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

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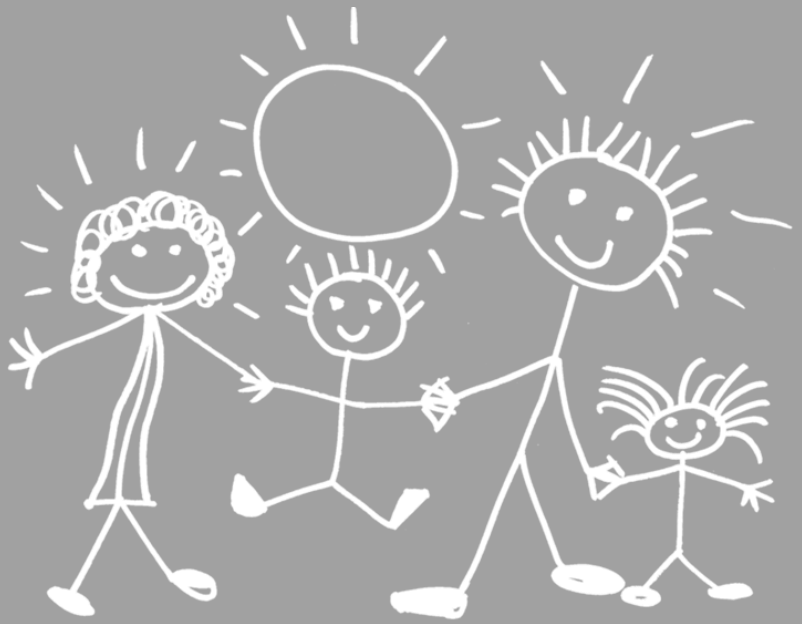
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**Boys Don't Play With Dolls:
Mothers' and Fathers' Gender Talk During
Picture Book Reading**

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ABSTRACT

Objective. This study examines mothers' and fathers' gender talk with their daughters and sons and investigates the association between parental gender talk and parental implicit gender stereotypes. **Design.** Mothers' and fathers' gender talk was examined in 304 families with two children aged 2 and 4 years old, using the newly developed *Gender Stereotypes Picture Book*. Parental implicit gender stereotypes were assessed with the Action Inference Paradigm. **Results.** The picture book elicited different forms of gender talk, including use of gender labels, evaluative comments related to gender, and comments about gender stereotypes. Mothers used positive evaluative comments more than fathers to convey messages about gender, but fathers made more comments confirming gender stereotypes than mothers. Fathers with two boys were more inclined to emphasize appropriate male behavior in their gender talk than fathers in other family types. Implicit gender stereotypes were associated with gender talk to the children only for mothers. **Conclusion.** The assessment of gender talk with the *Gender Stereotypes Picture Book* can provide insights into the roles of mothers and fathers in child gender socialization.

Keywords: gender talk, picture book, implicit gender stereotypes, mothers and fathers, children, gender socialization

INTRODUCTION

The intergenerational transmission of gender stereotypes has interested researchers for decades (e.g., McHale, Crouter, & Whiteman, 2003; Perloff, 1977; Repetti, 1984), but the mechanisms underlying this process are not fully understood (e.g., McHale et al., 2003). To date, only weak associations between the gender-related beliefs of parents and their children have been found (Tenenbaum & Leaper, 2002). Parental gender talk may have a stronger influence on children's attitudes about gender (Gelman, Taylor, & Nguyen, 2004) because it is a direct way of transmitting ideas about gender and because language is an important gender-socialization route (e.g., Lanvers, 2004; Leaper, Anderson, & Sanders, 1998). Gender talk is defined as the way parents talk to their children about gender, for example by contrasting females and males or emphasizing gender categories (Gelman et al., 2004).

There has been very little research exploring the role of parental gender talk in early childhood, even though gender typically becomes a salient developmental issue at this time (Lanvers, 2004). Moreover, most studies with a focus on gender talk have been conducted in English speaking countries, whereas gender talk in the Dutch language might be especially interesting, because it makes more use of gender-neutral nouns and pronouns than English (Audring, 2009).

Because gender talk often happens unconsciously and infrequently, it is difficult to examine it with self-report questionnaires or in brief observation periods (Gelman et al., 2004). An alternative way of studying gender talk is via book reading. In the current study a picture book was specifically designed to elicit parental statements about gender. We examine mothers' and fathers' gender talk towards their young daughters and sons and investigate the association between parental gender talk and parental implicit gender stereotypes (attitudes about gender that operate largely outside conscious awareness).

Theoretical Background of Parental Gender Talk

This research is inspired by social-learning theories (Bandura, 1977), the Sapir-Whorf hypothesis (Kay & Kempton, 1984), and gender schema theory (Bem, 1983). Social learning processes are particularly relevant to the study of gender talk, as parents are a potential source of gender stereotypical linguistic information in several ways. First, parents often create gender-typical environments for their children by the toys, activities, and chores they choose for them (Pomerleau, Bolduc, Malcuit, & Cossette, 1990). These activities, in turn, shape at least partly the way parent and child communicate with each other (Leaper & Gleason, 1996). Second, parents reinforce gender-typed behavior by their differential treatment of girls and boys (Chaplin, Cole, & Zahn-Waxler, 2005; Fagot, 1978). For example, parents are more likely to talk about emotions in general, and specifically more about sadness and negative

emotions, with daughters than with sons (Fivush, 1998; Fivush, Brotman, Buckner, & Goodman, 2000). Third, the way parents talk to their children about gender may communicate their underlying attitudes about gender (Gelman et al., 2004).

Gender schema theory (Bem, 1983) provides rationales for the way parents talk to their children about gender, although this theory mostly focuses on child processes. This theory proposes that gender-related behavior or the perception of gender-related information is guided by the content of children's gender schemas. Extending gender schema theory to parental gender talk, the way parents talk to their children about gender might be guided by gender schemas that consist of gender-typed information and experiences. Two previous studies have shown that mothers' gender talk is related to their explicit gender stereotypes (Friedman et al., 2007; Gelman et al., 2004).

More specifically, parents with gender schemas consisting of strong stereotypical notions about gender roles might be more likely to socialize their girls and boys in a gender-role consistent way. To date, the empirical evidence for the link between parents' gender-related attitudes and actual gender socialization of their children is surprisingly weak, with most studies finding no associations (e.g., Fagot et al., 1992; Tenenbaum & Leaper, 2002). The lack of evidence for a gender attitude-behavior link may be partly because parents' gender attitudes are often assessed explicitly, whereas for controversial subjects like gender, implicit stereotypes may be better predictors of behavior than explicit self-reported stereotypes (Nosek et al., 2002). The latter may be biased by social desirability and a lack of awareness of one's own stereotypes (White & White, 2006). In the current study, we therefore used an implicit measure to assess parental attitudes about gender.

Regarding the influence of parental gender-talk on early gender development, the Sapir-Whorf hypothesis suggests that language shapes the way children conceptualize their world (Kay & Kempton, 1984), which according to gender schema theory influences cognitive processes such as the formation of gender schemas (Bem, 1983). Children whose parents frequently provide linguistic information about gender will be acutely aware of gender categories, which shape children's construction of their own gender concepts (Liben & Bigler, 2002), which in turn guide their future behavior (Bem, 1983).

It has been shown that frequent use of gender labels by adults in combination with other gender emphasizees (i.e., gendered organization and physical separation in classrooms) makes gender salient, leading to stronger gender stereotypes in children (Hilliard & Liben, 2010). In addition, there is empirical evidence that children who can use gender labels accurately generally display more knowledge of gender stereotypes, play more with sex-typed toys, and show more gender-role consistent behavior (e.g., Fagot, Leinbach, & O'Boyle, 1992; Zosuls et al., 2009). Furthermore, social categories such as gender are not grounded on biological or objectively visible facts (i.e., clothing, appearance), but are instead culturally constructed (i.e., due to

socialization), providing evidence for the power of the use of category labels in creating awareness of social categories in children (Diesendruck & Deblinger-Tangi, 2014). Moreover, it has been shown that children play an active role in learning language in general (Akhtar, Jipson, & Callanan, 2001; Rogoff, Paradise, Arauz, Correa-Chávez, & Angelillo, 2003), and acquiring gender concepts in particular (Gelman et al., 2004).

Previous Research on Parental Gender Talk

To our knowledge only three studies have systematically examined gender socialization via parent-child communication about gender (DeLoache, Cassidy, & Carpenter, 1987; Gelman et al., 2004; Friedman, Leaper, & Bigler, 2007). Picture book reading was used in all three studies. DeLoache and colleagues (1987) examined gender labeling (i.e., an indirect form of gender talk) of gender-neutral bears in female and male activities by English-speaking mothers. They found a male bias in mothers' labeling, and the use of gender labels was related to the female or male activities the bears were doing. For example, an inattentive character at a distance was referred to as a male, and a close, attentive, interactive one was referred to as a female (DeLoache et al., 1987). In the current study, we examined gender labeling by using pictures with gender-neutral children in stereotypical feminine or stereotypical masculine activities.

The second study by Gelman and colleagues (2004) had a broader focus, including various aspects of gender talk (e.g., gender labeling, applying gender contrasts, confirming and rejecting gender stereotypes, expressing gender equality). They examined mothers and children discussing pictures with a mix of adults and children in stereotypical and counter-stereotypical gendered activities, using written prompts (e.g., "Who can play with dolls?"). The inclusion of prompts may have increased participants' awareness of the purpose of the task, resulting in less spontaneous gender talk than they would normally use. Parents expressed gender stereotypes in indirect ways (i.e., gender labeling, contrasting females versus males). They also pointed out that gender messages can be present in evaluative comments on gender-stereotypical behaviors and activities (e.g., boys playing with cars, girls playing with dolls) or behaviors and activities that are not consistent with gender stereotypes (e.g., a woman repairing a car, a male vacuuming). By making positive or negative comments about these behaviors, parents indirectly express the belief that certain behaviors are more appropriate for either girls or boys (Gelman et al., 2004).

Friedman and colleagues (2007) focused on more explicit and generalizing messages about gender; comments that confirm gender stereotypes (e.g., "Boys like soccer.") or reject these stereotypes (e.g., "Girls can also play baseball."). Parental generalizing stereotypical statements may directly convey to the child that there are differences between girls and boys and that within these categories members are alike, whereas counter-stereotypical comments convey more egalitarian ideas about the

behaviors of girls and boys. Friedman and colleagues (2007) found that mothers made more direct counter-stereotypical comments than stereotypical comments in response to a storybook with equal numbers of pictures depicting girls and boys in gender-typed or cross-gender-typed behaviors, especially when mothers had gender-egalitarian attitudes.

All three studies only used pictures with positive activities. However, parents seem to be particularly prone to gender-differentiated responses to negative or disruptive behaviors, with more discouragement of such behaviors in girls than in boys (Zahn-Waxler, Crick, Shirliff, & Woods, 2006). Parents' proneness to gender-differentiated responses to negative behavior may be because bad behavior generally leads to more and stronger reactions than good behavior (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001) or because disruptive behavior does not fit with the gender-typical behavior of girls (Archer, 2004).

Fathers' Gender Talk

The role of fathers has been ignored in previous studies on gender talk, even though there appear to be differences between mothers and fathers in interactive styles (Walker & Armstrong, 1995; differential experience hypothesis). Fathers use more directive and informative speech and less supportive speech than mothers, and also talk less to their children in general than mothers (Leaper et al., 1998). Moreover, mothers use more emotion words and emotional utterances than fathers when discussing past events with their children (e.g., Fivush et al., 2000; Jenkins et al., 2003). Fathers also have more explicit gender stereotypes than mothers, whereas mothers have more implicit stereotypes than fathers (Endendijk et al., 2013; Nosek et al., 2002; Rudman & Glick, 2001). These findings suggest that fathers may also convey their messages about gender more directly to their children than mothers do (e.g., comments about gender stereotypes), and that mothers may talk more indirectly about gender than fathers (e.g., gender labeling, evaluative comments).

Effects of Sibling Gender Constellation

There is evidence that the sibling gender composition within a family might also influence parental interactional style (Lanvers, 2004; McHale, Crouter, & Tucker, 1999). There are, to our knowledge, no empirical studies of the effect of sibling gender constellation on parent gender talk. However, gender effects of parental talk about gender might be stronger in families with same-gender children, because these parents focus on socializing only one gender, whereas parents with mixed-gender children have to focus their gender socialization on both girls and boys. Therefore, mixed-gender families may constitute a less gender stereotypical environment than same-gender families (Endendijk et al., 2013). However, one study found evidence of mixed-gender families as a more gender-stereotypical environment, especially when fathers had traditional gender-role attitudes, possibly because of the opportunity for

these fathers to emphasize differences between girls and boys (McHale et al., 1999). These two competing hypotheses are tested in the current study. In both the studies of Endendijk et al. (2013) and McHale et al. (1999) sibling gender constellation only influenced fathers' and not mothers' gender-related behaviors or attitudes.

Current Study

The aims of the current study were twofold. First, we examined mothers' and fathers' gender socialization of their two children via reading a picture book specifically designed for this purpose. Gender talk was examined towards two children from four types of families (with two girls, two boys, the older a boy and the younger a girl, or the older a girl and the younger a boy). With this design, as opposed to designs comparing same- and mixed-gender siblings, differences due to birth order can be controlled for by comparing first boy-second girl families with first girl-second boy families. Controlling for birth order is important because firstborn children are generally parented differently than laterborns (Van IJzendoorn et al., 2000). We expected that: (1a) mothers would use more indirect forms of gender talk (i.e., gender labeling, evaluative comments) and that fathers would talk more directly about gender stereotypes (i.e., direct expression of gender stereotypes) and (1b) fathers', and not mothers, interactions would be influenced by the sibling gender composition of the family, with the largest differences to be found between families with same-gender (boy-boy, girl-girl) and mixed-gender compositions.

Second, we wanted to evaluate the methodology of the picture book. Based on the literature we expected that different picture types would elicit different forms of gender talk. We expected that: (2a) parents would describe gender-neutral characters in stereotypical masculine activities more often with a masculine label than with a feminine label, whereas they would use the feminine label more often than the masculine label in stereotypical feminine activities; (2b) parents would respond more positively to behaviors that are expected based on gender stereotypes than to behaviors or activities that are counter-stereotypical; (2c) parents would make more stereotypical comments than counter-stereotypical comments. We also had one final hypothesis that related to both aims of the study; (3) parents' gender talk would be related to their implicit attitudes about gender, with stronger implicit gender stereotypes associated with more stereotypical gender talk.

It is especially interesting to study gender talk with families in the Netherlands. In the Dutch (as opposed to English) language gender neutral pronouns are available and used more often as (Audring, 2009). We examined whether Dutch parents use gender labels for gender-neutral characters in a gender-role consistent way. The use of stereotypical gender labels when gender neutral labels are readily available would provide evidence for the implicit transmission of gender roles from parents to their children. However, parents' strong implicit gender stereotypes might also have an influence on the unconscious gender talk towards their children. Indeed,

even in languages with gender-neutral conventions that offer the possibility to refrain from using gendered nouns and pronouns (such as Dutch), gender distinctions are still expressed linguistically (see Prewitt-Freilino, Caswell, & Laakso, 2012). For example, gender-neutral nouns and pronouns can be interpreted with an implicit male bias (Stahlberg, Braun, Irmen, & Sczesny, 2007), or the use of gender-symmetrical terms, like he/she, might even enhance the salience of gender as a social category (Prewitt-Freilino et al., 2012).

METHOD

Sample

This study is part of the longitudinal study *Boys will be Boys?* examining the influence of gender-differentiated socialization on the socio-emotional development of girls and boys in the first 4 years of life. The current paper reports on data from the second wave, in which parental gender messages were assessed. Families with two children in the Western region of the Netherlands selected from municipality records (2010-2011) were eligible for participation in the *Boys will be Boys?* study. Families were included in Wave 1 if the younger child was around 12 months of age and the older child was between 2.5 and 3.5 years old. For more information about the selection procedure see Endendijk et al. (2013). Of the 1,249 eligible families, 31% were willing to participate ($n = 390$). In the second wave of the study (youngest child 24 months old, oldest 3.5-4.5 years old), 5 families dropped out. For the current study, families with missing items due to computer failure or skipped pictures in the gender stereotype picture book were excluded, resulting in a final sample of 304 families. The 81 excluded families did not differ from the participating families in age of mothers ($p = .53$) or fathers ($p = .29$), educational level of mothers ($p = .35$) or fathers ($p = .65$), or the degree of urbanization of residence ($p = .14$). The sample included the following family types: boy-boy: 26%, girl-girl: 24%, boy-girl: 26%, girl-boy: 24%. Mothers were aged 26-45 years ($M = 35.1$, $SD = 3.8$) and fathers 25-54 years ($M = 37.6$, $SD = 4.9$). Most of the participants (93%) were married or had a registered agreement. Most mothers and fathers finished academic or higher vocational schooling (mothers: 80%, fathers: 78%). At the time of Wave 2, a third child had been born in 26 (9%) of the families, and parents of two families were divorced. Analyses with and without these families yielded similar results, so these families were retained in the current data set.

Procedure

Each family was visited twice, once with the mother and the two children and once with the father and the two children, separated by about 10 days (days: $M = 9.97$, $SD = 9.55$). The order in which mothers and fathers were visited was counterbalanced. Parents were told that they would participate in a study of the unique roles of mothers

and fathers in the socio-emotional development of their children. One of the tasks was talking about the Gender Stereotype Picture Book with both children at the same time, which mimics a common real-life situation and allows us to look at the effect of family gender constellation on gender socialization. Parents were told to “Look at all the pictures in the book and talk to both children about what you see in the pictures”, with a maximum of 10 min to talk about the 12 pictures ($M = 5.33$ min, $SD = 1.84$). The interaction was filmed. At the end of the home visit, parents completed a computer task. All visits were conducted by pairs of trained female graduate or undergraduate students ($n = 20$).

Instruments

The Gender Stereotype Picture Book. A picture book was developed to elicit parental comments about gender (Picture Book and coding system are available from the authors). We used two versions, one called “Winter” and one called “Summer”, which had the same format, the same children, and different but comparable activities. One version was read by mother and the other by father. The order of presentation as well the Summer or Winter versions read by mother or father were counterbalanced. The book contained no storyline. The order and types of pictures in the Summer book are presented in Table 4.1.

The pictures were piloted on 98 University students (53 males, 45 females, age: $M = 22.1$, $SD = 3.0$) to examine if the activities and children in the pictures were interpreted as they were intended. The students had to determine whether the child in the picture was a boy or a girl. Boys were labeled as boys in 99.5% of the cases, and the girls were labeled as girls by all respondents. The children intended to be gender neutral were labeled girl or boy equally often ($ps = .13 - .23$). The students also rated each activity on a 3-point scale (1 = mostly seen as masculine activity, 2 = neutral, 3 = mostly seen as feminine activity). Mean scores were different ($p < .01$) for activities intended as stereotypically masculine ($M = 1.45$, $SD = 0.24$), activities intended as stereotypically feminine ($M = 2.82$, $SD = 0.16$), and activities intended to be gender neutral ($M = 2.01$, $SD = 0.13$). The mean scores show that the intention of the depicted activities was congruent with the respondents’ evaluation of the activities.

A coding system was developed for coding parental gender talk during book reading. It consists of the following scales: (1) Use of gender labels refers to using feminine (e.g., “her”, “she”, “girl”, “Sandra”) or masculine (e.g., “boy”, “he”, “his”, “Nick”) labels for the children in the pictures (dichotomous: 1 = label used, 0 = label not used). If parents used gender neutral names, was coded as if they did not use a gender label in that particular picture. Codes were given per picture (see Table 4.1). We coded only the presence versus absence of gender labels per picture, because a pilot study showed that the distributions of the frequencies of gender labels used were highly negatively skewed. Moreover, the nature of our question (i.e., whether parents

label gender-neutral characters depending on the masculine or feminine activity) does not necessarily require a frequency score, but can be answered with a dichotomous score as well.

(2) Evaluative comments about the activities in the pictures, which could be positive (e.g., “Building a snowman is fun.”), neutral (e.g., “They are playing with dolls.”), or negative (e.g., “Throwing sand into another child’s face is not nice.”) (1 = negative, 2 = neutral, 3 = positive). The coding of parents’ evaluations of the activities in the pictures included evaluations of boys’ and girls’ behavior, and more general descriptions about the picture with a positive or negative valence, as these indirectly convey the message that a situation or activity can be evaluated differently depending on whether a boy or a girl is involved. A single rating scale was used to reduce the number of analyses. If parents made both positive and negative evaluations in one picture ($n = 4$), the evaluative comment was coded as neutral. Each page was coded with a 1, 2, or 3. Codes were added and averaged for each picture type (see Table 4.1).

(3) Comments about gender stereotypes. Parents could make two types of comments about gender stereotypes; confirming (e.g., “Boys never play with dolls.”) and contradicting comments (e.g., “Girls can also build igloos.”). The absence or presence of the two types of comments was rated separately (dichotomous: 1 = confirming or contradicting gender comment made, 0 = no gender comment made). We coded the absence versus presence of confirming or contradicting comments about gender stereotypes because a pilot study showed that the distributions of the frequencies of comments about gender stereotypes were highly negatively skewed. Codes were given per picture and summed for the congruent and incongruent pictures and for the whole book. The confirming and contradicting variables were highly skewed (range confirming 0-5, more than 50% of parents made no comment; range contradicting: 0-8, more than 60% of parents made no comments) and dichotomized (i.e., score of 1 or above 1 was coded as 1), because transformation did not sufficiently reduce skewness.

Four trained and reliable coders coded the videos according to this system. Coders agreement was 95-98% ($\kappa = .80 - .94$) for use of gender labels, 90-93% ($\kappa = .71 - .96$) for evaluations of activities, and 92-95% ($\kappa = .66 - .73$) for comments about gender stereotypes. Percentages of agreement for subtypes of pictures (e.g., congruent, incongruent, negative behavior pictures, pictures with gender-neutral children) were 87-100% ($\kappa = .62 - 1.00$).

Table 4.1 *Picture types used and types of gender talk assessed in the gender stereotypes picture book summer version*

	Description	Activity	Child gender	Picture Type	Type of gender talk
1	Building sandcastle	Neutral	Boy & girl	Filler ¹	-
2	Bodyboarding in the sea	Masculine	Boy & girl	Filler	-
3	Picknicking with dolls	Feminine	Neutral ²	Gender-neutral child in feminine activity	Label boy Label girl
4	Making somersaults	Feminine	Boy & girl	Filler	-
5	Playing with waterguns	Masculine	Neutral	Gender-neutral child in masculine activity	Label boy Label girl
6	Playing with hula hoops	Feminine	Boy	Incongruent	Evaluative comments Comments about gender stereotypes
7	Harshly pushing in pool	Negative	Boys	Negative behavior	Evaluative comments
8	Hand-clapping game	Feminine	Girls	Congruent	Evaluative comments Comments about gender stereotypes
9	Playing in a pool	Neutral	Neutral	Filler	-
10	Skateboarding	Masculine	Boys	Congruent	Evaluative comments Comments about gender stereotypes
11	Throwing sand into face	Negative	Girls	Negative behavior	Evaluative comments
12	Playing soccer	Masculine	Girls	Incongruent	Evaluative comments Comments about gender stereotypes

¹ To divert attention away from the gender focus of the book.

² Created in such a way that they could be either a boy or a girl (i.e., ambiguous gender, clothes in neutral colors, half-long hair).

Action Inference Paradigm. An adapted Action Inference Paradigm (AIP: Banse Gawronski, Rebetez, Gutt, & Morton, 2010) for assessing implicit gender stereotyping in children was used to determine gender stereotypes in parents. This task was chosen because of conceptual similarity with the picture book (e.g., children playing and children's toys). The usefulness of this task for assessing gender stereotypes in parents was determined in a previous study showing meaningful associations between parent and child gender stereotypes, and differences between mothers' and fathers' stereotypes (Endendijk et al., 2013).

In the AIP presents have to be divided between a boy and a girl (originally from Santa Clause, but changed to "birthday present" to fit the non-U.S. cultural context). The task started with 20 practice items with red and blue presents (to get used to the red and blue buttons connected to the laptop), followed by two congruent blocks (e.g., assigning stereotypical feminine toys to a girl) with 16 trials each and two incongruent blocks (e.g., assigning stereotypical masculine toys to a girl) with 16 trials each. The two congruent blocks alternated with the two incongruent blocks. The participants had to distribute the gifts to the girl or the boy by means of pressing a red or a blue button (red for the girl, blue for the boy). Parents were told that the boy and the girl liked certain types of toys (i.e., feminine- or masculine-stereotyped toys depending on congruent or incongruent block). Gender was not made explicit in the instructions, the girl and boy were referred to with their names (i.e., Linda, Peter). The AIP was conducted on a laptop that recorded reaction times and accuracy scores.

The improved scoring algorithm of Greenwald, Nosek, and Benaji (2003) for the implicit association test was used to determine the level of implicit stereotypes of the parent on the AIP. A high positive score represented more difficulties (e.g., longer reaction times) pairing masculine toys to girls and feminine toys to boys compared to pairing masculine toys to boys and feminine toys to girls, indicating stronger stereotypical ideas about the appropriateness of certain toys for girls and boys. The task was programmed in E-prime 2.0 (Schneider, Eschman, & Zuccolotto, 2002).

Analysis Plan

All variables were inspected for possible outliers, defined as values more than 3.29 *SD* under or above the mean (Tabachnick & Fidell, 1996). No outliers were present. The activity evaluation variables were normally distributed. Because book version was not a significant covariate in preliminary analyses, the results are presented without control for book version.

Analyses of variance with repeated measures and Wilcoxon signed ranks tests were used to examine (1) differences *between* mothers and fathers in gender talk; (2) differences *within* parents gender talk on the various picture types. In all repeated measures analyses Picture Type or Parent Gender were within-subjects factors and 'Family Type' (i.e., two boys, two girls, boy-girl, girl-boy) was the between-subjects factor. Repeated-measures analyses of variance (RM-ANOVA) were used to take into

account the non-independence of parents and of picture types. Overall group differences were examined with a series of 2 (Gender of the parent) by 4 (Family Type) RM-ANOVAs, separately for the different forms of gender talk. Correlations and *t*-tests were used to examine associations between gender talk and gender stereotypes. For the dichotomous gender talk variables (i.e., use of gender labels, comments about gender stereotypes) we checked our significant results with the highly conservative McNemar's chi square test that takes into account the dependency between variables (Haviland, 1990).

RESULTS

Descriptive statistics for mothers' and fathers' gender talk are displayed in Table 4.2. When examining parental comments across all the pictures in the book, most parents made use of at least one gender label (i.e., masculine *or* feminine) in the pictures, and more than half of the parents made at least one gender comment (i.e., confirming *or* contradicting). Regarding evaluative comments, parents were on average neutral about the pictures in the book, as indicated by their scores of around 2 with small standard deviations. There were no differences between mothers and fathers in implicit gender stereotypes (Mother: $M = .41$, $SD = .02$, Father: $M = .39$, $SD = .02$), gender labeling, and total comments about gender stereotypes, but mothers were more positive about the pictures in the book than fathers. The effect size was small, *Pillais* $F(1, 300) = 6.47$, $p < .05$, $\eta_p^2 = .02$. There were no differences between family types.

Differences Between Mothers and Fathers in Gender Talk

Results of the analyses testing Hypothesis 1a that mothers were expected to use more indirect forms of gender talk than fathers and fathers were expected to talk more directly about gender stereotypes than mothers are presented in Table 4.2 (differences between columns).

Use of gender labels. For each picture type, 2 (Gender of the parent) by 4 (Family Type) RM-ANOVAs showed that mothers and fathers did not differ in their use of feminine or masculine labels.

Table 4.2 Means and standard deviations for mothers' and fathers' gender talk in the total book and the picture types of interest.

		Mother M (SD)	Father M (SD)
<i>Use of gender labels¹</i>			
Total book		.96 (.20)	.92 (.27)
Gender-neutral child in masculine activity	Label boy	.11 (.32) ^c	.09 (.29) ^c
	Label girl	.03 (.18) ^d	.03 (.18) ^d
Gender-neutral child in feminine activity	Label boy	.08 (.28)	.08 (.28)
	Label girl	.12 (.32)	.10 (.29)
<i>Evaluative comments</i>			
Total book		2.07 (.18) ^a	2.03 (.02) ^b
Congruent pictures		2.25 (.35) ^{a,c}	2.18 (.35) ^b
Incongruent pictures		2.19 (.31) ^d	2.17 (.31)
Boys' negative behavior pictures		1.32 (.50)	1.36 (.52)
Girls' negative behavior pictures		1.38 (.50)	1.36 (.50)
<i>Comments about gender stereotypes²</i>			
Total book	Stereotypical	.53 (.50) ^c	.53 (.50) ^c
	Counter-stereotypical	.41 (.49) ^d	.38 (.49) ^d
Total comments		.65 (.48)	.61 (.49)
Congruent pictures	Stereotypical	.03 (.16) ^c	.01 (.11)
	Counter-stereotypical	.00 (.00)	.00 (.06)
Incongruent pictures	Stereotypical	.00 (.00) ^{a,d}	.02 (.14) ^b
	Counter-stereotypical	.01 (.10)	.01 (.08)

Note. Means labeled ^a and ^b refer to significant differences between mothers and fathers. Means labeled ^c and ^d refer to significant differences within parents regarding comments about different picture types or stereotypical versus counter-stereotypical comments.

¹ The statistics refer to the absence (0) versus presence (1) of the use of a masculine or feminine gender label separate for the masculine- and feminine-stereotyped pictures.

² The statistics refer to the average of the absence (0) or presence (1) of comments about gender stereotypes, separate for the stereotypical and counter-stereotypical comments, and the picture types.

Comments about gender stereotypes. Wilcoxon signed-rank tests showed that mothers and fathers did not differ in their overall use of comments that confirm gender stereotypes, *Wilcoxon* $Z = -0.17$, $p = .87$, or contradict stereotypes, *Wilcoxon* $Z = -0.67$, $p = .51$. With regard to the stereotype-congruent pictures, there was no difference between mothers' and fathers' use of gender messages (Stereotypical comment: *Wilcoxon* $Z = -1.16$, $p = .25$, Counter-stereotypical comment: *Wilcoxon* $Z = -1.00$, $p = .32$). However, more fathers than mothers made comments confirming gender stereotypes when discussing pictures showing girls and boys doing activities

that were incongruent with gender stereotypes, *Wilcoxon* $Z = -2.45$, $p < .05$ (McNemar test: $p < .05$).

Summary. Mixed results were found for Hypothesis 1a. Expected differences between mothers and fathers were found for evaluative comments about congruent pictures and confirming comments about gender stereotypes in incongruent pictures. However, mothers and fathers did not differ in their use of gender labels or evaluations or comments about gender stereotypes in other picture types. McNemar's chi-square tests confirmed these results.

Differences within Parents' Gender Talk for the Different Picture Types

Results of the analyses testing differences within parents' gender talk are displayed in Table 4.2 (differences between rows). Hypothesis 1b that fathers', and not mothers', interactions would be influenced by the sibling gender composition of the family, and the largest differences are expected to be found between families with same-gender (boy-boy, girl-girl) and mixed-gender compositions was tested for all aspects of gender talk.

Use of gender labels. Differences between the use of feminine or masculine labels in the masculine-stereotyped or feminine-stereotyped activity pictures were examined with 2 (Gender Label: girl or boy) by 4 (Family Type) RM-ANOVAs, separately for mothers and fathers. It was expected that parents would describe gender-neutral characters in stereotypical masculine activities more often with a masculine label than with a feminine label, whereas they use the feminine label more often than the masculine label in stereotypical feminine activities (Hypothesis 2a). We found that in the pictures with a masculine-stereotyped activity mothers and fathers labeled the gender-neutral children more often masculine than feminine (McNemar test: $p < .01$). For fathers there was also an interaction with family type, *Pillais* $F(3, 300) = 2.92$, $p < .05$, $\eta_p^2 = .03$, demonstrating that when fathers of two boys discussed the gender-neutral children in pictures with a masculine-stereotyped activity, they used the masculine label ($M = 0.14$, $SD = 0.35$) more often than the feminine label ($M = 0.00$, $SD = 0.00$), *Wilcoxon* $Z = -3.32$, $p < .01$, which was not found in other family types. For mothers there was no interaction with family type. In the pictures with the feminine-stereotyped activity there were no differences in the use of the feminine and masculine labels, and there were no interactions with family type.

Evaluative comments. It was expected that parents respond more positively to behaviors that are expected based on gender stereotypes than to behaviors or activities that are counter-stereotypical (Hypothesis 2b). Two (one for mothers, one for fathers) 2 (Picture Type: Congruent versus Incongruent) by 4 (Family Type) RM-ANOVAs revealed that mothers were more positive about congruent pictures than about incongruent pictures, *Pillais* $F(1, 300) = 6.61$, $p < .05$, $\eta_p^2 = .02$. Fathers did not differ in their evaluation of congruent and incongruent pictures, *Pillais* $F(1, 300) = 0.32$, $p = .57$, $\eta_p^2 < .01$. There were no interactions with family type.

Regarding girls' and boys' negative behavior, two (one for mothers, one for fathers) 2 (Picture Type: Congruent versus Incongruent) by 4 (Family Type) RM-ANOVAs indicated that for both parents the evaluation of girls' and boys' negative behavior was not different (Mothers: *Pillais F* (1, 300) = 2.46, $p = .12$, $\eta_p^2 = .01$; Fathers: *Pillais F* (1, 300) = 0.06, $p = .81$, $\eta_p^2 < .01$). For fathers there was an interaction with family type, *Pillais F* (3, 300) = 2.79, $p < .05$, $\eta_p^2 = .03$, demonstrating that fathers with two boys were less negative about the picture with boys' negative behavior ($M = 1.49$, $SD = 0.57$) than about the picture with girls' negative behavior ($M = 1.35$, $SD = 0.51$), whereas this was not found in other family types. The interaction between mothers' evaluation and family type was not significant.

Comments about gender stereotypes. Wilcoxon signed-rank tests were used to examine differences between mothers and fathers in comments about gender stereotypes and differences in comments about gender stereotypes between congruent and incongruent pictures. It was expected that parents would make more stereotypical comments than counter-stereotypical comments (Hypothesis 2c). Throughout the book both mothers and fathers made more stereotypical comments than counter-stereotypical comments (Mothers: *Wilcoxon Z* = -3.40, $p < .01$, McNemar $p < .05$, Fathers: *Wilcoxon Z* = -4.75, $p < .01$, McNemar $p < .01$). Mothers made more stereotypical comments when discussing congruent pictures than when discussing incongruent pictures, *Wilcoxon Z* = -2.83, $p < .01$ (McNemar test: $p < .01$). For fathers this difference was not significant.

Summary. Regarding the support for Hypothesis 1b, family gender composition had an effect on fathers' use of gender labels and the differential evaluation of girls' and boys' negative behavior, which was strongest in families with two boys. Expected differences in the use of gender labels were only found for the picture with a masculine-stereotyped activity (Hypothesis 2a). More positive evaluation of congruent activities compared to incongruent activities was only found for mothers, and less negative evaluation of boys' negative behavior compared to girls' negative behavior was only found for fathers with two boys (Hypothesis 2b). Both parents made more comments confirming gender stereotypes than comments contradicting gender stereotypes (Hypothesis 2c). McNemar's chi-square tests confirmed these results.

Associations Between Gender Talk and Gender Stereotypes (Hypothesis 3)

Independent samples *t*-tests were used to examine differences in implicit gender stereotypes between parents who used or did not use gender labels, or parents who made or did not make comments about gender stereotypes. Correlations were computed between the activity evaluation variables of the picture book and the implicit gender stereotypes on the AIP. Descriptive statistics for the associations between parental gender talk and gender stereotypes are presented in Tables 3. For

fathers there were no associations between any form of gender talk in the picture book and the implicit gender stereotypes ($ps = .12 - .83$). Therefore, only results for mothers are described in the next sections.

Use of gender labels. Mothers who used the feminine label to describe the gender-neutral children in the masculine-stereotyped activity picture had less strong implicit gender stereotypes on the AIP (i.e., shorter reaction times when assigning masculine toys to girls and feminine toys to girls, compared to assigning masculine toys to boys and feminine toys to girls) than mothers who did not use the feminine label in these pictures, $t(302) = 2.47, p < .05, d = 0.67$. Mothers' use of the masculine label in the masculine-stereotyped activity pictures was unrelated to mothers' implicit gender stereotypes. Mothers' use of gender labels in the pictures with gender-neutral children in a feminine-stereotyped activity was not related to mothers' implicit gender stereotypes either.

Evaluative comments. There was a significant negative association between mothers' evaluation of incongruent pictures and the strength of their implicit gender stereotypes, $r(304) = -.13, p < .05$, indicating that mothers with stronger implicit gender stereotypes evaluated pictures with girls and boys doing activities incongruent with gender stereotypes more negatively. Mothers with stronger implicit gender stereotypes also evaluated pictures with boys' negative behavior more positively, $r(304) = .15, p < .05$. The associations between mothers' implicit gender stereotypes and evaluations of congruent pictures, and pictures with girls' negative behavior were not significant.

Comments about gender stereotypes. There was a significant difference in gender stereotypes between mothers who made comments confirming gender stereotypes and those who did not, $t(302) = -2.00, p < .05, d = 0.22$. Mothers who made stereotypical comments had stronger implicit gender stereotypes than those who did not. Mothers' use of counter-stereotypical comments was unrelated to mothers' implicit gender stereotypes.

Summary. Expected associations with gender stereotypes were found for mothers' use of the label girl in masculine-stereotyped activities, evaluation of incongruent pictures and boys' negative behavior, and comments confirming gender stereotypes (Hypothesis 3). For fathers there was no support for Hypothesis 3.

Table 4.3 *Gender stereotypes of parents that used and did not use gender labels and comments about gender stereotypes*

		Mothers' stereotypes	Fathers' stereotypes
<i>Use of gender labels</i>		<i>M (SD)</i>	<i>M (SD)</i>
Label boy for gender-neutral child in masculine activity	Used	.35 (.40)	.31 (.36)
	Not used	.41 (.41)	.43 (.39)
Label girl for gender-neutral child in masculine activity	Used	.11 (.52) ^a	.33 (.47)
	Not used	.42 (.40) ^b	.43 (.38)
Label boy for gender-neutral child in feminine activity	Used	.35 (.49)	.39 (.35)
	Not used	.41 (.40)	.43 (.39)
Label girl for gender-neutral child in feminine activity	Used	.35 (.44)	.46 (.41)
	Not used	.41 (.41)	.42 (.38)
<i>Comments about gender stereotypes</i>			
Stereotypical comments	Used	.44 (.40) ^a	.42 (.41)
	Not used	.36 (.41) ^b	.43 (.36)
Counter-stereotypical comments	Used	.39 (.40)	.40 (.43)
	Not used	.41 (.41)	.44 (.36)

Note. Means labeled ^a and ^b refer to significant differences in gender stereotypes between parents that used and did not use a type of gender talk.

DISCUSSION

We examined mothers' and fathers' gender socialization of their daughters and sons via picture book reading, and the association between parents' gender-related attitudes and gender-socializing behaviors. We also evaluated the newly developed picture book and found that it was successful in eliciting multiple forms of gender talk from parents to their children, including gender labels, evaluative comments, and comments about gender stereotypes. Parents' gender talk was associated with implicit gender stereotypes at least for mothers. Moreover, effects of parent gender and sibling gender constellation on gender talk were found.

As expected, both parents used gender labels that were in line with the gender-role stereotypes conveyed by the activities in the pictures with gender-neutral children (e.g., using the masculine label for gender-neutral children playing with water guns), thus indirectly communicating to a child that certain activities are more appropriate for girls or for boys (DeLoache et al., 1987; Gelman et al., 2004). These results are the more compelling because they are found in Dutch-speaking parents. In the Netherlands gender equality and the participation of women in the labor market are relatively high, and fathers are generally ranked highly on father involvement (Cousins & Ning, 2004; Devreux, 2007). It is common to use neutral pronouns to

describe objects, animals, and characters of indiscriminate gender in Dutch, as opposed to English that makes less use of gender-neutral nouns and pronouns when gender is unclear (Audring, 2009). Even though parents had the option of using a gender-neutral pronoun to describe the gender-neutral characters in the pictures, some nevertheless labeled the characters in a gender-role consistent way, thereby transmitting information about the gender appropriateness of certain roles and activities to their children.

Fathers with two boys described the gender-neutral children in pictures with a masculine-stereotyped activity more often as boys than as girls, a difference that was not found in other family types. That fathers specifically provide their sons, and not their daughters, with gender labels highlighting appropriate male behavior might have something to do with the more restrictive nature of stereotypes about male roles than stereotypes about female roles (Hort, Fagot, & Leinbach, 1990; Leaper, 2000). By using gender labels in this way, some Dutch fathers may prepare their sons for a society in which they feel it is more important for boys to conform to gender stereotypes than for girls (even though gender equality is relatively high in the Netherlands).

Additionally, fathers with two boys were less negative about pictures showing boys' negative behavior than about pictures showing girls' negative behavior. Fathers seem to suggest that negative behavior is more appropriate for boys than for girls. It may be that fathers with two boys consider negative boy behavior as less negative, because they are more used to these behaviors in the home (Archer, 2004; DiPietro, 1981). More experience with negative behaviors of boys may lead to a gendered expectation of boys in general showing more negative behavior, which may lead fathers to refrain from discouraging negative behavior in boys, which in turn may influence boys' behavior. Similarly, fathers may consider this behavior normal and acceptable for boys, because they probably see their two boys showing these behaviors more often than fathers in other family constellations, and may therefore be less inclined to discourage such behavior (Martin & Ross, 2005).

These two findings suggest that the most gender-stereotypical environment with regard to gender talk was created by fathers in families with two boys. It appears that, at least when you are a boy, having an opposite-gender sibling may work as a gender-neutralizer on gender talk in the family environment (Endendijk et al., 2013) as opposed to the idea that having an opposite-gender sibling works as a gender-intensifier in the family system (McHale et al., 1999).

The congruent and incongruent pictures also elicited the expected form of gender talk, but only for mothers. They were more positive about stereotype-congruent activities than about stereotype-incongruent activities. Fathers were overall less positive, but did not distinguish between the congruent and incongruent activities in their evaluations. Apparently mothers prefer children doing activities that are expected based on stereotypes, emphasizing the appropriateness of these stereotype-

congruent activities (Gelman et al., 2004), which may reinforce gender-typed behaviors (Fagot, 1978). These findings converge with role congruency theory, which states that people tend to view deviations from expected gender roles negatively (Eagly & Diekmann, 2005).

This finding also provides some evidence for an effect of parent gender on evaluative comments. Mothers were more positive than fathers about pictures showing girls and boys in activities that are in line with gender stereotypes, indirectly endorsing the stereotypes. This finding converges with the differential experience hypothesis (Walker & Armstrong, 1995), and with previous research showing that women hold their stereotypes more implicitly or unconsciously than men (Endendijk et al., 2013; Nosek et al., 2002; Rudman & Glick, 2001) and might therefore also be more likely to express them in indirect ways.

As expected, both mothers and fathers made more stereotypical comments about gender than counter-stereotypical comments about gender. However, this finding did not correspond with the finding of Friedman and colleagues (2007) that mothers made more counter-stereotypical comments than stereotypical comments. The lack of correspondence between the findings of the two studies may be due to the higher salience of gender in the Friedman et al. (1997) study, because in their study only pictures were depicted with girls and boys in stereotypical and counter-stereotypical activities, resulting in more socially desirable comments. With our book, which included filler pictures (i.e., both girls and boys in same activity), it may have been less obvious to parents that we examined gender talk or gender-related attitudes. However, differences might also be due to sampling. The Friedman et al. study has an even higher-educated sample than our study, which may have led to more egalitarian attitudes with regard to gender (Krysan, 1998).

We found some evidence in support of the hypothesis that fathers would use the more direct forms of gender talk than mothers, especially in pictures with children showing stereotype-incongruent behavior. For example, fathers were more likely than mothers to say things like “Girls cannot play ice hockey.”, or “Boys don’t play with dolls.”. It might be that fathers want to compensate for the incongruence in the pictures through a comment that confirms the gender stereotype, consistent with findings that men are more concerned with gender-typed behavior and conforming to gender roles than women (Leaper, 2000). That fathers emphasized more than mothers how children should not behave converges with studies showing that, compared to mothers, fathers use more parenting strategies that discourage undesirable behaviors as opposed to strategies that promote preferred behavior (Kerr, Lopez, Olson, & Sameroff, 2004; Russel et al., 1998).

Although we found some effects of parent and child gender on parental gender talk, mothers and fathers in our upper-middle class sample were generally very similar in their gender talk to girls and boys. Consistent with our expectations, mothers did not adapt their gender talk to the gender composition of their both

children (DeLoache et al., 1987; Gelman et al., 2004). The finding that fathers did tailor some aspects of their gender talk to the gender composition of their both children was also expected, because men are more inclined to maintain gender boundaries in social interactions (Maccoby, 1998). However, our data were organized on family level, which dictated separate analyses for fathers and mothers (i.e., with picture type as within-subjects factor instead of parent gender as within-subjects factor). As a result, we cannot conclude that fathers show more gender-differentiation in their gender talk than mothers.

Regarding the association between parental gender talk and gender stereotypes, we found that mothers with more egalitarian implicit gender stereotypes were also more likely to communicate to their children that stereotypically boys' activities could very well be done by girls too, that stereotype-incongruent behavior is appropriate for both girls and boys, and that negative behavior is inappropriate for both girls and boys. These findings are consistent with gender schema theory (Bem, 1983) and previous findings that mothers' gender talk to their children reflects mothers' gender stereotypes (Gelman et al., 2004), and gender talk therefore might be a mechanism underlying the intergenerational transmission of gender stereotypes. That fathers' implicit gender stereotypes were not associated with gender talk to their children might be due to the implicit nature of the task assessing parental gender stereotypes. It is possible that fathers' explicit gender stereotypes are more related to their gender talk than are their implicit stereotypes, because men express their stereotypes more explicitly than women (Endendijk et al., 2013).

Limitations and Future Directions

This study has some limitations. First, not all parents used a lot of gender talk, talking more about other aspects of the picture. The low frequency of gender talk by some parents might be because of the inclusion of filler pictures to reduce the focus on gender, the option of labeling gender-neutral characters with gender-neutral pronouns in the Dutch language, and the high number of highly educated parents in the sample who are generally less explicit in their gender talk (Krysan, 1998). However, it is likely that the picture book elicited more gender talk than would be expected in naturalistic play situations, given the implicit gender-related prompts that the book provides. Second, we did not code children's utterances about gender. Parents generally led the conversations, but sometimes the children made comments first, and thus may have influenced their parents' gender talk. Future studies could examine children's gender talk to investigate the relation between parent and child gender talk. Studies focusing on both parent and child gender talk can also test if gender talk shapes the way children conceptualize their world with regard to gender (i.e., Sapir-Whorf hypothesis; Kay & Kempton, 1984) and if gender talk is an important aspect of gender socialization (i.e., social learning theories; Bandura, 1977), which we could not do in the current study. Third, because of the highly skewed gender talk variables

we were not able to use frequency or proportion scores, whereas it seems likely that a frequent exposure to gender labels or comments confirming or contradicting gender stereotypes made by parents has consequences for the development of children's gender concepts. Moreover, the frequency of parents' gender talk might better explain individual differences in children's gender-related attitudes. Fourth, we only included pictures with disruptive behavior, and not of prosocial behavior of girls and boys in the picture book. It would be interesting to examine if parents gender talk focuses more on prosocial behaviors in girls than in boys, because there is some evidence that parents tend to encourage prosocial behaviour more in girls (Hastings, McShane, Parker, & Ladha, 2007).

Conclusions

Our study shows that parents are likely to communicate their views about gender to their children already at an early age. They use both indirect means like gender labeling and evaluations of activities and direct expressions of gender stereotypes to highlight gender as a salient issue and to communicate the appropriateness of certain behaviors for girls and boys. We also found that the way mothers, and not fathers, socialize their children reflects their implicit gender stereotypes. This link between mothers' attitudes about gender and actual gender socializing behaviors has not been shown before, and provides support for the assumptions of gender schema theory (Bem, 1983).

The newly developed *Gender Stereotypes Picture Book* also demonstrated its usefulness as meaningful associations were found between parents' gender talk and their implicit gender stereotypes. In addition, the book was successful in uncovering direct and indirect aspects of gender talk. The different picture types elicited the expected responses, which have their own impact on the socialization of gender. Mothers and fathers were found to differ in their gender talk and families with different sibling gender compositions displayed different interaction patterns. Thus, the assessment of parental gender talk with the picture book can provide important insights into the roles of mothers and fathers in gender socialization. With the *Gender Stereotypes Picture Book*, a new easy-to-use instrument, we hope to spark renewed interest in the role of language in gender socialization within the family context.

Implications for Practice and Application

Some practical implications emerge from the perspective that gender socialization practices leading to negative outcomes for females or males need to be reduced (Hyde, 2014; Zahn-Waxler, Shirtcliff, & Marceau, 2008). The first step towards behavior change is creating awareness. Therefore, it might be important to inform parents about the impact of gender-related language on the development of girls and boys. Creating awareness is especially relevant for fathers in all-boy families, because our results show that fathers in all-boy families provide their children with the most

gender-stereotypical linguistic environment. Parents should be made aware mostly of their unconscious and frequent use of indirect forms of gender talk (i.e., gender labeling, evaluative comments), which have important consequences for the way children conceptualize their worlds (i.e., Kay & Kempton, 1984; Sapir-Whorf hypothesis), and how they behave in the future (Bem, 1983). Gender-related behaviors appear to be sensitive to change when people are made aware of the presence of their own specific gender-related behavior patterns and the consequences of these behaviors for others (Gawronski & Bodenhausen, 2006).

