puppet Interview (PI; Verschueren et al., 1994; Cassidy, 1988) the interviewer asks twenty questions to the child, not directly but by means of a hand puppet. The child has to answer the questions by means of another hand puppet. Questions are about the worthiness of the child and are appropriate for four- to seven-year-old children. The purpose of the Puppet Interview is to assess how a child thinks an "unspecified other" (Cassidy, 1988, p. 125) sees him or her. The Puppet Interview may be seen as a measure of global self-representation. The answers of the child are scored on positiveness (i.e., does the child say positive or negative things about the self), and on openness (i.e., is the child able to admit imperfections). Positiveness is based on fifteen questions in the Puppet Interview. Example questions of positiveness are "Do you like (name of the child)?", "Would you like to play with (name of the child)?". An interview is classified as positive if the child does not give any negative answer about the self on the fifteen questions that measure positiveness. Openness is based on five questions, for example, "Is (name child) ever a bad girl/boy? If no, "Never?". The interview is classified as open when a child is able to admit at least once an imperfection. Detailed rules are available for scoring of the Puppet Interview (see Verschueren et al., 1994). Fifteen percent of the protocols were coded separately by two assistants and the first author. Cohen's kappa's were .86 for positiveness and .68 for openness.

Assessment of self-representation at age nine

Self-Perception Profile for Children

For the nine-year-old children a Dutch translation of the Self-Perception Profile for Children of Harter (1985) was administered (Veerman et al., 1997). The design of this measure is the same as the PSPCSA for the younger children, using also a forced-choice format, with four possible response categories. The answers are rated on a 4-point scale with higher ratings indicating more positive self-perception. The SPPC can be administered at eight- to eleven-year-old children and assesses perceptions of the self in six domains, a) cognitive competence, b) social acceptance, c) athletic competence, d) physical appearance, e) behavioral attitude, and f) global self-worth. The internal consistency of the six scales in the present study is $\alpha = .74$ for cognitive competence, $\alpha = .63$ for social acceptance, $\alpha = .23$ for athletic competence, $\alpha = .81$ for physical appearance, $\alpha = .81$ for behavioral attitude, and $\alpha = .79$ for global self-worth. Because of the low internal consistency of athletic competence, this scale will not be used in further analyses. The other α's are comparable to those reported in Verschueren and Marcoen (2002). Internal consistency and test-retest reliability of the Dutch version has been found reasonable to good (Swennenhuis & Veerman, 1995; Veerman, Ten Brink, Straathof, & Treffers, 1996). Proofs of cross-cultural validation of the Dutch SPPC have been found in studies by Veerman et al. (1996, 1997), Van den Bergh and Marcoen (1999), and Van den Bergh and Van Ranst (1998).

Ease of Access to Self-Evaluations

The Ease of Access to Self-Evaluations (EASE; Easterbrooks & Abeles, 2000) is designed to measure whether a child (in middle childhood) easily answers questions about the self, or whether a child is reluctant to answer. Children are asked four questions about themselves: a) Tell me five words about yourself, b) What do you like about yourself, c) What don't you like about yourself, and d) If I tell one thing about you to another person, what do you think that might be?

Based on the answers on the four questions, a global qualitative rating of the child's 'ease of access to self-evaluations' is given, coded from the videotape. The rating on a 9-point scale, based on the child's overall responses, represents the extent to which the child displays ready, easy access to descriptions of the self. It is therefore comparable with the Openness dimension of the Puppet Interview administered at age seven. Higher ratings are given to children who answer all the questions spontaneously and easily, who are not withdrawn or resistant to the task, and do not display evidence of tensions. Lower ratings are given when children will not answer the questions, not even after probing, or are not able to finish the task, for example by withdrawing from the task. To asses interobserver reliability, fifteen percent of the tapes was coded separately by an assistant and the first author. Interobserver correlation was $r = .91$. Cohen's Kappa was .66, which

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was low considered the high interobserver correlation. This can be explained by an uneven distribution of scores.

Assessment of perceived security of the relation with parents at age seven
Attachment Story Completion Task

The Attachment Story Completion Task (Verschueren & Marcoen, 1994; Verschueren, Marcoen, & Schoefs, 1996) is an adaptation of the Doll Story Completion Task (Cassidy, 1988), which can be administered at four- to seven-year-old children. This measure aims to assess the quality of the internal working model of the attachment relationship with both parents. The child has to complete attachment-related stories, with the use of a doll family. The spontaneous play of the child is awaited and is followed by probes when clarification of the play of the child is needed. In the present study, four stories derived from Verschueren et al. (1994; 1996), Bretherton, Ridgeway, and Cassidy (1990), and Cassidy (1988) are played, which are about 1) a conflict situation with another child, 2) spilling apple juice on the kitchen table, 3) giving a present to the parent, and 4) a child waking up from a scary noise. A boy doll is used for boys, a girl doll during the interviews with girls, and only a mother and child doll are used for the mother session and only a father and child doll for the father session. The interviews were done for mother and father separately, in counterbalanced order (the order of mother and father stories as well as the order of the four stories were counterbalanced). The interview was video-taped and transcribed verbatim. On the basis of the mainly verbal responses a child gives, children receive a continuous score for each attachment story ranging from 1 to 5 with higher scores indicating more perceived security. Two mean scores were computed for the four stories, one for perceived security of the child-mother relationship and one for perceived security of the child-father relationship. Fifteen percent of the protocols were coded separately by an assistant and the first author. Interobserver agreement ranged from 75% to 92% across mother stories and from 77% to 95% across father stories. Cohen's Kappa for the overall classification was .80 for the mother stories and .72 for the father stories.

Assessment of perceived security of the relation with parents at age nine
Kerns Security Scale

The Kerns Security Scale (KSS, Kerns et al., 1996) is designed to assess children's perceptions of security in child-parent relationships in middle childhood and adolescence. We have used a mother and father version of the KSS to obtain perceived security of the child-mother relationship as well as perceived security of the child-father relationship. The KSS is a 15-item self-report, using forced-choice responses on a four-point scale, comparable to Harter's Self-Perception Profile. An example of a question is "Some kids go to their parent when they are crying, but other kids don't go to their parent when they are crying". Children had to indicate which statement was most characteristic for them

and whether it was really true or sort of true for them. Scores ranged from 1 to 4 and higher scores indicated more secure attachment to mother and father. The internal consistency was $\alpha = .74$ for the mother report and $\alpha = .60$ for the father report. The alpha of the maternal report is comparable to the one reported in Verschueren and Marcoen (2002), who also used a Dutch translation, and is even higher than the one reported for third-graders in Kerns et al. (2000). However, the alpha of the paternal report was lower than reported in Verschueren and Marcoen (2002), and Kerns et al. (2000).

3.2.3 Procedure

Age seven

At age seven the children were visited twice at school. During the first visit, children were interviewed during two sessions. Duration of each session was about thirty minutes. In the first session, after a little talk to get child and interviewer acquainted, first two subtests of a Dutch intelligence test were done (RAKIT, Revised Amsterdam Intelligence Test for Children; Bleichrodt, Drenth, Zaal, & Resing, 1984). Verbal competence of the child was assessed, because it might be of influence on the other measures in which the child had to tell stories. A lower verbal competence might explain less elaborate stories.

Furthermore, in the first session the Pictorial Scale of Perceived Competence and Social Acceptance (PSPCSA; Harter & Pike, 1984) and the Puppet Interview (Cassidy, 1988; Verschueren et al., 1994) were administered to measure domain-specific and global self-representation, respectively. During the second session, the Attachment Story Completion Task (Verschueren & Marcoen, 1994) was presented, which included three stories about interaction with age mates (these data are not used in this study). Next, four stories about the relation with mother ór father were presented. During the second visit the other stories of father ór mother were administered, depending on which stories had been presented during the first visit. Mother or father stories were presented in counterbalanced order, so that about half of the children first did the mother doll stories and the other children did the father doll stories first. There was about a week time between the first and second visit to prevent that the mother and father doll stories would be played in a similar way, because of the close succession of these tasks in time.

Age nine

In the first session, again after a short acquaintance conversation, the same two subtests of the RAKIT (Bleichrodt et al., 1984) were given to measure verbal competence. Next the Ease of Access to Self-Evaluations (EASE; Easterbrooks & Abeles, 2000) was administered to assess the convenience with which children talk about themselves. During the second session, during which all the participating children of a school were brought together, the Kerns Security Scale (KSS; Kerns et al., 1996) for mother ór father and the Self-Perception Profile for Children (SPPC; Harter, 1985) were completed by the children. The interviewer read the questions aloud to the children and the children

completed the questionnaires by indicating the for them appropriate answer. In the third session, the KSS for father ór mother, depending on which questionnaire was already completed during the second session was administered. The KSS for mother and father were presented in counterbalanced order.

3.3 Overview of the Main Analyses

To answer our first question about relations between perceived security of the relationship with parents and self-representation at ages seven and nine, Pearson's correlations will be used. Correlations are also performed to assess whether these concepts are stable over two years. To study whether the self-representation at age nine is predicted by the perceived security of the child-parent relationship at age seven, hierarchical regression analysis will be performed. The relation between the perceived security of the relationship with parents at age seven and the self-representation at age nine is controlled for the stability of the self-representation. Hierarchical regression analysis is also used to study whether the perceived security of the relationship with parents at age nine is predicted by the self-representation at age seven. Here, the prediction of the perceived security of the relation with parents at age nine by the self-representation at age seven, is controlled for the stability of the perceived security of the relationship with parents.

3.4 Results

3.4.1 Self-representation and perceived security of the relationship with parents (cross-sectional analyses)[2]

Global representation of the self

Correlations between global as well as domain-specific self-representations and the perceived security of the relationship with parents at ages seven and nine are shown in Table 3.2. At age seven, significant correlations between positiveness (r = .58) and openness (r = .29) of the self and the perceived security of the relation with father, as well as positiveness of the self and the perceived security of the relationship with mother (r = .46) were found. This indicates that seven-year-old children who perceive their relation with mother and father as more secure are more *positive* about themselves. Seven-year-old children who perceive their relation with father, but not with mother, as more secure, are more *open* about themselves.

At age nine, as can be seen in Table 3.2, no significant relations between openness and the representation of relations with father or mother were found. However, when global self-worth was measured with the SPPC (Harter, 1985), a significant positive

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[2] Before conducting further analyses, it was also examined whether verbal competence was related to the measures in which stories had to be completed. There was no significant association found, and therefore verbal competence was not controlled for in further analyses.

relation between global self-worth and the perceived security of the relation with mother and father was found ($r = .38$ and $r = .49$, respectively).

Domain-specific self-representation

No significant correlations between the domain-specific self-representation and the perceived security of the relation with mother or father were found at age seven, as can be seen in Table 3.2. Some significant correlations between the domain-specific self-representation and the perceived security of the relation with mother and father were found at age nine. For the relationship with mother significant correlations with physical appearance ($r = .44$), and behavioral attitude ($r = .27$) were found. For the relationship with father a significant correlation was found with physical appearance ($r = .44$), and a trend towards a significant relation with behavioral attitude ($r = .22$).

Table 3.2

Correlations between self-representation and perceived security of the relationship with parents at ages seven and nine

	Relation with mother	*Relation with father*
Age seven		
Global self-representation		
Positiveness	.46**	.58**
Openness	.09	.29*
Domain-specific self-representation		
Cognitive competence	-.18	.00
Peer acceptance	.00	-.10
Maternal acceptance	.13	.16
Age nine		
Global self-representation		
Openness	.16	-.04
Global self-worth	.38**	.49**
Domain-specific self-representation		
Cognitive competence	-.01	.06
Social acceptance	.12	.05
Physical appearance	.44**	.44**
Behavioral attitude	.27*	.22°

° $p < .10$, * $p < .05$, ** $p < .01$

3.4.2 Stability of the self-representation

To address our second research question, we examined the stability of the self-representation between ages seven and nine. As is shown in Table 3.3, no stability was found for the openness with which children reported on themselves ($r = -.08$, *n.s.*). Note

that the other dimensions at age seven, positiveness, was not measured at age nine[3]. For the domain-specific self-representation, only cognitive competence at age seven was positively related to cognitive competence at age nine ($r = .25$). We did not find other stable constructs, but there was a significant association between maternal acceptance at age seven and behavioral attitude at age nine ($r = .29$). It appears that children who perceive themselves as being more accepted by their mother at age seven, are more positive about their own behavior two years later.

Table 3.3
Correlations between self-representation at age seven and nine

	Age nine					
	Global		*Domain-specific*			
Age seven	Openness	GS	CC	SA	PA	BA
Global self-representation						
Positiveness	-.04	-.01	.02	-.01	-.06	.25°
Openness	-.08	.06	-.04	-.03	.12	-.12
Domain-specific self-representation						
Cognitive competence	.07	.10	.25*	.03	-.14	-.01
Peer acceptance	-.06	.08	-.03	.19	.14	.15
Maternal acceptance	.09	.19	.11	.15	.04	.29*

Note. GS = Global Self-worth, CC = Cognitive Competence, SA = Social Acceptance, PA = Physical Appearance, BA = Behavioral Attitude. ° $p < .10$, * $p < .05$

3.4.3 Stability of perceived security of the relation with parents

To address the stability of the perceived security of the relationship with parents, Pearson correlations were computed. As is shown in Table 3.4, a significant, but moderate positive correlation is found between perceived security with mother at ages seven and nine ($r = .28$). Children who perceive their relation with mother as more positive and secure at age seven, are also more positive at age nine about this relation. No stability for the perceived security of the relationship with father was found ($r = .13$, *n.s.*).

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[3] We could not find an equivalent measure to assess positiveness at age nine, comparable to the positiveness scale of the PI at age seven. However, in the SPPC the positiveness of the self is measured by items aimed at tapping global self-worth, which indicates positiveness of the self.

Table 3.4

Correlations between perceived security of the relationship with parents at ages seven and nine

	Age nine	
Age seven	Perceived security with mother	Perceived security with father
Perceived security with mother	.28*	.19
Perceived security with father	.22	.13

* $p < .05$

3.4.4 Prediction of the self-representation at age nine from the perceived security of the relationship with mother and father at age seven

In addition to the stability of the self-representation at ages seven and nine, and of the perceived security of the relationship with parents at ages seven and nine, we were also interested in the question whether the self-representation at age nine could be predicted by the perceived security of the child-parent relationship at age seven, after controlling for the self-representation at age seven, and vice versa. Therefore, hierarchical regression analyses were carried out. In the first set of analyses, openness at age nine, indicating the ease with which children could tell about themselves, was the dependent variable (note that other aspects of self-representation could not be entered as dependent variables, because they were not measured at both ages). Openness at age seven was entered on the first step, followed by the perceived security of the relationship with the parent at age seven[4]. As is shown in Table 3.5, the perceived security of the relationship with mother as well as with father at age seven was significantly related to openness at age nine, even after controlling for the stability of openness. However, note that, as indicated in Table 3.5, no stability of openness was found, and therefore caution is necessary when interpreting these results.

In the second set of analyses, it was examined whether the perceived security of the relationship with parents at age nine is predicted by the self-representation at age seven, after controlling for the perceived security of the relationship with parents at age seven. Perceived security of the relation with parents at age nine was the dependent variable. Perceived security of the relationship with parents at age seven was entered on

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[4] Including the variable "gender of the child" in the hierarchical regression analyses did not produce other results.

Table 3.5
Predicting openness at age nine by perceived security of the relationship with parents at age seven

Predictor variables	R	R^2	ΔR^2	β
Step 1:				
Openness at age seven	.09	.01	.01	-.12
Step 2:				
Mother[a]	.40	.16	.15**	.39**
Step 1:				
Openness at age seven	.09	.01	.01	-.19
Step 2:				
Father[b]	.37	.14	.13**	.38**

[a] Perceived security of the relationship with mother at age seven. [b] Perceived security of the relationship with father at age seven. ** $p < .01$

Table 3.6
Predicting perceived security of the relationship with parents at age nine from the self-representation at age seven

Predictor variables	R	R^2	ΔR^2	β
Step 1:				
Mother[a]	.28	.08	.08*	.21
Step 2:				
Self-representation at age seven	.31	.10	.02[n.s.]	.15
Step 1:				
Father[b]	.06	.00	.00[n.s.]	.23
Step 2:				
Self-representation at age seven	.07	.01	.00[n.s.]	-.26

[a] Perceived security of relationship with mother at age seven. [b] Perceived security of relationship with father at age seven. * $p < .05$, [n.s.] = non-significant.

the first step, followed by the self-representation at age seven. We did not find any significant predictive relation from the self-representation at age seven. As can be seen in Table 3.6, only the perceived security of the relationship with mother at age seven was predictive of the perceived security of the relationship with mother at age nine. With respect to predicting the perceived security of the relation with father at age nine from the

self-representation at age seven, after controlling for the perceived security of the relation with father at age seven, we did not find a significant predictive relationship.

3.5 Discussion

The results of the present study show significant positive relations between perceived security in child-mother and child-father relationships and self-representation at age seven as well as at age nine. Children who perceive their relationship with their parents as more secure, have a more positive global self-representation and are more open at age seven. At age nine, children with more secure representations of their relationship with mother or father are more positive about their physical appearance, behavioral attitude and global self-worth. Furthermore, moderate stability is found for the perceived security of the relationship with mother between ages seven and nine. No stability between ages seven and nine is found for the perceived security of the relationship with father. Moreover, hierarchical regression analyses show that perceived security of the child-mother as well as the child-father relationship at age seven is predictive for the openness during an interview about global-self worth at age nine. Seven-year-old children who perceive their relationship with their parent as more secure are more open when asked about themselves at age nine. When examining the reverse question, whether the perceived security of the relationship with parents at age nine is predicted by the self-representation at age seven, no significant prediction is found.

For several reasons, the present study is an interesting addition to existing studies of the relation between the child-parent relationship (i.e., attachment) and perceptions of the self. Firstly, only a few studies have addressed this age-group (e.g., Easterbrooks & Abeles, 2000). Results of the present study corroborate work with younger children in which aspects of the self are also positively related to representations of the relationship with parents (see Verschueren & Marcoen, 1999; Verschueren et al., 1996; Cassidy, 1988). Our results partly corroborate those of the study of Easterbrooks and Abeles (2000) who did find a positive relation between openness and perceived security of the relationship with parents. However, they used another, representational and semi-projective measure to assess perceived security, in which no distinction between mother and father perceived security was made.

Secondly, in our study global self-representation as well as domain-specific self-representation have been assessed. Although it often has been assumed that children under the age of eight are not able to reveal a global self-representation (see Harter, 1999), our results do not endorse this assumption. A relation between perceived security of the relationship with parents and global self-representation as measured with the Puppet Interview at age seven (but not with domain-specific self-worth as measured with the PSPCSA) has been found, comparable to other studies (Cassidy, 1988, Verschueren et al., 1996; Verschueren, Buijck, & Marcoen, 2001). At age nine, we found significant positive

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associations between domain-specific self-representation as well as global self-representation and perceived security of the relationship with parents, although global self-worth was assessed with another measure than at age seven.

As is shown by the results of the present study, linkages between the relationship with parents and the self-representation are found. From an attachment point of view, it is assumed that children who experience their relationship with parents as warm and secure, develop a more positive sense of self at later ages. However, another explanation, that of the sociability of children, might also be possible (see Lamb & Nash, 1989). According to this point of view, children who are by nature more sociable, provoke positive experiences with parents as well as with peers and therefore develop a positive sense of self. In this perspective, the sociability of the child is the central aspect, instead of the child-parent relationship. Our results, however, did not support such a perspective. The results of the hierarchical regression analyses show that the perceived security of the relationship with parents at age seven is predictive of the self-representation at age nine. The reverse picture (predicting the perceived security of the relationship with parents at age nine by self-representation at age seven) was not found. Thus, we found some support for the assumption that the child-parent relationship is important for the development of a positive sense of self.

Some comments concerning this study are worth mentioning. Firstly, we had to use different measures at ages seven and nine to assess self-representation and the perceived security of the relationship with parents. Although we used appropriate equivalents which measured the same concepts, this might be an explanation of the low stability of the self-representation (i.e., openness) and the perceived security of the relationship with father. Another explanation of the low stability of the perceived security of the relationship with father might be the relatively low internal consistency of the paternal report form of the KSS (α was .60). Therefore, it might be that perceived security of the relationship with father was less reliably measured at age nine. In other words, our associations might have been stronger if we could have used the same measures at ages seven and nine.

On the other hand, the lack of stability of openness might be a robust finding. Despite of measuring the same concept, low correlations could be explained by the large variability in perceptions of children (e.g., De Weerth & Van Geert, 2002). It might be that at these ages, children's perceptions are not always crystallized out and therefore fluctuations in individual perceptions are possible. These fluctuations might be random, rather than systematic, thus leading to low stabilities. For future research, it would be a challenge to develop measures that are appropriate for both ages. Another limitation is the relatively small sample size. In future research, replication of the results with larger groups is necessary. Thirdly, we have used representational measures of child-parent relationship at both ages. It might be interesting to assess also attachment behavior at

these ages, in order to get a view of the concordance between representations of the child-parent relation and actual attachment behavior (see also Kerns et al., 2000; Bar-Haim, Sutton, Fox, & Marvin, 2000).

In summary, results of the present study do endorse concurrent and predictive relations between child-parent relationship and feelings children have about themselves, extending similar findings with younger children. Until now this was never found for seven- and nine-year-old children, an age-group that is important because of the cognitive development that occurs at these ages. This study also indicates that it is possible to assess perceived security of the relationship with parents in middle childhood.

Perceived security of the relationship with mother and father:
are both related to self-representations of seven- and nine-year-
old children?

Perceived security of
the relationship with
parents

B

Self-representation

C

C

C

A

Child-parent
interaction

Child-peer interaction
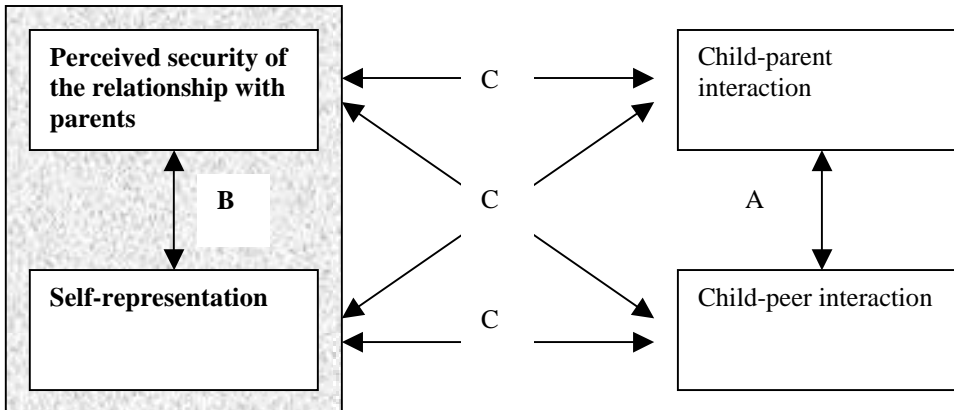
Chapter 4
Perceived security of the relationship with mother and father: are both related to self-representations of seven- and nine-year-old children?[1]

Abstract

The (joint) contribution of perceived security of the relationship with mother and father was related to self-representations in 64 children at ages seven and nine. Results of hierarchical regression analyses showed that adding the perception of the child-father relationship after the perception of the child-mother relationship was entered first, did increase the explained variance significantly with respect to positiveness of the self at age seven and physical appearance and global self-worth at age nine. Furthermore, it was found that children who had secure perceptions of two parental relationships were more positive about the self and about their cognitive competence at age seven. At age nine these children were more positive about their physical appearance and global self-worth, compared to children with two insecure perceptions of the relationship with parents. Moreover, children who maintained a positive perception of the relationship with mother, between ages seven and nine, were more positive about the self at age seven. At age nine, they were more open, and more positive about their physical appearance and behavioral attitude than children who maintained negative about the relationship with mother.

4.1 Introduction

Several researchers have studied the relation between quality of the attachment relationship (i.e., perceived security) and the self, predictively as well as concurrently (e.g., Cassidy, 1988; Verschueren, Marcoen, & Schoefs, 1996; Verschueren & Marcoen, 1999; Clark & Symons, 2000; Easterbrooks & Abeles, 2000). Theoretical background of these studies is attachment theory (Bowlby, 1969, 1973), in which it is assumed that children develop internal working models of the relationships with attachment figures, based on (early) experiences with attachment figures (see Main, Kaplan, & Cassidy, 1985). Children who have a secure working model of the attachment relationship, are assumed to have positive expectations about the availability and responsiveness of attachment figures. On the other hand, children who have an insecure working model, have a greater chance of developing negative expectations (e.g., Verschueren et al., 1996). Simultaneously, children develop an internal working model of the self, also based on interactions with attachment figures. It is thought that children who develop a positive working model of the attachment relationship, will develop a (more) positive working model of the self, whereas children who perceive their relationship with attachment figures as negative, will develop a negative working model of the self (e.g., Bretherton, 1991; Cassidy, 1990; Verschueren et al., 1996). In other words, the quality of the security of the (representation of) attachment relationships seems to be indissoluble related to the quality of the (global) representation of the self.

In empirical studies, in which the quality of the attachment relationship is related to the self, relations were found in the expected direction. Cassidy (1988), for instance, has found that six-year-old children who tended to show more secure behavior in a reunion situation with mother, described themselves as positive and were able to admit imperfections during a Puppet Interview. Verschueren et al. (1996) have found similar results in a study of five-year-olds. A strong and positive relation was found between the representation of the relationship with mother assessed through an Attachment Story Completion Task and the positiveness of the self, measured by means of a Puppet Interview. However, in most of these studies, except in a study by Verschueren and Marcoen (1999), only the perception of the *child-mother* relationship was related to aspects of the self. Multiple attachments to mother and father, in relation to the self, have seldom been assessed, although Bowlby (1982) already assumed that both parents have differential influences on the development of children, and more specific on the development of the self (see also Grossmann et al., 2002; Lamb, 1997). Therefore, as Verschueren and Marcoen (1999) have argued, it is important to study children's perception of both child-mother and child-father relationship. In that way, we are able to detect whether child-mother and child-father relationship are similarly or differently related to the development of the self, and whether one child-parent relationship might be dominant over the other child-parent relationship. From studies relating perceived security

of the child-father relationship to other aspects of social-emotional functioning, it appears that, for instance, the quality of child-father attachment was an important predictor of positive friendship qualities, and of a lack of conflicts in their best friendships (Lieberman, Doyle, & Markiewicz, 1999).

Furthermore, when multiple attachments are assessed, it will be possible to study whether children who perceive their relationship with both parents as positive and secure are more positive about (aspects of) the self than children with discordant or two insecure perceptions of the relationship with mother and father. Bretherton (1991) assumes that secure attachment to one parent can compensate for an insecure attachment to the other parent. In a study by Van Aken and Asendorf (1997), compensating effects were found with respect to parental support. Low support from one parent could be compensated for by support from the other parent with respect to raising self-esteem of 12-year-old children. In a meta-analysis of 11 studies by Fox, Kimmerly, and Schafer (1991) concordance between attachment to mother and attachment to father was found. Children who were securely attached to mother, had a higher chance of being securely attached to father.

In the present study we will relate perceived security of the relationship with both parents to aspects of the self in seven- and nine-year-olds. This study will partly be a replication of the study by Verschueren and Marcoen (1999). However, we have focused on other age groups, that is seven- and nine-year-olds, whereas Verschueren and Marcoen have studied children in kindergarten. Firstly, this makes it possible to detect the direction of possible relations. Secondly, from a cognitive perspective, seven- to-nine-years is an interesting age period, especially for studying self-representation (Piaget, 1960; Harter, 1999, 2003). In the literature, some authors like, for instance, Harter (1999, 2003) argue that children under the age of eight can only be asked about the self on specific domains, and interdependently, are not able to reveal a global self-representation. Children in middle childhood (eight to eleven years), on the other hand, would be better able to describe themselves in more general terms. However, other researchers (e.g., Gadeyne, Ghesquiere, Onghena, & Verschueren, 2000) have stated that it is very well possible that children under the age of eight can reveal a global self-worth. These authors argue that the measures used should be adequate and age-appropriate, like for instance, a Hand Puppet Interview (see Cassidy, 1988; Verschueren, Schoefs, & Marcoen, 1994). They found children under the age of eight to be able to reveal a global sense of self-representation.

In the present study, the relation between self-representation and perceived security of the relationship with both mother and father is examined at ages seven and nine with the same children. Therefore, it can be examined whether the same or different aspects of the self are predicted by perceived security of the relationships with mother and father. From a study by Verschueren and Marcoen (1999), it appeared that the quality of the child-mother relationship predicted the child's positiveness of the self better than the

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quality of the representation of the child-father relationship. On the other side, the quality of the child-father relationship predicted better children's anxious/ withdrawn behavior, rated by the teacher. It will also be examined, in the present study, whether children who have a secure perception of the relationship with both parents differ from children who have discordant perceptions or both insecure perceptions of the relationship with parents with respect to aspects of the global and domain-specific self-representation.

With respect to the combination of perceived security of both parental relationships, three effects are possible. Firstly, there could be a *unique* effect, which means that the working models of mother and father are not integrated and influence different aspects of children's psychosocial functioning. With respect to self-representation, it means that more positive self-representation could only be predicted by a secure perception of the relationship with one parent. Secondly, there could be a *cumulative* effect, meaning that children with secure perceptions of both parental relationships have a more positive self-representation than children who perceive the relationship with one parent as positive (and the other as negative), which in turn have a more positive self-representation than children who perceive the relationship with both parents as negative. Thirdly, there could be a *compensating* effect, meaning that children who perceive the relationship with one parent as secure have a self-representation that is comparable in positiveness to children who perceive the relationship with both parents as secure (cf. Verschueren & Marcoen, 1999).

Longitudinally, it will be studied whether children who maintain the same perception of the relationship with parents (positive or negative) between ages seven and nine differ from children who either shift from a positive to a negative perception, or from a negative to a positive perception of the relationship with parents.

In sum, more specific hypotheses are 1) that perceived security of the child-mother relationship will be predictive of the global self-representation (i.e., positiveness of the self), whereas the perceived security of the child-father relationship will be more predictive of specific domains of the self, such as cognitive competence or physical competence (see Verschueren & Marcoen, 1999), 2) that children who perceive their relationship with both parents as secure, have a more positive global and domain-specific self-representation than children with insecure perceptions of both parents. Children who perceive the relationship with one parent as secure and with the other as insecure will be in between these other two groups (see Verschueren & Marcoen, 1999), and 3) that children who have a stable perception of the relationship with parents between ages seven and nine will be more positive about the self, compared to children who change from positive to negative perceived security or vice versa, and to children who maintain a negative perception of the relationship with parents.

4.2 Methods

4.2.1 Participants

At age seven, 69 children and parents participated, and at age nine 65 of the 69 children and their parents were willing to participate again (nonresponse rate of 6 %). Reasons for not participating were children who would not participate anymore (two times), divorce of parents (and therefore stress at home; one time), and moving (one time). Due to equipment failure, the present study describes data of 64 children (34 boys and 30 girls) for whom we had data of both waves. The mean age during the first wave was 86 months (range 79 - 95 months). During the second wave participants were two years older. Children were all from Caucasian ethnicity and came from middle to higher socio-economic families. All, except three girls, came from intact families.

4.2.2 Measures

For reasons of age-appropriateness, it was necessary to use different measures to assess self-representation and perceived security of the relationship with parents at ages seven and nine. In Table 4.1 an overview of the measures is given.

Table 4.1

Overview of instruments measuring the self-representation and perceived security of the relationship with mother and father

	Age seven	*Age nine*
Self-representation		
Domain-specific	Pictorial Scale of Perceived Competence and Social Acceptance	Self-Perception Profile for Children
	- Cognitive competence	- Cognitive competence
	- Peer acceptance	- Social acceptance
	- Physical competence	- Athletic competence
	- Maternal Acceptance	- Physical appearance
		- Behavioral attitude
		- Global self-worth
Global	Puppet Interview	Ease of Access to Self-Evaluations
	- Positiveness	- Openness
	- Openness	
Perceived security of the relationship with parents	Attachment Story Completion Task	Kerns Security Scale
	- Mother	- Mother
	- Father	- Father
		Separation Anxiety Test
		- No distinction between parents
Verbal Competence	Rakit	Rakit

Assessment of self-representation at age seven

Pictorial Scale of Perceived Competence and Social Acceptance

The Pictorial Scale of Perceived Competence and Social Acceptance (PSPCSA; Harter & Pike, 1984) was administered to measure domain-specific self-representations in four- to seven-year-old children. In the present study a Dutch translation of the PSPCSA (Van den Berg, in Steinbusch & Streppel, 1985) was administered. The PSPCSA consists of four domains: a) cognitive competence, b) peer acceptance, c) physical competence, and d) maternal acceptance. The questions are accompanied by pictures of same-sex children for boys and girls. Children first have to choose one of the two pictures and then have to indicate whether the situation on the pictures is totally applicable to the interviewed child or partly. An example question is "This girl/boy is already good in reading, and this girl/boy is not yet good in reading. Which girl/boy is most like you?". The answers are rated on a 4-point scale, with higher ratings indicating higher perceived competence or acceptance. The internal consistency of the four scales in the present study is $\alpha = .65$ for cognitive competence, $\alpha = .79$ for peer acceptance, $\alpha = .29$ for physical competence and $\alpha = .66$ for maternal acceptance. Because of the low internal consistency of the physical competence scale, this scale will not be used in further analyses. The other alpha's are comparable to the ones reported in other studies (see Harter & Pike, 1984; Verschueren et al., 1996, 1999; Swennenhuis & Veerman, 1995).

Puppet Interview

During the Puppet Interview (PI; Cassidy, 1988; Verschueren et al., 1994) the interviewer asks twenty questions to the child, not directly but by means of a hand puppet. The child has to answer the questions by means of another hand puppet. Questions are about the worthiness of the child and are appropriate for four- to seven-year-old children. The purpose of the Puppet Interview is to assess how a child thinks an "unspecified other" (Cassidy, 1988, p. 125) sees him or her. The Puppet Interview may be seen as a measure of global self-representation. The answers of the child are scored on positiveness (i.e., does the child say positive or negative things about the self), and openness (i.e., is the child able to admit imperfections). Positiveness is based on fifteen questions in the Puppet Interview. Example questions of positiveness are "Do you like (name of the child)?", "Would you like to play with (name of the child)?". An interview is classified as positive if the child does not give any negative answer about the self on the fifteen questions that measure positiveness. Openness is based on five questions, for example, "Is (name child) ever a bad girl/boy? If no, "Never?". The interview is classified as open when a child is able to admit at least once an imperfection. Detailed rules are available for scoring of the Puppet Interview (see Verschueren et al., 1994). On the basis of the scores on positiveness and openness, the interview could also be classified in four categories: positive-open, positive-closed, negative-open and negative-closed. The closed classifications are

classifications in which the child is not open; that is, the child is reluctant to reveal imperfections. Fifteen percent of the protocols were coded separately by two assistants and the first author. Cohen's kappa's were .86 for positiveness and .68 for openness. For the classification, agreement was 89% (*k* = .81).

Assessment of self-representation at age nine

Self-Perception Profile for Children

For the nine-year-old children a Dutch translation of the Self-Perception Profile for Children of Harter (1985) is administered (Veerman et al., 1997). The design of this measure is the same as the PSPCSA for the younger children, using also a forced-choice format, with four possible response categories. The answers are rated on a 4-point scale with higher ratings indicating more positive self-perception. The SPPC can be administered at eight- to eleven-year-old children and assesses perceptions of the self in six domains, a) cognitive competence, b) social acceptance, c) athletic competence, d) physical appearance, e) behavioral attitude, and f) global self-worth. The internal consistency of the six scales in the present study is α = .74 for cognitive competence, α = .63 for social acceptance, α = .23 for athletic competence, α = .81 for physical appearance, α = .81 for behavioral attitude, and α = .79 for global self-worth. Because of the low internal consistency of athletic competence, this scale will not be used in further analyses. The other α's are comparable to those reported in Verschueren and Marcoen (2002). Internal consistency and test-retest reliability of the Dutch version has been found reasonable to good (Swennenhuis & Veerman, 1995; Veerman, Ten Brink, Straathof, & Treffers, 1996). Proofs of cross-cultural validation of the Dutch SPPC has been found in studies by Veerman et al. (1996, 1997), Van den Bergh and Marcoen (1999), and Van den Bergh and Van Ranst (1998).

Ease of Access to Self-Evaluations

The Ease of Access to Self-Evaluations (EASE; Easterbrooks & Abeles, 2000) is designed to measure whether a child (in middle childhood) easily answers questions about the self, or whether a child is reluctant to answer. Children are asked four questions about themselves: a) Tell me five words about yourself, b) What do you like about yourself, c) What don't you like about yourself, and d) If I tell one thing about you to another person, what do you think that might be?

Based on the answers on the four questions, a global qualitative rating of the child's 'ease of access to self-evaluations' is given, coded from the videotape. The rating on a 9-point scale, based on the child's overall responses, represents the extent to which the child displays ready, easy access to descriptions of the self. It is therefore conceptually comparable with the Openness dimension of the Puppet Interview administered at age

seven[2]. Higher ratings are given to children who answer all the questions spontaneously and easily, who are not withdrawn or resistant to the task, and do not display evidence of tensions. Lower ratings are given when children will not answer the questions, not even after probing, or are not able to finish the task, for example by withdrawing from the task.

Children's responses on the first question (i.e., Tell me five things about yourself) were also categorized as positive, neutral, or negative. For instance when a child says he's nice to other children, the answer is categorized as positive. When a child answers he hurts other children, this answer is categorized as negative. On the basis of the positive or negative answers and on the answer on the third question (i.e., Is there anything you don't like about yourself?), children could be divided into four categories: positive-open, positive-closed, negative-open or negative-closed, analogous to the classification of the Puppet Interview. Children who gave only spontaneously positive answers on question one, but also reported something they did not liked about themselves on question three were categorized as positive-open. Children who were positive, but reluctant to answer the third question were classified as positive-closed. When children gave negative answers and were able to answer the third question, they were categorized as negative-open. When they were not able to answer question four, although they had given a negative answer earlier in the interview, they were classified as negative-closed.

To asses interobserver reliability, fifteen percent of the tapes was coded separately by an assistant and the first author. Interobserver correlation was $r = .91$. Cohen's Kappa was .66, which was low considered the high interobserver correlation. This can be explained by an uneven distribution of scores.

Assessment of perceived security of the relation with parents at age seven

Attachment Story Completion Task

The Attachment Story Completion Task (Verschueren & Marcoen, 1994; Verschueren et al., 1996) is an adaptation of the Doll Story Completion Task (Cassidy, 1988), which can be administered at four- to seven-year-old children. This measure aims to assess the quality of the internal working model of the attachment relationship with both parents. The child has to complete attachment-related stories, with the use of a doll family. The spontaneous play of the child is awaited and is followed by probes when clarification of the play of the child is needed. In the present study, four stories derived from Verschueren et al. (1994; 1996), Bretherton, Ridgeway, and Cassidy (1990), and Cassidy (1988) are played, which are about 1) a conflict situation with another child, 2) spilling apple juice on the kitchen table, 3) giving a present to the parent, and 4) a child waking up from scary noise. A boy doll is used for boys, a girl doll during the interviews with girls, and only a

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[2] However, the openness scales of the PI and the EASE appeared to be unrelated ($r = -.08$, *n.s.,* see chapter 3).

mother and child doll are used for the mother session and only a father and child doll for the father session. The interviews were done for mother and father separately, in counterbalanced order (the order of mother and father stories as well as the order of the four stories were counterbalanced). The interview was video-taped and transcribed verbatim. On the basis of the mainly verbal responses a child gives, children receive a continuous score for each attachment story ranging from 1 to 5 with higher scores indicating more perceived security. Two mean scores were computed for the four stories, one for perceived security of the child-mother relationship and one for perceived security of the child-father relationship. On the basis of the continuous score, every story was also categorized as secure, avoidant, bizarre/ ambivalent or secure/insecure. On the basis of the classification of each separate story, every child received a global attachment categorization, i.e., secure, avoidant or bizarre/ ambivalent. For further detailed criteria and scoring is referred to Verschueren and Marcoen (1994). Fifteen percent of the protocols were coded separately by an assistant and the first author. Interobserver agreement ranged from 75% to 92% across mother stories and from 77% to 95% across father stories. Cohen's Kappa's for the overall classifications were .80 for the mother stories and .72 for the father stories.

Assessment of perceived security of the relation with parents at age nine
Kerns Security Scale

The Kerns Security Scale (KSS, Kerns, Klepac, & Cole, 1996) is designed to assess children's perceptions of security in child-parent relationships in middle childhood and adolescence. We have used a mother and father version of the KSS to obtain perceived security of the child-mother relationship as well as perceived security of the child-father relationship. The KSS is a 15-item self-report, using forced-choice responses on a four-point scale, comparable to Harter's Self-Perception Profile. An example of a question is "Some kids go to their parent when they are crying, but other kids don't go to their parent when they are crying". Children had to indicate which statement was most characteristic for them and whether it was really true or sort of true for them. Scores ranged from 1 to 4 and higher scores indicated more secure attachment to mother and father. The internal consistency was $\alpha = .74$ for the mother report and $\alpha = .60$ for the father report. The alpha of the maternal report is comparable to the one reported in Verschueren and Marcoen (2002), who also used a Dutch translation, and is even higher than the one reported for third-graders in Kerns, Tomich, Aspelmeier, and Contreras (2000). However, the alpha of the paternal report was lower than reported in Verschueren and Marcoen (2002), and Kerns et al. (2000).

Separation Anxiety Test

The Separation Anxiety Test (SAT; Resnick, 1993) is a semi-projective test, using pictures with mild and severe separation situations. It evaluates a child's responses to separation and loss of the parents in general. In other words, no distinction is made between mother and father. The pictures used in the present study are based on Resnick's version (1993). This version is an adaptation of the adolescent version (Klagsbrun & Bowlby, 1979; Shouldice & Stevenson-Hinde, 1992; Slough & Greenberg, 1990), which is adapted for pre-adolescents (11-15 years). We have made one adaptation to this version that originally contains the following pictures with mild separation:

1) The parents go away for two weeks leaving the child with a sitter.
2) The child is transferred to a new school.
3) The family is moving to a new neighborhood.

And with severe separation:

4) The child moves to live with his grandparents forever.
5) The child is running away from home.
6) A parent is taken to the hospital in an ambulance.

In the present study we replaced the running away picture by another picture (parents are going away for the evening, leaving the child alone at home), because we thought that it was not appropriate to use the running away picture for nine-year-olds.

The pictures were shown one by one (there was a boy and a girl version) and participants were asked to respond to two questions: a) how does the child on the picture feel in this situation, and b) what would he or she do? The interviews were videotaped and transcribed. Answers were rated on three nine-point scales: Coping with Separations, Emotional Openness and Coherence of Transcript. Higher ratings indicated more flexible balance between self-reliance and the ability to turn to others for assistance, more open and appropriate expressions of vulnerability, and more clear emotionally coherent and appropriately justified responses. On the basis of the scores on the scales, the child-parent relationship was also classified as secure, avoidant, or bizarre/ ambivalent. Fifteen percent of the interviews were coded separately by an assistant and the first author. Interobserver correlations ranged from .70 to .88.

Verbal competence

Verbal competence was determined by using two subtests of a Dutch intelligence test (RAKIT, Revision Amsterdam Intelligence Test for Children; Bleichrodt, Drenth, Zaal, & Resing, 1984). One subtest determines passive vocabulary, the other verbal fluency. The scores on both tests were standardized, with a mean of 15 and a standard deviation of 5. A single measure of verbal competence was computed by taking the mean of both standard scores. The mean score for verbal competence at age seven was 16.1 (range 7.50 - 25.50).

At age nine, the mean score was 16.9 (range 7.50 – 23.50). Correlation between verbal competence at age seven and age nine was $r = .42$ ($p = .00$).

4.2.3 Procedure

Age seven

At age seven the children were visited twice at school. During the first visit, children were interviewed during two sessions. Duration of each session was about thirty minutes. In the first session, after a little talk to get child and interviewer acquainted, first two subtests of the RAKIT were administered. Verbal competence of the child was assessed, because it might be of influence on the other measures in which the child had to tell stories. A lower verbal competence might explain less elaborate stories.

Furthermore, in the first session the Pictorial Scale of Perceived Competence and Social Acceptance (PSPCSA; Harter & Pike, 1984) and the Puppet Interview (Cassidy, 1988; Verschueren et al., 1994) were administered to measure domain-specific and global self-representation, respectively. During the second session, the Attachment Story Completion Task (Verschueren & Marcoen, 1994) was presented, which included three stories about interaction with age mates (these data are not used in this study). Next, four stories about the relation with mother ór father were presented. During the second visit the other stories of father ór mother were administered, depending on which stories had been presented during the first visit. Mother or father stories were presented in counterbalanced order, so that about half of the children first did the mother doll stories and the other children did the father doll stories first. There was about a week time between the first and second visit to prevent that the mother and father doll stories would be played in a similar way, because of the close succession of these tasks in time.

Age nine

In the first session, again after a short acquaintance conversation, the same two subtests of the RAKIT (Bleichrodt et al., 1984) were given to measure verbal competence. Next the Ease of Access to Self-Evaluations (EASE; Easterbrooks & Abeles, 2000) was administered to assess the convenience with which children talk about themselves. During the second session, during which all the participating children of a school were brought together, the Kerns Security Scale (KSS; Kerns et al., 1996) for mother ór father and the Self-Perception Profile for Children (SPPC; Harter, 1985) were completed by the children. The interviewer read the questions aloud to the children and the children completed the questionnaires by indicating the for them appropriate answer. In the third session, the KSS for father ór mother, depending on which questionnaire was already completed during the second session was administered. The KSS for mother and father were presented in counterbalanced order. Subsequently, the SAT (Resnick, 1993) was administered individually.

4.3 Overview of the Main Analyses

To study multiple attachment to mother and father with respect to global and domain-specific self-representation, hierarchical regression analyses will be used. The perception of the relationship with mother and father (at both ages) are entered in the first and second step, respectively, as the predictors of global and domain-specific self-representation. Subsequently, hierarchical regression analyses will be performed again, in which the perception of the relationship with father is entered in the first step, followed by the perception of the relationship with mother in the second step.

To compare children who perceive their relationship with both parents as secure with children who either perceive one of the relationships as secure and the other as insecure, or who perceive both relationships as insecure, Multivariate Analyses of Variance (MANOVA's) will be performed. Global and domain-specific self-representation will be the dependent variables, and the joint classification of perceived security will be the between group factor. Lastly, to compare children who have a stable perception of the relationship with parents between the ages seven and nine with children who change from positive to negative perceived security or vice versa with respect to global and domain-specific self-representation, MANOVA's will be performed. Global and domain-specific self-representation will be the dependent variables, and the classification of the stability of perceived security will be the between-group measure.

4.4 Results

4.4.1 Descriptive analyses

At age seven, the distribution of participants over the classification of perceived security was for the child-mother relationship: 62% as secure, 22% as avoidant and 16% as bizarre/ ambivalent. For perceived security of the child-father relationship the distribution was 71% as secure, 16% as avoidant and 13% as bizarre/ negative. Gender was not significantly related to the classifications of perceived security, neither for mother $\chi^2(2) = 4.05$, *n.s.,* nor for father $\chi^2(2) = 5.58$, *n.s.*

At age nine, it was not possible to distinguish between mother and father in the distribution over the three classifications of perceived security, because in the version of the SAT we have administered, no distinction was made between parents. It should be noted that we had a maternal and paternal report of the KSS, but for this measure only mean scores, and no classification scores were computed. The distribution over the three classifications of perceived security measured by the SAT was: 49% as secure, 31% as avoidant and 20% as bizarre/ ambivalent. No gender effect was found, $\chi^2(2) = 3.87$, *n.s.*

4.4.2 Concordance between child-mother and child-father perceived security
In Table 4.2, the concordance between perceived security of the child-mother and child-father relationship at age seven is shown. About 66% of the participants were classified in the same category of perceived security for mother and father, $\chi^2(4) = 15.17$, $p < .00$.

Table 4.2
Concordance perceived security child-mother and child-father relationship at age seven

	Perceived security of the child-father relationship			
Perceived security of the child-mother relationship	Secure	Avoidant	Bizarre-ambivalent	Total
Secure	32 (52.5%)	3 (4.9%)	2 (3.3%)	37 (60.7%)
Avoidant	8 (13.1%)	4 (6.6%)	2 (3.3%)	14 (23.0%)
Bizarre-ambivalent	3 (4.9%)	3 (4.9%)	4 (6.6%)	10 (16.4%)
Total	43 (70.5%	10 (16.4%)	8 (13.2%)	61 (100%)

As was noted in the previous section, children could not be divided in three classifications by the KSS. Therefore, to compute the concordance between perceived security of the child-mother and child-father relationship at age nine, first the continuous scores on the KSS at age nine were divided in a secure classification (score 45 and above) and an insecure classification (score below 45; see Granot & Mayseles, 2001). Concordance between the two-way classification of child-mother and child-father perceived security was not significant, $\chi^2(1) = 2.44$, *n.s.* (see Table 4.3).

Table 4.3
Concordance perceived security child-mother and child-father relationship at age nine

	Perceived security of the child-father relationship		
Perceived security of the child-mother relationship	Secure	Insecure	Total
Secure	39 (60.9%)	11(17.2%)	50 (78.1%)
Insecure	8 (12.5%)	6 (9.4%)	14 (21.9%)
Total	47 (73.4%)	17 (26.6%)	64 (100%)

4.4.3 Prediction of global and domain-specific self-representation by perceived security of the relationship with mother and father

Age seven

We were interested whether perceived security of the mother and the father relationship differently predict global and domain-specific self-representation. Therefore, hierarchical regression analyses were carried out to examine the unique contribution of each predictor variable to the measures of global and domain-specific self-representation. Perceived security of the relationship with mother and of the relationship with father were entered in the first and second step, respectively. In the third step, the gender of the child was included, whereas in the fourth step the interactions between gender and perceived security of the relationship with mother and father were entered. Global and domain-specific self-representation were the dependent variables. With respect to the three domains of self-representation (i.e., cognitive competence, acceptance by peers, and maternal acceptance), no significant predictions were found for perceived security of the child-mother or child-father relationship, nor for gender or interactions with gender. With respect to aspects of global self-representation (i.e, positiveness and openness), significant effects were found for perceived security of the relationship with mother and father, but not for gender or interactions of gender with perceived security of the relationship with both parents. In Table 4.4, in which only the significant results are presented, it is shown that perceived security of the relationship with mother as well as father at age seven are both predictive of the positiveness of the self at age seven. Adding the perception of the relationship with father does increase the explained variance significantly from .18 to .29.

Subsequently, hierarchical regression analyses were performed again, only this time perceived security of the relationship with father was entered in the first step, followed by perceived security of the relationship with mother in the second step. Gender and interactions of gender with perceived security of the relationship with father and mother were entered in the third and fourth step, respectively. Again, no significant predictions of perceived security of the relationship with both parents were found for cognitive competence, peer acceptance, and maternal acceptance. With respect to positiveness and openness of the self, significant effects were found for perceived security of the relationship with father, but not for the relationship with mother, nor for gender or interactions of gender with perceived security of the relationship with parents. In Table 4.4, it is shown that positiveness at age seven was only predicted by perceived security of the child-father relationship ($\Delta R^2 = .28$, $p = .00$). Adding perceived security of the child-mother relationship did not increase the explained variance significantly ($\Delta R^2 = .02$, *n.s.*). With respect to openness, the perception of the relationship with father, but not with mother was significantly predictive. This result did not change when perceived security of the relationship with father was entered in the first step, and perceived security of the relationship with mother in the second step.

Table 4.4

Hierarchical regression analyses predicting positiveness and openness at age seven from perceived security of the relationship with father and mother at age seven

	Positiveness Age seven				Openness Age seven			
Predictor variables	*R*	*R^2*	*ΔR^2*	*β*	*R*	*R^2*	*ΔR^2*	*β*
Step 1:								
Perceived security child-mother relationship	.42	.18	.18**	.26	.08	.01	.01	-.36
Step 2:								
Perceived security child-father relationship	.54	.29	.11**	.34	.31	.09	.09*	.26
Step 1:								
Perceived security child-father relationship	.52	.28	.28***	.34	.28	.08	.08*	.26
Step 2:								
Perceived security child-mother relationship	.54	.29	.02	.26	.31	.09	.01	-.36

* $p < .05$, ** $p < .01$, *** $p < .000$

Table 4.5

Hierarchical regression analyses predicting physical appearance, behavioral attitude and global self-worth at age nine from perceived security of the relationship with mother and father at age nine

Predictor variables	Physical appearance Age nine				Behavioral attitude Age nine				Global self-worth Age nine			
	R	R^2	ΔR^2	β	R	R^2	ΔR^2	β	R	R^2	ΔR^2	β
Step 1:												
Perceived security child-mother relationship	.44	.19	.19**	.31°	.26	.07	.07*	.17	.38	.15	.15**	.32°
Step 2:												
Perceived security child-father relationship	.53	.28	.09**	.19	.30	.09	.02	.13	.54	.29	.14**	.27°
Step 1:												
Perceived security child-father relationship	.44	.19	.19***	.19	.22	.05	.05°	.13	.49	.24	.24**	.27°
Step 2:												
Perceived security child-mother relationship	.53	.28	.09**	.31°	.30	.09	.04	.17	.54	.29	.05*	.32°

° $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .000$

Age nine

Identical hierarchical regression analyses were performed on the data of age nine. No significant predictions were found for openness, cognitive competence and social acceptance. With respect to physical appearance, and global self-worth, significant predictions were found for perceived security of the relationship with mother and father, but not for gender or interactions of gender with perceived security of the relationship with parents. Behavioral attitude was only significantly predicted by perceived security of the child-mother relationship. The significant results are presented in Table 4.5.

When hierarchical regression analyses were performed with perceived security of the relationship with father entered in the first step and perceived security of the relationship with mother in the second step, again no significant predictions were found for openness, cognitive competence, or social acceptance. Effects of gender and interactions of gender with perceived security of the relationship with parents were not found for global as well as domain-specific self-representations. In Table 4.5 the significant results are shown. Physical appearance and global self-worth were significantly predicted by both child-father and child-mother relationships. With respect to behavioral attitude, there was a trend towards significance when the perception of the child-father relationship was the predictor ($\Delta R^2 = .05$, $p = .08$). Adding the perception of the relationship with mother did not increase the explained variance significantly ($\Delta R^2 = .04$, *n.s.*).

4.4.4 Joint perceived security of the relationship with mother and father

Age seven

A MANOVA was performed to test the relation between the joint classification of the perception of the relationship with mother and father, and global and domain-specific self-representation. The joint perceived security classification and gender of the child were the between group factors, and global and domain specific self-representation were the dependent variables. The results reveal a main effect of joint perceived security, $F(15,126) = 3.09$, $p < .000$ and gender, $F(5,40)$, $p < .05$, and a trend towards a significant interaction effect between joint perceived security and gender, $F(15,126) = 1.65$, $p < .10$. Examination of the univariate analyses of joint perceived security revealed a significance for positiveness, $F(3,52) = 6.24$, $p < .01$, and cognitive competence, $F(3,52) = 4.17$, $p < .05$. With respect to positiveness, it was found that children who perceive both relations as secure were more positive about the self than children perceiving both parental relationships as insecure. Children with discordant perceptions are in between, but do not significantly differ from children with two joint perceptions. With respect to cognitive competence, a different pattern was found. Children who perceive both relations as secure scored the lowest on cognitive competence and differed significantly from children who had a secure perception of the relationship with father and an insecure perception of the

relationship with mother. Children in the other two classifications did not differ significantly. Univariate analyses on the main effect of gender revealed a significant effect on peer acceptance, $F(1,52) = 6.72$, $p < .05$. Girls perceived more acceptance by peers than boys.

An interaction effect between joint perceived security and gender was found for openness, $F(3,52) = 3.11$, $p < .05$. Boys who perceived their relationship with mother as secure and with father as insecure were less open about the self than girls. The means of the four joint perceived security classifications are shown in Table 4.6.

Table 4.6
Means for global and domain-specific self-representation at ages seven and nine according to the joint classification of perceived security of the relationship with mother and father

	Both secure	*Secure$_M$/ Insecure$_F$*	*Secure$_F$/ Insecure$_M$*	*Both insecure*	*F*
Age seven					
Positiveness	4.56[a]	3.00[ab]	3.90[ab]	1.90[b]	6.24**
Openness	4.59	3.20	4.50	4.40	1.62
Cognitive competence	3.34[a]	3.77[ab]	3.69[b]	3.49[ab]	4.17*
Peer acceptance	3.05	3.33	3.08	3.17	.54
Maternal acceptance	2.70	2.97	2.57	2.40	1.76
Age nine					
Openness	6.34	6.91	5.25	5.40	1.68
Cognitive competence	3.15	3.39	3.13	3.00	.72
Social acceptance	3.28	3.21	2.90	3.22	1.00
Physical appearance	3.59[a]	3.15[ab]	2.96[ab]	2.47[b]	7.88***
Behavioral attitude	3.19	3.14	2.71	3.06	1.37
Global self-worth	3.56[a]	3.27[ab]	3.44[ab]	2.67[b]	5.38**

Note. Mean proportions within a row not sharing at least one superscript are significantly different. ** $p < .01$, *** $p < .000$. Secure$_M$ = secure to mother, Secure$_F$ = secure to father, Insecure$_M$ = insecure to mother, Insecure$_F$ = insecure to father.

When the analyses were performed with verbal competence as a covariate, the effect of joint perceived security on positiveness and on cognitive competence was no longer significant, $F(3,60) = .45$, *n.s.*, and $F(3,60) = .35$, *n.s.*, respectively.

Age nine

To test the relation between the joint classification of the perception of the relationship with mother and father at age nine, and global and domain-specific self-representation, a MANOVA was performed. The joint perceived security classification and gender of the child were the between group factors. Global and domain specific self-representation were the dependent variables. A trend towards a main effect was found, $F(21,150) = 1.60$, $p <$ .10. Subsequent univariate analyses revealed a significant effect on physical appearance, $F(3,62) = 7.88$, $p < .00$ and global self-worth, $F(3,62) = 5.38$, $p < .01$. In Table 4.6 the means of the four joint perceived security classifications are presented. Similar patterns are seen, showing children who perceive both relations as secure differ significantly from children perceiving both relationships as insecure. Children with discordant perceptions are in between, but do not significantly differ from children with two joint perceptions. When the analyses were subsequently performed with verbal competence as a covariate, the effect of joint perceived security was no longer significant for physical appearance, $F(3,62) = 2.60$, $p = .06$, and for global self-worth, $F(3,62) = .64$, *n.s.*

4.4.5 Relation between stability of perceived security to mother and father and global and domain-specific self-representation

To determine whether children remain stable, the continuous scores on the KSS at age nine were divided in a secure classification (score 45 and above) and an insecure classification (score below 45; see Granot & Mayseles, 2001). The insecure classifications at age seven were combined to assure sufficient statistical power. To compare children who remain stable in their perception of the security of the relationship with mother and father with children who change in their perception of the relationship with parents with respect to global and domain-specific self-representation MANOVA's were performed. The classification of stability (i.e., remain positive, from positive to negative, from negative to positive and remain negative) was the between group factor. Aspects of global and domain-specific self-representation were the dependent variables. Two MANOVA's were performed on the aspects of self-representation at age seven (one for stability of perceived security of the relationship with mother and one for the stability of the relationship with father), and two MANOVA's were performed on the aspects of self-representation at age nine. At age seven, a main effect was for the child-mother and the child-father relationship, $F(15,144) = 2.20$, $p < .01$ and $F(15,126) = 2.15$, $p < .05$, respectively. Inspection of subsequent univariate analyses for the perception of the relationship with mother and father revealed a significant difference for positiveness, $F(3,58) = 3.67$, $p < .05$ and $F(3, 51) = 6.28$, $p < .01$, respectively.

At age nine, a main effect was found for the child-mother relationship, $F(18,135) = 1.86$, $p < .05$, but not for the child-father relationship, $F(18,120) = 1.50$, *n.s.* Inspection of subsequent univariate analyses for the perception of the relationship with mother

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revealed a significant difference for openness, $F(3,56) = 3.92$, $p < .05$, physical appearance, $F(3,56) = 4.33$, $p < .01$, and behavioral attitude, $F(3,56) = 3.09$, $p < .05$. The means of the perception of the relationship with mother and father are shown in Table 4.7.

Table 4.7
Means for global and domain-specific self-representation at ages seven and nine according to stability in perceived security of the relationship with mother and father

	Both ages secure	Secure$_7$/ Insecure$_9$	Insecure$_7$/ Secure$_9$	Both ages insecure	F
Child-mother					
Age seven					
Positiveness	4.48^a	3.00^{ab}	3.86^{ab}	2.43^b	3.67*
Openness	4.55	4.60	4.00	3.71	1.11
Cognitive competence	3.42	3.54	3.53	3.73	1.48
Peer acceptance	3.22	3.09	2.88	3.21	1.01
Maternal acceptance	2.78	2.54	2.69	2.57	.93
Age nine					
Openness	6.82^a	5.47^{ab}	6.14^{ab}	4.33^b	3.92*
Cognitive competence	3.11	3.22	3.17	2.98	.30
Social acceptance	3.34	3.09	3.14	2.93	1.33
Physical appearance	3.44^a	3.47^a	2.60^{bc}	2.90^{abc}	4.33**
Behavioral attitude	3.21^a	2.83^{ab}	3.17^{ab}	2.55^b	3.09*
Global self-worth	3.54	3.28	3.12	3.10	1.94
Child-father					
Age seven					
Positiveness	4.48^a	4.60^{ac}	2.20^b	2.40^c	6.28**
Openness	4.74	4.00	3.60	4.80	2.43°
Cognitive competence	3.46	3.44	3.66	3.43	.88
Peer acceptance	3.00	3.30	3.38	2.90	2.45°
Maternal acceptance	2.80	2.65	2.70	2.37	1.18
Age nine					
Openness	6.59	6.60	4.80	6.25	2.40
Cognitive competence	3.15	3.13	3.17	3.37	.23
Social acceptance	3.20	3.30	3.20	3.10	.15
Physical appearance	3.40^a	2.68^b	3.40^{ab}	3.10^{ab}	3.05*
Behavioral attitude	3.13	3.18	2.97	2.83	.45
Global self-worth	3.51	3.02	3.55	2.93	3.06

Note. Mean proportions within a row not sharing at least one superscript are significantly different. ° $p < .10$,* $p < .05$, ** $p < .01$. Secure$_7$ = secure at age seven, Insecure$_7$ = Insecure at age seven, Secure$_9$ = secure at age nine, Insecure$_9$ = Insecure at age nine.

As can be seen in Table 4.7, a significant univariate effect of stability in perceived security of the relationship with father on physical appearance at age nine was found. However, due to the lack of significant effect in the MANOVA, this effect will not be interpreted here.

For the child-mother relations, similar patterns are found for positiveness, openness and behavioral attitude. Children who are stable positive about the relationship with mother are more positive at age seven and more open and positive about their behavior at age nine, compared to children who remain negative in their perception of the relationship with mother.

4.5 Discussion

The results of the present study show with respect to multiple attachment, that, at age seven, positiveness of the self was predicted by perceived security of both the mother and father relationship. Furthermore, openness at age seven was predicted by the perceived security of the child-father relationship, but not of the child-mother relationship. No significant predictions were found for the domain-specific self-representation. At age nine, physical appearance and global self-worth were predicted significantly by perceived security of both mother and father relationships. These results show that the perceptions of both relationships are important for the development of (aspects of) the child's self-representation. Moreover, with respect to positiveness of the self at age seven, it even seems as if the perceived security of the child-father relationship is more important to (aspects of) self-representation than perceived security of the child-mother relationship. The results show that the perception of the child-father relationship does increase the explained variance significantly, even when the effect of the perception of the child-mother relationship is partialled out. This result differs from the results found by Verschueren and Marcoen (1999) who found global self-representation predicted by the perception of the child-mother relationship and peer social competence, anxious/ withdrawn behavior and school adjustment by the child-father relationship. An explanation for this difference might be that, except for global self-representation, the other child outcome measures were rated by the child's teacher, whereas we have used children's own representations on different domains of the self. With respect to perceived competence or perceived acceptance measured by the PSPCSA, Verschueren and Marcoen (1999) did not find significant predictions of either child-mother or child-father relationship, which was a result similar to ours.

With respect to joint classification of perceived security, our hypothesis was confirmed for some aspects of the self. Similar patterns at age seven were found as in the study by Verschueren and Marcoen (1999). They also found that children who perceived

their relationship with both parents as secure differed significantly from children who had two insecure perceptions, with respect to positiveness of the self at age seven. Children with discordant perceptions had scores in between, but they did not differ significantly from the joint positive or joint negative classifications. In addition, in the present study, similar patterns were found for physical appearance and global self-worth at age nine. These patterns support the idea of a compensating effect (Bretherton, 1991; Verschueren & Marcoen, 1999). Central point of a compensating effect is that a secure perception of the relationship with one parent can compensate an insecure perception of the relationship with the other parent. However, a cumulative effect might also be possible, because the children with two secure perceptions of the relationship with parents had higher means on self-representation measures than children with discordant perceptions, although these differences were not significant.

With respect to stability in perception of the relationship with mother it was found that children who remained stable in their positive perception of the relationship with mother, were more positive about the self at age seven and more open about the self and more positive about their own behavior at age nine, compared to children who were insecure at both ages. Children who changed in their perception of the relationship with mother were in between, but not significantly different from the two stable groups. With respect to the stability of the perception of the relationship with father, a similar pattern was found for physical appearance.

For several reasons, the present study is an interesting addition to existing studies of the relation between the child-parent relationship (i.e., attachment) and perceptions of the self. First, the contribution of the child-father relationship to the development of the self has seldom been studied, although Bowlby (1982) already assumed that both parents have differential influence on the development of the self. In the present study we found that positiveness of the self was predicted by perceptions of both relationships, although we had expected perceptions of the child-mother relationship to be predictive of the global self and the child-father relationship to be predictive of the domain-specific relationship. However, it was interesting to see that the perception of the child-father relationship did increase the explained variance significantly. Even more, when the perceived security of the child-father relationship was entered first in the hierarchical regression analyses, before the perceived security of the child-mother relationship, positiveness of the self appeared to be predicted only by perceptions of the child-father relationship. This means that there is a unique effect of perceived security of the child-father relationship for positiveness of the self at age seven With respect to the other aspects of self-representation, we did not find such a unique effect of perceived security of the child-father relationship.

Another interesting point is the measurement at two ages. To our knowledge, longitudinal studies relating perceived security of the relationship with parents and self-

representation do not exist. As appears from the present study, maintaining a positive perception of the relationship with mother was related to a positive self-representation, although children who changed from positive to negative or vice versa did not differ significantly. Maintaining a positive perception of the relationship with father was related to physical appearance.
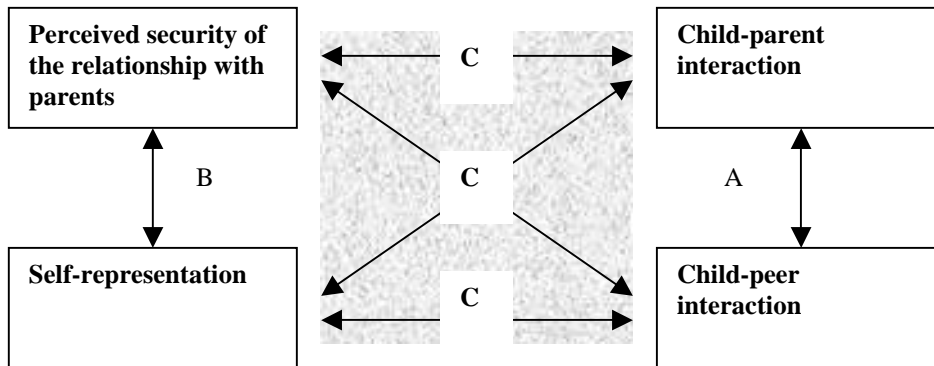
A final remark we would like to make is about the causality of the found relations. In the hierarchical regression analyses, we did find some significant predictions with respect to perceived security and self-representation. These findings were in line with the theoretical expectation that (aspects of) self-representation are predicted by perceived security of the relationship with parents. However, it could have been that significant relations were found when we reversed the hierarchical regression analyses, that is, predicting perceived security by self-representation. In other words, caution is needed by the interpretation of the direction of our results.

Some limitations concerning this study are worth mentioning. First, necessarily different measures of perceived security and self-representation had to be used at ages seven and nine, because of the age-range of the playful measures used at the younger age. Although, we feel we have found appropriate equivalents, it might have influenced our results. Therefore, it will be a challenge for future research to develop measures that can be used at ages seven and nine. Secondly, the results found are based on a relatively small sample size. In future research, replication with a larger sample is recommended.

In summary, joint contributions of perceived security of the child-mother and child-father relationship with respect to self-representation were found, although the results were not totally in line with the study by Verschueren and Marcoen (1999). Therefore, future research will be needed to give more insight in the specific contribution of mother and father to the self-representation of young children.

Dyadic play interaction, self-representation, and perceived
security in children at ages seven and nine

Perceived security of the relationship with parents		Child-parent interaction
	C	
B	C	A
	C	
Self-representation		Child-peer interaction

Chapter 5
Dyadic play interaction, self-representation, and perceived security in children at ages seven and nine[1]

Abstract

The central question in the present study is whether differences in perceived security of the relationship with parents and differences in self-representation of 64 children at ages seven and nine are reflected in observed characteristics of child-parent and child-peer play interaction. Results showed that children who perceived their relationship with parents as secure, differed on balance of control, shared positive emotions, mutual responsiveness and total control during child-mother and child-father interaction from children classified as avoidant or bizarre/ ambivalent. Results at age nine were more in the expected direction than results at age seven. With respect to child-peer interactions, no differences were found. When children with a positive or negative self-representation were compared, children with a positive self-representation showed more total control and mutual responsiveness during child-father interaction. Results of several hierarchical regression analyses showed that shared positive emotions during child-father and child-peer interaction were moderately stable between ages seven and nine. Adding perceived security of the relation with father or of the relationship with both parents, respectively, did increase the explained variance significantly.

5.1 Introduction

Research over the last several decades has highlighted the assumption that children's family and peer contexts are related to each other (see Parke & Ladd, 1992; Parke & O'Neil, 1999). Several theoretical approaches to this link exist. According to attachment theory (Bowlby, 1969), for example, it is assumed that one's sense of self and of others is based on former experiences in interactions with important adults (i.e., parents). On the basis of early experiences, a child forms internal mental representations of the self and of the relation with others. Bowlby (1969, 1973) coined the term "internal working model". He stated that children who have secure experiences with important adults, in a warm and responsive relation, develop an internal representation of those experiences on which future relations are based. These children also develop a positive sense of self. Thus, in this line of reasoning, early experiences with primary caregivers provide children with internal working models, on which feelings about the self as well as expectations about relationships with others are based. These internal representations also serve as a model for expectations of future relationships, for example with peers (Bretherton & Munholland, 1999).

A related point of view is the social-cognitive perspective which focuses on the internal representation of past relationships, but not in a specific attachment context. Central idea here is that past interpersonal experiences may influence current behavior and the processing of new social information. These internal representations are called relational schemas, which are defined as 'cognitive structures representing regularities in patterns of interpersonal relatedness' (Baldwin, 1992, p. 461).

A second theoretical approach is that of social learning theory (Bandura, 1977). In this perspective, it is assumed that children observe and imitate parental behavior whereby they get equipped for social living. Children are modeling adult behavior and are reinforced in their social behavior by their parents as well as by themselves (self-reinforcement) and their peers. That is, the child is not only reinforced in his behavior by others, but also evaluates actively observed actions and their possible consequences (Schaffer, 1998). It is thought that child-parent interactions of children who are better accepted by peers are characterized by certain behaviors, like positive affect and synchrony. For instance, during synchronic interaction with a parent, a child learns to balance initiations and compliance to others' initiations, which might be a skill that is important to generalize to interactions with peers (Harrist & Waugh, 2002).

In the present study, the central question analyzed is whether children's internal working models of the relationship with parents and of the self are reflected in specific characteristics of child-parent and child-peer interaction during early and middle childhood. Based on attachment theory, the focus will be on the idea of children developing internal working models of attachment, on the basis of early interactional experiences with adults. According to Bowlby (1973) these internal working models

consist of two components 1) the internal working model of the attachment relationship or attachment figure, and 2) the internal working model of the self, being a person worth of affection and loved by the attachment figure (see also Maier, Bernier, Pekrun, Zimmermann, & Grossmann, 2004; Verschueren & Marcoen, 1999). Based on the social learning perspective the idea of modeling parental behavior will be the focus. It is assumed that children learn and practice certain skills during interaction with their parents, which are later used during interactions with peers.

More specifically, it will be examined whether and how children's perceived security of the relationship with their parents is related to observed characteristics of child-parent and child-peer play interaction. Furthermore, with respect to the internal working model of the self (i.e., self-representation), it is expected that representations of the self, in terms of positiveness and openness, are reflected in the way children play with their parents or with age mates. Children with a positive self-representation, for example, might show more positive affect during child-parent or child-peer interaction, compared to children with a negative self-representation.

With regard to the relation between perceived security and child-parent interaction, only few studies have been carried out. Cassidy, Berlin, and Belsky (1990), for instance, found that three-year-old children who perceived their relationship with mother as more secure, showed more positive affect and less negative affect during free play interaction with mother. However, in a study by Youngblade and Belsky (1992) perceived security measured during infancy with the Strange Situation was not related to positive and negative affect during child-parent interaction when children were three-years-old. De Wolff and Van Ijzendoorn (1997) found that attachment security was strongly related to mutual responsiveness during child-mother interaction. In sum, the results from these studies vary and are not always in the same direction.

With respect to self-representation, to our knowledge no studies exist that relate self-representation with *observed* characteristics of child-parent or child-peer interaction in early and middle childhood. Until now, studies of self-representation were focused on the relation between self-representation and diverse outcome measures such as peer acceptance, behavioral, and scholastic competence (rated by teacher, parent, or peer). For instance, in various studies of Verschueren and colleagues (2001; 1998; 1996) relations between positiveness of the self and (socio-emotional) competence, social acceptance and adjustment to school were found. Children who were more positive about their selves were rated by their teachers as more competent, more socially accepted and more adjusted to school.

An important point in studying the relation between perceived security and observed characteristics of child-parent interaction is the gender of the parent. In most studies, the focus is only on the perceived security of the relationship with mother as well as on child-mother interaction. Although in the last decade more (theoretical) attention has

been given to the child-father relationship (e.g., Parke, 2000, 2002), studies in which the relationship with both parents have been studied are scarce (e.g., Verschueren & Marcoen, 1999). As Schneider, Atkinson, and Tardif (2001) emphasize in the conclusion of their review on the relation between attachment and children's peer relations, it is important to study the contribution of both parents in children's relationships (see also Russell, Mize & Bissaker, 2002).

In the present study, data of self-representation and perceived security of the relationship with both mother and father are examined. Both will be related to observed characteristics of child-mother, child-father, and child-peer interaction. We will examine a) whether children who perceive their relationship with parents as secure differ from children who perceive their relationship with parents as avoidant or bizarre/ ambivalent on observed dyadic characteristics of child-parent and child-peer interaction, and b) whether children who are positive and open about the self differ from children who are negative and closed about the self on observed dyadic characteristics of child-parent and child-peer interaction. It is expected that dyads of children who perceive their relation with parents as secure show more 'positive' behaviors like shared positive emotions, balance of control and mutual responsiveness, and less 'negative' behavior such as total control during child-parent as well as child-peer relationship, compared to children who perceive their relation with parents as insecure. With regard to self-representation, we expect that dyads with children who perceive their self as positive and open show more 'positive' behaviors like shared positive emotions, balance of control and mutual responsiveness, and less 'negative' behavior such as total control during child-parent as well as child-peer relationship, compared to children who perceive their self as negative and closed.

Research question a and b will be examined cross-sectionally. However, it is also interesting to examine which concepts at age seven are influencing other concepts at age nine. Therefore, longitudinal hierarchical regression analyses will be carried out, to examine several predictive relations. More specifically, we will examine c) whether observed characteristics of child-parent interaction at age nine are predicted by perceived security of the relationship with parents at age seven, and d) whether observed characteristics of child-peer interaction at age nine are predicted by perceived security of the relationship with parents at age seven, both after partializing out the stability of observed characteristics of child-parent and child-peer interactions.

We expect that perceived security of the relationship with parents will be predictive of the observed characteristics of both child-parent and child-peer interaction. This expectation is based on attachment theory. If the quality of the attachment relationship is a general construct based on early infant-caregiver experiences, leading to children's internal working models, this should also be reflected in later characteristics of child-parent interaction. Also, if perceived security of the relationship with parents serves as a blueprint for future relationships, as is assumed by attachment theory, it should be

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reflected in child-peer interaction. Moreover, we will examine e) whether observed characteristics of child-parent interaction at age nine are predicted by self-representation at age seven, and f) whether observed characteristics of child-peer interaction at age nine are predicted by self-representation at age seven. We expect that the positiveness and openness of the self at age seven are predictive of child-parent and child-peer interaction at age nine. It is thought that children who are more positive and open about the self, will be more 'positive' play mates and therefore more positive behavior will be shown during child–parent and child-peer play interaction.

5.2 Method

5.2.1 Participants

Parents of 138 children were asked to participate in the first wave of this study (1999). Permission was obtained for 69 children from 20 elementary schools. Reasons for refusing permission included lack of time, infringement on privacy, and participating in other research. Because the reasons were various and mainly not related to the subject of the study, we do not expect selective nonresponse bias (see Gerrits, Van den Oord, & Voogt, 2001).

In 2001, these parents were asked to participate in the second wave of this study. Sixty-five of the sixty-nine children and their parents were willing to participate (nonresponse rate of 6 %). Reasons for refusing were, for instance, refusal of children who would not participate anymore (two times), divorce of parents (and therefore stress at home; one time),and moving (one time). The present study describes data of 63 children[2] (35 boys and 28 girls) for whom we had data of the first and second wave for perceived security, self perception and observed characteristics of child-parent interaction. For the analyses concerning the observed characteristics of child-peer interaction, data are available for 55 of the 63 children. Not for all 63 children an age mate fitting our criteria could be found. The criteria used for selection of a 'neutral' classmate were being of the same gender as the target child, having an average sociometric status, and not being either 'very well liked' or 'not liked at all' by the target child, indicated by the target child in an earlier phase of the study.

The mean age during the first wave was 86 months (range 79 - 95 months). During the second wave participants were two years older. Children were all from Caucasian ethnicity and came from middle to higher socio-economic families. All, except three girls, came from intact families.

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[2] Due to failure of video-equipment, for some analyses, data of less than 63 participants were available.

5.2.2 Measures
Child-parent and child-peer interaction
Seven minutes of a free play task (starting after 3 minutes) were coded, using a computerized observation system (The Observer 3.0 for Windows, Noldus Information Technology, 1997). The coding system for observation of the interactions was based on the coding system of De Koeyer (1998; 2001). The free play task was coded for mutual responsiveness, shared positive emotions, total control, and balance of control. Every characteristic was coded independent of the other characteristics by several highly trained students. For each characteristics 15 per cent of the interactions were coded separately by the assistants and the first author. interobserver reliabilities (Cohen's Kappa) ranged from .66 to .89. In the analyses, proportions will be used, because due to mechanical defects, not every interaction was of the same length.

Mutual responsiveness. Every 10-second episode the level of mutuality between child and parent or peer was coded, using a 5-point scale: Totally mutual (child and parent are exchanging at least 3 subsequent verbal turns and share the same focus of attention), mostly mutual, partly mutual, mostly not mutual and totally not mutual (child and parent are not exchanging any relevant verbal turns and are not sharing the same focus of attention). Mutual responsiveness consists of the sum of proportions of totally mutual and mostly mutual. Therefore, it consists of sharing at least two successive verbal turns, and sharing of the same nonverbal focus of attention.

Shared positive emotions consist of smiling and laughter for 2 seconds or more by both partners in the same 10-second episode.

Total control consists of the sum of the proportions of gentle and firm control of both partners. Gentle control is coded when one individual is trying to influence the other, but without the use of power, for example by using suggestions. Firm control is coded when one individual is trying to influence the other by using a demand, but without the use of negative emotions

Balance of control consists of the proportion of total control (i.e., the sum of gentle and firm control) of the child divided by the sum of the proportions of total control of both partners. That is, a balance of .30 means that the child exerted 30% of the control attempts.

A more detailed version of the coding system is presented in Appendix A.

Assessment of self-representation and perceived security of the relationship with parents
For reasons of age-appropriateness, it was necessary to use different measures to assess self-representation and perceived security of the relationship with parents at ages seven and nine. In Table 5.1 an overview of the measures is given.

Table 5.1

Overview of instruments measuring the self-representation and perceived security of the relationship with mother and father

	Age seven	*Age nine*
Self-representation	Puppet Interview	Ease of Access to Self-Evaluations
	- Positiveness	
	- Openness	- Openness
Perceived security of the relationship with parents	Attachment Story Completion Task	Separation Anxiety Test
	- Mother	- No distinction between parents
	- Father	

Assessment of self-representation at age seven

Puppet Interview

During the Puppet Interview (PI; Cassidy, 1988; Verschueren et al., 1994) the interviewer asks twenty questions to the child, not directly but by means of a hand puppet. The child has to answer the questions by means of another hand puppet. Questions are about the worthiness of the child and are appropriate for four- to seven-year-old children. The purpose of the Puppet Interview is to assess how a child thinks an "unspecified other" (Cassidy, 1988, p. 125) sees him or her. The Puppet Interview may be seen as a measure of global self-representation. The answers of the child are scored on positiveness (i.e., does the child say positive or negative things about the self), and on openness (i.e., is the child able to admit imperfections). Positiveness is based on fifteen questions in the Puppet Interview. Example questions of positiveness are "Do you like (name of the child)?", "Would you like to play with (name of the child)?". An interview is classified as positive if the child does not give any negative answer about the self on the fifteen questions that measure positiveness. Openness is based on five questions, for example, "Is (name child) ever a bad girl/boy? If no, "Never?"". The interview is classified as open when a child is able to admit at least once an imperfection. Detailed rules are available for scoring of the Puppet Interview (see Verschueren et al., 1994). On the basis of the continuous scores on the positiveness and openness scales, the child received also a classification being positive-open, positive-closed, negative-open, or negative-closed. Fifteen percent of the protocols were coded separately by two assistants and the first author. Cohen's kappa's were .86 for positiveness and .68 for openness. Cohen's Kappa was .81 for the classifications.

Assessment of self-representation at age nine

Ease of Access to Self-Evaluations

The Ease of Access to Self-Evaluations (EASE; Easterbrooks & Abeles, 2000) is designed to measure whether a child (in middle childhood) easily answers questions about the self, or whether a child is reluctant to answer. Children are asked four questions about themselves: a) Tell me five words about yourself, b) What do you like about yourself, c) What don't you like about yourself, and d) If I tell one thing about you to another person, what do you think that might be? Based on the answers on the four questions, a global qualitative rating of the child's 'ease of access to self-evaluations' is given, coded from the videotape. The rating on a 9-point scale, based on the child's overall responses, represents the extent to which the child displays ready, easy access to descriptions of the self. It is therefore comparable with the Openness dimension of the Puppet Interview administered at age seven[3]. Higher ratings are given to children who answer all the questions spontaneously and easily, who are not withdrawn or resistant to the task, and do not display evidence of tensions. Lower ratings are given when children will not answer the questions, not even after probing, or are not able to finish the task, for example by withdrawing from the task. To asses interobserver reliability, fifteen percent of the tapes was coded separately by an assistant and the first author. Interobserver correlation was $r = .91$. Cohen's Kappa was .66, which was low considered the high interobserver correlation. This can be explained by an uneven distribution of scores.

Children's responses on the first question (i.e., Tell me five words about yourself) were also categorized as positive, neutral, or negative. For instance when a child says he's nice to other children, the answer is categorized as positive. When a child answers he hurts other children, this answer is categorized as negative. On the basis of the positive or negative answers and on the answer on the third question (i.e., What don't you like about yourself?), children could be divided into four categories: positive-open, positive-closed, negative-open or negative-closed, similar to the classification of the Puppet Interview. Children who gave only spontaneously positive answers on question one, but also reported something they did not liked about themselves by question three were categorized as positive-open. Children who were positive, but reluctant to answer the third question were classified as positive-closed. When children gave negative answers and were able to answer the third question, they were categorized as negative-open. When they were not able to answer question four, although they had given a negative answer earlier in the interview, they were classified as negative-closed.

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[3] The openness scales of the PI and of the EASE appeared to be unrelated ($r = -.08$, *n.s;* see chapter 3.).

Assessment of perceived security of the relation with parents at age seven
Attachment Story Completion Task

The Attachment Story Completion Task (Verschueren & Marcoen, 1994; Verschueren, Marcoen, & Schoefs, 1996) is an adaptation of the Doll Story Completion Task (Cassidy, 1988), which can be administered at four- to seven-year-old children. This measure aims to assess the quality of the internal working model of the attachment relationship with both parents. The child has to complete attachment-related stories, with the use of a doll family. The spontaneous play of the child is awaited and is followed by probes when clarification of the play of the child is needed In the present study, four stories derived from Verschueren et al. (1994; 1996), Bretherton, Ridgeway, and Cassidy (1990), and Cassidy (1988) are played, which are about 1) a conflict situation with another child, 2) spilling apple juice on the kitchen table, 3) giving a present to the parent, and 4) a child waking up from scary noise. A boy doll is used for boys, a girl doll during the interviews with girls, and only a mother and child doll are used for the mother session and only a father and child doll for the father session. The interviews were done for mother and father separately, in counterbalanced order (the order of mother and father stories as well as the order of the four stories were counterbalanced). The interview was video-taped and transcribed verbatim. Stories were classified as secure, secure/insecure, insecure-avoidant, or insecure-bizarre/ambivalent. Children received also a continuous score for each attachment story ranging from 1 to 5 with higher scores indicating more perceived security, based on the mainly verbal responses a child gives. Two mean scores were computed for the four stories, one for perceived security of the child-mother relationship and one for perceived security of the child-father relationship. Correlation between the mean score of the mother stories and that of the father stories was $r = .63$ ($p < .00$). Fifteen percent of the protocols were coded separately by an assistant and the first author. Interobserver agreement ranged from 75 % to 92 % across mother stories and from 77 % to 95 % across father stories. Cohen's Kappa's for the overall classifications were .80 for the mother stories and .72 for the father stories.

Assessment of perceived security of the relation with parents at age nine
Separation Anxiety Test

The Separation Anxiety Test (SAT; Resnick, 1993) is a semi-projective test, using pictures with mild and severe separation situations. It evaluates a child's responses to separation and loss of the parents in general. In other words, no distinction is made between mother and father. The pictures are used in the present study are based on Resnick's version (1993). This version is an adaptation of the adolescent version (Klagsbrun & Bowlby, 1979; Shouldice & Stevenson-Hinde, 1992; Slough & Greenberg, 1990), which is adapted for pre-adolescents (11-15 years). We have made one adaptation to this version that originally contains the following pictures with mild separation:

1) The parents go away for two weeks leaving the child with a sitter.
2) The child is transferred to a new school.
3) The family is moving to a new neighborhood.

And with severe separation:

4) The child moves to live with his grandparents forever.
5) The child is running away from home.
6) A parent is taken to the hospital in an ambulance.

In the present study we replaced the running away picture by another picture (parents are going away for the evening, leaving the child alone at home), because we thought it was not appropriate to use the running away picture for nine-year-olds.

The pictures were shown one by one (there was a boy and a girl version) and participants were asked to respond to two questions: a) how does the child on the picture feel in this situation and b) what would he/she do? The interviews were videotaped and transcribed. Answers were rated on three nine-point scales: Coping with Separations, Emotional Openness and Coherence of Transcript. Higher ratings indicated more flexible balance between self-reliance and the ability to turn to others for assistance, more open and appropriate expressions of vulnerability, and more clear emotionally coherent and appropriately justified responses. Interobserver correlations ranged from .70 to .88. On the basis of the scores on the scales, the child-parent relationship was also classified as secure, avoidant, or bizarre/ ambivalent.

5.2.3 Procedure

Age seven

Children were visited twice at home for videotaping a 10-minute play interaction with mother and father separately. Child-peer play interaction was videotaped at school After a short acquaintance and explanation of the procedure, child and parent or peer took their place at a (dining) table (in an angle of 90 degrees). Two tasks were done: a free play task and a dominoes task (for the present study, data of the dominoes task were not used). The examiner was not in the room during the video-taping. For the free play task, a standard set of toys, containing building blocks, wild animals, a Playmobil doll family and a kitchen with accessories was put in front of the child and parent/peer in a standard way. The toys were chosen to be attractive for girls as well as for boys. Participants were told that they could play together with the toys as they would like to do.

For the assessment of self-representation and perceived security, children were visited twice at school. During the first visit, children were interviewed during two sessions. Duration of each session was about thirty minutes. In the first session, after a little talk to get child and interviewer acquainted, first two subtests of a Dutch intelligence test were done (RAKIT, Revised Amsterdam Intelligence Test for Children; Bleichrodt, Drenth, Zaal, & Resing, 1984). Verbal competence of the child was assessed, because it

might be of influence on the other measures in which the child had to tell stories. A lower verbal competence might explain less elaborate stories.

Furthermore, in the first session the Puppet Interview (Cassidy, 1998; Verschueren et al., 1994) was administered to measure self-representation. During the second session, the Attachment Story Completion Task (Verschueren & Marcoen, 1994) was presented, which included three stories about interaction with age mates (these data are not used in this study). Next, four stories about the relation with mother ór father were presented. During the second visit the other stories of father ór mother were administered, depending on which stories had been presented during the first visit. Mother or father stories were presented in counterbalanced order, so that about half of the children first did the mother doll stories and the other children did the father doll stories first. There was about a week time between the first and second visit to prevent that the mother and father doll stories would be played in a similar way, because of the close succession of these tasks in time.

Age nine

Again children were visited twice at home to video-tape child-parent play interaction with mother and father separately. At school they were interviewed about their self-representation and perceived security of the relationship with parents and were videotaped during interaction with a peer. The procedure of the child-parent play and the child-peer interaction was similar to the procedure at age seven, but only the toys were changed so they would be more attractive to nine-year-old children. At age nine, children were visited once at school. In the first session, again after a short acquaintance conversation, the same two subtests of the RAKIT (Bleichrodt et al., 1984) were given to measure verbal competence. Next the EASE (Easterbrooks & Abeles, 2000) was administered to assess the convenience with which children talk about themselves. During the second session the SAT (Resnick, 1993) was administered individually and child-peer play interaction was videotaped.

5.3 Overview of the Main Analyses

To answer our first research question, about the relation between perceived security of the relationship with parents and dyadic observed characteristics of child-parent and child-peer interaction, Multivariate Analyses of Variance (MANOVA's) will be used. The observed characteristics of the child-parent or the child-peer interaction will be the within-group measures, and the four classifications of perceived security will be the between group factor. To answer our second research question about the relation between self-representation and dyadic observed characteristics of child-parent and child-peer interaction, independent samples t-tests will be performed. To study whether dyadic characteristics of child-parent interaction or child-peer interaction at age nine, respectively, are predicted by perceived security or self-representation at age seven,

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hierarchical regression analyses will be used. The relation between perceived security of the relationship with parents or self-representation at age seven and observed characteristics of child-parent interaction at age nine, is analyzed, while controlling for the stability of observed characteristics of child-parent interaction. Likewise, the relation between perceived security of the relationship with parents or self-representation at age seven and observed characteristics of child-peer interaction at age nine, is analyzed, while controlling for the stability of observed characteristics of child-peer interaction.

5.4 Results

5.4.1 Descriptive analyses

Classifications of the subjective experience with mother or father (at age seven) and of both parents together (at age nine) can be seen in Table 5.2.

Table 5.2

Classifications of perceived security of the relationship with mother and father at age seven and with both parents at age nine.

Representation of the relations with parents	Age seven Mother	Age seven Father	Age nine Both parents
Secure	38 (63 %)	42 (70 %)	30 (49 %)
Insecure-bizarre/ ambivalent	10 (16 %)	8 (13 %)	12 (20 %)
Insecure-avoidant	13 (21 %)	10 (17 %)	19 (31 %)
Total	61 (100 %)	60 (100 %)	61 (100 %)

At age seven, most children perceive the relationship with mother and father as secure. Nevertheless, a substantial part of the children perceives the relation as insecure (avoidant or bizarre/ambivalent). Although this is about a third of the children, this is not different from results of other studies (see De Koeyer, 2001; Verschueren & Marcoen, 1999). At age nine, about fifty percent of the children perceive their relationship with parents as secure.

In Table 5.3 the classifications of self-representation are shown. Most children at age seven are positive (60 %) about themselves and about 89 per cent of the childrenare open to admit imperfections. At age nine, more children are positive about themselves (73 %), but less children were open to admit imperfections (64 %).

Table 5.3
Classifications of self-representation at ages seven and nine.

Self-representation	Age seven	Age nine
Positive-open	33 (52 %)	27 (43 %)
Positive-closed	5 (8 %)	19 (30 %)
Negative-open	23 (37 %)	13 (21 %)
Negative-closed	2 (3 %)	4 (6 %)
Total	63 (100 %)	63 (100 %)

As can be seen in Table 5.3, only two seven-year-old children and four nine-year-old children were classified as negative-closed. Because of the small numbers in the cells, in further analyses the positive (positive-open and positive-closed) and negative (negative-open en negative-closed) as well as the open (positive-open and negative-open) and closed (positive-closed and negative-closed) classifications will be taken together. This means that we will have two ways to analyze the research question with respect to self-representation. On the one hand we will compare the children classified as positive ($N= 38$ at age seven and $N = 46$ at age nine) with the children classified as negative ($N= 25$ at age seven and $N = 17$ at age nine). Furthermore, we will compare the group of children classified as open ($N = 56$ at age seven and $N = 40$ at age nine) with the group of children classified as closed ($N= 7$ at age seven and $N = 23$ at age nine). In this way, the analyses will partly overlap and therefore are not fully independent.

5.4.2 Perceived security and play interaction
In order to address our first research question, multivariate analyses of variance (MANOVA's) were computed on the mean proportions shown in Table 5.4, comparing children who perceive their relation with mother and father as secure or insecure (avoidant or bizarre/ambivalent). The observed characteristics of the child-parent or the child-peer play interaction were the within-group measures and the classification of perceived security was the between group factor. For the observed characteristics of child-mother interaction at age seven, a trend towards a main effect was found, $F(2,55) = 1.92$, $p = .06$. Follow up, one-way analyses of variance (ANOVA's) indicated that seven-year-old children who perceived their relationship with mother as secure showed significantly less balance of control during child-mother interaction than children who were classified as avoidant. For the observed characteristics of child-father interaction at age seven, a trend towards a main effect of perceived security classification was found, $F(2,43) = 1.97$, $p = .06$. Follow up, one-way analyses of variance (ANOVA's) revealed that seven-year-old children who perceived their relationship with father as avoidant, showed significantly more shared positive emotions during play interaction than children classified as bizarre/

Table 5.4
Mean proportions and standard deviations of observed characteristics during child-mother, child-father and child-peer interaction at ages seven and nine for children who perceived their relationship with parents as secure, avoidant or bizarre/ambivalent.

	Secure	Avoidant	Bizarre/ambivalent	*F*
	M (SD)	*M (SD)*	*M (SD)*	
Age seven				
Child-mother interaction				
Shared positive emotions	.09 (.08)	.10 (.07)	.04 (.05)	1.84
Mutual responsiveness	.27 (.17)	.23 (.11)	.18 (.12)	1.26
Total control	.37 (.14)	.32 (18)	.33 (.11)	.62
Balance of control	.35[a] (.16)	.49[b] (.22)	.35[ab] (16)	3.33*
Child-father interaction				
Shared positive emotions	.09[ab] (.08)	.19[a] (21)	.05[b] (.06)	3.71*
Mutual responsiveness	.31 (.16)	.28 (.20)	.32 (.19)	.25
Total control	.35 (.13)	.32 (.15)	.25 (.10)	2.72
Balance of control	.38 (.23)	.37 (.14)	.28 (.23)	.33
Child-peer interaction				
Shared positive emotions	.24 (.15)	.22 (.13)	.28 (.19)	.31
Mutual responsiveness	.19 (.14)	.23 (.12)	.11 (.06)	1.62
Total control	.30 (.13)	.36 (.15)	.30 (.14)	1.11
Balance of control	.47 (.24)	.54 (.20)	.39 (.20)	.90
Age nine				
Child-mother interaction				
Shared positive emotions	.08 (.11)	.09 (.12)	.08 (.05)	.15
Mutual responsiveness	.30[a] (.15)	.17[b] (.13)	.24[ab] (.15)	3.84*
Total control	.27[a] (.14)	.22[a] (.09)	.41[b] (.19)	6.77**
Balance of control	.43 (.19)	.49 (.24)	.52 (.13)	1.03
Child-father interaction				
Shared positive emotions	.08 (.07)	.07 (.07)	.05 (.06)	.56
Mutual responsiveness	.26 (.16)	.24 (.15)	.21 (.12)	.34
Total control	.28 (.14)	.31 (.18)	.31 (.14)	.11
Balance of control	.51 (.24)	.54 (.30)	.52 (.26)	.08
Child-peer interaction				
Shared positive emotions	.13 (.14)	.10 (.07)	.11 (.08)	.43
Mutual responsiveness	.14 (.10)	.13 (.07)	.12 (.07)	.11
Total control	.32 (.20)	.40 (.23)	.37 (.24)	.51
Balance of control	.54 (.22)	.46 (.22)	.59 (.15)	1.25

Note. Mean proportions within a row not sharing at least one superscript are significantly different. * $p < .05$, ** $p < .01$

ambivalent. The children classified as secure did not differ significantly from the two other classifications. For the child-peer play interaction at age seven no significant differences were found between children who perceive the relationship with parents as secure, bizarre/ ambivalent or avoidant.

At age nine, for the observed characteristics of the child-mother play interaction, a main effect was found for the classification of perceived security, $F(2,53) = 3.55$, $p = .00$. Follow up, one way analyses of variance (ANOVA's) indicated that children who perceived their relationship with mother as secure, showed significantly more mutual responsiveness during play interaction than children who were classified as avoidant. Furthermore, during the child-mother interaction of children classified as bizarre/ambivalent, significantly more total control was displayed than during the interactions of children classified as secure as well as avoidant. For the observed characteristics of child-father interaction no main effect of perceived security was found, $F(2,44) = .36$, *n.s.* For the child-peer play interaction at age nine no significant differences were found between children who perceive the relationship with parents as secure, bizarre/ ambivalent or avoidant.

5.4.3 Self-representation and play interaction

To address our second research question, in which self-representation was related to the observed characteristics of child-parent and child-peer play interaction, we compared the children classified as positive with the children classified as negative, and the children classified as open with the children classified as closed. With respect to child-mother interaction, a trend towards a significant relation was found for shared positive emotions at age seven when comparing children classified as positive and negative ($t = -1.82$, $p = .07$). Dyads with children classified as positive showed more shared positive emotions ($M = .10$) during child-mother play interaction than children classified as negative ($M = .07$). No other significant comparisons were found for the child-mother interaction at ages seven and nine.

With respect to the child-father interaction, several significant relations were found. When comparing children classified as open or closed at age seven, a significant difference was found for shared positive emotions. Dyads with children classified as closed showed more shared positive emotions ($M = .21$) than dyads with children classified as open ($M = .08$). No other significant differences were found at age seven. With respect to age nine, a significant relation for mutual responsiveness and total control behavior ($t = -2.51$, $p = .02$, and $t = -3.19$, $p = .00$, respectively) was found when comparing dyads with children classified as positive or negative. Dyads with children classified as positive showed more mutual responsiveness ($M = .27$) and more total control ($M = .33$) than dyads with children classified as negative ($M = .16$, and $M = .21$, respectively).

With respect to the child-peer interactions, no significant differences were found between children classified as positive or negative nor between children classified as open or closed at both ages.

5.4.4 Prediction of observed characteristics of child-parent interaction at age nine from perceived security of the relationship with mother and father at age seven

In order to address our third research question, whether perceived security of the relationship with parents is predictive of observed characteristics of child-parent interaction at age nine, hierarchical regression analyses were carried out for the child-mother and child-father interaction separately, on each observed characteristic (i.e., mutual responsiveness, shared positive emotions, total control and balance of control). In the first set of analyses, the observed characteristics of child-mother or child-father interaction at age nine were the dependent variables. The specific observed characteristic of child-mother or child-father interaction at age seven was entered on the first step, followed by the perceived security of the relationship with mother or father at age seven[4].

Table 5.5

Predicting observed characteristics of child-parent interaction at age nine from perceived security of the relationship with parents at age seven

Predictor variables	R	R^2	ΔR^2	β
Dependent variable: shared positive emotions child-father (9)				
Step 1:				
Shared positive emotions child-father interaction (7)	.36	.13	.13*	.36*
Step 2:				
Perceived security of relationship with father (7)	.46	.21	.09*	.29*
Dependent variable: shared positive emotions child-mother (9)				
Step 1:				
Shared positive emotions child-mother interaction (7)	.24	.06	.06°	.23°
Step 2:				
Perceived security of relationship with mother (7)	.24	.06	.00$^{n.s.}$	.03
Dependent variable: mutual responsiveness child-mother (9)				
Step 1:				
Mutual responsiveness child-mother interaction (7)	.40	.16	.16°	.38**
Step 2:				
Perceived security of relationship with mother (7)	.40	.16	.01$^{n.s.}$	.08

° $p < .10$, * $p < .05$, ** $p < .01$, $^{n.s.}$ = non-significant

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[4] Including the variable "gender of the child" in the hierarchical regression analyses did not produce other results.

With respect to total control and balance of control during child-mother and child-father interaction, and to mutual responsiveness during child-father interaction, no significant stability of these characteristics between ages seven and nine was found. A trend towards stability was found for mutual responsiveness and shared positive emotions during child-mother interaction. However, adding perceived security of the relationship with mother at age seven did not increase the explained variance significantly (see Table 5.5, in which only the significant results and the trends towards significance are shown). Shared positive emotions during child-father interaction appeared to be moderately stable between ages seven and nine, as is shown in Table 5.5. Adding perceived security of the relationship with father at age seven did increase the explained variance significantly from .13 to .21. In other words, children who perceive their relationship with father as secure at age seven, will be showing more shared positive emotions with father at age nine.

5.4.5 Prediction of observed characteristics of child-peer interaction at age nine from perceived security of the relationship with mother and father at age seven

In order to address our fourth research question, hierarchical regression analyses were carried out for the four observed characteristics of child-peer interaction separately. The observed characteristics of child-peer interaction at age nine were the dependent variables.

Table 5.6

Predicting shared positive emotions and total control during child-peer interaction at age nine from perceived security of the relationship with parents at age seven

Predictor variables	R	R^2	ΔR^2	β
Step 1:	*Dependent variable: shared positive emotions child-mother (9)*			
Shared positive emotions child-peer interaction (7)	.36	.13	.13*	.40**
Step 2:				
Perceived security of relationship with mother (7)	.45	.20	.08*	-.28*
Step 1:	*Dependent variable: shared positive emotions child-father (9)*			
Shared positive emotions child-peer interaction (7)	.38	.15	.15*	.45**
Step 2:				
Perceived security of relationship with father (7)	.48	.23	.08*	-.30*
Step 1:	*Dependent variable: total control child-mother (9)*			
Total control child-peer interaction (7)	.26	.07	.07°	.26°
Step 2:				
Perceived security of relationship with mother (7)	.27	.07	.00[n.s.]	-.05

° $p < .10$, * $p < .05$, ** $p < .01$, [n.s.] = non-significant

The specific observed characteristic of child-peer interaction at age seven was entered on the first step, followed by perceived security with mother or father at age seven[5]. Due to the amount of analyses, in Table 5.6 only the (trends towards) significant stability's are shown.

With respect to balance of control and mutual responsiveness during child-peer interaction, no significant stability of these characteristics between ages seven and nine was found. A trend towards stability was found for total control between ages seven and nine. In these analyses, adding perceived security of the relationship with mother or father at age seven did not increase the explained variance significantly. Significant moderate stability was found for shared positive emotions during child-peer interaction. Adding perceived security of the relationship with mother or father at age seven did increase the explained variance significantly from .13 to .20 (for child-mother interaction) and from .15 to .23 for child-father interaction. However, the positive Beta's for shared positive emotions during child-parent interaction (.40 and .38, for child-mother and child-father respectively) changed to negative Beta's after adding perceived security of the relationship with mother or father at age seven   (-.28 and -.30, respectively). This means that children who perceive their relationship with parents as secure and positive at age seven, have a greater chance of showing less shared positive emotions during child-peer interaction at age nine.

5.4.6 Prediction of observed characteristics of child-parent interaction at age nine from positiveness and openness of self-representation at age seven

To examine whether observed characteristics of child-parent interaction at age nine are predicted by positiveness and openness of the self at age seven, hierarchical regression analyses were carried out for each observed characteristic separately. The observed characteristics of child-mother or child-father interaction at age nine were the dependent variables. The specific observed characteristic of child-mother or child-father interaction was entered at the first step, followed by positiveness and openness of the self at age seven[6]. With respect to total control during child-mother and child-father interaction, balance of control and mutual responsiveness during child-father interaction, and shared positive emotions during child-mother interaction, no significant stability between ages seven and nine was found. Although balance of control during child-mother interaction was not stable between ages seven and nine, adding positiveness and openness at age seven did increase the explained variance significantly from .02 to .18 (see Table 5.7).

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[5] Including the variable "gender of the child" in the hierarchical regression analyses did not produce other results.
[6] Including the variable "gender of the child" in the hierarchical regression analyses did not produce other results.

For mutual responsiveness during child-mother interaction and shared positive emotions during child-father interaction significant stability was found. For shared positive emotions during child-father interaction, adding positiveness and openness of the self at age seven did increase the explained variance significantly from .09 to .24. In other words, children who are more positive and open about the self at age seven, will be showing more shared positive emotions with father at age nine. For mutual responsiveness during child-mother interaction, adding positiveness and openness of the self at age seven did not increase the explained variance significantly.

Table 5.7

Predicting balance of control and mutual responsiveness during child-mother interaction and shared positive emotions during child-father interaction at age nine from self-representation at age seven

Predictor variables	R	R^2	ΔR^2	β
Dependent variable: balance of control child-mother (9)				
Step 1:				
Balance of control during child-mother interaction (7)	.15	.02	$.02^{n.s.}$	.15
Step 2:				
Positiveness (7)	.42	.18	.16*	-.19
Openness (7)				-.34**
Dependent variable: mutual responsiveness child-mother (9)				
Step 1:				
Mutual responsiveness during child-mother interaction (7)	.40	.16	.16**	.39**
Step 2:				
Positiveness (7)	.41	.17	$.00^{n.s.}$	.03
Openness (7)				-.06
Dependent variable: shared positive emotions child-father (9)				
Step 1:				
Shared positive emotions during child-father int. (7)	.30	.09	.09*	.35*
Step 2:				
Positiveness (7)	.49	.24	.16*	.39**
Openness (7)				.03

* $p < .05$, ** $p < .01$, $^{n.s.}$ = non-significant

5.4.7 Prediction of observed characteristics of child-peer interaction at age nine from positiveness and openness of self-representation at age seven

In order to address our sixth research question, whether positiveness and openness of the self at age seven are predictive of the observed characteristics of child-peer interaction at age nine, hierarchical regression analyses were carried out for the four observed

characteristics. The observed characteristics of child-peer interaction at age nine were the dependent variables. The specific observed characteristics of child-peer interaction at age seven was entered on the fist step, followed by positiveness and openness of self-representation at age seven[7]. For total control and balance of control during child-peer interaction no significant results were found. With respect to mutual responsiveness during child-peer interaction, a trend towards stability was found (see Table 5.8). However, adding positiveness and openness of self-representation at age seven did not increase the explained variance significantly. Shared positive emotions during child-peer interaction were found moderately stable ($r = .37$, $p = .01$). Adding positiveness and openness of self-representation at age seven increased the explained variance significantly from .14 to .30 (see Table 5.8).

Table 5.8
Predicting shared positive emotions and mutual responsiveness during child-peer interaction at age nine from self-representation at age seven

Predictor variables	R	R^2	ΔR^2	β
Dependent variable: shared positive emotions child-peer (9)				
Step 1:				
Shared positive emotions during child-peer interaction (7)	.37	.14	.14*	.46**
Step 2:				
Positiveness (7)	.55	.30	.16*	-.34*
Openness (7)				-.25°
Dependent variable: mutual responsiveness child-peer (9)				
Step 1:				
Mutual responsiveness during child-peer interaction (7)	.26	.07	.07°	.25°
Step 2:				
Positiveness (7)	.35	.12	.06[n.s.]	.14
Openness (7)				.20

° $p < .10$, * $p < .05$, ** $p < .01$, [n.s.] = non-significant

5.5 Discussion

The results of the present study show that children who perceive their relationship with mother or father as secure differ on several characteristics of observed child-parent interaction, compared to children who perceive their relation with mother or father as avoidant or bizarre/ ambivalent. It was found that, at age seven, dyads with children who perceived their relationship with mother or father as avoidant showed more balance of

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[7] Including the variable "gender of the child" in the hierarchical regression analyses did not produce other results.

control during child-mother interaction and more shared positive emotions during child-father interaction, compared to children who perceived their relationship with mother or father as secure (for the child-mother interaction) or bizarre/ ambivalent (for the child-father interaction). These results were contrary to our expectations, because it was expected that dyads with children who perceived their relationship with parents as more secure should show more 'positive' behaviors like balance of control, shared positive emotions, and mutual responsiveness and less 'negative' behaviors like total control.

At age nine, differences between children perceiving their relationship with parents as secure or insecure were found with respect to the child-mother interaction. Here, we found results in the expected direction. That is, more mutual responsiveness was found for dyads with children classified as secure compared to children classified as avoidant, and significantly less total control was found for dyads with children classified as secure compared to dyads with children classified as bizarre/ ambivalent. No differences were found between securely and insecurely attached children with respect to the child-father interaction. With respect to mutual responsiveness, this result was also found in a study by De Wolff and Van Ijzendoorn (1997) who found that mutual responsiveness during child-mother interaction was strongly related to attachment security. However, they had not analyzed data of child-father interaction.

When comparing children who perceived their relationship with mother or father as secure or insecure on the observed characteristics of child-peer interaction no differences were found at age seven as well as age nine. This result is contrary to our expectations, because according to attachment theory (Bowlby, 1969) early experiences with caregivers are the basis of relationships with peers and adults later on in life (see also Bretherton & Munholland, 1999; Verschueren & Marcoen, 1999). In this respect, it would be expected that the experiences with caregivers (measured by the perceived security of the relationship with parents) are reflected in behaviors during child-peer interaction.

In sum, the results of the analyses comparing children who perceive their relationship with parents as secure or insecure with respect to the observed characteristics of child-parent and child-peer interaction, were counterintuitive for the child-mother and child-father interaction at age seven. For the child-peer interaction no differences were found at age seven. At age nine consistent and expected results were found for child-mother interaction. However, no differences were found at age nine for the observed characteristics of child-father and child-peer interaction.

With respect to our second research question, in which children with a positive or negative self-representation, or an open or closed self-representation were compared on observed characteristics of child-parent and child-peer interaction, we found some significant differences on the child-father interaction. For the observed characteristics of child-mother interaction at ages seven and nine, no significant differences were found between children classified as positive or negative, nor between children classified as

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open or closed. With respect to observed characteristics of child-father interaction it was found that dyads with children classified as closed showed more shared positive emotions (at age seven). Dyads with children classified as positive showed more mutual responsiveness and more total control compared to dyads with children classified as negative (at age nine). No other significant differences were found for the child-father interaction, nor for the child-peer interaction. In conclusion, we did not find differences between children classified as positive or negative, nor between children classified as open or closed with respect to child-mother and child-peer interaction at both ages. For child-father interaction counterintuitive results were found at age seven and partly at age nine (i.e., more total control for children classified as positive about the self). An expected result was found with respect to mutual responsiveness during child-father interaction at age nine.

To address the longitudinal character of the present study, several hierarchical regression analyses were carried out to predict outcomes at age nine, from several independent variables at age seven. Stability was found for shared positive emotions during child-father and child-peer interaction between ages seven and nine. Adding perceived security with father at age seven (for shared positive emotions during child-father interaction) or perceived security of the relationship with mother and father at age seven (for shared positive emotions during child-peer interaction) did significantly increase the explained variances.

Furthermore, it appeared that shared positive emotions during child-father interaction were also significantly predicted by positiveness and openness of self-representation. Trends towards stability were found for shared positive emotions and mutual responsiveness during child-mother interaction and mutual responsiveness during child-peer interaction. However, adding perceived security of the relationship with parents or positiveness and openness of self-representation did not increase the explained variance. With respect to the other characteristics of child-parent or child-peer interaction, no stability or significant predictions were found.

When looking at the results obtained in answering our six research questions, several interesting points are worth mentioning. Firstly, the results found at age nine are more in the expected direction, whereas at age seven the results are more diffuse, with some results according to our expectations and some counter-intuitive results. It seems as if the results of age nine are more robust. An explanation for this results could be that, as children grow older, the child-parent relation is more crystallized out which could be shown in certain expectations of child-parent interaction, or in behavioral patterns during child-parent interaction. Secondly, the fact that we did not find any difference with respect to the observed characteristics of child-peer interaction between children who perceive their relationship with parents as secure or insecure, nor between children who have a positive or negative self-representation, is remarkable. According to attachment theory

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(Bowlby, 1969, 1973), it is assumed that experiences in early child-caregiver interaction are related to relationships with peers later in childhood and adolescence. It was expected that differences in perception of the relationship with parents (secure or insecure) would be reflected in interactions with peers. Nevertheless, regarding the results of the present study, it seems as if the two social worlds of children, that is the one of family and the one of peers, are not of the same nature (see also Piaget, 1932; Hinde, 1997; Gerrits, Goudena, & Van Aken, 2004). Thirdly, the results found with respect to the predictions of the hierarchical regression analyses are most consistent for shared positive emotions. It was found that perceived security of the relationship with parents at age seven is predictive of shared positive emotions during child-parent as well as child-peer interaction at age nine. This result is in line with studies focusing on the relation between attachment and correlates in infancy and preschool, in which affect is seen as an important feature of child-mother interaction in the development of a secure attachment (e.g., Cassidy et al., 1990). From the results of the present study, these two aspects seems to remain related in middle childhood as well.

This study is an interesting addition to the few existing studies on the relations between dyadic play interaction and the perception of the relationship with parents and self-representation. Firstly, only few studies have used observations of both child-parent and child-peer interaction that are related to the perception of the relationship with parents or to self-representation. Secondly, data were gathered and analyzed with respect to both mother and father. The relationship with mother is often seen as the basis of children's relationships with adults and peers later is life. However, the child-father relationship seems to play also an important part, as, for instance, Parke (2002) has argued. In the present study, we find support for this idea at age seven, but not at age nine, with respect to the perceived security of the relationship with father. At the older age, only children with secure or insecure perceptions of the relationship with mother differed from each other on mutual responsiveness and total control behavior during child-mother interaction. However, when comparing children with positive and negative self-representation, some significant differences were found with respect to child-father interaction at age nine. Moreover, both the perception of the relationship with father, as well as the shared positive emotions during child-father play interaction, were both important indicators for the prediction of shared positive emotions during the child-father interaction at age nine.

In summary, results of the present study show differences between children perceiving their relationship with parents as secure or insecure and children perceiving their selves as positive or negative on the observed characteristics of child-parent interaction. However, no differences were found with respect to observed characteristics of child-peer interaction. It seems as if perceptions of the child-parent relationship are related to behavior with parents, but not to behavior with peers, indicating that the linkage between the two social worlds of children is not as strong as often is assumed.

Chapter 6
Conclusion and general discussion

Chapter 6
Conclusion and general discussion

6.1 Conclusions

The aim of this thesis was to increase our understanding and knowledge of the relation between children's two social worlds, that of parents and that of peers. Central questions presented in this thesis were a) whether child-parent and child-peer interactions are similar or different on several observed characteristics, b) whether children's internal working models of the self and of the relationship with others [i.e., self-representation and perceived security of the relationship with parents] are related, and c) whether children's perceived security of the relationship with parents as well as children's self-representation are reflected in children's interactions with parents and peers. In Figure 6.1, the relations studied in this thesis are shown again. In the next sections the results with respect to relations A, B, and C will be summarized and discussed. Subsequently, attention will be given to the strengths of the studies presented in this thesis. Furthermore, limitations and recommendations for future research will be given.
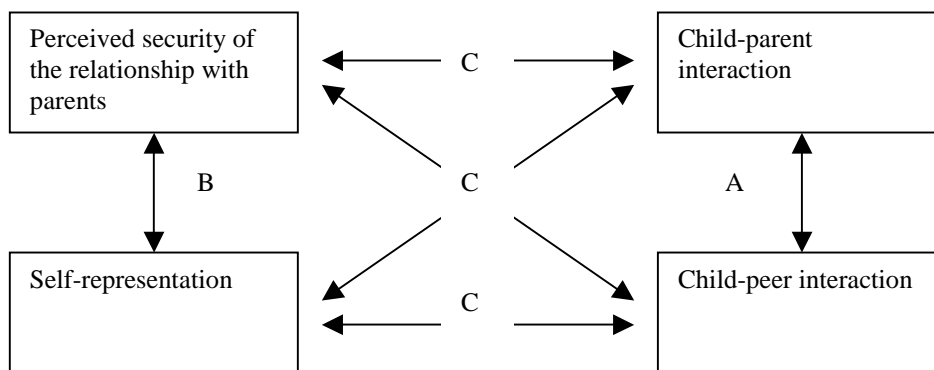
Figure 6.1: Expected relations between child-parent, and child-peer interaction, perceived security and self-representation

6.1.1 Child-parent and child-peer interaction (relation A; Figure 6.1)

In chapter 2, it was examined whether child-parent and child-peer interactions were similar or different with respect to several observed characteristics. Child-parent and child-peer play interactions of seven-year-old children were videotaped at home and at school, respectively, during a ten-minute free play task and a four-minute dominoes task. Interactions were subsequently observed and scored on shared positive emotions, total control, balance of control, simultaneous play, mutual responsiveness, and discord. Results showed clear differences in mean proportions of child-mother and child-father

interactions on the one hand, and child-peer interactions, on the other hand. The differences found were in line with our expectations and with the ideas reported in the review of Russell, Pettit, and Mize (1998). Horizontal qualities, which used to be exclusively attributed to child-peer interactions, were also found during child-parent interaction, which is often seen as a vertical relationship. When child-mother and child-father interactions were compared, no differences were found, except for shared positive emotions that were shown more when child and mother played the dominoes task.

Consistency between dyads with the same target child was not found. This implies that in dyads with the same target child (i.e., child-mother, child-father, and child-peer interaction) proportions of specific behaviors did not correlate. No support was found therefore for the idea of transferal of behavior from the child-parent context to the child-peer context. This result was not in line with our expectations and with results of other studies in which children's social interaction with peers and characteristics of child-parent interaction on the same dyadic level using the same observational categories (e.g., Black & Logan, 1995; Lindsey & Mize, 2001). From this result it appears that child-parent and child-peer interactions could be considered as separate contexts, at least for the present age group and the specific situation.

Contrary to our expectations, no main effect of peer preference was found on the observed characteristics. However, some interaction effects of context with peer preference and of context with gender were found. The absence of a main effect of peer preference did not corroborate the results of earlier studies in which children's peer preference (i.e., sociometric status) was related to observed characteristics of child-parent interaction (e.g., Black and Logan, 1995; Isley, O'Neil, Clatfelter, & Parke, 1999; Boyum & Parke, 1995; McDowell & Parke, 2000; Harrist, Pettit, Dodge, & Bates, 1994; Lindsey, Mize, & Pettit, 1997; Pettit & Lollis, 1997; De Koeyer, 2001; Lindsey & Mize, 2000). In general, in these studies it was found that children who were more preferred by their peers (i.e., popular children) show, for example, more positive emotions and more mutuality during child-parent interaction than children who were less preferred by their peers.

However, we did find an interaction effect of mutual responsiveness with peer preference. The pattern found indicated that children high on peer preference showed more or less the same level of mutual responsiveness during child-parent and child-peer interaction, whereas less peer preferred children differed more on mutual responsiveness during child-parent and child-peer interaction. An explanation might be that less social competent children feel more comfortable in interaction with their parents and therefore show more mutual responsiveness during child-parent interaction compared to child-peer interaction (cf. Goudena & Vermeulen, 1997)

6.1.2 Self-representation and perceived security of the relationship with parents (relation B; Figure 6.1)

In chapters 3 and 4, the relation between self-representation and perceived security of the relationship with parents was examined, cross-sectionally and longitudinally, at ages seven and nine. Domain-specific as well as global self-representation were assessed during interviews with the children at school. Global self-representation was focused on positiveness and openness of the self. Domain-specific self-representations were assessed at the domains cognitive competence, peer acceptance, and maternal acceptance at age seven. At age nine, the domains assessed were cognitive competence, social acceptance, physical appearance, behavioral attitude, and global self-worth. Children's perceptions of the relationship with parents were classified as secure, avoidant, or bizarre- ambivalent. Also continuous scores of security were used during the analyses performed.

In chapter 3, the focus was on cross-sectional and longitudinal relations between perceived security of the relationship with parents and self-representation. Cross-sectional positive relations were found between perceived security of the relationship with mother and father and *positiveness* of the self at age seven. *Openness* at age seven appeared to be positively related to perceived security of the relationship with father. In other words, seven-year-old children who perceive the relationship with mother and father as secure, are more positive about the self. Furthermore, children who perceived the relation with father, but not with mother, as more secure, were more open during an interview about the self. These results were in line with earlier studies, in which similar relations between perceived security of the *child-mother* relationship and self-representation were found for younger children (e.g., Cassidy, 1988; Verschueren, Marcoen, & Schoefs, 1996; Clark & Symons, 2000). At age nine, it was found that children who are more positive and secure about the relation with mother and father are more positive about their physical appearance, behavioral attitude, and global self-worth. With respect to stability of perceived security and self-perception, moderate stability was found for perceived security of the child-mother relationship and for cognitive competence. No stability was found for perceived security of the child-father relationship nor for the other domains of self-representation.

In chapter 3, it was also studied whether self-representation at age nine was predicted by perceived security of the relationships with mother and father at age seven, and vice versa. It was shown that openness during an interview at age nine was significantly predicted by perceived security of the child-mother and child-father relationship at age seven. With respect to the reverse question, whether perceived security of the relationship with parents at age nine was predicted by self-representation at age seven, results were not significant. To our knowledge, there are no studies that have focused in this way on predictive relations between perceived security and self-representation.

Whereas in chapter 3 the focus was, in general, on cross-sectional and longitudinal relations between perceived security of the relationship with parents and self-representation, in chapter 4, the focus was more specific on the individual and joint contributions of perceptions of the child-mother and child-father relationship to self-representations in children at ages seven and nine. In other words, in chapter 4 it was studied whether perceived security of the child-mother and the child-father relationship were related to (aspects of) self-representation in the same or a different way. It was found that perceived security of the relationship with mother and father were both predictive of the positiveness of the self at age seven. However, when this relation was further examined by entering perceived security of the child-father relationship in the first step of the hierarchical regression analyses and perceived security of the child-mother relationship in the second, it was found that positiveness was only predicted by perceived security of the child-father relationship. Perceived security of the child-mother relationship did not increase the explained variance significantly. In other words, there was a unique effect of the perception of the child-father relationship. This refers to an even more important contribution of the child-father relationship to the development of the self, than the child-mother relationship.

Openness at age seven was predicted by the perceived security of the child-father relationship, but not the child-mother relationship. To our knowledge, only one study has examined the joint contribution of child-mother and child-father relationships to self-representation (see Verschueren & Marcoen, 1999). Our results are partly in line with their study of five-year-olds. They found perceptions of the child-mother relationship to be related to global self-representation and perceptions of the child-father relationship to specific domains of social competence, like for instance anxious/ withdrawn behavior (rated by the teacher). With respect to domain-specific self-representation at age seven, no significant predictions were found. At age nine, some domains of self-representation (i.e, physical appearance and global self-worth) were predicted by perceptions of both parental relationships.

Furthermore, it was examined whether children who had secure perceptions of both parental relationships differed in positiveness of self-representation at ages seven and nine, compared to children with discordant perceptions or two negative, insecure perceptions of parental relationships. It was found that children with two secure perceptions of the relationship with parents were more positive of the self at age seven and more positive about their physical appearance and global self-worth at age nine, compared to children with two negative perceptions of the relationship with parents. Children with discordant perceptions were in between these two other groups. These results corroborate the results of Verschueren and Marcoen (1999), and support the idea of a compensating effect. That is, children who perceive the relationship with one parent as secure are as positive about their self-representation as children with two secure

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perceptions of both parents. Some evidence was found for the cumulative effect (see Bretherton, 1991), although the differences in self-representation of the children with two secure perceptions and the children with one secure and one insecure perception were not significant. The children with secure perceptions of both parental relationships had a more positive self-representation than children who perceive the relationship with one parent as secure (and the other as insecure), which in turn had a more positive self-representation than children who perceive the relationship with both parents as negative (i.e., insecure).

In chapter 4, it was also studied whether children who maintained a positive perception of the relationship with parents over time, were more positive about the self compared to children who maintained a negative perception or who changed from a positive to a negative perception or from a negative to a positive perception. Stability of the perception of the relationship with mother appeared to be related to global and specific self-representation at ages seven and nine. Children who maintained a positive perception of the relationship with mother, were more positive about the self at age seven, and more open about the self at age nine. Furthermore, they were more positive about their own behavior at age nine, compared to children who maintained a negative perception of the child-mother relationship. Children who maintained a positive perception of the relationship with father, were more positive about their physical appearance at age nine, than children who maintained a negative perception of the relationship with father. Children who changed in their perception were in between the two other groups.

6.1.3 Dyadic play interaction, self-representation, and perceived security (relations C; Figure 6.1)

In chapter 5, it was examined whether differences in children's internal working models of the relationship with parents as well as the internal working model of the self, are reflected in observed characteristics of child-parent and child-peer interactions. Therefore, perceptions of the relationship with parents were assessed during a playful story completion task at age seven and a self-report measure at age nine. Global self-representation was assessed through a hand puppet interview at age seven and an interview at age nine. Assessments were done at school. Child-parent interactions were videotaped at home during a ten minute free play task. Similar child-peer interactions were filmed at school. The interactions were observed and coded on shared positive emotions, mutual responsiveness, total control, and balance of control. It was found that children who perceived the relationship with parents as secure, differed from children with avoidant or bizarre/ ambivalent perceptions on balance of control and shared positive emotions at age seven The patterns found were contrary to our expectations, with children classified as avoidant showing more balance of control and shared positive emotions than children classified as secure. At age nine, results were in line with our expectations. Children with secure perceptions of the *child-mother* relationship showed

more mutual responsiveness and less total control. However, with respect to observed characteristics of *child-father* and *child-peer* interactions, no differences were found, contrary to our expectations.

With respect to *self-representation* related to observed characteristics of child-parent and child-peer interaction, significant results were found for shared positive emotions at age seven, and mutual responsiveness and total control at age nine. Dyads with children who were classified as closed showed more shared positive emotions. Dyads with children classified as positive showed more mutual responsiveness and total control. No other significant differences were found for the child-father, child-mother or child-peer interactions.

In chapter 5 also some longitudinal associations were examined by means of hierarchical regression analyses. It was found that shared positive emotions during child-father interaction at age nine were predicted by perceived security of the relationship with father at age seven. Furthermore, shared positive emotions during child-peer interaction at age nine were predicted by perceived security of both parental relationships at age seven, and also by positiveness and openness of self-representation at age seven. These results partly confirmed our expectations.

6.2 General conclusion

The aim of this thesis is to increase our understanding and knowledge of the relation between children's two social worlds, that of parents and that of peers. Central questions presented in this thesis were a) whether child-parent and child-peer interactions are similar or different on several observed characteristics, b) whether children's internal working models of the self and of the relationship with others [i.e., self-representation and perceived security of the relationship with parents] are related, and c) whether children's perceived security of the relationship with parents as well as children's self-representation are reflected in children's interactions with parents and peers.

The four empirical studies of this thesis all present different aspects of answers to this question. To summarize our results, in Table 6.1 the main findings are presented. A general conclusion might be that positive relations between perceived security of the relationship with parents, self-representation, and observed characteristics of child-parent and child-peer play were found. It might be concluded that children's perceptions of the relationship with parents are mainly related to observed characteristics of child-parent interaction, and not to child-peer interaction. However, there is one exception for shared positive emotions during child-parent and child-peer interaction which could both be predicted by perceptions of the child-mother and child-father relationship. With respect to self-representations of the child, these were also mainly related to the same observed characteristic of child-parent and child-peer interaction, that is shared positive emotions.

Table 6.1
Summary of key findings of the empirical studies

Chapter 2	Child-parent and child-peer interactions differed on several observed characteristics: during child-peer interaction more shared positive emotions, total control, balance of control, simultaneous play, and discord. More mutual responsiveness was shown during child-parent interaction. No consistency was found between dyads with the same target child.
Chapter 2	Some interaction effects of peer preference and context on mutual responsiveness, but no main effect of peer preferences on child-parent and child-peer interaction.
Chapter 3	Perceived security and positiveness and openness of self-representation at age seven are positively related. At age nine, perceived security is positively related to global self-worth, physical appearance and behavioral attitude.
Chapter 3	Cognitive competence and perceived security of the relationship with mother were moderately stable between ages seven and nine.
Chapter 3	Self-representation at age nine is predicted by perceived security of relationship with parents at age seven.
Chapter 4	Positiveness at age seven is related to perceived security of mother ánd father.
Chapter 4	Physical appearance and global self-worth at age nine are predicted by perceived security of mother ánd father.
Chapter 4	Children who have two secure perceptions of the relationship with parents are more positive about the self, are more positive about their physical appearance and have a higher global self-worth than children with two insecure perceptions of the relationship with parents.
Chapter 5	Perceived security of the relationship with parents is positively related to several observed characteristics of child-parent interactions. Results at age nine were more in line with our expectations than results at age seven.

It might also be concluded that the results are not very consistent. For instance, when perceived security was related to self-representation, the contribution of the father seemed to be more important to the development of self-representation than the contribution of mother. But when perceived security is related to observed characteristics of child-parent and child-peer play, it seems as if the mother has more influence. This incongruence might be explained by the different kind of measures used. Information about perceived security and self-representation, for instance, were both provided by the child. With respect to the relation between perceived security and dyadic child-parent interactions,

mothers and fathers participated. It might have been that such a play interaction is a more well known situation for the mothers, while it might be a little awkward for the fathers to play with their child in such manner. From other studies (e.g., Lindsey & Mize, 2001) it is known that mothers are more involved in pretend play of their children, and fathers more in physical play.

6.3 Strengths of this thesis

The studies presented in this thesis have contributed to a more profound understanding of the relation between perceived security, self-representation, and observed characteristics of child-parent and child-peer play interactions in middle childhood. Some strengths regarding these studies are worth mentioning. Firstly, data were collected at ages seven and nine at the same children. Therefore, it was possible to perform cross-sectional as well as longitudinal analyses. In most former studies, only cross-sectional analyses could be performed (e.g., Verschueren & Marcoen, 1999; Easterbrooks & Abales, 2001). With respect to the longitudinal analyses it is important to note that some hierarchical regression analyses were performed in both directions, that is, it was analyzed whether concept A at age nine was predicted by concept B at age seven, but in a separate analysis the reverse question, whether concept B at age nine was predicted by concept A at age seven, was also analyzed. Therefore, conclusions were possible about the causality of relations.

Secondly, in most studies relating perceived security or child-parent interaction, only data of the mother are assessed (Cassidy, 1988; Verschueren, Marcoen, & Schoefs, 1996). In the present study, perceived security of the father as well as observed characteristics of child-father interaction have been assessed. In this way, it is possible to determine the contribution of both parents in the development of children. We found a unique effect of perceived security of the child-father relationship on positiveness of the self at age seven. This refers to an even more important contribution of the child-father relationship to the development of the self, than the child-mother relationship.

Thirdly, the participants in the studies of this thesis are in general older than participants in comparable studies (e.g., Black and Logan, 1995; Verschueren & Marcoen, 1999). Therefore, this thesis contributes to a further understanding of the development of the connection between the two social worlds of children. In chapter 5, for instance, it was found that the results at age nine were more consistent and in line with our expectations than the results at age seven. It might be that relations of children at an older age are more crystallized out.

Fourthly, there are few studies that have focused in such a detailed way on observations of child-parent and child-peer interactions. Most studies do not use observation at all, or when observations are obtained, ratings are given to assess child-parent interaction. We think that scoring observations in detail, in this case every ten

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seconds, could give more information. When a restricted range of ratings is used, the chance of less variance is greater.

The last strength of the present thesis we would like to mention is the assessment of both global and domain-specific self-representation. In the literature, a discussion is going on about the age at which children are able to reveal a global self-representation. In our point of view this discussion is still going on. Some researchers like Harter (1999; 2003) feel that children under the age of eight are not able to reveal a global self-representation. Other researchers, like Verschueren and Marcoen (1999), Ghadeyne et al. (2000) and Cassidy (1988) think children under the age of eight are able to reveal a global self-representation, provided that age-appropriate measures are used. In the present study, we have found indications that children under the age of eight are able to reveal a global self-representation, if this is assessed by the use of a Hand Puppet Interview. For instance, positive relations were found in chapter 3 between perceived security of the relationship with parents and positiveness and openness of self-representation assessed by the Puppet Interview at age seven.

6.4 Limitations of this thesis and recommendations for future research

Besides the strengths of this thesis, also some limitations can be mentioned. In relation to these limitations, suggestions for future research will be given. The first limitation of several studies presented in this thesis is the necessary change of instruments to measure self-representation and perceived security of the relationship with parents between ages seven and nine. Most of the (playful) instruments we have used at age seven were not suitable to use at age nine. For instance, we had to replace the Attachment Doll Story Completion Task by a self-report measure (the KSS). Although we used appropriate equivalents at age nine which measured the same concepts, this might be an explanation for the low stability of the self-representation and the perceived security of the relationship with parents. Our associations might have been stronger if we could have used the same measures at ages seven and nine. In judging the low stability, it is important to keep in mind the difference between homotypic and heterotypic continuity (see Kagan, 1971). Homotypic continuity refers to the continuity of similar behaviors over time, whereas heterotypic continuity refers to the continuity of an underlying trait, which might change in expression over time. In other words, in the present study, differences in the expression of perceived security of the relationship with parents, or in self-representation, resulting in a small stability, are not in contradiction with possible continuity of the underlying traits. Another explanation of the low correlations might be the large variability in perceptions of children (e.g., De Weerth & Van Geert, 2002). In other words, it could be that children are internally inconsistent in their perceptions of the relationship with parents and in their self-representation. Therefore, it could be that children vary in their perceptions even in a short period of time, which could explain low

correlations. For future research, it would be a challenge to develop measures that are appropriate for both ages. In that way, instability may be explained by variability in the participants and not by the use of different measures.

Another limitation is the small sample size. In some studies analyses were performed on about 64 children. In chapter 2, the sample size even dropped to 55, because we had to find a peer play partner for each child, fitting our criteria. This small sample size makes it more difficult to find significant relations between our concepts. It might be that relations between concepts are found when the sample is enlarged. Furthermore, because of large individual variance, relations between concepts are more difficult to find. Replication research with more participants is recommended.

The criteria for choosing the peer play partner is another limitation of this thesis. The criteria were that the same-gender peer had an average sociometric status and was neither 'very good' nor 'not very good' friends with the subject. These criteria were chosen, because we were interested in child-peer interaction with a 'neutral' child. It might have been that when children would have played with their best friends, other results would have been found. For instance, the differences between child-parent and child-peer play interaction could have been smaller. In future studies it might be relevant to involve both child-parent interactions as well as interactions with a peer ánd a best friend to find out whether these social contexts differ, in the same way as in our studies.

6.5 Conclusion

A final conclusion is that positive relations between perceived security of the relationship with parents, self-representation, and dyadic child-parent and child-peer interactions exist. However, the effect sizes are not very big, meaning that only a small part of the variance is explained. Nevertheless, the low to moderate effect sizes we found are in line with other studies. Schneider, Atkinson, and Tardif (2001), for instance, found an effect size of .20 in their meta-analysis on the relations between attachment (i.e., perceived security) and peer acceptance.

In sum, in chapter 1, we described how we took attachment theory and social learning theory as the theoretical basis of the studies presented in this thesis. In these theoretical perspectives it is assumed that the two social worlds of children are related (either because they both reflect aspects of a child's internal working models or because children model their parent behavior in their peer interactions). However, given the low effect sizes found in the studies presented in this thesis, as well as in other studies such as Schneider et al.'s (2001), it might be suspected that these worlds are more separate than is thought in first instance (see also Harris, 1995; Hinde et al., 1983). An overall conclusion of this thesis therefore might be that the relations between children's family and peer context remain a complicated matter. Despite that, we hope our studies contributed a little bit to a better understanding of these two worlds of childhood.

References

References

Asher, S.R., Singleton, L.C., Tinsley, B.R., & Hymel, S. (1979). A reliable sociometric measure for preschool children. *Developmental Psychology, 15*, 443-444.

Baldwin, M.W. (1992). Relational schemas and the processing of social information. *Psychological Bulletin, 112*, 461-484.

Bandura (1977). *Social learning theory.* Englewood Cliffs, New Jersey: Prentice-Hall.

Bar-Haim, Y., Sutton, D.B., Fox, N.A., & Marvin, R.S. (2000). Stability and change of attachment at 14, 24, and 58 moths of age: Behavior, representation, and life events. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 41*, 381-388.

Black, B., & Logan, A. (1995). Links between communication patterns in mother-child, father-child, and child-peer interactions and children's social status. *Child Development, 66,* 255-271.

Bleichrodt, N., Drenth, P.J.D., Zaal, J.N., & Resing, W.C.M. (1984). *Revisie Amsterdamse Kinder Intelligentie Test. Instructie, normen, psychometrische gegevens.* [Revision Amsterdam intelligence Test for Children. Instructions, norms, and psychometric data]. Lisse: Swets & Zeitlinger.

Bohlin, G., Hagekull, B., & Rydell, A.M. (2000). Attachment and social functioning: A longitudinal study from infancy to middle childhood. *Social Development, 9*, 24-39.

Boyum, L., & Parke, R.D. (1995). The role of family emotional expressiveness in the development of children's social competence. *Journal of Marriage and the Family, 57*, 593-608.

Bowlby, J. (1969). *Attachment and Loss: Vol. 1. Attachment.* London: Penguin Books.

Bowlby, J. (1973). *Attachment and Loss: Vol. 2. Separation, anxiety, and anger.* London: Penguin Books.

Bowlby, J. (1982). Attachment and Loss: Retrospect and prospect. *American Journal of Orthopsychiatry, 52,* 644-678.

Bretherton, I. (1987). New perspectives on attachment relations: Security, communication, and internal working models. In J.D. Osofsky (Ed.), *Handbook of infant development* (pp. 1061-1100). Oxford: John Wiley and Sons.

Bretherton, I. (1991). Pouring old wine into new bottles. The social self as internal working model. In M.R. Gunnar & L.A. Sroufe (Eds.), Self-processes and development. *Minnesota Symposium on Child Psychology, 23*, 1-41.

Bretherton, I. & Munholland, K.A. (1999). Internal working models in attachment relationships: A construct revisited. In J. Cassidy & P.R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 89-111). New York: Guilford Press.

Bretherton, I., Ridgeway, D., & Cassidy, J. (1990). Assessing internal working models of the attachment relationship: An attachment story completion task for 3-year-olds. In M.T. Greenberg, D. Cicchetti, & E.M. Cummings (Eds.), *Attachment in the preschool years: Theory, research, and intervention* (pp. 273-308). Chicago: University of Chicago Press.

Cassidy, J. (1988). Child-mother attachment and the self in six-year-olds. *Child Development, 59*, 121-134.

Cassidy, J. (1990). Theoretical and methodological considerations in the study of attachment and the self in young children. In M.T. Greenberg, D. Cicchetti, & E.M. Cummings (Eds.), *Attachment in the preschool years: Theory, research, and intervention* (pp. 87-119). Chicago: University of Chicago Press.

Cassidy, J., Berlin, L., & Belsky, J. (1990, April). *Attachment organization at age 3: Antecedents and concurrent correlates.* Paper presented at the International Conference on Infant Studies, Montreal.

Cassidy, J., Parke, R.D., Butkovsky, L., & Braungart, J.M. (1992). Family-peer connections: The roles of emotional expressiveness within the family and children's understanding of emotions. *Child Development, 63,* 603-618.

Clark, S.E., & Symons, D.K. (2000). A longitudinal study of Q-sort assessment security and self-processes at age 5. *Infant and Child Development, 9,* 91-104.

Coopersmith, S. (1967). *The antecedents of self-esteem.* San Francisco: Friedman and company.

De Koeyer, E.L. (1998). *Observatiesysteem voor het coderen van wederkerigheid, controle, emoties en spelactiviteit in ouder-kind interactie in een vrije spelsituatie* [Observation system for coding mutual responsiveness, control, emotions, and play activity in parent-child interactions in a free play situation]. Unpublished manuscript. Utrecht University.

De Koeyer, E.L. (2001). *Peer acceptance, parent-child fantasy play interactions, and subjective experience of the self-in-relation: A study of 4- to 5-year-old children.* Doctoral dissertation, Utrecht University, Utrecht, The Netherlands. Veenendaal: Universal Press.

De Weerth, C., & Van Geert, P.L.C. (2002). Changing patterns of infant behavior and mother-infant interaction: Intra- and interindividual variability. *Infant Behavior and Development, 24,* 347-371.

De Wolff, M. & Van Ijzendoorn, M.H. (1997). Sensitivity and attachment: A meta-analysis on parental antecedents of infant attachment. *Child Development, 68,* 571-591.

Easterbrooks, M.A., & Abeles, R. (2000). Windows to the self in 8-year-olds: Bridges to attachment representation and behavioral adjustment. *Attachment and Human Development, 2,* 85-106.

Easterbrooks, M.A., & Lamb, M.E. (1979). The relationship between quality of infant-mother attachment and infant competence in initial encounters with peers. *Child Development, 50,* 380-387.

Erickson, M.F., Sroufe, L.A., & Egeland, B. (1985). The relationship between quality of attachment and behavior problems in preschool in a high-risk sample. *Monographs of the Society for Research in Child Development, 50,* 147-166.

Fagot, B.I., & Kavanagh, K. (1990). The prediction of antisocial behavior from avoidant attachment classification. *Child Development, 61*, 864-873.

Fox, N.A., Kimmerly, N.L., & Schafer, W.D. (1991). Attachment to mother and father: A meta-analysis. *Child Development, 62*, 210-225.

Franz, D.Z., & Gross, A.M. (2001). Child sociometric status and parent behaviors: An observational study. *Behavior Modification, 25,* 3-20.

Gadeyne, E., Ghesquiere, P., Onghena, P., & Verschueren, K. (2000). Meten van zelfconcept bij jonge kinderen. [Measuring self-concept in young children]. *Kind en Adolescent, 21,* 125-143.

Gardner, F. (2000). Methodological issues in the direct observation of parent-child interaction: Do observational findings reflect the natural behavior of participants? *Clinical Child and Family Psychology Review, 3*, 185-198.

Gerrits, M.H., Goudena, P.P., & Van Aken, M.A.G. (in press). Child-parent and child-peer interaction: Observational similarities and differences at age seven. *Infant and Child Development*.

Gerrits, M.H., Van den Oord, E.J.C.G., & Voogt, R. (2001). An evaluation of nonresponse bias in peer, self, and teacher ratings of children's psychological adjustment. *Journal of Child Psychology, Psychiatry and Allied Disciplines, 42,* 593-602.

Goudena, P.P. (1991). Relaties van kinderen met ouders en met leeftijdgenoten. In J.R.M. Gerris (Ed.), *Ouderschap en ouderlijk functioneren* (pp. 157-169). Amsterdam/Lisse: Swets en Zeitlinger.

Goudena, P.P., & Gerrits, M.H. (2003). De relatie tussen ouder-kind en kind-kindinteractie. *Nederlands Tijdschrift voor de Psychologie, 58*, 158-167.

Goudena, P.P., & Vermeulen, M. (1997). Mother-child fantasy play and social status of young children. *Early Child Development and Care, 129*, 95-103.

Granot, D., & Mayseles, O. (2001). Attachment security and adjustment to school in middle childhood. *International Journal of Behavioral Development, 25,* 530-541.

Grossmann, K., Grossmann, K.E., Fremmer-Bombik, E., Kindler, H., Scheuerer-Englisch, H., & Zimmermann, P. (2002). The uniqueness of the child-father attachment relationship: Fathers' sensitive and challenging play as a pivotal variable in a 16-year longitudinal study. *Social Development, 11*, 307-331.

Hansburg, H. G. (1980). *Adolescent separation anxiety: A method for the study of adolescent separation problems*. New York: Krieger.

Harris, J. (1995). Where is the child's environment? A group socialization theory of development. *Psychological Review, 102,* 458-489.

Harrist, A.W., Pettit, G.S., Dodge, K.D., & Bates, J.E. (1994). Dyadic synchrony in mother-child interaction. *Family Relations, 43,* 417-424.

Harrist, A.W. & Waugh, R.M. (2002). Dyadic synchrony: Its structure and function in children's development. *Developmental Review, 22*, 555-592.

Harter, S. (1985). *Manual for the self-representation profile for children*. Denver, CO: University of Denver.

Harter, S. (1999). *The construction of the self: A developmental perspective*. New York: Guilford Press.

Harter, S. (2003). The development of self-representations during childhood and adolescence. In J.P. Tagney & M.R. Leary Eds.), *Handbook of self and identity* (pp. 610-642). New York: Guilford Press.

Harter, S., & Pike, R. (1984). The pictorial scale of Perceived Competence and Social Acceptance for Young Children. *Child Development, 55*, 1969-1982.

Hartup, W.W. (1989). Social relationships and their developmental significance. *American Psychologist, 44,* 120-126.

Hinde, R.A. (1979). *Towards understanding relationships*. London, UK: Academic Press.

Hinde, R.A., & Stevenson-Hinde, J. (1988). Interpersonal relationships and child development. *Annual Progress in Child Psychiatry and Child Development, 21,* 5-26.

Hinde, R.A. (1997). *Relationships. A dialectical perspective*. Hove, UK: Psychology Press

Hinde, R.A., Tamplin, A., & Barrett, J. (1993). A comparative study of relationship structure. *British Journal of Social Psychology, 32*, 191-207.

Isley, S.L., O'Neil, R., Clatfelter, D., & Parke, R.D. (1999). Parent and child expressed affect and children's social competence: Modeling direct and indirect pathways. *Developmental Psychology, 35*, 547-560.

Kerns, K.A., Klepac, L., & Cole, A. (1996). Peer relationships and preadolescents' perceptions of security in the child-mother relationship. *Developmental Psychology, 32*, 457-466.

Kerns, K.A., Tomich, P.L., Aspelmeier, J.E., & Contreras, J.M. (2000). Attachment-based assessments of parent-child relationships in middle childhood. *Developmental Psychology, 36,* 614-626.

Klagsbrun, M. & Bowlby, J. (1976). Responses to separation from parents: A clinical test for young children. *British Journal of Projective Psychology and Personality Studies, 21,* 7-27.

Kuczynski, L. (1997, April). Power asymmetry revisited: Power in he parent-child relationship. In D.B. Bugental (Chair), *Power and negotiation in parent-child relationships.* Paper symposium conducted at the biennial meeting of the Society for Research in Child Development, Washington DC.

Ladd, G.W. (1992). Themes and theories: Perspectives on processess in family-peer relationships. In R.D. Parke, & G.W. Ladd (1992*). Family-peer relationships: Modes of linkage* (pp. 3-34) . Hillsdale, NJ: Lawrence Erlbaum Associates.

Ladd, G.W. (1999). Toward a further understanding of peer relationships and their contributions to child development. In: T.J. Berndt & G.W. Ladd (Eds.), *Peer relationships in child development* (pp. 1-11). New York: John Wiley & Sons.

Lamb, M.E. (1997). *The role of the father in child development.* New York: Wiley.

Lamb, M.E. & Nash, A. (1989). Infant-mother attachment, sociability, and peer competence. In T.J. Berndt & G.W. Ladd (Eds.), *Peer relationships in child development* (pp. 219-245). Oxford: John Wiley and Sons.

Leve, L.D., & Fagot, B.I. (1997). Prediction of positive peer relations from observed parent-child interactions. *Social Development, 6*, 254-269.

Lieberman, M., Doyle, A., & Markiewicz, D. (1999). Developmental patterns in security of attachment to mother and father in late childhood and early adolescence: Associations with peer relations. *Child Development, 70*, 202-213.

Lindsey, E.W., & Mize, J. (2000). Parent-child physical and pretense play: Links to children's social competence. *Merrill-Palmer Quarterly, 46*, 565-591.

Lindsey, E.W., & Mize, J. (2001). Contextual differences in parent-child play: Implications for children's gender role development. *Sex Roles, 44*, 155-176.

Lindsey, E.W., Mize, J., & Pettit, G.S. (1997). Mutuality in parent-child play: Consequences for children's peer competence. *Journal of Social and Personal Relationships, 14*, 523-538.

Maccoby, E.E. (1990). Gender and relationships: A developmental account. *American Psychologist, 45,* 513-520.

MacDonald, K. & Parke, R.D. (1984). Bridging the gap: Parent-child play interaction and peer interactive competence. *Child Development, 55*, 1265-1277.

Maier, M.A., Bernier, A., Pekrun, R., Zimmermann, P., & Grossmann, K.E. (2004). Attachment working models as unconscious structures : An experimental test. *International Journal of Behavioral Development, 28*, 180-189.

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.

Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood and adulthood: A move to the level of representation. In I. Bretheron & E. Waters (Eds.),

Growing points in attachment theory and research (pp. 66-106). Monographs of the society for research in child development, Vol. 50.

McDowell, D.J., & Parke, R.D. (2000). Differential knowledge of display rules for positive and negative emotions: Influences from parents, influences on peers. *Social Development, 9,* 415-432.

Mize, J., & Pettit, G.S. (1997). Mothers' social coaching, mother-child relationship style, and children's peer competence: Is the medium the message? *Child development, 68,* 312-332.

Moore, L.A., Maclean, D.J., & Keenan, T.P. (2000). Parallels between dyadic interactions: Parent-child and child-peer. In C. Violato, E. Oddone-Paolucci, & M. Genuis (Eds.), *The changing family and child development* (pp. 209-226. Aldershot: Ashgate.

Noldus Information Technology (1997). *The Observer 3.0 for Windows*.

Parke, R.D. (2000). Father involvement: A developmental psychological perspective. *Marriage and Family Review, 29*, 43-58.

Parke, R.D. (2002). Fathers and families. In M.H. Bornstein (Ed). *Handbook of parenting: Vol. 3: Being and becoming a parent* (2nd edition)(pp. 27-73). Mahwah, NJ, US: Lawrence Erlbaum Associates.

Parke, R.D., & Ladd, G.W. (1992). *Family-peer relationships: Modes of linkage*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Parke, R.D., & O'Neil, R. (1999). Social relationships across contexts: Family-peer-linkages. In W.A. Collins & B. Laursen (Eds.), *Relationships as Developmental Contexts: The Minnesota Symposia on Child Psychology,* (pp. 211-239), Hillsdale, N.Y., Erlbaum.

Pettit, G.S., Brown, E.G., Mize, J., & Lindsey, E.W. (1998). Mothers' and fathers' socializing behaviours in three contexts: Links with children's peer competence. *Merrill-Palmer Quarterly, 44,* 173-193.

Pettit, G.S., & Clawson, M.A. (1996). Pathways to interpersonal competence: Parenting and children's peer relations. In: N. Vanzetti & S. Duck (Eds.), *A lifetime of relationships* (pp. 125-154). Pacific Grove, CA: Brooks/Cole Publishing Co.

Pettit, G.S., & Lollis, S.P. (1997). Reciprocity and bidirectionality in parent-child relationships: New approaches to the study of enduring issues. *Journal of Social and Personal Relationships, 14,* 435-440.

Piaget, J. (1932). *The moral judgement of the child*. London: Routledge & Kegan Paul.

Piaget, J. (1960). *The child's conception of the world*. Oxford: Littlefield.

Putallaz, M., & Hefflin, A.H. (1990). Parent-child interaction. In: S.R. Asher & J.D. Coie (Eds.), *Peer rejection in childhood* (pp. 189-216). New York: Cambridge University Press.

Resnick, G. (1993). *Manual for the administration, coding, and interpretation of the Separation Anxiety Test for 11- to 14-year-olds.* Rockville, MD: Westat.

Rubin, K.H., Bukowski, W., & Parker, J.G. (1998). Peer interactions, relationships, and groups. In Damon, W. (Ed.), *Handbook of Child Psychology* (pp. 619-700). New York: Wiley.

Rubin, K.H., & Coplan, R.J. (1992). Peer relationships in childhood. In M.H. Bornstein & M.E. Lamb (Eds.), *Developmental psychology: An advanced textbook* (3rd ed., pp. 519-578). Hillsdale, NJ: Erlbaum.

Russell, A. , Mize, J., & Bissaker,K. (2002). Parent-child relationships. In P.K. Smith & C.H. Hart (Eds.), *Blackwell handbook of childhood social development. Blackwell handbooks of developmental psychology* (pp. 205-222). Malden, MA, US: Blackwell Publishers.

Russell, A. , Pettit, G.S., & Mize, J. (1998). Horizontal qualities in parent-child relationships: Parallels with and possible consequences for children's peer relationships. *Developmental Review, 18,* 313-352.

Schaffer, R. (1998). *Social Development.* Oxford: Blackwell.

Schneider, B.H. (1993). *Children's social competence in context: The contributions of family, school and culture.* Elmsford: Pergamon Press.

Schneider, B.H., Atkinson, L. & Tardif, C. (2001). Child-parent attachment and children's peer relations: A quantitative review. *Developmental Psychology, 37,* 86-100.

Scholte, R.H.J., Van Aken, M.A.G., & Van Lieshout, C.F.M. (1997). Adolescent personality factors in self-ratings and peer nominations and their prediction of peer acceptance and peer rejection. *Journal of Personality Assessment, 69*, 534-554.

Shouldice, A.E., & Stevenson-Hinde, J. (1992). Coping with security distress: The Separation Anxiety Test and attachment classification at 4.5 years. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 33,* 331-348.

Slough, N.M. & Greenberg, M.T. (1990). Five-year-olds' representations of separation from parents: Responses from the perspective of self and other. *New Directions for Child Development, 48,* 67-84.

Sroufe, L.A. (1979). The coherence of individual development: Early care, attachment, and subsequent developmental issues. *American Psychologist, 34*, 834-841.

Steinbusch, J. & Streppel, M. (1985). *Waargenomen Kompetentie en Sociale Akseptatie bij kleuters. Een onderzoek naar de psychometrische kwaliteiten en de normering van de bewerkte versie van de Pictorial Scale of Perceived Competence and Social Acceptance for Young Children* (S. Harter and R.G. Pike) [Perceived competence and social acceptance in kindergartners. A study of the psychometric qualities and norms of the adapted version of the P.S.P.C.S.A. for young

children]. Unpublished manuscript. Utrecht University, Utrecht, The Netherlands..

Suess, G.J., Grossmann, K.E., & Sroufe, A. (1992). Effects of infant attachment to mother and father on quality of adaptation in preschool: From dyadic to individual organization of self. *International Journal of Behavioral Development, 15*, 43-65.

Swennenhuis, P.H. & Veerman, J.W. (1995). *Nederlandstalige Harterschalen. Een inventarisatie.* [Dutch versions of the Harter scales: An inventory.] Internal report, Paedologisch Instituut, Duivendrecht.

Van Aken, M.A.G. (2003). Relaties van kinderen met leeftijdgenoten. *Nederlands Tijdschrift voor de Psychologie, 58*, 133-140.

Van Aken, M.A.G. (2004). Het samenspel van persoon en omgeving in de ontwikkeling van jonge kinderen. In G.M. van der Aalsvoort (Ed.), *Een kind, een plan*. Leuven: Acco.

Van Aken, M.A.G., & Asendorf, J.B. (1997). Support by parents, classmates, friends and siblings in preadolescence: Covariation and compensation across relationships. *Journal of Social and Personal Relationships, 14*, 79-93.

Vandell, D.L. (1980). Sociability with peer and mother during the first year. *Developmental Psychology, 16,* 355-361.

Van den Bergh, B.R.H., & Marcoen, A. (1999). Harter's Self-Perception Profile for Children: Factor structure, reliability, and convergent validity in a Dutch-speaking Belgian sample of fourth, fifth and sixth graders. *Psychologica Belgica, 39*, 29-47.

Van den Bergh, B.R.H., & Van Ranst, N. (1998). Self-concept in children: Equivalence of measurement and structure across gender and grade of Harter's Self-Perception Profile for Children. *Journal of Personality Assessment, 70,* 564-582.

Van den Oord, E.J.C.G., & Rispens, J. (1999). Differences between school classes in preschoolers' psychosocial adjustment: Evidence for the importance of children's interpersonal relations. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 40*, 417-430.

Van den Oord, E.J.C.G., Rispens, J., Goudena, P.P., & Vermande, M. (2000). Some developmental implications of structural aspects of preschoolers' relations with classmates. *Journal of Applied Developmental Psychology, 21*, 619-639.

Veerman, J.W., Straathof, M.A.E., Treffers, Ph.D.A., Van den Bergh, B.R.H., & Ten Brink, L.T. (1997). *Competentiebelevingsschaal voor kinderen (handleiding).* Lisse: Swets & Zeitlinger.

Veerman, J.W., Ten Brink, L.T., Straathof, M.A.E., & Treffers, Ph.D.A. (1996). Measuring children's self-concept with a Dutch version of the "Self-Perception Profile for Children": Factorial validity and invariance across a nonclinic and a clinic group. *Journal of Personality Assessment, 67*, 142-154.

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Vékony, A., Van Aggelen-Gerrits, M., Goudena, P., & Van Aken, M. (2004). De relatie tussen zelfwaardering en gehechtheid aan ouders bij zevenjarige kinderen. *Pedagogiek, 24*, 124-137.

Verschueren, K., Buijck, P., & Marcoen, A. (2001). Self-representations and socioemotional competence in young children: A 3-year longitudinal study. *Developmental Psychology, 37,* 126-134.

Verschueren, K., & Marcoen, A. (1994). *Test met gehechtheidsverhalen. Classificatiesysteem. Aanpassing van de Doll Stories Completion Task van Cassidy (1986) voorgebruik bij 4,5- tot 6-jarigen* [Adaptation of the Doll Stories Completion Task (Cassidy) for use with 4.5- to 6-year-olds]. Unpublished manual, Centre for Developmental Psychology, University of Louvain, Belgium.

Verschueren, K., & Marcoen, A. (1999). Representation of self and socio-emotional competence in kindergartners: Differential and combined effects of attachment to mother and to father. *Child Development, 70*, 183-201.

Verschueren, K. & Marcoen, A. (2002). Perceptions of self and relationship with parents in aggressive and nonaggressive rejected children. *Journal of School Psychology, 40*, 501-522.

Verschueren, K., Marcoen, A., & Schoefs, V. (1996). The internal working model of the self, attachment, and competence in five-year-olds. *Child Development, 67*, 2493-2511.

Verschueren, K., Schoefs, V., & Marcoen, A. (1994). *Handpop Interview. Instructies en codering. Aanpassing van het Puppet Interview van Cassidy (1986)*[Adaptation of the Puppet Interview (Cassidy, 1986); Instructions and coding]. Unpublished manual, Center for Developmental Psychology, University of Louvain, Belgium.

Volling, B.L., MacKinnon-Lewis, C., Rabiner, D., & Baradaran, L.P. (1993). Children's social competence and sociometric status: Further exploration of aggression, social withdrawal, and peer rejection. *Development and Psychopathology, 5*, 459-483.

Youngblade, L.M. ,& Belsky, J. (1992). Parent-child antecedents of 5-year-olds' close friendships: A longitudinal analysis. *Developmental Psychology, 28*, 700-713.

Youngblade, L.M., & Belsky, J. (1995). From family to friend: Predicting positive dyadic interaction with a close friend at 5 years of age from early parent-child relations. In: S. Shulman 9Ed.), Close relationships and socioemotional development (pp. 35-61). Westport: Ablex Publishing.

Appendix A
Coding system of child-parent and child-peer interactions

Appendix A

Coding system of child-parent and child-peer interactions.

At ages seven and nine, seven minutes of the free play task (starting after 3 minutes) were coded, using a computerized observation system (The Observer 3.0 for Windows, Noldus Information Technology, 1997). At age seven, 4 minutes of the dominoes task were coded. The coding system for observation of the interactions was based on the coding system of De Koeyer (1998; 2001). Some of the characteristics were coded per individual (i.e., control, emotional expressiveness and play behavior), whereas other characteristics were scored per dyad because of the dyadic character of the feature (e.g., a discord only exists when one partner opposes an action or assertion of the other partner. When the action or assertion is ignored, there is no discord). Every characteristic was coded independent of the other characteristics by several trained students. First we describe the individually scored characteristics, followed by the dyadic characteristics.

Individually coded characteristics.

Emotional expressions. Positive and negative emotional expressions with a duration of at least 1 second were coded in real time, using a 5-point scale: Very positive, positive, neutral, negative and very negative. Negative and very negative emotions were rarely expressed, and therefore were not included in the analyses. First the child was coded, followed by the parent or peer. Child-parent and child-peer interactions were coded separately by two assistants.

Control behavior. Every 10-second episode the level of control behavior of child and parent/peer was coded, using 5 categories: No conversation (there is not any communicative expression or reaction pointed at the other), social exchange (talking or nonverbally interacting without any attempt to control the behavior of the partner), gentle control (one individual is trying to influence the other, but without the use of power, for example by using suggestions), firm control (one individual is trying to influence the other by using a demand, but without the use of negative emotions), or negative control (behavior of the other individual is influenced by a demand and negative emotions are shown). Child-parent and child-peer interactions were coded separately by two assistants.

Play behavior. Fantasy play (objects, characteristics of the environment, or identity are treated in a non-literal way), other play (all play that is not pretend play), and no play (other actions that can not be categorized as pretend play or other play) were coded in real time. Child-parent and child-peer interactions were coded separately by two assistants.

For further analyses, proportion measures were calculated for every individually coded characteristic, by dividing the total number of 10-second episodes in which a certain behavior occurred by the total number of episodes that were coded.

Dyadically coded characteristics

Mutuality. Every 10-second episode the level of mutuality between child and parent or peer was coded, using a 5-point scale: Totally mutual (child and parent/peer are exchanging at least 3 subsequent verbal turns and share the same focus of attention), mostly mutual, partly mutual, mostly not mutual and totally not mutual (child and parent/peer are not exchanging any relevant verbal turns and are not sharing the same focus of attention). Child-parent and child-peer interactions were coded separately by two assistants. Proportion measures were calculated by dividing the total number of 10-second episodes in which a certain behavior occurred by the total number of episodes that were coded. For further analyses, we have used the sum of proportions of totally mutual and mostly mutual, resulting in the characteristic 'mutual responsiveness' which consists of sharing at least 2 successive verbal turns, and sharing of the same nonverbal focus of attention.

Discord. Discord is coded real time per dyad, into three nominal categories: neutral (i.e., discord caused by actions or verbal expressions without bad intentions), instrumental (i.e., discord caused by disagreement of the possession of objects or space), or personal (i.e., discord caused by disagreement of play or other personal activities). Because of infrequent incidence of neutral and instrumental discord, the total amount of discord (i.e., the sum of frequencies of neutral, instrumental and personal discord) is used in further analyses. Child-parent and child-peer interactions were coded separately by two assistants.

Combined dyadic categories

The free play task was coded at age seven for mutuality, emotional expressions, control behaviors, and play behavior, and at age nine for mutuality, emotional expression and control behavior. The dominoes task was coded at age seven for emotional expressions, control behaviors, and conflict. For coding the videotaped interactions the above mentioned individual and dyadic characteristics were used. For further analyses it was decided to compute also dyadic measures on the basis of the individually scored characteristics, because then the dyad could be used as the level of analysis rather than the individual level. The dyadic measures computed on the basis of the individual scores are (De Koeyer, 2001):

Shared positive emotions consist of smiling and laughter for 2 seconds or more by both partners in the same 10-second episode.

Total control consists of the sum of the proportions of gentle and firm control of both partners.

Balance of control consists of the proportion of total control (gentle and firm control) of the child divided by the sum of the proportions of total control of both partners. That is, a balance of .30 means that the child exerted 30% of the control attempts.

Simultaneous play consists of every 10-second episode in which both partners play at least 3 seconds of fantasy play or 5 or more seconds of other play.

Samenvatting (Summary in Dutch)

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In dit proefschrift staan de volgende vragen centraal: a) of ouder-kind en kind-kind interacties hetzelfde zijn of van elkaar verschillen, b) of de perceptie die kinderen hebben van de relatie met hun ouders samenhangt met hun zelfrepresentatie en c) of de perceptie die kinderen hebben van de relatie met hun ouders, alsmede hun zelfrepresentatie, gerelateerd zijn aan geobserveerde kenmerken van ouder-kind en kind-kindinteracties. Om dat te onderzoeken zijn dezelfde kinderen geïnterviewd en gefilmd op zeven- en negenjarige leeftijd. Het doel van dit proefschrift was om inzicht te krijgen in de relatie tussen de twee sociale werelden van kinderen, die van het gezin en die van leeftijdgenoten.

In hoofdstuk 1 worden de theoretische uitgangspunten voor dit onderzoek beschreven. Tevens worden de concepten uitgelegd en worden de relaties die worden onderzocht geschetst. Een kort overzicht wordt gegeven van eerdere literatuur die betrekking heeft op de relaties die onderzocht gaan worden. In de verschillende studies in dit proefschrift is gebruik gemaakt van gegevens van 64 kinderen, die op zeven- en negenjarige leeftijd zijn gefilmd en geïnterviewd. In hoofdstuk 1 wordt tevens een overzicht gegeven van de gebruikte meetinstrumenten.

In hoofdstuk 2 is onderzocht of ouder-kind en kind-kind interacties gelijk waren of verschilden met betrekking tot de geobserveerde kenmerken. Daarvoor zijn ouder-kind en kind-kind interacties van zevenjarige kinderen respectievelijk thuis en op school gefilmd, tijdens een 10 minuten durende vrije spelsituatie en een 4 minuten durende dominotaak. De interacties zijn vervolgens geobserveerd en gescoord op gedeelde positieve emoties, totale controle, balans in controle, gelijktijdig spel, wederkerigheid en onenigheid. Duidelijke verschillen in de gemiddelde proporties van moeder-kind en vader-kind interactie aan de ene kant en kind-kind interacties aan de andere kant werden gevonden. Tevens zijn de moeder-kind en vader-kind interacties met elkaar vergeleken. Daartussen werden geen verschillen gevonden, behalve voor gedeelde positieve emoties die meer getoond werden tijdens de dominotaak gespeeld door moeder en kind. Met andere woorden, de interacties die kinderen met hun moeder en vader hebben verschillen niet van elkaar op de kenmerken die in dit hoofdstuk zijn onderzocht. In hoofdstuk 2 hebben we ook dyades met hetzelfde kind (dus met moeder, vader en een leeftijdgenoot) vergeleken, met de verwachting dat deze dyades op elkaar zouden lijken in de hoeveelheid getoonde aspecten. Dit bleek niet zo te zijn, er werd geen consistentie gevonden. Met andere woorden, kinderen die in een interactie met hun moeder in een bepaalde mate gedeelde positieve emoties lieten zien, lieten dit niet in dezelfde mate zien tijdens interactie met hun vader of met een peer.

In hoofdstuk 2 werd, tegen onze verwachtingen in, geen hoofdeffect gevonden van acceptatie door leeftijdgenootjes op de geobserveerde kenmerken. Of kinderen meer

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of minder geliefd waren bij hun leftijdgenoten bleek geen effect te hebben op hun interactie met ouders of leeftijdgenootje. Wel werden enkele interactie-effecten van context met acceptatie door leeftijdgenoten en van context met sekse gevonden. Het gevonden interactie-effect tussen acceptatie door leeftijdgenoten en wederkerigheid liet een patroon zien waarbij het leek dat kinderen die meer geaccepteerd worden door leeftijdgenoten ongeveer in dezelfde mate wederkerigheid lieten zien tijdens ouder-kind en kind-kind interactie, terwijl de kinderen die minder geaccepteerd werden door leeftijdgenoten, juist meer wederkerigheid tijdens de ouder-kind interactie en veel minder wederkerigheid tijdens de kind-kind interactie lieten zien. De verklaring hiervoor kan zijn dat minder geaccepteerde kinderen zich meer op hun gemak voelen tijdens interacties met hun ouders, dan tijdens interacties met leeftijdgenoten en daarom meer wederkerigheid tonen.

In de hoofdstukken 3 en 4 werd onderzocht of de perceptie die kinderen hebben van de relatie met hun ouders samenhangt met hun zelfrepresentatie. Domeinspecifieke en globale zelfrepresentatie werden gemeten tijdens interviews op school, evenals de perceptie van de relatie met ouders. Bij de domeinspecifieke zelfrepresentatie werd op zevenjarige leeftijd gekeken naar cognitieve competentie, acceptatie door leeftijdgenoten en acceptatie door moeder. Op negenjarige leeftijd werden cognitieve competentie, sociale acceptatie, fysieke verschijning, gedragshouding en globale zelfwaardering gemeten. In hoofdstuk 3 werd vooral gekeken of de perceptie van de relatie met ouders en zelfrepresentatie samenhingen op zeven- en negenjarige leeftijd. Daarnaast werd ook gekeken naar de stabiliteit van perceptie en zelfrepresentatie. Er werd gevonden dat zevenjarige kinderen die de relatie met moeder en vader als veilig en positief ervoeren, meer positief over zichzelf waren. Daarnaast waren de kinderen die de relatie met vader, maar niet met moeder, als meer positief ervaren ook meer open tijdens het interview. Op negenjarige leeftijd werden positieve verbanden gevonden tussen de perceptie van de relatie met beide ouders en fysieke verschijning, gedragshouding en globale zelfwaardering. Met betrekking tot stabiliteit werd een matige stabiliteit voor de perceptie van de relatie met moeder en voor cognitieve competentie gevonden. Er werd geen stabiliteit gevonden voor de perceptie van de relatie met vader, noch voor de andere domeinen van zelfrepresentatie.

In hoofdstuk 3 werd ook gekeken of de zelfrepresentatie op negenjarige leeftijd voorspeld kon worden vanuit de perceptie van de relatie met ouders op zevenjarige leeftijd, en vice versa. Er werd gevonden dat openheid tijdens een interview over het zelf op negenjarige leeftijd voorspeld kon worden door de veiligheid van de perceptie van de relatie met moeder en vader. Voor de omgekeerde relatie of veiligheid van de perceptie van de relatie met moeder en vader op negenjarige leeftijd voorspeld kon worden door zelfrepresentatie op zevenjarige leeftijd werd geen ondersteuning gevonden.

In hoofdstuk 4 werd meer specifiek gekeken welke bijdrage moeder en vader apart of samen leveren aan de zelfrepresentatie van het kind. Met ander woorden, er werd gekeken of de perceptie van de relatie met moeder aan dezelfde of aan andere aspecten van het zelf gerelateerd is dan de perceptie van de relatie met vader. Het bleek dat beide voorspellend waren voor hoe positief kinderen zijn over zichzelf op zevenjarige leeftijd. De perceptie van de relatie met vader bleek de belangrijkste voorspeller, niet alleen voor positiviteit, maar ook voor de openheid tijdens het interview. Op negenjarige leeftijd werden fysieke verschijning en globale zelfwaardering significant voorspeld door de perceptie van de relatie met moeder en vader.

Ook werd in hoofdstuk 4 gekeken of kinderen die positief waren over de relatie met beide ouders een positievere zelfrepresentatie hadden dan kinderen die positief waren over de relatie met de ene ouder, maar negatief over de relatie met de andere ouder, of dan kinderen die negatief waren over beide ouders. Dit bleek zo te zijn met betrekking tot hoe positief kinderen waren over zichzelf op zevenjarige leeftijd en met betrekking tot fysieke verschijning en globale zelfwaardering op negenjarige leeftijd. Deze resultaten komen overeen met de enige andere studie waarin ook gekeken is naar de (gezamenlijke) bijdrage van moeder en vader op de zelfrepresentatie van een kind. Tenslotte werd in hoofdstuk 4 gekeken of kinderen die positief blijven over de relatie met hun ouders verschillen wat betreft hun zelfrepresentatie van kinderen die veranderen in hun perceptie van de relatie met ouders (van positief naar negatief of andersom) of van kinderen die negatief blijven. Stabiliteit van de perceptie van de relatie met moeder en met vader bleek gerelateerd aan globale en domeinspecifieke zelfrepresentatie.

In hoofdstuk 5 is gekeken of de perceptie die kinderen hebben van de relatie met hun ouders, alsmede hun zelfrepresentatie, samenhangen met geobserveerde kenmerken van ouder-kind en kind-kind interactie op zeven- en negenjarige leeftijd. Er werd gevonden dat kinderen die hun de relatie met hun ouders als veilig percipiëren, verschillen van kinderen die de relatie met hun ouders als vermijdend of bizar/ ambivalent zien op balans in controle en gedeelde positieve emoties op zevenjarige leeftijd. Deze resultaten kwamen niet overeen met onze verwachtingen, aangezien we verwacht hadden dat kinderen die de relatie met hun ouders als veilig ervaren, balans in controle en meer gedeelde positieve emoties zouden laten zien. Op negenjarige leeftijd, vonden we echter resultaten die wel in de lijn der verwachting lagen: kinderen die de moeder-kind relatie als veilig zagen, toonden meer wederkerigheid en minder totale controle dan kinderen die relatie met moeder als onveilig percipieerden. Echter, voor de vader-kind en kind-kind interacties werden geen verschillen gevonden.

Met betrekking tot zelfrepresentatie werd gevonden dat kinderen die gesloten waren tijdens het interview over zelfrepresentatie, meer gedeelde emoties toonden dan kinderen die open waren. Kinderen die als positief werden geclassificeerd, toonden meer wederkerigheid en totale controle dan kinderen die als negatief werden geclassificeerd. In

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hoofdstuk 5 werden ook een aantal longitudinale verbanden onderzocht. Daaruit bleek dat gedeelde emoties tijdens vader-kindinteractie op negenjarige leeftijd voorspeld konden worden vanuit de perceptie van de relatie met vader op zevenjarige leeftijd. Ook konden gedeelde positieve emoties tijdens kind-kindinteracties op negenjarige leeftijd voorspeld worden vanuit de perceptie van de relatie met beide ouders op zeven jarige leeftijd. Deze resultaten bevestigden ten dele onze voorspellingen.

In hoofdstuk 6 werden de resultaten kort samengevat en besproken, mede in het licht van de beperkingen van het onderzoek. De belangrijkste conclusie is dat de percepties die kinderen hebben van de relatie met hun ouders, alsmede van zichzelf, positief samenhangen met geobserveerde kenmerken van ouder-kind en kind-kind interacties. Echter, de verbanden zijn niet altijd even sterk, en daarom kunnen slechts voorzichtige conclusies getrokken worden. Verder onderzoek is dan ook nodig en aanbevelingen daarvoor worden in hoofdstuk 6 gedaan.

Dankwoord

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Curriculum Vitae

Marleen Gerrits was born on October 15, 1974, in Alkmaar. She graduated from secondary school (VWO, Christelijk Lyceum in Veenendaal) in 1992. From 1992 to 1997 she studied Educational Sciences at the Utrecht University, with a major in Psychosocial problems of children. In 1998 she worked as a junior researcher at Utrecht University. In April 1999 she entered the PhD-program at the Department of Child and Adolescent Studies of Utrecht University. From 1999 to 2004 she worked on her dissertation, studying the association between children's perception of the relationship with parents, their self-representation and observed characteristics of child-parent and child-peer play interaction. At present, she works as a junior researcher at the Department of Child and Adolescent Studies of Utrecht University.