Title

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Journal

International Journal of Behavioral Development, 19(4)

ISSN

0165-0254

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Publication Date

1996-12-01

DOI

10.1177/016502549601900401

Peer reviewed

INTERNATIONAL JOURNAL OF BEHAVIORAL DEVELOPMENT, 1996, *19* (4), 689–703

The Relationship of Play Activity and Gender to Parent and Child Sex-typed Communication

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The influence of contextual factors on parent-child interactions, and the role of these factors in the incidence of gender differences in communication, was examined. Twelve daughters and twelve sons (mean age = 43 months) visited a university laboratory on separate occasions, once with their mothers and once with their fathers. During both visits, the parent-child pair played with a relatively masculine-stereotyped toy set, oriented toward construction play (a take-apart car), and a relatively feminine-stereotyped toy set, oriented toward social-dramatic play (props for a grocery store). Transcripts of the parent and child speech acts were coded while listening to audiotape recordings of the interactions. The results indicated that the play activity, and not the speaker's gender, significantly affected both parents' and children's use of different speech acts. Parent gender was an additional predictor of children's speech. All of the significant effects had large effect sizes. The findings support theoretical models and other research reports that emphasise the importance of activity settings in the sex-typing process.

The present study considers how factors in the immediate setting may influence the incidence of sex-typed communication between parents and their preschool-age children. Generally, researchers studying sex-typed social behaviour have characterised females as expressing more affiliation

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Coding and statistical analyses were supported by a National Institute of Mental Health fellowship at Harvard Medical School (No. MH16259-08) and grants from the University of California, Santa Cruz (Nos. 405091, 443061, and 503035) to the first author. Data collection and transcription were funded by a National Science Foundation Grant (No. BNS75-21909AO1) to the second author. Portions of this study were presented at the Biennial Meeting of the Society for Research in Child Development, Kansas City, April 27–30, 1989. Tera Hirsch and Adam Kremen are thanked for their helpful assistance with the coding and data management, respectively. Kristin Anderson, Margarita Azmitia, Maureen Callanan, and Barbara Rogoff are appreciated for their thoughtful comments on earlier drafts of this paper.

and expressiveness, and males as demonstrating more self-assertion and task orientation (see Block, 1973; Leaper, 1994, for reviews). With regard to communication, fathers have been found to use more instrumental language and less affiliative language than do mothers (Bellinger & Gleason, 1982; Fagot, 1974; Malone & Guy, 1982; McLaughlin, White, McDevitt, & Raskin, 1983; Mullis & Mullis, 1985; Noller, 1978; Pellegrini, Brody, & Stoneman, 1987). Analogous gender differences have been observed in boys' and girls' speech (Dunn, Bretherton, & Munn, 1987; Haslett, 1983; Leaper, 1991; Pitcher & Schultz, 1983).

Another factor that appears to influence the incidence of sex-typed communication is the gender of the person being addressed. With regard to parent-child interactions, the effect of the child's gender on parents' behaviour has been extensively studied (see Lytton & Romney, 1991). When significant effects have been found, they indicate that parents tend to use more affiliative language and less instrumental-directive language with daughters than with sons (Cherry & Lewis, 1976; Dunn et al., 1987; Endsley, Hutcherson, Garner, & Martin, 1979; Fagot, 1974; Frankel & Rollins, 1983; Hubbell, Byrne, Stachowiak, 1974; Noller, 1978; Stoneman & Brody, 1981). Although children have been found to interact differently with same-gender and other-gender peers (see Leaper, 1991; Maccoby, 1990, for reviews), the relationship between children's communication and their parents' gender remains relatively unexamined.

Although many studies have reported the gender-related patterns previously described, there have also been several studies in which no gender effects have been observed (see Lytton & Romney, 1991; Maccoby & Jacklin, 1974). The discrepancy between those studies that find significant effects and those that do not suggests the influence of other factors. In this regard, recent developmental research has highlighted the importance of the activity setting as a factor in sex-typed social behaviour (see Caldera, Huston, & O'Brien, 1989; Carpenter, 1983, Huston, 1985; Pellegrini & Perlmutter, 1989). Specifically, manifestations of gender difference in social behaviour may result more from the kinds of activities that are selected than from the person's gender *per se*. Most of the previously cited studies that have reported gender differences did not take the activity into account. These studies generally involved either free play (e.g. Cherry & Lewis, 1976; Endsley et al., 1979; McLaughlin et al., 1983) or semi-naturalistic observations in the home (e.g. Dunn et al., 1987; Fagot, 1974). Consequently, observed gender effects in these reports may have been confounded by the selection of sex-stereotyped toys and activities. The demand characteristics of the different play activities, rather than gender *per se*, may have accounted for behaviour differences.

The goal of the present study was to compare the extent to which variations in communication are associated with the *person* versus the

situation. To this end, the speaker's gender was investigated as the "person" variable. The partner's gender and the play activity were examined as two aspects of the "situation". If children's or parents' behaviour depends more on their own gender than the situation, then speaker gender main effects should occur. Additionally, speaker gender × play setting interaction effects would be expected if the play activity influenced one gender but not the other. Based on a contextualist model of gender, however, we hypothesised that the partner's gender and the play activity setting would be better predictors of communication style than the speaker's gender.

METHOD

Participants

Twenty-four pairs of parents and their first-born children (12 girls and 12 boys) participated in the study. The children ranged in age from 25 to 62 months (mean age = 42 months). Girls and boys did not significantly differ in age [(M = 43.50, SD = 10.93, for girls; M = 41.08, SD = 11.63, for boys), $F(1,22) < 1$, n.s.].

The families were Caucasian with middle to upper-middle incomes. Fathers worked in professional occupations. Mothers were the primary caregivers, although most of them worked at least part time outside the home.

Procedure

The research was conducted at a university laboratory in a northeastern city in the United States. Each child was observed twice, once with one parent and a second time, approximately three weeks later, with the other parent. Each parent was asked to engage in the following three activities with the child for approximately 10 minutes each: reading a wordless picture book, taking apart and putting together a *Playskool* car with accompanying tools, and playing with props for a toy store. The order of selection was left up to the parent. Only the interactions from the toy car and the store activities were examined in the present study.

The car and the store toy sets are oriented toward different play functions. The construction play associated with the take-apart car emphasises an instrumental orientation. Boys have been found to prefer this kind of play (see Hughes, 1991; Lloyd & Duveen, 1992). In contrast, social-dramatic play associated with the grocery store emphasises an affiliative or expressive orientation. Girls have been observed to prefer this kind of play (see Hughes, 1991; Lloyd & Duveen, 1992). Thus, the toy car and the toy store were considered masculine- and feminine-stereotyped play activities, respectively.

Speech Act Coding. All sessions were audiotaped and transcribed. A female research assistant who was unfamiliar with the study's hypotheses coded the transcripts of the parent-child interactions while simultaneously listening to the audiotapes. The transcripts had previously been segmented into utterance units for use in previous analyses of these data (see Gleason, 1987). An utterance unit was based on the expression of a thought unit roughly corresponding to a sentence, although an incomplete sentence with a complete intonational contour was counted as a single utterance.

Each utterance was classified using the Psychosocial Processes Coding Scheme (PPCS) (Leaper, 1987, 1991; derived from Penman, 1980). This coding system classifies speech acts into the following mutually exclusive categories: *inform* (giving or relating information, making descriptive or evaluative statements), *guide* (suggestions, proposals, clarifications, corrections), *request* (asking for information, requesting direction or support), *confirm* (explicit agreement, moderate appreciation, willing acquiescence), *support* (showing understanding or emotional support, expressing shared amusement, providing praise), *avoid* (withdrawal, evasion, uncertainty), and *negate* (unilateral demands, disagreements, disapproval, criticisms). The *support* and *negate* categories did not occur in sufficient frequencies, for either parents or children, to be included in the statistical analyses.

Assertion and Affiliation as Underlying Dimensions. Each PPCS category is also defined in terms of its degree of expressed assertion and affiliation. These two domains have been associated with dimensions of masculine and feminine gender socialisation, respectively (e.g. Block, 1973). First, each speech act is interpreted as ranging from relatively high (i.e. direct) to relatively low (i.e. nondirect) in assertion. Guiding, supporting, and negating are considered relatively high in assertiveness because they are aimed at directly influencing the other person. Confirming and avoiding are viewed as relatively low in assertiveness because they are nondirective in influence. Informing and requesting are considered relatively moderate in assertion. At the same time, speech acts are interpreted as ranging from being relatively high (i.e. engaging) to relatively low (i.e. distancing) in affiliation. Supporting and confirming are considered high in affiliation because they are aimed at positively affirming the other person. Avoiding and negating are viewed as low in affiliation because they create separation and distance from the other person. Guiding, informing, and requesting are interpreted as being relatively moderate in affiliation.

Coding Reliability. Coding reliability was established between the first author and the research assistant who coded the transcripts. The reliability test was based on an analysis of 514 parent and child utterances from the

sample, which were assessed using both percentage agreement and Cohen's kappa. A kappa above 0.5 is considered a good level of agreement; a kappa above 0.7 is considered excellent (see Bakeman & Gottman, 1986). There was 81% agreement and a kappa of 0.76 for the coding scheme overall. Additionally, there was high agreement when separate reliability tests were performed for the individual speech act categories used in the present study. The respective percentage agreement and kappa coefficient for each coding category are as follows: inform, 88%, 0.71; guide, 94%, 0.69; request, 97%, 0.92; confirm, 96%, 0.58; and avoid, 99%, 0.85.

RESULTS

Preliminary analyses of the parent speech acts and the child speech acts indicated that no significant main effects or interaction effects were related to parent order (mother or father seen first), toy order (play with store props or construction car first), or child age. Therefore, these factors were excluded from the analyses. Child gender was a between-group factor; parent gender, play activity, and speech acts were within-group repeated measures.

When significant effects were observed in the analyses, two additional estimates were computed from the observed F-value. First, the proportion of variance accounted by an effect was computed using eta^2 (Rosenthal & Rosnow, 1984). Secondly, the effect size (f) was computed (Rosenthal & Rosnow, 1984). According to Cohen (1977), an effect size (f) of 0.10 is small, an effect size of 0.25 is medium, and an effect size of 0.40 is large. The eta^2 and the f-effect size estimates are presented following the F-value and P-level in the results.

Total Speech Acts

Prior to analysing the individual speech acts, we considered whether there were any significant effects associated with parents' and children's overall amount of talking. The total number of PPCS speech acts was used as an index of parents' and children's talkativeness in the two play activities. Parents' and children's total speech acts were analysed in separate tests using a 2 (Child Gender) × 2 (Parent Gender) × 2 (Play Activity) design.

Parents' amount of talking was associated with a significant play activity main effect. [$F(1, 22) = 6.45$, $P = 0.01$, eta$^2 = 0.23$, $f = 0.55$]. Both mothers and fathers used significantly more speech acts during the pretend store play activity ($M = 169.42$, $SD = 57.53$, for mothers; $M = 172.50$, $SD = 45.78$, for fathers) than during the construction car play activity ($M = 140.37$, $SD = 53.12$, for mothers; M 138.58, $SD = 56.38$, for fathers).

Children's amount of talking was associated with three significant main effects. First, daughters used more speech acts ($M = 121.58$, $SD = 50.15$)

than did sons [$M = 92.69, SD = 39.12$), $F(1, 22) = 4.39, P = 0.04$, eta$^2 = 0.17$, $f = 0.45$]. Secondly, children were more talkative with fathers ($M = 114.71$, $SD = 48.83$) than with mothers [($M = 99.53$, $SD = 40.44$), $F(1, 22) = 4.58$, $P = 0.04$, eta$^2 = 0.17$, $f = 0.45$]. Finally, children used more speech acts during the pretend store play activity ($M = 117.33$, $SD = 44.83$) than during the construction car activity [($M = 96.92$, $SD = 44.43$), $F(1, 22) = 7.57$, $P = 0.01$, eta$^2 = 0.26$, $f = 0.59$].

Individual Speech Acts

As the previous results indicate, both parents and children differed in their use of speech acts in the two play settings. Therefore, to examine the effects of the predictor variables on the individual speech acts, proportion scores were used in the next set of analyses. Proportion scores were computed for each speaker in each play setting by dividing the frequency with which each act occurred by the speaker's total number of speech acts. Arc sine transformations were used to adjust for the skewed distributions associated with some of the proportion scores.

Parents' and children's speech acts were analysed in separate ANOVAs using a 2 (Child Gender) × 2 (Parent Gender) × 2 (Play Activity) × 5 (Speech Act) mixed design. The five speech acts entered into the analysis included informing, requesting, guiding, confirming, and avoiding. There were no significant child gender main effects or related interactions in either analysis. Therefore, two fully repeated 2 × 2 × 5 ANOVAs were conducted without the child gender factor: one for the parents' speech acts and one for children's speech acts.

The mean proportion scores and standard deviations for the six communicative acts broken down by parent gender and play activity are presented in Tables 1 and 2 for parents and children, respectively.

Parents. A significant Play Activity × Speech Act interaction occurred in the ANOVA, [$F(4, 92) = 5.53, P < 0.001$]. Univariate tests were conducted for each speech act in order to identify significant play activity main effects. Two significant effects were observed. They occurred with parents' informing speech acts, [$F(1, 23) = 10.75, P = 0.003$, eta$^2 = 0.32$, $f = 0.69$]; and guiding speech acts, [$F(1, 23) = 21.06$, $P < 0.001$, eta$^2 = 0.48$, $f = 0.96$]. Parents used proportionally more informing and less guiding during the pretend store play than the car construction play. In both instances, there was a large effect size for play activity.

Children. There was a significant Play Activity × Speech Act interaction, [$F(4, 92) = 5.95, P < 0.001$]; and a significant Play Activity × Parent Gender

TABLE 1
Mean Proportions and (Standard Deviations) for Mothers' and Fathers' Speech Acts During Each Play Context

Speech Act and Speaker	*Construction Play (Car)*	*Social-Dramatic Play (Store)*
Inform		
Mother	0.08 (0.05)	0.11 (0.05)
Father	0.08 (0.04)	0.10 (0.04)
Evaluate		
Mother	0.14 (0.04)	0.17 (0.05)
Father	0.15 (0.09)	0.15 (0.06)
Guide		
Mother	0.24 (0.07)	0.17 (0.05)
Father	0.22 (0.09)	0.18 (0.05)
Request		
Mother	0.30 (0.08)	0.33 (0.08)
Father	0.34 (0.13)	0.35 (0.11)
Confirm		
Mother	0.09 (0.05)	0.10 (0.04)
Father	0.08 (0.04)	0.10 (0.05)
Avoid		
Mother	0.05 (0.03)	0.05 (0.02)
Father	0.04 (0.03)	0.05 (0.05)

Note: Standard deviations appear in parentheses. There were no significant differences associated with child gender.

× Speech Act interaction [$F(4, 92) = 4.08$, $P = 0.004$]. Follow-up univariate tests identified three play activity main effects and three Play Activity × Parent Gender interactions that occurred with specific speech acts.

First, play activity main effects were found with informing, [$F(1,23) = 8.79$, $P < 0.008$, $\text{eta}^2 = 0.28$, $f = 0.62$]; avoiding, [$F(1, 23) = 4.66$, $P = 0.04$, $\text{eta}^2 = 0.17$, $f = 0.45$]; and requesting, [$F(1, 23) = 13.53$, $P = 0.001$, $\text{eta}^2 = 0.37$, $f = 0.77$]. Children used proportionally more informing and avoiding during the pretend store play activity, but made more requests during the car construction activity. The play activity main effect had a large effect size in all three findings.

Additionally, Play Activity × Parent Gender interactions occurred with children's informing speech acts, [$F(1, 23) = 4.94$, $P = 0.03$, $\text{eta}^2 = 0.18$, $f = 0.47$]; confirming speech acts [$F(1, 23) = 14.63$, $P < 0.001$, $\text{eta}^2 = 0.39$, $f = 0.80$]; and avoiding acts [$F(1, 23) = 4.21$, $P = 0.05$, $\text{eta}^2 = 0.15$, $f = 0.42$]. First, simple effects tests revealed that the play activity main effect described in the previous paragraph was specific to when children were playing with their fathers [$F(1, 23) = 12.99$, $P = 0.001$, $\text{eta}^2 = 0.36$, $f = 0.75$]. Specifically, children used proportionally more informing speech acts with fathers during the pretend store play than the car construction play. Secondly, children

TABLE 2
Mean Proportions and (Standard Deviations) for Children's Speech Acts with Mothers and Fathers During Each Play Context

Speech Act and Speaker	*Construction Play (Car)*	*Social-Dramatic Play (Store)*
Inform		
With Mother	0.25 (0.10)	0.26 (0.11)
With Father	0.23 (0.08)	0.29 (0.08)
Evaluate		
With Mother	0.22 (0.10)	0.21 (0.07)
With Father	0.23 (0.09)	0.22 (0.06)
Guide		
With Mother	0.17 (0.08)	0.18 (0.09)
With Father	0.15 (0.07)	0.16 (0.06)
Request		
With Mother	0.21 (0.10)	0.16 (0.09)
With Father	0.19 (0.09)	0.13 (0.06)
Confirm		
With Mother	0.05 (0.03)	0.08 (0.05)
With Father	0.08 (0.06)	0.06 (0.04)
Avoid		
With Mother	0.07 (0.04)	0.07 (0.03)
With Father	0.07 (0.03)	0.10 (0.05)

Note: Standard deviations appear in parentheses. There were no significant differences associated with child gender.

used proportionally *fewer* confirming speech acts with their mothers during the car construction activity than with either their mothers during the pretend store play, [$F(1, 23) = 8.18, P = 0.008, \text{eta}^2 = 0.26, f = 0.59$], or their fathers during the car construction play, [$F(1, 23) = 7.06, P = 0.01, \text{eta}^2 = 0.23, f = 0.55$]. Finally, children made more avoiding acts with fathers than mothers during the pretend store play activity, [$F(1, 23) = 11.09, P = 0.02, \text{eta}^2 = 0.32, f = 0.69$]. All of these results were associated with large effect sizes.

DISCUSSION

Aspects of the interactive context were robust predictors of parents' and children's communication behaviour. There were significant differences in parents' and children's language behaviour associated with the two play settings. In contrast, speaker gender did not significantly influence parents' or children's use of any specific speech acts (although it was a significant factor with children's overall amount of talking). Both parents and children were influenced by the play setting in similar ways, regardless of their gender. Additionally, partner gender appeared as a significant factor.

Differences in children's speech to mothers versus fathers was associated with the play context. Thus, our results lend support to contextualist interpretations of sex-typed behaviour.

Our results are consistent with those found in an independent study with a sample of younger children. Caldera and her colleagues (1989) found that the play activity, not the parent's gender or the child's gender, accounted for most differences in parents' behaviour with their toddlers (mean age = 20 months). It therefore seems that play activity can influence the manifestation of parent-child sex-typed communication during a range of child ages from the early toddler to late preschool years. Additionally, we found that play activity also influences children's speech. Thus, these combined findings support the idea that gender differences in parent-child interaction may be at least partly due to differences in activity settings.

We will explore the impact of the different settings on parents' and children's speech act behaviour more fully later. First, some of the observed parent effects on children's speech behaviour will be considered. Afterwards, the types of communication associated with the social-dramatic play activity and then those associated with construction play activity will be addressed.

Children's Different Reactions to Fathers and Mothers. Although parents were not found to act differently toward daughters and sons, children were found to behave differently toward mothers and fathers. Thus, parent gender functioned as a contextual influence on children's behaviour. For example, children used proportionally more avoiding acts during the pretend store activity with fathers than with mothers. Avoiding speech acts reflect children's momentary lapse in maintaining communication exchanges. Perhaps this behaviour was especially likely for children relating to their fathers because the children were not accustomed to participating with their fathers in the feminine-stereotyped pretend store play setting. In other words, they may have been distancing themselves from their fathers while participating in what they considered an "inappropriate" activity for a father. The research evidence indicates that children typically form gender stereotypes regarding sex-typed activities around the age of three years (Martin, 1994), which coincides with the age range of the present sample.

Another way that children reacted differently to mothers and fathers was in their use of confirming speech acts during the construction play activity. They used proportionally more of these acts with fathers than with mothers while playing with the take-apart car. Perhaps this finding reflects a gender stereotype on the children's part, a belief that fathers are more appropriate authority figures than are mothers when it comes to construction tasks, especially tasks involving a car. Thus, the children may have been more willing to go along with the father's initiatives due to the activity setting. This

would be compatible with the gender stereotypes typically associated with children within the age range of the present study's sample (see Martin, 1994).

Information Exchange and Co-operation During the Social-Dramatic Play Generally there was more information exchange and co-operative communication between the parents and children during the social-dramatic play setting (grocery store) than during the construction play setting (take-apart car). Both parents and children spoke more often (total speech acts) during play with the grocery store toys than with the take-apart car. This is consistent with the social-dramatic activity's greater emphasis on verbal interaction. In contrast, the construction activity allows for more solitary play and nonverbal interaction. Thus, these two play activities place different emphases on the use of verbal skills. If so, then girls' reported greater preference for pretend play involving domestic situations (Hughes, 1991; Lloyd & Duveen, 1992) may be related to another finding in the present study, namely, that girls were generally more talkative than boys. Other investigators have similarly reported a higher verbal performance for girls during the preschool years (Brownell & Smith, 1973; Cherry & Lewis, 1976; Koenigsknecht & Friedman, 1976; Langlois, Gottfried, & Seay, 1973; Schachter, Shore, Hodapp, Chalfin, & Bundy, 1978; see Leaper, Sanders, & Anderson, submitted, for a review). The developmental relationship between these factors remains unclear, however. It may be that feminine-stereotyped play tends to emphasise verbal interaction, and that encouragement in these activities helps to develop girls' verbal ability. It also may be that girls develop language earlier than boys through more rapid maturation, and that their greater verbal ability orients them toward talk-oriented forms of play.

There was also a higher proportion of parent informing speech acts during the social-dramatic play setting. Once again, this effect likely reflects the more verbal-oriented nature of social-dramatic play. When participating in a pretend scenario, such as shopping at a grocery store, the participants need to construct a story line that involves continually relating information (Garvey, 1990; Hughes, 1991). An example of a parent's use of informing speech acts during the store setting is illustrated in the following set of exchanges between a mother and her daughter:

1. Mother: Hello sir
2. Daughter: Yes
3. Mother: I wanna go shopping
4. Daughter: Okay
5. Mother: Okay
6. Now, I need milk for my baby

In the above excerpt, the mother can be viewed as constructing a shopping scenario through her use of informing acts (utterances 1, 3, 6). The daughter, in turn, demonstrates her willingness to co-operate with her mother through the use of confirming speech acts (utterances 2 and 4). Indeed, children's confirming speech acts were more likely during the social-dramatic play than during the construction play, although only while interacting with their mothers.

Confirming speech acts involve going along with the other's ideas or initiatives. In this way, the speaker expresses a willingness to co-operate. We observed a greater likelihood for children to use co-operative communication during the most feminine-stereotyped play setting. This finding may help explain reports that girls use more supportive and collaborative communication than do boys (Dunn et al., 1987; Haslett, 1983; Leaper, 1991; Miller, Danaher, & Forbes, 1986; Pitcher & Schultz, 1983). Perhaps it was these girls' greater preference for settings with a socioemotional orientation (Block, 1983; Etaugh, 1983; Huston, 1983) that led to these differences.

Like their parents, children also used more informing speech acts during the toy store play setting. However, this effect only occurred during interactions with fathers. No differences were observed between mothers' or fathers' speech act behaviour in this setting; therefore, it would appear that either children were responding to undetected differences in mothers' and fathers' behaviour or they were reflecting their own perceptions regarding their mothers' and fathers' role in this kind of activity. Perhaps the children were more comfortable allowing their mothers to take responsibility for conversational interaction during the more feminine-stereotyped play activity. This possibility is left for future researchers to explore.

Finally, children also had a higher incidence of avoiding acts during the toy store play setting. Avoiding acts refer to being verbally non-responsive following the other person's initiative. Given the greater emphasis on verbal interaction during social-dramatic play, a higher incidence of avoiding acts may have reflected young children's difficulty in maintaining conversation between exchanges.

Task Orientation During the Construction Play. Compared to the social-dramatic play with the grocery store props, the construction play with the take-apart car was associated with more task-oriented communication for both the parents and the children. First, children used more requests, whereas parents used more guides, during the construction play than during the social-dramatic play. Asking questions (requests) can be viewed as an age-appropriate instrumental strategy for young children. For example, the

following excerpt illustrates one boy's use of requests with his mother during play with the construction car:

7.	Son:	Where do we want to put this in?
8.	Mother:	That was the motor
9.		So that would go in the front of the car
10.	Son:	I know
11.		Right here?

In the above, the boy asks his mother questions to guide his solution of the construction task (utterances 7 and 11). His questions reflect his instrumental orientation.

Previously reported gender differences in the use of instrumental language may be due to children's participation in sex-typed activities. Boys' sex-typed preference for goal-oriented activities in general (Huston, 1983) may help explain why some studies have found boys using more instrumental language than girls (Haslett, 1983; Pitcher & Schultz, 1983). Indeed, researchers have observed that girls' assertive language increases when they are assigned male-stereotyped play activities (Carpenter, 1983).

The construction play activity was also associated with a higher proportion of parent guiding speech acts. Parents' use of guiding acts may be viewed as their way of assisting their children in the successful accomplishment of the car construction. This is seen in the following set of interchanges between a mother and her son with the take-apart car:

12.	Mother:	Give it a hard turn
13.	Son:	I can't even do it
14.	Mother:	You remember how to do it?
15.		That's it
16.		Now you got it
17.		Good
18.		See?
19.		Now it's gonna come right out
20.		That's it
21.		Just keep turning
22.		If you want to you can put it over on its side
23.		That's it
24.		That's it!
25.		There it goes

Through the use of guiding acts such as those seen above (utterances 12, 18, 21, 22), parents directed their children in the solution of the task (e.g. "Just keep turning it"). To the extent that goal-oriented activities are more

likely to be associated with boys' play (Block, 1983; Etaugh, 1983), it may be that selection of this kind of play activity led to a previous report that parents used more directive acts with sons than with daughters (Cherry & Lewis, 1976).

In summary, it would appear that the two types of play observed in the present study emphasise the expression of different communication strategies and social orientations. Social-dramatic play tends to emphasise more information exchange and co-operation (i.e. affiliative communication); whereas construction play tends to emphasise more task orientation and problem-solving (i.e. instrumental communication). Prior studies investigating gender difference in play preferences have indicated that social-dramatic play occurs more among girls and construction play occurs more among boys (see Hughes, 1991; Lloyd & Duveen, 1992). It may follow, then, that sex-typed play preferences can lead to later gender differences in social skills. Specifically, girls' continued participation in social-dramatic types of play may foster socioemotional and expressive skills, whereas boys' continued participation in goal-oriented types of play may foster instrumental skills (see Block, 1983; Etaugh, 1983; Leaper, 1994; Lever, 1976, for similar arguments). Vygotsky, who is one of the major inspirations for the modern contextualist movement in development psychology (see Rogoff, 1990; Wertsch & Tulviste, 1992), noted that differences at the social-interactional level later appear at the individual-psychological level. The kinds of activities and social transactions that children experience become the basis of internalising cultural practices and values. Thus, one way in which parents contribute to sex-typing socialisation of their children is through the selection and encouragement of sex-typed toys and activities.

Manuscript received February 1994
Revised manuscript received January 1995

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