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Heroes and housewives: The role of gender and gender stereotypes in parenting and child development

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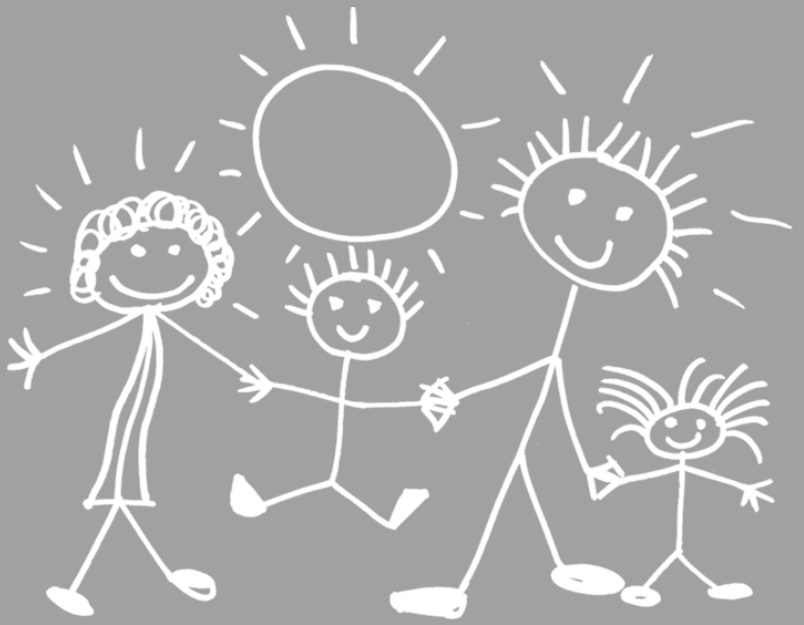
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7



General Discussion

The findings in the current dissertation provide evidence for the argument that gender is an important factor in the study of child development, as noted by Maccoby and Jacklin as early as 1974. In the family context the genders of all family members (i.e., child gender, parent gender, sibling gender composition) appear to influence child behavior. Moreover, gender stereotypes are important explanatory factors for the behavior of parents towards their sons and daughters. Chapter 2 provided meta-analytic evidence that both mothers and fathers use differential control strategies with their sons and daughters. The results in Chapter 3 showed that there is indeed a link between parents' gender stereotypes and children's attitudes about gender, at least for mothers and daughters. In Chapter 4, the results suggested that parents use gender talk to convey their ideas about gender and gender roles to their children and they attune their gender messages to the gender composition of their two children. Chapter 5 provided evidence for a pathway from parental gender stereotypes to gender-differentiated parenting to gender differences in child behavior. Chapter 6 presented the Gendered Family Process model (GFP-model) an integrative framework of the biological, social, and cognitive factors implicated in gender-related family processes. In the current chapter these findings will be summarized and reviewed in greater detail. Findings are discussed in terms of the role of child gender, parent gender, sibling gender composition, and gender stereotypes. In addition the studies' limitations, implications and suggestions for future research are described.

Child Gender

Chapter 4 examined the effect of child gender on children's attitudes about gender. At age 3 no differences between boys and girls were found in the strength of their implicit gender stereotypes (i.e., operating largely outside conscious awareness). In the literature gender differences in children's gender stereotypes are less well established than gender differences in aggression, toy preferences, or spatial perception (see Hines, 2004; Signorella, Bigler, & Liben, 1993). A meta-analysis found that preschool boys and girls did not differ in the strength of their gender stereotypes (Signorella et al., 1993). However, for adults there is some evidence that men and women differ in the strength of their gender stereotypes (i.e., women more implicit stereotypes, men more explicit, overtly expressed, stereotypes, Nosek, Benaji, & Greenwald, 2002a; Tenenbaum & Leaper, 2002). Apparently, gender differences in attitudes about gender start to develop later in childhood, probably during the school years where peer influence becomes more pronounced. Since boys are subject to more pressure from peers to conform to gender stereotypes than girls (Hort, Fagot, & Leinbach, 1990; Leaper, 2000), boys' attitudes about gender may become more traditional than girls' gender stereotypes. There is indeed some evidence of gender differences in gender stereotypes to become more pronounced during the school years (McHale, Crouter, & Tucker, 1999; Turner & Gervai, 1995). Even though no differences between boys and girls were found in the attitudes children have about

gender, the fact remains that three-year-old children already have developed gender stereotypes. At this young age, parents are most likely to be the main influencers (McHale et al., 1999).

In Chapter 5 differences between boys and girls in aggression were examined. Results showed that boys are more aggressive than girls both at three and four years of age. These results converge with numerous studies that have found higher levels of aggressive behavior in boys than in girls (see Alink et al., 2006; Archer, 2004; Hyde, 1984, 2014; Loeber, Capaldi, & Costello, 2013). Moreover, it is in line with Maccoby and Jacklins conclusion that *“The sex difference in aggression has been observed in all cultures in which the relevant behavior has been observed. Boys are more aggressive both physically as well as verbally”* (1974, p. 338). Gender differences in aggressive behavior represent one of the most pronounced gender differences found in the literature on child development. However, there is also evidence that girls use specific forms of aggression more often than boys. Previous studies have found girls to be more relationally aggressive (i.e., gossiping, excluding, withdraw friendship) than boys, whereas boys are more overtly aggressive (i.e., physical and verbal aggression) than girls (Crick & Grotpeter, 1995). In Chapter 5 the focus was only on overt physical and verbal aggression.

Child gender does not only play a role in the child’s own behavior, but also in their parent’s behavior. Evidence regarding the role of child gender in parenting was presented in Chapter 2 and 5. In Chapter 2 the role of child gender in parent’s use of positive and negative control strategies was examined meta-analytically. Results showed that parents use more negative control with boys than with girls. This is in line with the previous meta-analytic result that boys receive more physical punishment (i.e., form of negative control) than girls (Lytton & Romney, 1991). As mentioned in the general introduction, Maccoby and Jacklin proposed two mechanisms behind gender-differentiated parenting: *“1) Because of innate differences in characteristics manifested early in life, boys and girls stimulate their parents differently and hence elicit different treatment from them, 2) Parents treat boys and girls differently, because parents base their behavior toward a child on their conception of what a child of a given sex is likely to be like”* (Maccoby & Jacklin, 1974, p. 305-306). However, only a few of the studies conducted on gender-differentiated parenting included in the meta-analysis (Chapter 2) have adopted a longitudinal design to examine both parent and child effects on parenting, or included parents’ attitudes about gender and gender differences. Therefore, it was not possible to examine whether the differential treatment of boys and girls was due to parent’s attitudes about gender, or due to the difference between boys and girls in disruptive behavior that elicits parents’ use of more negative control with boys than with girls. However, the differential negative control of boys and girls was detected both in studies that controlled for the child’s behavior and in studies that did not (Chapter 2). In addition, previous studies have found evidence for bidirectionality in parent-child

relationships (Maccoby et al., 1984; Scaramella, Sohr-Preston, Mirabile, Robinson, & Callahan, 2008; Smith, Calkins, Keane, Anastopoulos, & Shelton, 2004). Moreover, another study showed that child behavior has a limited influence on parents' use of harsh control (Jaffee et al., 2004). Thus, we propose that it is not only the gender difference in disruptive behavior that elicits parents to use more negative control with boys than with girls (i.e., child effect), but also something in parental attitudes about gender roles. We were also able to rule out some other explanations for the differential control of boys and girls, since gender-differentiated negative control was a robust effect that could be observed in both mothers and fathers, in many different settings and situations, in samples of different ages or socioeconomic status, and on different continents (i.e., Asia, North America, South America, Europe, Australia).

The picture for parents' differential use of positive control with boys and girls was less straightforward than for negative control. No overall gender-differentiated parenting effect for positive control was found, but a significant effect of time emerged: studies published in the 1970s and 1980s reported more positive control towards boys than towards girls, but from 1990 onwards parents showed more positive control towards girls than towards boys. These findings were interpreted in light of historical trends such as the "*gender-neutral wave*" (Martin, 2005) and the increased interest in positive parenting strategies in the 70s and 80s (Forehand & McKinney, 1993).

One of the rationales for the meta-analysis was the potential importance of differential parenting strategies with boys and girls for the development of gender differences in behavior. However, we were not able to test if differential control may indeed be one of the mechanisms behind gender differences in for example disruptive behavior that have been consistently found in the literature (see Else-Quest, Hyde, Goldsmith, Van Hulle, 2006; Hyde, 1984). The lack of studies examining the consequences of gender-differentiated parenting for gender differences in child behavior was the inspiration for the study presented in Chapter 5. In this study we tested whether the relation between child gender and child aggression is mediated by parental use of physical discipline strategies, using a longitudinal design and observational assessments of mothers' and fathers' parenting behavior. The results showed that fathers' differential use of physical discipline with boys and girls completely accounted for the gender differences in children's aggressive behavior a year later (i.e., for fathers with strong stereotypical or counter-stereotypical attitudes toward gender roles). Mothers' gender-differentiated parenting practices were unrelated to child aggression a year later. Fathers' gender-differentiated parenting thus appears to be an important mechanism behind gender differences in children's behavior. These findings are in line with three previous studies that also found evidence for the proposition that gender differences in child behavior may arise because of parents', and especially fathers', differential treatment of boys and girls

(Chaplin, Cole, & Zahn-Waxler, 2005; Mandara, Murray, Telesford, Varner, & Richman, 2012; Tamis-LeMonda, Briggs, McClowry, & Snow, 2009).

However, our results contradict Maccoby and Jacklin's statement that "*because the sex differences (i.e., in aggression) are found early in life ... there is no evidence that differential socialization pressures have been brought to bear by adults to "shape" aggression differently in the two sexes*" (Maccoby & Jacklin, 1974, p. 228). Although gender differences in aggression are indeed found early in life (see Baillargeon et al., 2007; Tremblay et al., 1999), this does not mean that the differential socialization of boys and girls can be ruled out as an explanatory mechanism. The results of the meta-analysis presented in Chapter 2 show that parents start socializing boys and girls differently from a very early age onwards (i.e., 0-2 year). Moreover, the famous study by Culp, Cook, and Housley (1983), in which a six-month-old infant is dressed up alternately as a boy and as a girl, showed that when adults perceive the infant to be a boy, they encourage and initiate more gross motor play and engage in less verbal interaction than when the infant is perceived to be a girl. This implies that even at a very early age (i.e., infancy) adults treat boys and girls differently and that this is not influenced by the infant's behavior.

Parent Gender

The current dissertation also provided evidence for differences between mothers and fathers in attitudes and behaviors (Chapter 3 and 4). In Chapter 3 differences between mothers and fathers in gender stereotypes and in the influence of their gender stereotypes on children's attitudes about gender were examined. Mothers had stronger implicit gender stereotypes than fathers, whereas fathers had stronger explicit attitudes about gender. The finding that fathers have stronger explicit gender stereotypes than mothers was consistent with previous studies on gender differences in adults gender stereotypes (Nosek et al., 2002a; Tenenbaum & Leaper, 2002). The finding that women have stronger implicit gender stereotypes than men was not entirely expected, since most studies do not find differences between men and women in implicit stereotypes (Benaji & Greenwald 1995; Rudman & Glick 2001; Rudman & Kilianski 2000). Only one previous study found stronger implicit attitudes about gender in women than in men (Nosek et al., 2002a). On the implicit measure, women in that study showed the culturally prescribed associations that link their gender with family more than with career, which was the same in our study (Chapter 2). Women have been found to have remarkably stronger implicit in-group biases (i.e., own gender preference) than men, which is thought to stem from past gender-related experiences (Rudman & Goodwin, 2004). Similar processes may explain stronger implicit gender stereotypes in women, but this remains to be tested.

The findings in Chapter 4 converge with the findings in Chapter 3 that fathers are more likely to express their gender stereotypes explicitly than mothers, and mothers have stronger implicit stereotypes than fathers. In Chapter 4 only some small

effects of parent gender on gender talk were found. First, mothers and fathers differed in their evaluative comments about pictures with boys and girls in activities that are consistent with gender stereotypes (i.e., girls playing hand-clapping games and boys skateboarding). Mothers were more positive than fathers about pictures showing boys and girls in activities that are in line with gender stereotypes. Since making evaluative comments about the activities in the pictures is a more implicit form of communicating information about gender and gender roles, than explicitly mentioning the stereotype (e.g., “Girls cannot play ice hockey” or “Boys don’t play with dolls”), this finding implies that mothers use more implicit ways to communicate to their children about gender and the behaviors appropriate for each gender. Second, evidence was found for the hypothesis that fathers use more explicit forms of gender talk than mothers. Fathers made more explicit comments that confirmed the gender stereotype than mothers.

In Chapter 3 we also found that mothers and fathers have a different influence on child development, since only mothers’, and not fathers’, implicit gender stereotypes were positively associated with their daughters’ implicit gender stereotypes. This finding is in line with meta-analytic findings showing that the impact of mothers on the development of gender stereotypes in children is somewhat stronger than that of fathers, because they spend more time with their children and therefore simply have more time to create gender-related experiences for children according to their own stereotypes (Tenenbaum & Leaper, 2002).

Last, Chapter 3 provided some evidence for the idea that boys and girls might be primarily socialized by the same-sex parent (Bandura, 1977), as the association between maternal gender stereotypes and child gender stereotypes was moderated by gender of the child. When mothers showed stronger implicit gender stereotypes about children, their daughters also showed stronger implicit gender stereotypes. For boys no such relation was found. This is in line with Maccoby and Jacklin’s statement, mentioned in the General Introduction, that “*A parent’s behavior toward a child will depend, in some degree, upon whether the child is of the same sex of himself*” (Maccoby & Jacklin, 1974, p. 306). The strong interrelation between mother and daughter gender stereotypes might be due to the fact that mothers talk more to girls than to boys in general (Leaper, Anderson, & Sanders, 1998), mothers talk more about interests and attitudes to girls than to boys (Boyd, 1989; Noller & Callan, 1990), and mothers have more opportunities to transmit their gender-stereotypic beliefs to girls than to boys, since mothers tend to be more engaged in play with their daughters than with their sons (Clearfield & Nelson, 2006).

The findings of Chapter 5, that fathers, and not mothers, gender-differentiated parenting practices were associated with child aggression a year later might seem a little surprising in light of the stronger influence of mothers on children’s gender stereotypes presented in Chapter 3. The findings imply that even though fathers generally are less involved in caretaking task, and therefore have less time to

influence the behaviors and attitudes of their children, both mothers and fathers appear to influence the behavior and attitudes of their children albeit in different ways. Fathers use strategies such as gender-differentiated parenting or explicit talk about gender to exert their influence on the behavior of their children. Mothers influence their children more implicitly, for example via implicit messages about gender or appropriate behaviors for each gender, which seem to be associated with children's attitudes about gender more than with actual behavior. These differences may be explained with role theory and social role theory (Eagly, Wood, & Diekmann, 2000; Hosley & Montemayor, 1997) which both propose that the historical division in gender roles and the characteristics associated with these roles may result in differences in parenting between mothers and fathers (Bem, 1981). However, it is also possible that the differences in parental investment lead to differences in parenting practices of mothers and fathers (Trivers, 1972). The current findings do not conclusively support one of these two processes.

Although we also expected differences between mothers and fathers in the extent to which they treat their sons and daughters differently, little evidence was found for this hypothesis. The meta-analysis in Chapter 2 showed that mothers and fathers did not differ in the extent of their differential control of boys and girls, both mothers and fathers engage in gender-differentiated parenting practices. This was not in line with the findings from the Lytton and Romney meta-analysis (1991) that fathers differentiate more between boys and girls than mothers with regard to directiveness. In theory, it is possible that mothers and fathers differ in their gender-differentiated parenting practices only with regard to very specific socialization areas, which could not be detected with our more general measure of parental control. The findings in Chapter 4 seem to suggest that fathers tailor their gender talk more to the gender composition of their both children than mothers.

Sibling Gender Composition

Evidence for the role of sibling gender composition in parent and child attitudes and behaviors was found in Chapter 3 and 4. The finding in Chapter 3 that fathers with same-gender children (i.e., boy-boy, girl-girl) had stronger implicit gender stereotypes than fathers with mixed-gender children (i.e., boy-girl, girl-boy) fits nicely with the idea that a mixed-gender sibling composition works as a gender-neutralizer on the family environment (Brim, 1958; Rust, Golombok, Hines, Johnston, & Golding, 2000). In families with both a boy and a girl opportunities for gendered comparisons are available (McHale et al., 1999), which may confirm gender stereotypes. However, in families with mixed-gender siblings parents also have equal opportunity to see similarities between boys and girls (which is not possible in families with same-gender children) which may make it more difficult to stick to gendered explanations for certain behaviors. It appears that for fathers the experience of seeing similarities between boys and girls gets incorporated into their gender schema (Bem, 1981),

resulting in more egalitarian attitudes. There is indeed evidence of stereotype change when adults are exposed to gender-related information or experiences that go counter to their gender stereotypes (Hill & Augoustinos, 2001).

Although we also expected an influence of sibling gender composition on children's implicit gender stereotypes, this effect was not found in Chapter 3. Several studies have found an effect of the gender of an older sibling on the gender-role socialization and gender stereotypes of a younger sibling (Brim, 1958; McHale et al., 1999; Rust et al., 2000; Stoneman, Brody, & MacKinnon, 1986). However, in our study we examined the influence of the gender of a younger sibling, who was only 1 year old, on the older sibling's gender stereotypes. We conclude that sibling gender effects may not emerge when the younger sibling is still an infant, since it cannot play an active role in the socialization of their older sibling yet.

In Chapter 4 the role of sibling gender composition in parents' use of gender talk was examined. The results in this chapter showed that sibling gender composition only influenced fathers' gender talk and not mothers' gender talk. Fathers with two boys were more inclined to emphasize appropriate male behavior in their gender talk than fathers in other family types. For example, fathers with two boys described the gender-neutral children (i.e., ambiguous gender, clothes in neutral colors, half-long hair) in pictures with a masculine-stereotyped activity more often as boys than as girls, a difference that was not found in other family types. Additionally, fathers with two boys were less negative about pictures showing boys' negative behavior than about pictures showing girls' negative behavior, compared to fathers in other family types. These two findings are consistent with family system theories, given that family structure indeed influences the behavior of individual family members (Hinde & Stevenson-Hinde, 1987; Minuchin, 1985; Schoppe, Mangelsdorf, & Frosch, 2001). Additionally, the findings imply that the most gender-stereotypical environment with regard to gender talk was created by fathers in families with two boys. This provides evidence for the proposition that, at least when you are a boy, having an opposite-gender sibling works as a gender-neutralizer on the family environment (Brim, 1958; Rust et al., 2000) as opposed to the idea that having an opposite-gender sibling works as a gender-intensifier in the family system (McHale et al., 1999).

Gender Stereotypes

Several studies in this dissertation demonstrated the importance of including implicit gender stereotypes of parents and children into the study of gender in developmental psychology (Chapter 3, 4, and 5). The results of Chapter 3 showed that implicit gender stereotypes are transmitted from mothers to their daughters, since a positive association between the gender stereotypes of mothers and their children was found. The study presented in Chapter 3 is one of the few studies that provides evidence for a link between parents' and children's gender stereotypes (see Tenenbaum & Leaper, 2002), possibly because we used the same implicit stereotype measure for mother and

child. Studies failing to find an association between parent and child gender stereotypes often used different methods to assess parent and child attitudes.

In Chapter 3 we proposed, based on previous research, that parents might transmit their gender stereotypes to their children through their own behaviors, occupations, interests, and the reinforcement of gender-stereotypical behaviors in their children (Bandura, 1977; McHale et al., 1999). According to gender schema theory these gender-related experiences get incorporated in children's own gender concepts and these gender concepts will influence the processing of subsequent gender-related information and thereby bias future actions (Bem, 1983). The results in Chapter 4 provided evidence for the idea that parents' gender stereotypes are indeed associated with actual gender-related behavior towards their children. We found that the way mothers talk to their children about gender, by using gender labels, evaluating stereotype-congruent behavior more positive than stereotype-incongruent behavior, or explicitly confirming gender stereotypes, can be seen as a reflection of her implicit gender stereotypes (i.e., associations were found between gender stereotypes and all examined aspects of gender talk). Chapter 5 also showed that fathers' gender-differentiated parenting practices were influenced by his implicit attitudes toward gender roles. Fathers with strong stereotypical attitudes toward gender roles used more physical discipline with boys than with girls. On the other hand fathers with strong counter-stereotypical attitudes toward gender roles (i.e., women as economic providers, men as caregivers) show the opposite gender-differentiated parenting practices; using more physical discipline with girls than with boys. These two findings converge with evidence of the link between attitudes toward gender and actual gender-related behavior (Bem, 1981; Gelman, Taylor, & Nguyen, 2004; Friedman, Leaper, & Bigler, 2007). They also are in line with Maccoby and Jacklin's proposition that "*Parents base their behavior toward a child on their conception of what a child of a given sex is likely to be like*" (Maccoby & Jacklin, 1974, p. 306).

We expected that the opposite gender-differentiated parenting practices of fathers with strong stereotypical and fathers with strong counter-stereotypical attitudes toward gender would have a profoundly different influence on the behavior of boys and girls. We therefore investigated a moderated mediation model in Chapter 5, in which the association between child gender and child aggression via parents' physical discipline was moderated by parents' implicit gender stereotypes. We indeed found that fathers' differential treatment of boys and girls was related to children's aggressive behavior a year later, but in a different way for fathers with strong stereotypical and fathers with strong counter-stereotypical attitudes toward gender. By using physical discipline strategies more often with boys than with girls, fathers with traditional gender-role attitudes appeared to reinforce later aggression more in boys than in girls. On the other hand, fathers with counter-stereotypical attitudes reinforced aggression more in girls than in boys by their increased use of physical discipline strategies with girls. Interestingly, fathers with more egalitarian implicit gender-role

attitudes (about 60% of our sample) treated boys and girls more similarly, and in this part of the sample gender differences in children's aggressive behavior were absent. These results imply that fathers might employ the gender-differential use of physical discipline strategies to encourage their children to show behavior that is consistent with their attitudes toward gender roles (i.e., stereotypical or counter-stereotypical), which is in line with role theory and gender schema theory.

Gender Similarities

Although we found some effects of parent and child gender, and sibling gender configuration on the behaviors and attitudes of parents and children, the differences were generally very small and were accompanied by large similarities between mothers and fathers, and boys and girls. These results are not surprising in light of the gender similarities hypothesis (Hyde, 2005) which proposes that males and females are more similar than they are different. Indeed there is often more variation within the genders than between the genders (Hyde, 2005). Several explanations for the similarity of males and females have been put forward in a recent review of the literature on gender differences (Hyde, 2014). For example, from an evolutionary perspective (Trivers, 1972) one might argue that natural selection pressures act equally on males and females and thus create gender similarities. From a cognitive social learning view (Bussey & Bandura, 1999) one can speculate that discouragement of gender-atypical behaviors by socializing agents in society might have declined and the availability of gender-atypical models (e.g., female scientists and doctors) has increased over time, allowing girls and boys to behave more similarly. Last, according to social role theory (Eagly et al., 2000) gender similarities are expected in societies with gender equality in the division of labor.

As stated by Hyde (2014), it is important that researchers studying gender should not only focus on gender differences but also on gender similarities, because there are serious costs to an overemphasis on gender differences. An overemphasis on gender differences for example might fuel an increase in stereotypical beliefs that males and females are very different, which in turn has important consequences for the treatment of males and females and the opportunities they are provided with.

The Gendered Family Process Model

In Chapter 6 the Gendered Family Process (GFP) model was introduced as a working model for future research on gender in the family context. The studies presented in Chapter 3, 4, and 5 focused on various aspects of the GFP-model (see Figure 7.1). In Chapter 3 the paths from the (nuclear) family context to parent and child gender cognitions were examined, by focusing on the influence of sibling gender composition on the gender stereotypes of parents and children. In this chapter the association between SES and parents' gender stereotypes was also assessed. In Chapter 4 the path from the family context to parental gender-related behaviors was tested, by examining the influence of sibling gender composition on parents use of gender talk. Last, Chapter 5 focused on the path from parents' gender cognitions to parents' gender related behaviors, by investigating if parents' gender-differentiated parenting practices were associated with their gender stereotypes. In addition, the path from parent behavior to child behavior was tested, by examining if parents' gender differentiated use of physical control was associated with gender differences in children's aggressive behavior. So, the studies in the current dissertation have mainly focused on the interplay of cognitive, social, and behavioral aspects of gendered family processes.

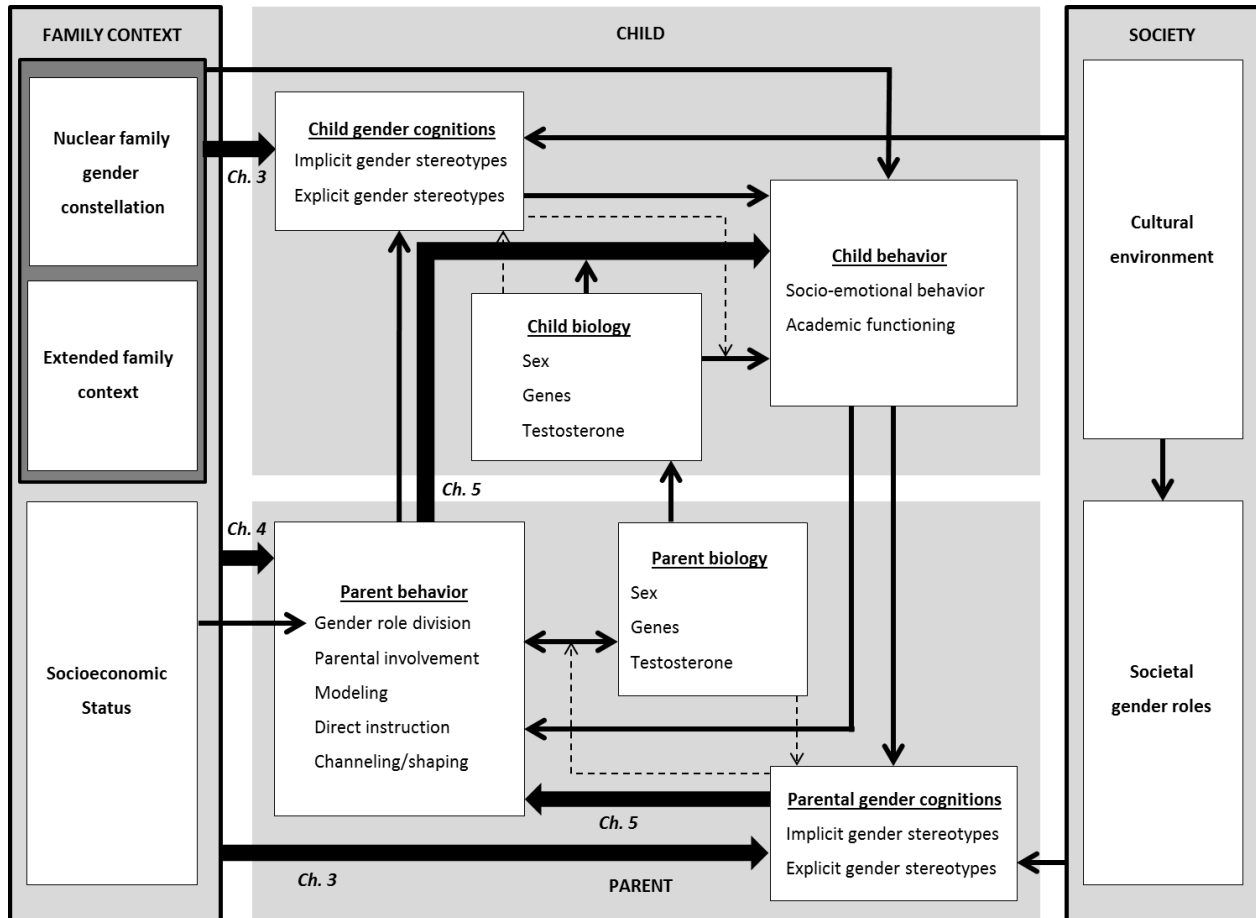


Figure 7.1 The Gendered Family Process model.

Note. Bold arrows with a chapter indicator represent the aspects of the GFP-model examined in the current dissertation.

Limitations and Future Directions

It is necessary to note some limitations of the current dissertation. First, although the meta-analysis presented in Chapter 2 provides a systematic investigation of the extent to which fathers and mothers use gender-differentiated parenting practices with their boys and girls, almost all studies in this meta-analysis adopted a between-family design to examine differences in parenting boys and girls. The same was true for our design in Chapter 5. With this approach parenting practices in families with boys are compared with the parenting practices in families with girls. An important limitation of this approach is that differences between boys and girls in parenting practices do not necessarily reflect a gender difference, but can also be caused by other underlying differences in family characteristics, such as family-interaction patterns. It is of vital importance to examine gender-differentiated parenting *within* families to account for such factors. In the meta-analysis presented in Chapter 2 it was not possible to compare studies that used a between-family design with studies that employed a within-family design, simply because there were too few studies with within-family comparisons. More within-family studies are needed to disentangle the effect of child gender on parenting practices from between-family effects.

Second, in the meta-analysis in Chapter 2 and the study presented in Chapter 5 we were not able to test the possible bi-directionality of the association between gender-differentiated parenting and gender differences in children's behavior. Maccoby and Jacklin have stated that "*because of innate differences in characteristics manifested early in life, boys and girls stimulate their parents differently and hence elicit different treatment from them*" (Maccoby & Jacklin, 1974, p. 305-306). The meta-analysis included too few studies with a cross-lagged longitudinal design (i.e., both parent and child behavior assessed at all time points) to test this possibility. Future studies should incorporate cross-lagged longitudinal designs more often to further elucidate the roles of parent and child-effects in gender-differentiated parenting. Longitudinal studies examining both parent and child effects still remain relatively rare (Pardini, 2008).

Third, the sample used in Chapter 3, 4, and 5 consisted of mostly Caucasian families with predominantly high educational levels. Although the percentage of highly educated parents is not different from other studies focusing on the influence of parent and child gender on parenting and child behavior in a family context (e.g., McHale et al. 1999) it limits the generalizability of the results, especially because educational level appears to have an effect on gender stereotypes. However, in the current dissertation educational level was only related to explicit gender stereotypes (i.e., higher educational level associated with more egalitarian gender stereotypes). It might be interesting for future studies to examine the effects of parental gender stereotypes on the behavior of parents and children in countries with less egalitarian gender values than the Netherlands, such as Russia, or countries with more egalitarian values, such as Scandinavian countries (World Economic Forum, 2013). Only then

can we get a more complete picture of the influence of gender stereotypes on child development, because currently the literature on gender stereotypes is dominated by North-American studies.

Last, the studies in the current dissertation focused on factors within the parenting and family context to account for gender differences in child behavior. However, as was pointed out in the literature review and model in Chapter 6, biological and cultural factors also play an important role on gendered processes in the family context.

Implications for Research and Theory

The current dissertation provides support for the theoretical assumptions of gender schema theory (Bem, 1981), social role theory (Eagly et al., 2000; Hosley & Montemayor, 1997), and for the transmission of parents' gender-related attitudes towards their children. Previous evidence in this area has been surprisingly weak (e.g., Fagot, Leinbach, & O'Boyle, 1992; Tenenbaum & Leaper, 2002). We have found that there are two ways in which parents transmit their views about gender to their children. First, parents use gender talk like gender labelling, evaluations of activities and explicit expressions of gender stereotypes to highlight gender as a salient issue and to communicate the appropriateness of certain behaviors for boys and girls. When children are repeatedly provided with gender-related (i.e., stereotypical, counter-stereotypical, egalitarian) information, this has important consequences for their attitudes and behavior. Children are likely to incorporate these gender-related experiences in their own gender concept, which will guide their future behavior (Bem, 1983). Second, parents use gender-differentiated parenting practices with their children. Using differential parenting strategies with boys and girls may have important consequences for the development of gender differences in behavior and for the gender socialization of boys and girls. This dissertation indeed found evidence for gender-differentiated parenting to be an important mechanism underlying gender differences in children's behavior. When fathers had strong traditional or counter-stereotypical attitudes toward gender roles, their differential use of physical discipline strategies with boys and girls completely accounted for later gender differences in child aggressive behavior.

This dissertation also highlights the importance of taking into account parents' implicit gender stereotypes when examining gender-differentiated parenting or gender socialization, since parents with egalitarian, strongly stereotypical, or strongly counter-stereotypical attitudes toward gender differ substantially in their parenting practices towards boys and girls. Parents at both extremes of the distribution (i.e., highly stereotypical, highly counter-stereotypical) showed the largest differences in the treatment of boys and girls. Implicit gender stereotypes are especially important, as opposed to explicit gender stereotypes, since all associations that were found in this dissertation were with implicit gender stereotypes. For controversial

subjects like gender or race implicit stereotypes appear to be better predictors of behavior (Nosek et al., 2002a), whereas self-report of gender stereotypes may be biased by social desirability and a lack of awareness of own stereotypes (White & White, 2006). Moreover, the current dissertation points to the importance of using observational methods to study parents' differential behavior towards boys and girls. Differential parenting of boys and girls appears to occur mostly at an unconscious level and is therefore more likely to be captured with observational methods than with self-report measures (Culp et al., 1983).

Implications for Practice

The issue of differences between boys and girls or men and women in behavior, achievements, and educational or employment opportunities has been the subject of societal and political debate for years (Hyde, 2014). The debate is characterized at the extremes by two opposing viewpoints about gender differences. Some argue that there are important differences between males and females, that have to be acknowledged, especially when these differences lead to negative outcomes for males or females (Hyde, 2014; Zahn-Waxler, Shirtcliff, & Marceau, 2008). From this point of view the goal should be to reduce gender differences due to culture or socialization (i.e., changing or reducing socialization or cultural pressures towards gender differences) or to compensate for gender differences that exist due to biological influences. However, others argue that gender differences and their causes are relatively unimportant and the goal should be to develop interventions that would maximize everyone's potential, instead of reducing differences between boys and girls (Newcombe, Mathason, & Terlecki, 2002).

When we put the findings of the current dissertation in light of the first perspective on gender differences, it would be important to increase parents' awareness of their automatic biases about males and females, because of the influence these implicit gender stereotypes have on the treatment of boys and girls and indirectly on the behaviors of boys and girls. The meta-analysis showed that despite dramatic increases in gender equality in most Western countries the past decades (Inglehart & Norris, 2003), parents still treat their sons and daughters differently. It appears that although explicit attitudes about gender might have changed (Hill & Augoustinos, 2001), the corresponding parenting behavior change may take a longer time to evolve (White & White, 2006) or does not happen at all. This is probably because gender stereotypes are still present implicitly and exert their influence unconsciously (Rudman et al., 2001; White & White, 2006). If people do not know their implicit biases, these biases will keep exerting their influence on future behavior (Rudman, Ashmore, & Gary, 2001).

Since automatic biases have been found to be quite difficult to change (i.e., interventions seldom yield results that generalize beyond the specific study situation to group-based attitudes as a whole; Rudman et al., 2001), it might be more relevant

to focus on the relevant behaviors of parents towards boys and girls. This is of special importance for fathers with strong stereotypical or counter-stereotypical attitudes about gender roles, since they differentiate the most between boys and girls. As awareness of these behaviors increases, the differential treatment of boys and girls may diminish (Hoffman, 1977), which may lead to more favorable outcomes for both boys and girls. Especially since the gender-differentiated use of physical discipline strategies had such an important influence on aggression in boys and girls, reducing this differential treatment may have important consequences for later development. Early child aggression has been associated with a variety of detrimental outcomes later in life, such as academic underachievement (Hinshaw, 1992), rejection by peers (Coie, Dutch, & Kupersmidt, 1990), alcohol or drug use and delinquency (Brook, Whiteman, & Finch, 1992), and mental health problems (Campbell, Shaw, & Gilliom, 2000).

This dissertation also includes findings that are more in line with the viewpoint that gender differences per se are relatively unimportant and the goal should be to develop interventions that would maximize everyone's potential. In Chapter 5 we found that even the more subtle forms of physical discipline strategies, such as grabbing, pushing, holding, or physically redirecting (representing most of the physical discipline acts in this study), predict aggression in children regardless of child gender, suggesting a strong role for modeling and social learning (Bandura, 1977). The more subtle physical strategies may not be as detrimental for child development as harsh discipline, but are not the most optimal form of discipline. Interventions aimed at reducing harsh discipline strategies of parents should therefore also focus on reducing subtle physical strategies and increasing the use of positive discipline strategies such as induction, understanding, and instruction. The Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline (VIPP-SD) which focuses on enhancing sensitive discipline in the form of induction and distraction as non-coercive discipline strategies, has proven to increase the use of positive discipline strategies by parents, which in turn is related to a decrease of externalizing problem behaviors in children (see Van Zeijl et al., 2006; Bakermans-Kranenburg, Van IJzendoorn, Pijlman, Mesman, & Juffer, 2008).

Conclusion

In sum, the current dissertation provided evidence for the idea that child gender, parent gender, and sibling gender combination each play an important role in family processes. Gender differences were found in the behavior of both parents and children. However, child gender also had an important effect on the behavior of parents, in the form of gender-differentiated parenting practices. Sibling gender combination mainly influenced the behavior and attitudes of parents but not of children in the preschool age. Last, parental gender stereotypes appeared to be an important mechanism behind gender-differentiated parenting and parents' gender

socialization of their children. Gender-differentiated parenting, in turn, is an important mechanism underlying gender differences in children's behavior. Taken together the findings presented in this dissertation demonstrate that there is a cycle in which stereotypes about males and females lead to differences in the treatment of men and women, or boys and girls, which in turn may lead to gender-related differences in adult and child behavior and attitudes, once these gender differences get incorporated again in the gender schema's of parents and children this results in a vicious cycle of gender effects. The current thesis hopes to spark renewed interest in studies on gender in relation to child development and parenting, by pointing out the importance of gender and gender-related factors such as gender stereotypes, as explanatory variables of behavior and attitudes of children and parents in the family context.