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Interparental Relationships and Children's Prosocial Development: Indications for Gender-Specific Susceptibility to the Quality of Marital Relationships

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Preface

After I started my internship at the research project 'Boys will be Boys' at Leiden University and hence started visiting young families, the relational bond between the two caregivers in a household caught my interest. Sometimes I briefly got to meet both parents prior to the start of a home-visit, sometimes I got in a short conversation with one of the parents about their family-situation. It were these global, off-the-record and personal moments of measurement that made me to consider the interparental relationship and its effects on the development of social emotional learning in children as the focus of my master project. After all, although parents may be vital architects of their young children's development in many respects, parents do not exclusively become caregivers after children get born; they remain fulfilling other important social roles as well, among which the role of a partner. Perhaps this role is not only affected by becoming a parent; the way one becomes a parent may also very well be influenced by the marital relationship a person daily experiences.

During my research process, I found searching for a valid theoretical and empirical framework from which to formulate my study objectives and hypotheses most interesting. This elementary phase helped me to understand the complexity of the effects of all kinds of interfamilial tendencies on young children's social emotional development more thoroughly. However, finding results that contradict all the prospects forced me to consider other variables, which may influence the strength and direction of the expected associations such as child gender. Furthermore, the applicability of the primary theoretical and empirical framework needed to be reconsidered and other viewpoints were to be elaborated to declare the potential explaining mechanisms behind my unanticipated results. Perhaps searching for these alternative justifications was the most difficult, yet challenging part.

Finishing this final component of my academic education would not have been possible without close supervision and support from my environment. Therefore, I would like to thank Joyce Endendijk in particular for responding to my questions repeatedly and promptly and giving me clear feedback as well as helpful tips. Furthermore, I would like to thank Marleen Groeneveld for being the second reader of my paper and for offering me additional feedback. Finally, I thank Jesse Bruins for helping me to optimize my level of academic English throughout the writing process.

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Abstract

Introduction. Regarding the link between interparental relationships and children's social emotional development, much attention has been drawn to the effects of interparental conflict and violence. This paper attempts to contribute to a thorough understanding of the importance of intra-familial patterns by focusing on the role of marital relationship satisfaction and child-rearing agreement in the development of prosocial behavior in young children. Based on Social Learning Theory (Crain, 1980) both relationship components were hypothesized to directly affect prosocial behavior. Attachment Theory (Bowlby, 1988) explained the hypothesized indirect influence of the marital relationship through parental sensitivity.

Method. A selective group of 80 Dutch couples (mothers and fathers) with two children of around twelve months (youngest child) and between two-and-a-half and three-and-a-half years of age (oldest child) filled in questionnaires about the level of contentment with their marital relationship (Maudsley Marital Questionnaire, Arrindel, Boelens, & Lambert, 1983), the level of experienced child-rearing agreement (Child-Rearing Disagreements Scale, Jouriles, 1991), and their oldest child's tendency towards prosocial behavior (My Child Questionnaire, Kochanska, DeVet, Goldman, Murray, & Putnam, 1994). Parental sensitivity was measured through semi-structured observations and coded by means of the Emotional Availability Scales (Easterbrooks & Biringen, 2005).

Results. Girls were found to display more prosocial behavior as fathers were less satisfied with their interparental relationship. For boys, maternal relationship satisfaction was found to have the strongest effect after including the level of interparental concordance on this topic; in case of high interparental concordance, maternal child-rearing agreement positively predicted prosocial behavior and in case of low concordance, mothers' rearing agreement appeared to be a negative predictor.

Discussion. These findings indicate that the quality of the interparental relationship may affect boys' and girls' social emotional development differently and that mother-son and father-daughter relationships may have a differential impact on the growth of prosocial behavior in young children. Future research must pay considerate attention to the potential mediating and/or moderating variables that help clarify why mothers and fathers may have different effects on boys and girls under diverse circumstances.

Introduction

The quality of children's social functioning during middle childhood is importantly affected by the level of both deliberate and unconscious support for the utilization of prosocial behaviors as provided by the parents throughout the toddler- and preschool years (Eisenberg, 1992). Parents do not solely influence their offspring's social emotional development through direct parent-child interactions, the levels of relationship satisfaction and child-rearing agreement among parents are found to affect child developmental outcomes as well (Bearss & Eiberg, 1998; Belsky, Putnam, & Crnic, 1996; Leidy, Parke, Coltrane, & Duffy, 2009; Linville, Chronister, Dishion, Todahl, Miller, Shaw, Gardner, & Wilson, 2010; McHale & Cowan, 1996). Concerning the interparental relationship in general, much attention is currently drawn towards the impact of interparental conflict, violence, and divorce whereas other relationship features like marital contentment and interparental concordance regarding child-related matters have received little empirical attention. Furthermore, the potential mediating role of parental sensitivity in the association between the interparental relationship and prosocial behavior in toddlers and preschoolers has presently not been studied directly. The primary aim of this study is to contribute to a full and comprehensive understanding of the environmental determinants of children's early prosocial development and in particular of the contribution of the interparental relationship as perceived by mothers as well as fathers.

In order to comprehend the content and impact of the current niches in our understanding of the determinants of prosocial development, first an overview will be drawn concerning the question what prosocial behavior encompasses and how it evolves. Subsequently, attention will be paid to the existing empirical knowledge regarding the factors, which guide this development. As the focus of this paper lies on the determinants, which are embedded in the family environment, previous empirical and theoretical literature will be mainly discussed regarding the impact of direct parenting practices and features of the interparental relationship respectively. Attachment Theory (Bowlby, 1988) and Social Learning Theory (Crain, 1980) will function as the theoretical frameworks of the explaining mechanisms through which these factors may influence young children's prosocial behavior. The theoretical background will be concluded with an indication of the social relevance of this study.

Prosocial Behavior

Defining prosocial behavior. Prosocial behavior can be described as the total repertoire of behaviors, which human beings apply voluntary and deliberately for the benefit of other people (Eisenberg, 1992). Two elementary interrelated components of this type of behavior are empathy and prosocial activity (Decety, 2011; Eisenberg, 1992). The empathic aspect consists of the ability to consider situations and events from the other person's point of view and represents the cognitive counterpart of prosocial behavior. Prosocial activity includes the actual attempts of a person to help, support, comfort, or benefit other people and, therefore, consists of the behavioral aspect of this complex human feature. However, the capacity to empathize with others does not necessarily lead to active prosocial behaviors. A four-year-old girl for instance can understand that her younger brother is in pain because he injured his knee, yet she might not experience the urgency to comfort him. An essential link between these two aspects of prosocial behavior is sympathy; the emotional experience of compassion and condolence with other people (Decety, 2011; Eisenberg, 1992; Knafo, Steinberg, & Goldner, 2011). In sum, the cognitive ability to take another person's perspective enables us to encounter feelings of sympathy, which in turn motivates prosocial activity. In order to avoid confusion, it should be mentioned here that both the empathic as well as the sympathetic and behavioral aspects in this paper will be understood under the concept of prosocial behavior.

Early development of prosocial behavior. The early years of a child's life play an important role in the foundation of individual patterns of prosocial behavior. When observing prosocial development, one must start in infancy as children appear to display signals of prosocial activity almost from birth on. For example, as early as one month of age infants are found to display higher levels of distress, as can be identified by their vocalizations and facial expressions, when they are confronted with pain-related crying bouts of another baby (Geangu, Benga, Stahl, & Striano, 2010). Nevertheless, what remains tentative is whether these responses result from primary empathic emotions or whether the bouts of crying are simply perceived as threatening resonances (Eisenberg, 1992). During the first year of life however two important developmental pathways contribute to an elaborate and distinct repertoire of unambiguous prosocial behaviors. In the first place, the number of prosocial behaviors simply increases. In the second place, these behaviors become more recognizable in that they are no longer mainly self-orientated, but are instead increasingly directed towards other people (Eisenberg, 1992).

For instance, in an experiment studying one-year-olds' reactions to another person's distress, these children did not only respond by gently touching themselves as an example of self-soothing behavior, they also approached and touched the person who displayed the distress (Zahn-Waxler, Radke-Yarrow, & King, 1979). Furthermore, during late infancy and toddlerhood, both the number and kind of expressions of prosocial behavior develop to become a relatively stable personality trait (Baumrind, 1977; Hay, Castle, Davies, Demetriou, & Stimson, 1999). As a result, random impersonal prosocial behavior diminishes whereas selective prosocial behavior with regard to familiar others increases (Hay et al., 1999; Van der Mark, Van IJzendoorn, & Bakermans-Kranenburg, 2002).

Social emotional learning. In order to comprehend the early pathways of prosocial development more thoroughly and the potential effects of the environmental determinants, attention must be paid to the preceding (interplay between) neurobiological, cognitive, and emotional processes. More specifically, the increased complexity and specificity of prosocial behavior as children grow older can be understood as a product of individual social emotional learning (Eggum, Eisenberg, Kao, Spinrad, Bolnick, Hoger, Kupfer, & Fabricius, 2011; Gustavo, Knight, McGinly, Goodvin, & Roesch, 2010). Social emotional learning implies a comprehensive social and psychological maturation process that encompasses multiple levels of child development. With regard to the neurobiological counterpart of this process, it must be pointed out that emotions, cognitions, and behaviors become increasingly coordinated and regulated through cortical capacities during the toddler and preschool years, instead of the lower brain regulatory system (Rilling & Sanfey, 2011). This process fosters the development of cognitive and emotional skills, which are relevant for the growth of prosocial behavior. First of all, toddlers and preschoolers acquire more understanding of their own and other people's mental state. That is, they learn that overt behaviors and mental states represent two distinct human features, which may not always be mutually in line (Apperly, 2011). For example, a three-year-old boy can begin to understand that his playmate starts shouting and crying because she, in fact, wants to join him on the swing. This emotional knowledge in children is found to be directly related to teacher- and peer-reports of the child's prosocial behavior (Denham, 1991). Furthermore, during the toddler- and preschool years children learn self-management skills; they become more capable of inhibiting unhelpful, irrelevant, and socially unaccepted responses and develop a preference for socially approved reactions, which increase their odds to reach their goals (Decety, 2011).

The final two aspects of social emotional learning, which are relevant for the development of prosocial behavior, consist of responsible decision making and relationship management; children start to analyze social interactions, to balance their social objectives with the goals of their interactive partners, and to solve social problems. In addition, toddlers and preschoolers acquire a broader array of skills such as taking turns, which help them to maintain positive relationships (Rilling & Sanfey, 2011).

Determining Prosocial Development: Internal and External Contributors

There is accumulating evidence for the notion that the individual pathways of social emotional learning, which lead to the development of prosocial behavior, are affected by both child-related and environmental factors (Eisenberg$_b$, 1992). Child-related factors are frequently indicated as moderators that strengthen or weaken the impact of the social environment on the child's social emotional learning outcomes. More specifically, child temperament is often considered as either a risk or a protective factor with regard to the development of prosocial versus anti-social behavior (Eisenberg$_b$, 1992). Furthermore, the genetic make-up of the child appears to affect the child's susceptibility to his or her socializing environment (Knafo, Israel, & Ebstein, 2011). However, to date the dominant and empirical supported presumption is that although child-related factors can influence the strength of the impact of the environment on a child's prosocial development, the actual expression of prosocial behavior is principally moulded by early family socialization processes (Grusec, 2011).

Subsequently, two distinct well-known clusters of family-environmental factors, which contribute to the development of prosocial behavior, will be discussed, knowing the direct interactions between parents and their children and the interparental relationship. Although the marital relationship between parents is the central focus of this paper, primary attention will be drawn to the parenting practices as the knowledge regarding these practices provide the foundation from which to consider other aspects of the family-environment. Each cluster will be described separately on behalf of two theoretical explaining pathways that may account for its impact on child prosocial behavior; these pathways are sensitivity and modeling.

Parent-Child Interactions

Sensitive parenting. With regard to the direct environment, parents (and the mother in particular) have traditionally been identified as important determiners of the child's social emotional development. More specifically, the parent's abilities to perceive the child's physical, emotional, and social needs in an adequate way and to reciprocate responsively and promptly to these signals provide the child with experiences that foster (among others) prosocial behavior (Ainsworth, Blehar, Waters, & Wall, 1978; Cassidy, 2008).

Based on Attachment Theory, sensitive parents who are able to communicate with their children in an open and consistent manner are believed to provide their offspring with a representation of the world as a predictable environment in which one can safely explore new social situations (Simpson & Belsky, 2008). Furthermore, Bolwby (1988) argued that these experiences of predictability and safety bolster feelings of self-confidence and self-efficacy in the child. As a result, in the presence of the attachment figure as a secure haven to return to in case of need, the young child will perceive him- or herself as sufficiently able to initiate and sustain social interactions (Cassidy, 2008). In several empirical studies, these theoretical assumptions have been supported. For example, a Dutch study found that a secure attachment relationship with the mother is positively related to empathy in girls towards unfamiliar people (Van der Mark, Van IJzendoorn, & Bakermans-Kranenburg, 2002). In addition, in the United States researchers revealed that parental sensitivity and compassion towards adolescents predict adolescent prosocial behavior (Carlo, McGinley, Hayes, Batenhorst, & Wilkinson, 2007). However, this relation appeared to be fully mediated by adolescent sympathy implying that sensitive parenting predicts the development of sympathy in adolescents, which in turn predicts the development of prosocial behavior. This finding is in line with the theoretical definition of prosocial behavior as described previously, i.e. feelings of sympathy precede actual prosocial behavior.

Modeling. Modeling can be considered as a second pathway through which the two aspects of sensitive parenting, as defined by Ainsworth and colleagues (1978), can contribute to the development of prosocial behavior. Namely, whereas adequately perceiving and subsequently interpreting another person's behavior can be considered as a kind of empathy, responding to these signals in an appropriate and prompt manner can be defined as an example of active prosocial behavior. Through sensitive parenting these two skills are repeatedly demonstrated to children, which they eventually will internalize and enforce in their interactions with peers and adults (Berkowitz & Grych, 1998).

Paternal role. An important limitation of the empirical research regarding the impact of parent-child communication to date is its principal focus on the effects of maternal sensitivity on child development, whereas a notably smaller body of studies assessed the potential influence of paternal sensitivity (De Wolff & Van IJzendoorn, 1997). Although in western countries such as the Netherlands women often still carry the main child-care responsibilities (Van Wel & Knijn, 2006), men become increasingly involved in child-rearing matters as well (Lamb, 2010). Additionally, the importance of the role of the father regarding child development in general is currently well acknowledged (Lamb, 2010). The lack of understanding concerning the impact of both maternal and paternal communication with children inhibits a full and integral comprehension of the environmental determinants of prosocial development in children. For instance, fathers appear to engage more primarily in play activities whereas mothers, aside from play activities, have a more nurturing and care-taking role (Lamb, 2010). Both kinds of parental roles can either stimulate or constrict the development of prosocial behavior in children depending on the quality of the performers. In sensitive and concordant play situations children can practice social interactions and potential difficult social situations in a safe and predictable environment. On the other hand, during sensitive and responsive nurturing and care-taking experiences children are exposed to a broad range of prosocial behaviors in general. Whether either the caretaking part or the role as a buddy has a more significant impact on children's prosocial development remains unclear.

Interparental Relationships

Modeling. In addition to the effects of the direct interactions between parents and children on the child's social emotional learning process, the quality of the interparental relationship can also either stimulate or inhibit the development of prosocial behavior. Namely, in line with Social Learning Theory young children learn a broad and complex range of social behaviors by means of observing and imitating important others in their direct environment, most often represented by the main caregivers (Crain, 1980). Therefore, whereas modeling is considered as a secondary pathway regarding the impact of parent-child interactions, this explaining mechanism may encompass a much more prominent role when it comes to the effects of interparental interactions. A study among families from Palestine and Israel for example revealed that hostility between partners is positively related to aggressiveness in children (Feldman & Masalha, 2010). Given that hostility and aggression are closely interrelated clusters of behavior, modeling could be one of the plausible mechanisms through which these antisocial behaviors are transmitted.

There are however very few known empirical studies that have directly tested unmodified parental modeling as a mechanism through which features of the interparental relationship influence a child's social emotional development (Hudson, 2009). Studies that have been conducted in this area focus primarily on the consequences of modeling as part of an intervention in order to improve children's prosocial behavior among others (Carpenter, 2002; Leornadi, Roberts, & Wasoka, 2001; Mager, 2004; Miller & Cole, 1998). Although findings from these studies are variable and in certain cases contradictory, the overall results support the notion that modeling affects the development and expression of prosocial behavior in children. Nonetheless, parents become rarely involved as interveners in this branch of applied research and the quality of the interparental relationship has not been related to these results.

Mediation through sensitive parenting. In addition to modeling, the characteristics of the interparental relationship can also have an indirect effect on child development through sensitive parenting. This hypothesis implies a model in which parental sensitivity mediates the association between relationship quality and child prosocial development (Hudson, 2009). Concerning the potential impact of highly negative marital interactions, this effect has been defined as the Spill-Over effect implying that prolonged interparental conflict, violence, and detachment can overwhelm caretakers rendering them unable to provide sufficient attention and adequate care for their offspring (Cummings & Davies, 2002). In the extreme example of domestic violence it is found that aggressive fathers display lower levels of empathy in response to their offspring and that the female victims of domestic violence interact with their children in a negative manner significantly more often than control-mothers (Margolin, Gordis, & Oliver, 2004).

Interparental conflict, violence, and divorce. In line with the described empirical examples, concerning the impact of the interparental relationship on child development much attention is drawn to the consequences of marital conflict, violence, and divorce (Hudson, 2009). Longitudinal studies have repeatedly found support for the causal association between marital conflict and/or violence and child psychopathology (Johnston, Gonzales, & Campbell, 1987; Liwtronic, Newton, Hunter, English, & Everson, 2003; Wierson, Forehand, & McCobs, 1988). In the case of divorce or separation findings are less unambiguous; to date results suggest that separation of the parents merely has a moderating effect on the relation between either marital conflict or violence and child psychopathology in that recent separation increases the negative impact of marital discord on developmental outcomes in the child (Buehler, Anthony, Krishnakumar, & Stone, 1997).

Consequently, it appears that both relationship quality and interparental interactions provide the main explanation for child developmental outcomes, whereas divorce or separation can amplify or weaken this explanatory association.

Whereas the empirical knowledge concerning the effects of interparental conflict and violence on children's social emotional development is burgeoning, other aspects of the interparental relationship such marital warmth have received less attention. However, results from studies regarding conflict and violence between parents do provide indications for the importance of studying the potential influence of these other marital relationship features. Namely, an interesting distinction that is made in the research field of marital discord and child development is the one between destructive and constructive interparental conflict (Cummings & Davies, 2002). Whereas destructive conflicts have been causally linked to negative child outcomes, empirical researchers and theorists suggest that constructive conflicts, for example discussions characterized by humor and affection, might not only have minor negative effects but also positive developmental consequences (Cummings & Davies, 2002). Constructive handling and resolution of conflicts between the primary caregivers may teach young children important prosocial behaviors such as listening to another person's wishes and needs. A fairly recent longitudinal study has supported this presumption by revealing that constructive marital conflict is positively related to the child's emotional security that depicts a child's experience of safety and protection in the family, which in turn is positively associated with prosocial behavior (McCoy, Cummings, & Davies, 2009). The levels of destructiveness and constructiveness of interparental conflict can be considered as properties of the relationship quality in general. Mutual secure adult attachment styles have for example been positively related to higher levels of constructive communication among partners whereas insecure couples exhibit more destructive communication styles (Dominique & Mollen, 2009). Hence, further research with regard to the characteristics of the interparental relationship in addition to interparental conflict and violence can yield new insights into the environmental determinants of prosocial development in children. In particular, two relationship aspects may presumably affect young children's social emotional development both directly and indirectly, knowing relationship satisfaction and child-rearing agreement.

Relationship satisfaction. The subjective experience among partners regarding the level of satisfaction with their relationship is presently considered as an important indicator of the general relationship quality that could affect the development of prosocial behavior in children through the described mechanisms of modeling and sensitive parenting.

In Western-European countries such as the Netherlands both the emotional and psychological expectations concerning the marital relationship have increased vigorously during the last five decades. Furthermore, these expectancies have become prior criteria based on which relationships are either formed or adjourned (Van den Troost, 2005). Some theorists reason that the emphasis on individual emotional and psychological wellbeing in relationships is at least partially accountable for the regression in number of marriages and the increased amount of divorces and separations in many western societies (Van den Troost, 2005).

The subjective quality of the interparental relationship can contribute to the direct transmission of prosocial examples. For example, relationship satisfaction is found to predict open communication styles, especially in men (Van den Troost, 2005). The capacity to communicate about one's thoughts and feelings is considered as an important component of prosocial behavior as it requires emotional knowledge and contributes to sustained social relationships (Eisenberg, 1992). Through naturally occurring modeling, parents may teach their offspring to apply these communication styles in interaction with adults and peers (Crain, 1980).

Additionally, accumulating research results indicate that relationship satisfaction is positively related to positive parenting practices such as involvement in both mothers and fathers (Barry & Kochanska, 2010; Carlson, Pilkauskas, Mclanahan, & Brooks-Gunn, 2011; Hartley, Barker, Seltzet, Greenberg, & Floyd, 2011; Linville et al., 2010). Also, this experience of the relationship quality is associated with lower levels of children's behavioral problems (Leidy et al., 2009; Linville et al., 2010). Nonetheless, to date little to no empirical studies can be found that depict the association between relationship satisfaction and prosocial behavior in children. Moreover, the mediating role of parental sensitivity concerning the link between relationship satisfaction and children's social emotional development has presently not been studied directly.

Child-rearing agreement. The levels of agreement and disagreement among parents about their child-rearing strategies can affect children's social-emotional development as well. Child-rearing agreement is regarded as a central contributor to supportive co-parenting that consists of a helpful, harmonious, and accepting cooperation between partners regarding parenting-matters (McHale, 1995). Co-parenting is found to be a distinct feature of the interparental relationship from relationship quality and appears to predict child developmental outcomes above and beyond the general quality of the interparental relationship and parenting practices (Bearss & Eiberg, 1998; Belsky, Putnam, & Crnic, 1996; McHale & Cowan, 1996).

For instance, Belsky, Putnam, and Crnic (1996) found that overt agreement and concordance among parents buffer the development of behavioral inhibition in children with an inhibited temperament. Behavioral inhibition can in turn be considered as a risk factor with regard to the development of prosocial behavior as it impedes open communication styles (Izard, Schultz, Fine, Youngstrom, & Ackerman, 1999; Kienbaum, Voland, & Ulich, 2001; Liebman, 2005).

Agreement among parents concerning child-rearing topics is associated with a wide variety of interparental communication and behavioral styles that can provide children with considerate examples of prosocial behavior. For instance, child-rearing agreement is related to the co-parenting practices of respecting each others input and beliefs, perpetuating the other parent's rearing-decisions towards the children, and demonstrating cooperative strategies (McHale, 1995). Moreover, in an African-American sample the notion that the internalization of norms, expectancies, and behaviors in children concerning complicated social situations partially results from being exposed to co-parenting practices is empirically supported (Brody & Flor, 1996). That is, the authors found a direct association between mothers' perception of the level of support received from the spouse and self-regulation abilities in the child. Self-regulation is considered as an elementary component of social emotional learning relevant for the maturation of prosocial behavior as it enables the child to inhibit dysfunctional responses in the favor of more socially accepted reactions (Decety, 2011).

The described Co-Parenting study also found additional support for an indirect relation between child-rearing agreement and child self-regulation through parenting (Brody & Flor, 1996). In relation to fathers, they found that the perception of support received from the partner is significantly related to the quality of family communication styles, which is significantly associated with self-regulation. Furthermore, an increasing body of research designates the important influence of co-parenting on parenting practices such as responding sensitively and responsively to a child's signals in both fathers and mothers (Caldera & Lindey, 2006; Floyd, Gilliom, & Costigan, 1998; Garfield, 2010). However, whereas some aspects of the child's social emotional functioning relevant for the development of prosocial behavior appear to be affected by co-parenting practices, a direct predictive association between child-rearing agreement and actual prosocial behavior has not been considered yet. Moreover, no empirical studies can be found that depict the mediating role of specifically parental sensitivity in the relation between co-parenting and child prosocial development. More generally, the strength of the effects from both co-parenting and parenting practices have been measured simultaneously and consequently mutually compared.

Interparental concordance. Studying the influence of parents' subjective experiences of their marital relationship introduces the question whether these experiences maintain predictive value concerning children's prosocial development as the level of concordance among parents concerning their view on these topics varies between families. Regarding the effects of direct inconsistent parenting, it is found that positive parenting by one of the parents ceases to function as a protective factor against child behavioral problems in the presence of negative parenting by the partner. Furthermore, when both parents express high levels of harsh and punitive parenting, children appear to display the severest behavioral problems (Jaursch, Losel, Beelmann, & Stemmler, 2009). In line with these findings, higher levels of unanimity between parents' viewpoints with regard to the marital relationship can strengthen the effects of relationship satisfaction and child-rearing agreement on prosocial behavior in toddlers and preschoolers. Namely, increased interparental concordance might imply that children are being exposed to either functional or dysfunctional social examples and to sensitive or insensitive parenting more frequently and consistently. By taking into account both the contribution of each parent's experiences and the level of interparental concordance, we move towards a systemic family-based approach that enables us to consider the impact of the interparental relationship on each individual parent's role in children's prosocial development (Cowan & McHale, 1996).

Future Promises of Early Prosocial Development

In conclusion of the theoretical and empirical contemplation of the present (niches in) knowledge regarding the environmental determinants of young children's prosocial development, the social relevance of this topic needs to be taken into consideration in addition to its scientific importance. More specifically, the first signals of a healthy prosocial development contain an important prognostic value with regard to an individual's later social emotional wellbeing. Childhood prosocial behavior namely includes a great variety of behaviors, which contribute to one's relational, academic, and occupational success throughout life (Caprara, Barbaranelli, & Pastorelli, 2001; Pulkkinen, 2001). Furthermore, social adjustment is found to be importantly affected by the variability in young children's prosocial behavior (Caprara, Barbaranelli, & Pastorelli, 2001). By studying the additional explanatory magnitude of the interparental relationship, both directly and indirectly, new directives can be drawn in order to preserve and promote the prosocial development in toddlers and preschoolers.

Research Objectives

This study attempts to fill in certain gaps in the current understanding of the family-level determinants of children's early prosocial development. As has been described, several pathways and aspects of the family-environment have not yet been empirically coupled to the variability in young children's prosocial behavior. In this study, these specific aspects will be primarily addressed. In the first place, the proposed predictive value of both relationship satisfaction and child-rearing agreement regarding prosocial behavior in toddlers and preschoolers will be assessed. Additionally, the level of concordance among caregivers' opinions about these relationship features will be studied as a potential moderating factor. Following the assessment of the direct influence of relationship satisfaction and child-rearing agreement respectively, the mediating role of parental sensitivity will be taken into account with regard to both predictors. These direct and indirect pathways will be assessed for either parent separately in order to gain more fine-grained insight into the specific roles of fathers and mothers in the development of prosocial behavior. In conclusion, the final aim of this study is to determine which of the discussed family-level determinants entails the best predictive power concerning young children's prosocial behavior.

Research Questions and Preliminary Hypotheses

The main research question of this empirical study is to be defined as follows:
'To what extent can individual differences in toddler's and preschooler's prosocial behavior be explained, both directly and indirectly through sensitive parenting, by the quality of the interparental relationship?'

In order to provide an integral and complete answer to this primary research question, four sub-questions need further examination; in the first place, the question whether toddlers and preschoolers express higher levels of prosocial behavior as their parents experience more relationship satisfaction will be examined. In addition to the expectation that the existence of high levels of this relationship feature will affect children's prosocial development in a positive way, it is hypothesized that mothers' experiences of relationship satisfaction more strongly predict prosocial behavior in toddlers and preschoolers relative to the experiences and opinions of fathers. Furthermore, the question will be assessed whether toddlers and preschoolers exhibit lower levels of prosocial behavior when their parents encounter low mutual child-rearing agreement. If child-rearing agreement among parents is increasingly absent, toddlers and preschoolers are hypothesized to lack a family-environment that supports the development of prosocial behavior.

Again, it is expected that mothers' experiences of child-rearing agreement more strongly influence prosocial behavior in young children than fathers' viewpoints. The third research question refers to the extent to which interparental concordance acts as a moderating factor concerning the associations between relationship satisfaction and child-rearing agreement, respectively, and children's prosocial behavior. Increased interparental concordance concerning the two components of the relationship quality is hypothesized to strengthen each predictor's value with regard to young children's prosocial behavior for both fathers and mothers. The positive effects of high subjective relationship quality on parenting practices may be abolished by negative evaluations by the other parent, whereas the negative impact of low child-rearing agreement as experienced by one of the parents might be less severe in the face of the partner who experiences ample agreement. Although in the second scenario children will suffer increased inconsistent parenting, they are expected to be exposed to more examples of prosocial behavior and sensitive parenting relative to children whose parents report low levels of child-rearing agreement simultaneously. The final research question involves to what extents the associations between both separate aspects of the interparental relationship and young children's prosocial behavior become mediated by sensitive parenting. Both relationship satisfaction and child-rearing agreement are thought to predict sensitive parenting in both fathers and mothers. It is hypothesized that parental sensitivity partially mediates the links between relationship satisfaction and child-rearing agreement, respectively, and children's prosocial behavior. However, as previously argued it is expected that both features of the interparental relationship will have a direct impact on children's prosocial development as well through social learning. Therefore, instead of a complete, a partial mediating role for parental sensitivity is to be hypothesized. It should be noted that parental sensitivity might not only function as a mediator in the association between the interparental relationship and young children's prosocial behavior; it can also have a moderating effect. After all, both the quantity and quality of sensitive parenting are not solely a product of the interparental relationship in the here and now, they appear to evolve partially as a consequence of the personal child-rearing experiences as well (Ainsworth et al., 1978). Therefore, sensitivity as a parental feature based on several experiences can function as a protective factor against elevated stress due to negative evaluations of the marital relationship. However, in this study a theoretical framework is applied in which parental sensitivity is regarded as in part originating from the current relationship context. Hence, sensitive parenting will be analyzed as a mediator instead of a moderator.

Method

Source of Data: the Longitudinal Project 'Boys will be Boys'

Research objective. The present paper is based on data that were collected for the currently ongoing, Dutch prospective study 'Boys will be Boys', conducted at Leiden University (Mesman, 2009). This four-year longitudinal project started in 2010 and follows 390 two-parent families with two children. The project's main focus is on gender-specific parenting, the consequences of these child-rearing practices for children's disruptive and prosocial development, and gender-specific susceptibility to parenting in children.

Research design. The 'Boys will be Boys' study employs a within-families design, referring to the analysis of differences in parenting, child development and behavior within families, as well as a between-families design, i.e. the comparison between families with children of same sex and families with children of opposite sex. In this study, a between-families design was employed as the effects of the interparental relationship on sensitive parenting and children's prosocial behavior were examined across families.

Data-application and inherent limitations. This research used a subset of data from the first wave of data-collection of the 'Boys will be Boys' study, a cross-sectional research design was thus unavoidable. Furthermore, as several components of the raw data had not been coded yet at the time of analysis, the study included primarily questionnaires.

Sample

Recruitment process. Through address data, obtained from municipality registers, selected families were invited by mail for participation. Exclusion criteria included the following conditions; severe intellectual or physical impairments in (one of) the parents or children, single parenthood, and parents who were born outside the Netherlands and/or who did not speak the Dutch language sufficiently. Between 2010 and 2011 2363 families were addressed; 53.0% of the families responded to the invitation from which 31.1% agreed to participate.

Participant group. From the total sample of the 'Boys will be Boys' study, a selective sample was drawn of 80 Dutch families on behalf of including all families with valid scores on one of our applied instruments; the Emotional Availability Scales (Easterbrooks & Biringen, 2005). Namely, at the time of our analysis the raw observation data of a limited group of families had been coded by means of this instrument rendering us confined to a selective sample.
The families resided in the provinces of Noord-Holland, Zuid-Holland, Noord-Brabant, Flevoland and Utrecht.

Each family included a mother, a father, and two biological children of same gender (n = 38, boy-boy: 50.0%, girl-girl: 50.0%) or opposite gender (n = 43, boy-girl: 51.2%, girl-boy: 48.8%). In this study only the oldest child was included, a decision psychometrically based on the notion that many parents found the associated questionnaire not applicable to their youngest child. The final sample included 41 boys and 40 girls.

Data-analysis took place approximately three to nine months after measurement. At the time of measurement, the youngest child was on average twelve months of age and the oldest child was aged between two-and-a-half and three-and-a-half years (M = 3.1, SD = 0.3). Mothers were in the age range of 22 to 45 years (M = 34.5, SD = 3.9) and fathers were between 27 and 52 years of age (M = 36.4, SD = 3.9). Most parents had completed higher vocational and/or academic schooling (mothers: 72.8%, fathers: 76.3%). A notable small group of parents solely had a primary, secondary, and/or vocational degree (mothers: 27.2%, fathers: 23.9%). Most couples were married (70.4%), 17.3 percent of the couples had a registered partnership or cohabitation agreement, and the remaining 12.3 percent lived together without any registered agreement.

Procedure of Data-Collection

After families agreed to participate in the project, further information was provided about the content of the home-visits and appointments were scheduled. Families were compensated for their participation with a fee of 30 euro's each year, small presents for the children during the home-visits, and a compilation DVD of the home-visits by the end of the total participation period.

Family-level data-collection; home-visits. Two regular (Family and Child Studies-/Psychology-) or PHD students of Leiden University visited the families in their home-situation. Prior to the home-visits, students received an extensive training in filming and giving instructions. Furthermore, on behalf of an equal approach of all families, a fixed home-visitation script was used. Each family was visited twice; once the mother with the children and once the father with the children. The order in which fathers and mothers were visited was randomly assigned. The parents were requested not to discuss the content of the appointments until both parents had been visited. After receiving an oral explanation and a written description of the home-visit, parents signed a written consent. During the home-visits, video-observations were made of the parent with both children separately and simultaneously.

A counterbalance- format was used to determine whether parents were firstly observed with the oldest or the youngest child. Using brought play-materials, parents were asked to carry out seven brief activities and/or tasks with their children such as playing together, cleaning up, or reading a book. Two components of the home-visit had two versions (i.e. reading a book and a parental computer-task), the sequence in which families/parents were assigned to one of the versions was counter-balanced as well.

Additional data-collection; questionnaires. Prior to the first home-visit parents were asked to fill in a booklet of questionnaires about the youngest child, their interparental Relationship Satisfaction (Maudsley Marital Questionnaire, Arrindell, Boelens, & Lambert, 1983), and Child-Rearing Disagreement (Child-Rearing Disagreements Scale, Jouriles, 1991). The parents received a new set of questionnaires during the first appointment including several aspects of the oldest child, knowing; internal and/or external behavioral problems (Preschool Child Behavior Checklist, Rescorla et al., 2011), Child Prosocial Behavior (My Child Questionnaire Subscale; Empathic, Prosocial Response to an other's Distress, Kochanska et al., 1994), and temperamental features (Child Behavior Questionnaire, Rothbart, Ahadi, Hershey, & Fischer, 2001). Parents were asked to fill in the questionnaires individually.

Measurement Instruments

Maudsley Marital Questionnaire. The level of relationship satisfaction was measured by means of the Maudsley Marital Questionnaire (MMQ, Arrindell, Boelens, & Lambert, 1983). This instrument is based on the theoretical construct of marital adjustment, which includes the interactions between spouses and marital functioning in general as reflected by the feelings and experiences of each individual partner (Orathhinkal, Vansteenwegen, & Stroobants, 2007). Through ten closed questions, the MMQ evaluates the respondent's level of satisfaction with his/her romantic relationship. Examples of questions are whether the respondent receives ample warmth and sympathy from his/her partner and how often he/she considers a divorce. Based on a nine-point scale, ranging from 0 to 8, respondents are requested to fill in the level of applicability of the questions. Higher scores on the MMQ referred to lower levels of relationship satisfaction. The Dutch version of the MMQ is confirmed to be sufficiently valid and reliable (Arrindel, Emmelkamp, & Bast, 1983). Correlations between spouses regarding several combinations of subscales are found to exceed .80 (Arrindel, Boelens, & Lambert, 1983). Cronbach's Alpha of the total instrument approaches .90 (Hagedoorn, Kuijer, Buunk, DeJong, Wobbes, & Sanderman, 2000). With regard to the 'Boys will be Boys' sample, internal consistency of the MMQ for mothers equaled .83 (n = 357) and for fathers .82 (n = 353).

Child-Rearing Disagreements Scale. The experience of child-rearing agreement, or the lack thereof, in both parents was measured with the Child-Rearing Disagreements Scale (CRD, Jouriles, 1991). The primary aim of this instrument was to contribute to the understanding of the distinct interparental relationship features that may affect children's behavioral problems (Jouriles, 1991). The current questionnaire measures the level of annoyance and frustration about the other parent's style of child raising (Jouriles, 1991). The CRD consists of 21 items, including different aspects of parental discipline and cooperative child-rearing in general, based on which respondents fill in whether their partner has exhibited the given examples during the prior six months (yes or no). Subsequently, the respondent is requested how often he/she has felt annoyance about these behaviors on a six-point scale, ranging from 1 (never) to 6 (daily). An example of one of the items is: 'He/she bought too many or too expensive presents for our children'. Since the present study focused on child-rearing agreement rather than disagreement, lower mean scores were construed as indicators of increased agreement as annoyance and frustration appeared to be gradually more absent. Supporting sufficient concurrent criterion validity, the CRD is found to predict behavioral problems in preschool- and school-aged children (Jouriles, 1991). The internal consistency of the CRD is confirmed to be adequate to good (r = .86, Jouriles, 1991). Cronbach's Alpha in the 'Boys will be Boys' sample equaled .85 for mothers (n = 351) and .82 for fathers (n = 348).

Emotional Availability Scales. Home-observations during an eight-minute free-play task with the oldest child were applied to assess sensitive parenting. The observations were semi-structured; parents were given only general instructions prior to the play-session. Parental behavior was coded by means of the Emotional Availability Scales (EAS), an instrument that codes both parents' and children's emotional supportive and open behaviors Easterbrooks & Biringen, 2005). The EAS is constructed to enable researchers and clinicians to evaluate the emotional tone of parent-child relationships (Biringen, 2000). In this study Sensitive and responsive parenting during the play-situation was measured with the EAS-subscale Parental Sensitivity. Seven parental features were coded: 1. Parental affect towards the child.
2. Accurateness of the perception of child signals. 3. Timing of the parental response.
4. Considerate communication with the child. 5. Level of creativity, flexibility and variation in play and interaction. 6. Number of interactions. 7. Level of sensitivity during conflict resolution. Higher scores on this subscale referred to increased parental sensitivity. Prior to the official coding-procedure, coders were required to participate in an extensive training including the elaboration of the scales and the evaluation of coding outcomes.

After completing two reliability sets of 30 recordings with minimum intercoder-reliability of .70, coders were conceded to continue coding individually. As reviewed by Biringen (2000), a large body of research supported ample construct validity of the EAS given that observed emotional availability is confirmed to correlate with parent-child attachment relationships and/or adult attachment classifications. Furthermore, the EAS is found to have sufficient concurrent and prospective criterion validity based on its predictive power in relation to parent and child behaviors such as maternal initiation and sustainment of interaction and child affect (Biringen, 2000). In the 'Boys will be Boys' study intercoder reliability of the Parental Sensitivity scale ranged from .74 to .91, with an average reliability coefficient of .80.

My Child Questionnaire. Prosocial behavior in toddlers and preschoolers was measured with the subscale Empathic, Prosocial Response to Another's Distress of the My Child Questionnaire (MCQ; Kochanska et al., 1994). In general, the MCQ is designed to address young children's development of conscience in two ways. In the first place, it evaluates children's experiences of discomfort as they do something. In the second place, the MCQ assesses children's ability to desist from unaccepted behavior (Kochanska et al., 1994). The subscale Empathic, Prosocial Response to Another's Distress consists of 13 items based on which respondents fill in whether the behaviors are applicable to their child on a four-point scale, ranging from 0 to 4. Examples of items are: 'Promptly notices others' feelings' and 'Becomes upset when he/she sees an injured animal'. Higher total scores on this scale implied higher levels of prosocial behavior. Since the concordance between mothers' and fathers' MCQ-scores range from modest to nearly perfect (Kochanska et al., 1994), the mean of both parents' sum scores was calculated in this study to obtain a single indicator of young children's prosocial behavior. Supporting adequate convergent construct validity, the two principal components of the MCQ (Affective Discomfort and Behavioral Control) are found to correlate negatively with children's observed tendency to act in a socially unaccepted way (Kochanska et al., 1994). Internal consistency of the subscale Empathic, Prosocial Response to Another's Distress is satisfactory (r = .76) and test-retest reliability of this subscale is moderate to sufficient (r = .55, Kochanska et al., 1994). In the 'Boys will be Boys' sample moderate Cronbach's Alpha's were found for this subscale for mothers (r = .56, n = 338) as well as fathers (r = .58, n = 329). Since the total number of items of this subscale is fairly small and reducing the scale would not lead to noteworthy improvements in internal consistency, it was decided not to exclude any more items.

Data Analysis

In this study, data-analyses were carried out using SPSS17. Prior to the analyses, descriptive statistics were computed for the variables Child Prosocial Behavior, Relationship Satisfaction, Child-Rearing Agreement, and Parental Sensitivity. In order to assess the quality of the raw data and the suitability of multiple regression analyses, data-inspection, including Missing Value Analysis (MVA) and testing the multivariate statistical assumptions, preceded the evaluation of the research questions (Kroonenberg, 2006). Regarding the examination whether toddlers and preschoolers express higher levels of prosocial behavior as their parents experience more relationship satisfaction and whether this association differs significantly between mothers and fathers, a multiple regression analysis was conducted (Kroonenberg & Linting, 2010). Maternal Relationship Satisfaction and paternal Relationship Satisfaction were successively included in the model. The subsequent research question whether toddlers and preschoolers exhibit lower levels of prosocial behavior when their parents experience low levels of mutual child-rearing agreement was analyzed in the same way as the association between relationship satisfaction and children's prosocial behavior. Through a multiple regression analysis, the unique contribution of Child-Rearing Agreement to Child Prosocial Behavior was estimated for mothers and fathers respectively (Kroonenberg & Linting, 2010).

To assess to what extent the unanimity between parents' opinions acts as a moderating factor in the association between relationship contentment and rearing agreement respectively and children's prosocial behavior, four multiple regression models were analyzed. Each model included one of the relationship variables for either one of the parents (Kroonenberg & Linting, 2010). The actual predictor and Interparental Concordance were included in the first block, followed by the multiplication of both variables in the second block (Mesman, 2011). Finally, to analyze the research question to what extents the associations between both aspects of the interparental relationship and prosocial behavior in children become mediated by sensitive parenting, the found main effects for Relationship Satisfaction and/or Child-Rearing Agreement for mothers and/or fathers were taken as a starting point. Subsequently, the main effect of Parental Sensitivity was tested and, if significant, the combination of either one of the relationship components and Parental Sensitivity was incorporated in the final model (Mesman, 2011). In each regression model, Child Age and Child Gender were included as control variables. Child Gender was, additionally, controlled for as a potential moderator. If significant, results were evaluated for boys and girls separately.

Results

Data-Inspection

Missing-Values Analysis. Missing-Values Analysis (MVA) showed that mothers whose partners had missing values on the MMQ and CRD had significantly lower mean MCQ-scores relative to groups without missing values, ($t(14.1) = 6.6$, $p < .01$, $d = 3.52$) and ($t(14.1) = 6.6$, $p < .01$, $d = 3.52$) respectively. Furthermore, fathers with missings on the MMQ (6.2%), CRD (6.2%), and MCQ (8.6%) were found to have a daughter as oldest child more often and more often had a lower secondary or vocational degree as highest educational level. Mothers with missing values on the MCQ (7.4%) also more often had a daughter as oldest child and had a higher vocational or academic degree. To avoid a decrease in standard errors, missing values were not imputed, but instead incorporated in the level of caution in the interpretation of our results. Three participating families did not fill in either one of the questionnaires and were excluded from further analysis.

Multivariate assumptions. Only the maternal distribution on Child-Rearing Agreement strongly differed from normality, primarily caused by two outliers, as indicated by a standardized skewness and kurtosis strongly deviating from values between -3 and +3. After removal of a multivariate outlier, all regression distributions met the three multivariate assumptions, implying that the residuals approached a normal distribution, lay equally around the regression line, and were randomly distributed. Analyses were performed with and without the multivariate and, if any, univariate outliers.

Table 1.

Descriptive Statistics for the Criterion and Predictor Variables (both Parents Separately)

Total score variable	Mean	Standard Deviation
Child Prosocial Behavior (MCQ, $n = 75$)	32.99	6.64
Mother: Relationship Satisfaction (MMQ, $n = 77$)	12.93	9.35
Father: Relationship Satisfaction (MMQ, $n = 76$)	11.59	7.80
Mother: Child-Rearing Agreement (CRD, $n = 77$)	15.45	12.37
Father: Child-Rearing Agreement (CRD, $n = 76$)	13.09	9.63
Mother: Parental Sensitivity (EAS, $n = 78$)	24.56	3.32
Father: Parental Sensitivity (EAS, $n = 78$)	23.96	3.38

Descriptive Statistics

Means and standard deviations of the variables Child Prosocial Behavior, Relationship Satisfaction, Child-Rearing Agreement, and Parental Sensitivity are shown in Table 1. The three predictor variables are shown for mothers and fathers separately. No significant differences were found between maternal and paternal total mean scores on Relationship Satisfaction ($t(75) = 1.75$, $p = .12$, $d = .36$) Child-Rearing Agreement ($t(75) = 1.76$, $p = .08$, $d = .27$) and Parental Sensitivity ($t(77) = -1.18$, $p = .24$, $d = 1.24$). Additionally, Table 2 displays the correlation coefficients between the tested variables. As expected, significant associations were found between maternal and paternal scores on Relationship Satisfaction ($r = .62$, $p < .01$) and Child-Rearing Agreement ($r = .36$, $p < .01$), yet not between both parents' ratings of Parental Sensitivity ($r = .09$, $p = .45$). Furthermore, maternal scores on Relationship Satisfaction and Child-Rearing Agreement were significantly positively associated ($r = .63$, $p < .01$), as well as the paternal scores ($r = .57$, $p < .01$). Finally, maternal scores on Relationship Satisfaction were positively correlated with paternal scores on Child-Rearing Agreement ($r = .51$, $p < .01$), and paternal scores on Relationship Satisfaction were positively associated with maternal scores on Child-Rearing Agreement ($r = .41$, $p < .01$). No significant correlations were found between one of the independent variables and Child Prosocial Behavior. A point of caution was the potential collinearity between Relationship Satisfaction and Child-Rearing Agreement, and between maternal and paternal scores on each predictor (Kroonenberg & Linting, 2010). Table 2 however illustrates that correlations between the independent variables did not equal or exceed .70 rendering it uncalled for to merge any combination of variables into a single predictor.

When considering the relation between parental scores on the dependent variable of interest of this study and family background characteristics, mothers' Age was found to be negatively associated with their individual ratings (not the combined mother-father ratings) of Child Prosocial Behavior ($r = -.27$, $p = .02$), indicating that older mothers rated their child lower on prosocial behavior. Three-factor univariate analyses of variance revealed no significant main and/or interaction effects of paternal and maternal educational level and marital status.

Table 2.

Correlation Coefficients Between the Criterion Variable and Predictor Variables

Variable	CPB	Mother RS	Father RS	Mother CRA	Father CRA	Mother PS
Child Prosocial Behavior						
Mother: Relationship Satisfaction	0.04					
Father: Relationship Satisfaction	0.04	0.62*				
Mother: Child-Rearing Agreement	0.10	0.63*	0.41*			
Father: Child-Rearing Agreement	-0.09	0.51*	0.57*	0.36*		
Mother: Parental Sensitivity	0.12	-0.08	-0.05	-0.02	-0.07	
Father: Parental Sensitivity	-0.00	-0.07	0.10	-0.10	0.08	0.09

Note. Used abbreviations in the table are CPB (Child Prosocial Behavior), RS (Relationship Satisfaction), CRA (Child-Rearing Agreement), and PS (Parental Sensitivity). * $p < .01$

Data-Analysis

Relationship Satisfaction and Child Prosocial Behavior. Analysis of whether toddlers and preschoolers express higher levels of prosocial behavior as their parents experience more relationship satisfaction revealed no significant effects for both maternal and paternal Relationship Satisfaction (Table 3). However, a significant interaction effect was found for paternal Relationship Satisfaction and Child Gender (Table 3); although the full model did not reach significance ($R^2 = .03$, $F(5, 67) = 1.49$, $p = .22$), the interaction term significantly added to the prediction ($\beta = .25$, $p = .05$). As shown in Figure 1, girls exhibited more prosocial behavior as fathers had higher scores on the MMQ ($r = .30$, $p = .04$), indicating lower levels of relationship satisfaction, whereas no such relationship was found for boys ($r = -.17$, $p = .15$). Including the interaction term of maternal Relationship Satisfaction and Child Gender in a separate model did not significantly contribute to the prediction of Child Prosocial Behavior ($R^2 = -.02$, $\Delta R^2 = .01$, $F(1, 67) = .59$, $p = .45$; interaction term, $\beta = .09$, $p = .45$). No significant alterations in results were found after excluding the multivariate outlier.

Table 3.

Model for Child Prosocial Behavior Predicted by Relationship Satisfaction including the interaction term of paternal Relationship Satisfaction and Child Gender (n = 73)

	Child Prosocial Behavior				
Independent variable	*B*	*SE B*	*β*(Beta)	ΔR^2	*F* change
Step 1				.04	1.57
Child Age	1.30	.83	.18		
Child Gender	.60	.77	.09		
Step 2				< .01	.10
Child Age	1.33	.84	.19		
Child Gender	.60	.78	.09		
Mother: Relationship Satisfaction	.41	1.41	.04		
Father: Relationship Satisfaction	.09	.89	.02		
Step 3				.05*	4.03*
Child Age	1.36	.82	.19		
Child Gender	.24	.79	.04		
Mother: Relationship Satisfaction	1.01	1.41	.11		
Father: Relationship Satisfaction	-.22	.88	-.04		
Father: Relationship Satisfaction x Child Gender	1.42	.71	.25*		

Note: on behalf of the inclusion of an interaction term and a coherent comparison between predictors, regression coefficients were calculated based on Z-scores. *$p < .05$.

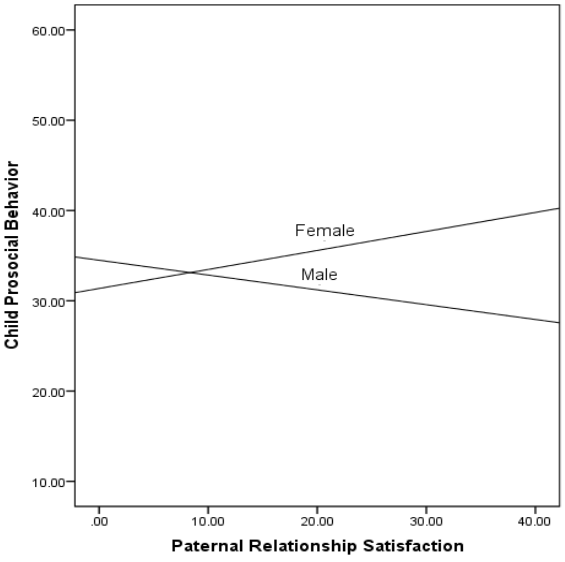

Figure 1. Relation between paternal scores on Relationship Satisfaction and Child Prosocial Behavior for boys *(N* = 41) and girls (*N* = 37).

Child-Rearing Agreement and Child Prosocial Behavior. In the examination of whether toddlers and preschoolers show lower levels of prosocial behavior when their parents experience low child-rearing agreement, no main effects were found for maternal and paternal Child-Rearing Agreement (Table 4). However, in the final model (with interaction term, $R^2 = .15$, $F(5, 66) = 3.45$, $p < .01$) both maternal Child-Rearing agreement ($\beta = .24$, $p = .05$) and the interaction between paternal Child-Rearing agreement and Child Gender ($\beta = .34$, $p < .01$) significantly predicted Child Prosocial Behavior. Figure 2 illustrates that boys scored lower on prosocial behavior as fathers had higher scores on the CRD ($r = -.33$, $p = .02$), referring to lower levels of child-rearing agreement, whereas for girls this association was positive but non-significant ($r = .21$, $p = .12$). Testing the interaction term of maternal Child-Rearing Agreement and Child Gender separately did not significantly add to the prediction model of Child Prosocial Behavior ($R^2 < -.01$, $\Delta R^2 = .01$, $F(1, 67) = .54$, $p = .47$; interaction term, $\beta = .10$, $p = .47$). Exclusion of univariate and/or multivariate outliers did not lead to significant alterations in results.

Table 4.

Model for Child Prosocial Behavior Predicted by Child-Rearing Agreement including the interaction term of paternal Child-Rearing Agreement and Child Gender (n = 73)

	Child Prosocial Behavior				
Independent variable	*B*	*SE B*	β (Beta)	ΔR^2	*F* change
Step 1				.05	1.80
Child Age	.90	.73	.15		
Child Gender	.96	.68	.17		
Step 2				.05	1.77
Child Age	.66	.74	.11		
Child Gender	.93	.68	.16		
Mother: Child-Rearing Agreement	1.18	.67	.22		
Father: Child-Rearing Agreement	-.91	.71	-.16		
Step 3				.11**	9.16**
Child Age	.70	.70	.11		
Child Gender	.54	.65	.09		
Mother: Child-Rearing Agreement	1.28	.63	.24*		
Father: Child-Rearing Agreement	-1.08	.68	-.19		
Father: Child-Rearing Agreement x Child Gender	1.87	.62	.34**		

Note: on behalf of the inclusion of an interaction term and a coherent comparison between predictors, regression coefficients were calculated based on Z-scores. *$p < .05$. **$p < .01$.

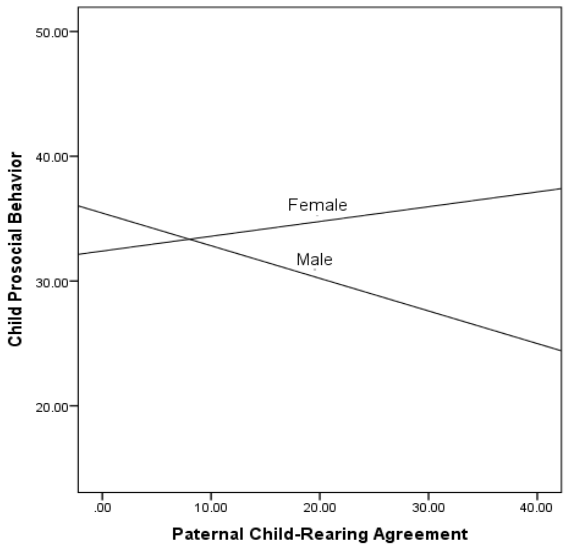

Figure 2. Relation between paternal scores on Child-Rearing Agreement and Child Prosocial Behavior for boys (n = 40) and girls (n = 37).

Moderation through Interparental Concordance. Testing the extent to which interparental concordance acts as a moderator in the association between both studied aspects of the interparental relationship and children's prosocial behavior did not reveal significant unique variance explained by the interaction term of, firstly, Interparental Concordance and Relationship Satisfaction as perceived by the mother (R^2 = .02, ΔR^2 = .01, F(1, 67) = .89, p = .35; interaction term, β = .15, p = .35) or the father (R^2 < -.01, ΔR^2 = .01, F(1, 67) = .52, p = .47; interaction term, β = -.09, p = .47). Studying the models for boys and girls separately and excluding the multivariate outlier did not reveal significant changes in results. Secondly, the interaction term of Child-Rearing Agreement and Interparental Concordance did not significantly explain any unique variance in Child Prosocial Behavior as reported by the mother (R^2 = -.01, ΔR^2 = .01, F(1, 67) = .69, p = .41; interaction term, β = .15, p = .41), or the father (R^2 = -.02, ΔR^2 < .01, F(1, 67) = .06, p = .83; interaction term, β = .04, p = .83). However, re-analysis of the models after splitting the results by Child Gender revealed that for boys a significant proportion of variance was explained for after including the interaction term of Interparental Concordance and maternal Child-Rearing Agreement and after excluding both uni- and multivariate outliers (R^2 = .16, ΔR^2 = .22, F(1, 31) = 9.36, p < .01; interaction term, β = .52, p < .01).

Figure 3 illustrates that, in case of low Interparental Concordance, boys showed more prosocial behavior as mothers scored higher on the CRD (r = .48, p = .02), which indicates lower levels of rearing agreement. In case of high Interparental Concordance, boys appeared to display lower levels of prosocial behavior as mothers experienced lower levels of child-rearing agreement (r = -.54, p = .01). Using the same subsample of boys, the interaction effect between paternal scores on Child-Rearing Agreement and Interparental Concordance did not significantly contribute to the model (R^2 = .15, ΔR^2 = .01, F(1, 31) = .29, p = .59; interaction term, β = -.12, p = .59).

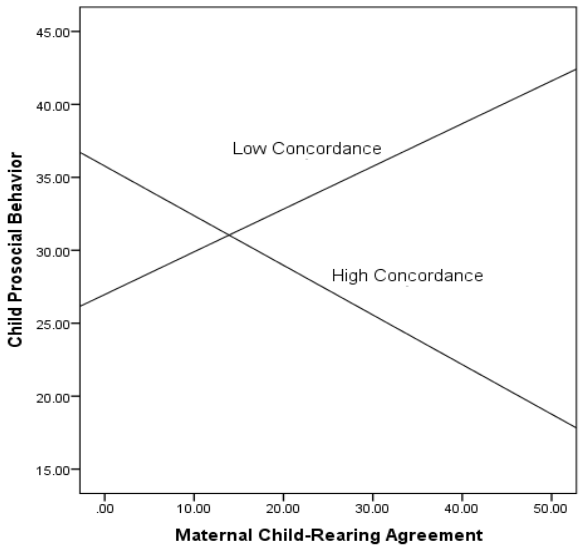

Figure 3. Relation between maternal scores on Child-Rearing Agreement and Prosocial Behavior in boys in case of low (n = 19) and high (n = 17) Interparental Concordance.

Mediation through Parental Sensitivity. Based on the analysis of the first two research questions, which examined the main effects of Relationship Satisfaction and Child-Rearing Agreement, it was decided to test the potential mediating function of Parental Sensitivity in relation to the found associations between maternal Child-Rearing Agreement and Child Prosocial Behavior, between paternal Relationship Satisfaction and prosocial behavior in girls, and between paternal Child-Rearing Agreement and prosocial behavior in boys. However, after controlling for Child Age and (if necessary) Child Gender no significant contributions were found for maternal Sensitivity in general (R^2 = .01, ΔR^2 = .01, F(1, 71) = .70, p = .41; predictor, β = .10, p = .41), for paternal Sensitivity for girls (R^2 = -.02, ΔR^2 = .03, F(1, 32) = .95, p = .34; predictor, β = .17, p = .34), and for paternal Sensitivity for boys (R^2 = .02, ΔR^2 = .02, F(1, 37) = .95, p = .34; predictor, β = -.16, p = .34), rendering a mediation model not viable.

Excluding uni- and/or multivariate outliers did not significantly change these results. To check whether paternal Sensitivity would predict Child Prosocial Behavior when considering the whole sample, both the main effect and the interaction term of Child Gender with Parental Sensitivity were calculated. However, no significant effects of paternal Sensitivity (R^2 < -.01, ΔR^2 < .01, $F(1, 71) = .01$, $p = .93$; predictor, $\beta = -.01$, $p = .93$) and the interaction term were found (R^2 = -.01, $\Delta R^2 = .03$, $F(1, 70) = 1.86$, $p = .18$; interaction term, $\beta = .16$, $p = .18$). Also for mothers the interaction term of Parental Sensitivity and Child Gender did not significantly contribute to the model ($R^2 = .01$, $\Delta R^2 = .01$, $F(1, 69) = .36$, $p = .55$; interaction term, $\beta = .07$, $p = .55$). Regarding both parents no significantly different results were found after excluding the multivariate outlier.

Discussion

The present study's main purpose was to broaden the current understanding of the family-environmental factors, which help shaping the repertoire of prosocial behaviors in toddlers and preschoolers. This was done by focusing on mothers' as well as fathers' personal experiences concerning general interparental relationship features, knowing relationship satisfaction and child-rearing agreement. Subsequently, the main conclusions regarding the five previously described research questions will be discussed in light of both the preliminary hypotheses and additional theoretical viewpoints and empirical findings, followed by a clarification of the study's limitations. Finally, the clinical and social implications of our results will be considered with regard to the question how to preserve and stimulate social emotional learning in young children and new directions for further research will be drawn.

Relationship Satisfaction and Child Prosocial Behavior

In contrast with the preliminary supposition that children will show more prosocial behavior as their parents experience increased gratification with their romantic relationship, the level of relationship satisfaction as perceived by both parents was not related with prosocial behavior in toddlers and preschoolers. However, after considering the potential moderating effect of child gender, paternal evaluations of relationship satisfaction appeared to be significantly related to prosocial behavior in girls; as fathers experienced lower levels of satisfaction, girls tended to exhibit more prosocial behavior. This finding corresponds with the results found in the discipline of child and family studies concerning the family-environmental impact on children's onset of puberty; American researchers for example found that paternal experiences of relationship discontentment, and paternal withdrawal in particular, predicted an accelerated onset of puberty in girls, whereas no such effects were found for maternal ratings of marital dissatisfaction or withdrawal (Saxbe & Repetti, 2009). Evolutionary psychologists argue that paternal availability in childhood can provide girls with signals about the availability of future partners (Belsky, Steinberg, & Draper, 1991). As such, fathers with low levels of relationship satisfaction may display cues that signify abandonment, which in turn might stimulate early maturation processes in girls in order to increase their odds for offspring (Saxbe & Repetti, 2009). In light of the Evolution Theory, prosocial behavior can be considered as part of a survival- and reproduction-strategy as well, with those who show more helpfulness and altruism increasing their chances to encounter protection and to find a mate (Hay, 2009).

Consequently, paternal marital dissatisfaction catalyzing girls' prosocial tactics for survival and reproduction might explain the finding that relationship satisfaction of fathers predicted prosocial behavior in daughters. Furthermore, gender-differences in neuropsychological emotion-processing may additionally account for the fact that relationship satisfaction as perceived by the father only appeared to affect girls; the female brain is found to process a greater variety of emotional signals more thoroughly than boys (Gurian, 2001), which may favor young girls' ability to pick up and comprehend relatively obscure intrapersonal mental states such as contentment.

Child-Rearing Agreement and Child Prosocial Behavior

With regard to the hypothesis that children would express lower levels of prosocial behavior when their parents experience lower levels of child-rearing agreement partial support was found in that only boys showed diminished prosocial behavior as fathers experienced lower levels of rearing agreement with their spouse. Conversely, when included in a single model with the interaction term paternal child-rearing agreement and child gender, both boys and girls appeared to show slightly more prosocial behavior when their mothers experienced lower levels of child-rearing agreement. A potential explanation for this latter unexpected finding is that mothers who endure little rearing agreement may become angry and frustrated more easily, which can be handled with and prevented by young children through a general tendency towards prosocial behavior. A twin-study for example revealed that children who encountered lower quality of parenting showed more prosocial behavior (Knafo, Zahn-Waxler, Davidov, Van Hulle, Robinson, & Rhee, 2009). The author suggested that rivalry between twins for parental attention can stimulate socially approved behavior (Knafo et al, 2009). In this study, toddlers and preschoolers had a younger sibling of about twelve months of age, a developmental phase in which children need constant supervision and care. Hence, expressing prosocial behavior could be a rivaling tactic of the older sibling in order to receive sufficient maternal care and consideration. Since Dutch mothers often still carry main child-care responsibilities (Van Wel & Knijn, 2006), toddlers' and preschoolers' social emotional development could be affected more strongly by maternal child-rearing agreement rather than paternal child-rearing agreement. However, the unique and contradictory association between paternal child-rearing agreement and prosocial behavior in boys requires further consideration. In the field of gender-specific susceptibility concerning the development of externalizing behavior problems, accumulating research has supported the notion that boys appear to be more susceptible than girls to the effects of their rearing-environment (Rothbaum & Weisz, 1994).

Although little empirical research can be found about gender-specific susceptibility with regard to other aspects of children's social emotional development rather than disruptive behavior, it is very well possible that boys are also more prone to their environment when it comes to socially accepted behavior. Therefore, when fathers experience high levels of agreement about child-rearing themes and consequently provide their children with considerate examples of prosocial behavior, boys might sooner pick up and imitate these examples than girls. Additionally, Boys' exclusive sensitivity to the level of child-rearing agreement has been supported by research regarding the effects of co-parenting on children's attachment security and elucidated by the authors as a potential result of the fact that fathers are simply more involved in raising boys than girls (Brown, Mangelsdorf, & Neff, 2010). Hence, boys may also be confronted more often and more directly than girls with agreement versus disagreement among parents regarding child-rearing matters.

Moderation through Interparental Concordance

Contrary to the preliminary assumption that interparental concordance will strengthen the association between relationship quality and social emotional learning in children, the level of unanimity between parents regarding their appraisals of relationship satisfaction and child-rearing agreement did not significantly interact with either one of the relationship components for both parents. However, when considering the results separately for boys and girls a significant interaction effect was found for boys that may indicate differential susceptibility in males to their rearing environment; as mothers experienced lower levels of child-rearing agreement in the face of low interparental concordance on this topic, boys appeared to show more prosocial behavior. The reverse is true in case of high interparental concordance; as mothers experienced higher levels of rearing agreement with their partner, boys exhibited more prosocial behavior as well. The latter finding corresponds with previous research that found an amplifying effect of parenting behavior on child development when endorsed by both parents (Jaursch et al., 2009). However, the negative association between child-rearing agreement and prosocial behavior in boys in face of low interparental concordance is remarkable given that parental determinants of child prosocial behavior were expected to partially lose their influential power in the occurrence of contradictory behavior/opinions of the other parent (Jaursch et al., 2009). Perhaps the combination of low levels of child-rearing agreement as experienced by the mother and contradictory paternal opinions on this topic places additional stress on young children as both parents may approach each other with different intentions/ affectionate states and their children with non-corresponding rearing-principles.

In the research field of interparental conflict, problem-focusing has been described as a coping-strategy in order to regulate the increased distress children experience when confronted with interparental friction (Cummings & Davies, 2002). The problem-focused coping strategy encompasses child behaviors such as compensation and soothing (Cummings & Davies, 2002), which can be considered as examples of prosocial behavior. Hence, a puzzling environment in which children encounter both low maternal child-rearing agreement and opposite paternal beliefs may stimulate a problem-focused coping strategy when faced with distressing experiences. Finally, gender-specific susceptibility may again account for the fact that only a significant interaction effect was found for boys (Rothbaum & Weisz, 1994).

A point of caution regarding the described interpretations of the found moderating effect of interparental concordance is that the interaction effect only came to a light after excluding several outlying families. Consequently, the found results may not be representative to the population of Dutch toddler and preschool boys in general. Further research, encompassing larger sample sizes, is necessary to verify the findings and to support the plausibility of the potential explanations.

Moderation through Child Gender

Beyond the previously discussed evolutionary and gender-specific susceptibility perspectives, the contradictory results between boys and girls regarding the two aspects of the interparental relationship, with most outcomes for boys being in line with our preliminary hypotheses and girls showing opposite or no significant patterns of prosocial behavior, might also be explained by differences in cognitive representational models according to child gender (Cummings & Davies, 2002). In the research field of interparental conflict, evidence suggests that marital conflict affects boys' and girls' concepts of self differently; girls are thought to respond with feelings of self-blame more strongly, whereas boys appear to react with elevated levels of perceived threat (Cummings & Davies, 2002). Both cognitive frameworks can evoke different responses in children in face of interparental stress. As boys experience increased personal threat, they might be more likely to show self-protective behaviors such as avoidance and withdrawal given that fear is expected to stimulate these reactions (Crockenberg & Langrock, 2001). Conversely, feelings of self-blame in girls may activate prosocial responses in order to repair the interpersonal damage and to re-ascertain personal emotional security (Cummings & Davies, 2002).

Mediation through Parental Sensitivity

In addition to the hypothesized direct impact of both components of the interparental relationship on young children's social emotional development, parental sensitivity was expected to partially mediate the association between relationship satisfaction or child-rearing agreement and child prosocial behavior. However, no main effects of sensitive parenting with regard to prosocial behavior in toddlers and preschoolers were found when considering the whole sample as well as analyzing boys and girls separately, rendering a mediating pathway through parental sensitivity not viable. These findings do not correspond with previous studies, which found a predictive link between parental sensitivity and child prosocial behavior (Van der Mark, Van IJzendoorn &, Bakermans-Kranenburg, 2002; Carlo et al., 2007). However, it should be noted that in this study children's general tendency towards prosocial behavior was measured, not prosocial behavior with regard to specific, familiar individuals. Accumulating research that focused on the effects of early attachment on children's social competence revealed that attachment security predicted social behavior towards close friends more powerfully than social behavior towards peers in general (Schneider, Atkinson, & Tardif, 2001). These results are in line with Bolwby's argumentation that caregiver-child attachment relationships affect children's future affectional bonds more strongly than other kinds of relationships (Berlin, Cassidy, & Appleyard, 2008). As parental sensitivity has been repeatedly linked to attachment security as an important developmental determinant (De Wolff & Van IJzendoorn, 1997), this parenting component possibly exerts a rather exclusive influence on children's prosocial behavior towards familiar others, whereas it may have little effect on feelings of empathy and prosocial actions on behalf of strangers.

Another potential explanation for the lack of finding a predictive association between parental sensitivity and child prosocial behavior is that sensitive and responsive caregiving may not represent adequately direct and tangible examples of prosocial behavior when it concerns two-to-three year olds. Although parental sensitivity encompasses aspects of empathy and responding in a prosocial manner (Berkowitz & Grych, 1998), both components underlie a great variety of more or less minuscule behaviors such as eye-contact and turning towards the child when it initiates contact (Juffer, Bakermans-Kranenburg, & Van IJzendoorn, 2008). As sophisticated Theory of Mind appears to develop progressively from toddlerhood on (Apperly, 2011), children at this age may not yet be sufficiently capable of noticing and accordingly imitating these concealed signals as attempts to support another person. Hence, more clear-cut examples such as helping and consoling may exert a more prevailing influence on the expression of prosocial behavior during the toddler and preschool years.

However, given that accumulating research did find an association between parental sensitivity, especially in mothers, and child prosocial behavior during middle childhood, both prospectively and cross-sectionally (Matestic, 2009; Suveq, Jacob, & Paine, 2010), sensitive and responsive caregiving may gradually have a mounting effect as children grow older.

Limitations

In this study a selective sample was drawn in order to include all families with valid scores on the EAS. Hence, the generalizability of the conclusions is limited. Although no selection criteria were used for the sequence in which families were coded, it is possible that the group of selected families differed significantly from the total Boys will be Boys sample concerning background characteristics such as parental educational level. However, the selected sample was not compared with the original, randomly assigned, group of families. The use of a selective sample may, in addition to the given theoretical considerations, give a psychometrical account for the fact that no significant effects were found for parental sensitivity. The spread of the EAS-scores in our sample was moderate with most parents scoring relatively high on the Sensitivity scale. The resulting restricted range could have prevented finding a significant association between sensitivity and both the independent and dependent variables in this study.

In addition, several significant differences were found between groups with and without missing values on the questionnaires. Fathers with missings gave significantly lower scores on child prosocial behavior, more often had a female first-born, and had finished a lower educational level than fathers without missing values. Mothers with missing values also more often had a girl and had a higher vocational or academic degree. In short, our conclusions are restricted to a group of families with relatively higher educated fathers, lower educated mothers, male first-borns, and high paternal scores on child prosocial behavior.

Another limitation of this study was the use of questionnaires only for the measurement of the interparental relationship and prosocial behavior in children, which were all filled in by the parents. Consequently, the found effects for paternal relationship satisfaction and both maternal and paternal child-rearing agreement may partially result from shared method as well as shared informant variance. Including various informants, kindergarten teachers for example, and different measurement instruments, e.g. observations, would have increased the validity of the results. Furthermore, the internal consistency of the MCQ-subscale Empathic, Prosocial Response to Another's Distress was moderate in the 'Boys will be Boys' sample for mothers as well as fathers. Therefore, using additional measurement instruments may not only have amplified the validity, but also the reliability of the measurement of child prosocial behavior.

Finally, the additional analyses of the effects of the independent variables for boys and girls separately may be limited by the relatively small sample sizes that remained after splitting the sample by child gender. For example, perhaps a main effect of paternal relationship satisfaction was to be found for boys as well if more boys were included in the study. The use of relatively small sample sizes also increases a regression test's susceptibility for the effects of both univariate and multivariate abnormality of distributions, rendering this test less suitable for answering our research questions.

Clinical and Social Implications

Since three decades, there is general agreement among professional and non-professional caretakers that hostile interparental interactions can have serious negative consequences for young children's social emotional development (Hudson, 2009). In this study it was found that also other, less evidently destructive, aspects of the interparental relationship can affect children's empathic, sympathetic, and prosocial capacities such as the subjective quality of the romantic relationship and the level of agreement among parents regarding child-rearing matters. Furthermore, not only the individual parent's experiences with his/her romantic relationship appear to contribute to the social emotional development in children, the interplay between both parents' opinions appears to have an additional effect. Clinicians who work with children and their families may be advised to consider these more discrete aspects of the interparental relationship as well in order to include as many potential family-environmental determinants of young children's prosocial development as possible.

In addition, this study emphasizes the influential role fathers may have on the differences in prosocial behavior between toddlers and preschoolers. Although our attention for the paternal impact on child development is generally burgeoning (Lamb, 2010), mothers are often still thought to be the most important significant others in young children's direct environment (Van Wel & Knijn, 2006). Two important outcomes of this study offer support for the notion that fathers should be taken as seriously as mothers when analyzing and treating problems regarding young children's social-emotional development from a family-systemic point of view. In the first place, exclusive effects appeared to be found for relationship satisfaction and child-rearing agreement as perceived by the father when considering boys and girls separately. Secondly, mothers' opinions of rearing agreement appeared to have a strong influence on boys, yet only when considering the level of unanimity on this topic between both parents.

Furthermore, the way in which parents experience their partner relationship appears to have a differential impact on boys and girls, with boys potentially being more susceptible to (maternal experiences of) agreement and concordance among parents about child-raising matters. Girls on the other hand may be more strongly affected by affective aspects of a parent's mental state, perhaps especially a father's mental state, such as the level of contentment with the partner relationship. These possible gender-specific differences in susceptibility to the family-environment may be kept in mind by clinicians and professional caretakers who attempt to unravel the effects parents and other caretakers have on prosocial behavior in children and try to support and preserve their social-emotional development through parent-education and/or – training.

Future Research

In order to understand the explaining mechanisms of the found associations between aspects of the interparental relationship and social emotional development in young children, future research must pay further considerate attention to the potential mediating and/or moderating variables that help clarifying why fathers and mothers appear to have differential effects on boys and girls. In the first place, including further aspects of parenting such as parental withdrawal and probing direct prosocial behavior in addition to sensitivity may shed light on different consequences of the quality of the marital relationship on fathers' and mothers' quality of parenting and the specific effects of these parenting components on children's prosocial behavior. Furthermore, including larger random samples of boys and girls will enable us to analyze more powerfully gender-specific susceptibility to the family-environment in the development of prosocial behavior. In turn, the explanatory chain between marital quality and child prosocial behavior can be understood more thoroughly if researchers start to incorporate child coping strategies and internal working models as potential mediating factors.

Additionally to parent and child characteristics as possible mediating variables, upcoming empirical studies regarding the family-environmental determinants of prosocial development in children are advised to take interpersonal features of family-systems into account. Whereas in the present study maternal child-rearing agreement appeared to have a strong influence on boys after considering the level of interparental concordance on this topic, other interparental tendencies (e.g. mutually expressed friendliness) may either strengthen or weaken the impact of individual parental opinions regarding the marital relationship as well.

A useful instrument in the analysis of interpersonal interactions, which may contribute to explain the relation between the interparental relationship, parent-child communication, and finally child prosocial behavior, is the Dynamic System's State Space Grid (Granic, 2005). This statistical approach, based on observational data, enables researchers to code and quantify the behaviors of two or more participants at the same time and to track the sequences in their multiple simultaneous states (Granic, 2005). Hence, the dynamic interplay between family-members can be taken into consideration as a potential contributor to children's social emotional development.

Finally, in order to complete a family-environmental framework that helps us to understand the variability in children's social competence and the strength of family-related predictors under diverse circumstances, a broader range of family background characteristics must be included in further research. In this study, fathers appeared to experience their level of contentment with the marital relationship differently according to their partners' educational level and the interaction between marital status and their own educational level. Another demographic variable that may contribute to children's level of prosocial behavior is time spend in day-care (Bohlin, 2009) given that more time spent with peers in day-care may offer frequent opportunities to practice prosocial skills.

In Figure 4, the recommendations are represented in a framework, which future researchers can take into consideration when studying the variability in young children's prosocial development from a family-systemic point of view with the interparental relationship as a central determinant.

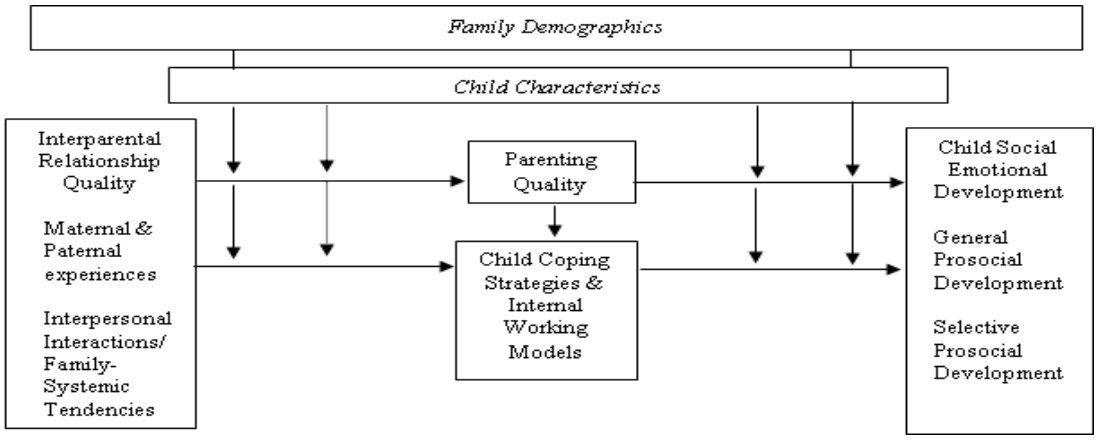

Figure 4. Framework for a family-systemic approach of the impact of the marital relationship on prosocial development in children for future research.

Conclusion

The current study found that different aspects of the interparental marital quality predicted prosocial behavior in boys and girls. Not only did individual parental opinions of the marital relationship contributed to the clarification of child prosocial behavior, the level of interparental agreement on this topic appeared to have a strengthening effect. In addition to Attachment Theory and Social Learning Theory, Evolution theory and the concepts of gender-specific parenting, rearing-susceptibility, and child coping can offer new insights into the explaining link between the interparental relationship and child prosocial behavior. Finally, the present study emphasizes a more thorough analysis of the influence of the marital relationship as a whole on children's social emotional development.

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