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Parenting Experience and Gender Role Socialization in Toy Play Situations

by

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Abstract

This study investigated the role of parenting experience on the gender socialization of children. Each of the children (N=48) played with three adults; one of their parents, one parent of another child, and one non-parent. The amount of time children and adults played with gender-specific toys, adults' categorization of toys into gender categories and adults' desirability ratings of gender-specific toys were examined. Results indicated that boys spent most of their time playing with masculine toys, while girls spent an equal amount of time playing with feminine and neutral toys and the least amount of time playing with masculine toys. The gender-sorting task revealed that adults did not agree with traditional "expert" categorizations of some of the toys as masculine and feminine. Adults rated the desirability of the toys as a function of the gender of the child with whom they played. In addition, overall parents rated the toys as more desirable than non-parents.

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Socialization refers to the process by which children acquire the standards, values, and knowledge of their society (Cole & Cole, 1993). Given that children's early social experiences revolve primarily around their parents (Bandura, 1969), parents have the potential to provide substantial input into the socialization of their children. One aspect of this socialization that parents may influence is children's understanding of the differences between males and females, and the expectations about masculine and feminine roles in society. In fact, research supports the notion that parental socialization does impact on children's understanding of males and females (e.g., Mischel, 1966). One important aspect of the parent-child relationship, through which parental influences are communicated, is play. As such, play may provide an important avenue for children to acquire an understanding of the differences between males and females, and the expectations placed on each. The purpose of the present study was to examine how these differences may be communicated in a play environment with young children.

Play, in particular toy play, is an activity in which most parents and their children engage. The present discussion examines the parent-child relationship in toy play situations. In particular, the contributions of parent-child toy play situations to children's developing notions about expectations for males and females is investigated. Specific discussion involves: terminology used in gender development, theories of children's development of gender and gender roles, the importance of play and children's gender understanding, and parents' gender role beliefs, toy selection and toy play.

Defining Gender and Gender Roles

It is important to establish a common understanding of relevant terminology prior to examining children's gender role socialization. Two critical terms for the present study are "gender" and "gender roles." A comprehensive understanding of gender includes gender identity, gender stability and gender constancy. These concepts include children's awareness that males and females have different physical appearances, that gender does not change over time, and that despite changes in appearance, gender remains the same, respectively (Kohlberg, 1966). According to Kohlberg (1966), the development of these three concepts occurs sequentially, at the end of which children have an understanding of gender.

Gender role is an another important concept that children come to acquire. Gender roles refer to expectations concerning those activities, interests, and tasks for males and females (Huston, 1983). Specifically, gender roles refer to the prescribed roles for males and females, in areas such as earning the family income, performing household and domestic tasks, and taking care of the children. "Traditional" is often used when referring to the conventional notions of what is appropriate behaviour for either gender; for example childcare is often perceived to be a traditionally female task.

When individuals perceive gender roles to be rigidly prescribed, then terms such as "gender-typing" or "gender stereotyping" may be used. Both of these terms refer to abilities, personality traits, activities, and roles socially defined as appropriate for one gender and not the other. "Gender-appropriate" refers to characteristics individuals typically endorse for one gender and not the other, based on their own social experiences

or expectations. For example, previous research suggests that parents consider certain toys to be more appropriate for their sons and certain toys more appropriate for their daughters (e.g., Fisher-Thompson, 1990; O'Brien & Huston, 1985). Several studies have demonstrated a similar assignment of toys as a function of gender and have interpreted these findings as a reflection of the different roles men and women presumably hold (e.g., Fagot, Leinbach & O'Boyle, 1992).

One final term used in the present paper is "gender labeling." This term refers to children's ability to examine and categorize a series of pictures of men and women, for example, by sorting them into their respective gender categories, or by verbally identifying them as males or females.

Theories of Children's Development of Gender and Gender Roles

Kolhberg (1966) described children's development of gender as proceeding through three developmental stages: gender identity, gender stability, and gender constancy. Gender identity occurs when children have the ability to categorize themselves as male or female. Kohlberg (1966) proposed that this occurs around age three. Later research by Weinraub et al. (1984), however, observed gender identity in children younger than three. In their investigation, the ability to identify verbally the gender of an individual, presented in a picture, was observed in children as young as 26 months. In addition, for the majority of children, the ability to sort pictures of males and females non-verbally into their two respective gender categories was observed by 31 months of age. It seems, therefore, that gender identity may occur prior to three years of age.

Kohlberg (1966) proposed that, following the acquisition of basic gender identity, children acquire the understanding that gender is stable over time and that it is invariant. These latter two developments occur gradually between the ages of two and seven years. Research suggests that, as children become more aware of their gender and the stability of gender, they also seek out opportunities to engage in gender-appropriate activities (Frey & Ruble, 1992).

Cognitive developmental theorists (e.g., Martin & Halverson, 1987) also suggest that knowledge of gender evolves from active exploration and information seeking in young children. However, unlike Kohlberg, they believe that gender and gender role information is established well before seven years of age. Martin and Halverson suggest that after children have the basic notion of gender identity, they organize information into schemas, with a schema being adapted to accommodate new information. Described simply, first, children acquire an "in-group/out-group" schema that allows them to organize objects, behaviours, and roles as "for boys" and "for girls." Therefore, a girl may classify feminine toys, such as dolls, as "for girls" while classifying masculine toys, such as trucks, as "for boys." This foundation allows them to develop an "own sex schema," where information about activities, behaviours, and objects relevant to the self are added to the own-sex schema. This own-sex schema provides children with detailed knowledge about gender-appropriate activities and allows them to enact their gender role. Researchers in this area suggest that basic gender identity schemas develop between 30 months of age and 36 months of age.

In summary, children appear to learn about gender and gender roles well before seven years of age. To help them learn about these concepts, children attend to information within their immediate environment. Children's immediate social environment during early childhood typically and primarily revolves around their parents. As children's primary social contact, parents have the opportunity to influence their children. One area, in particular, in which parents may influence children, is their understanding of gender and gender roles. Through the use of certain objects, behaviours, and activities, parents may send messages to children about appropriate behaviour for males and females. In turn, children actively seek out information that enhances their understanding of what it is to be female and male, and incorporate this information into their developing ideas about gender and gender roles. Therefore, it is important to examine the role that parents may play in influencing their children's developing understanding of gender and gender roles.

The Impact of Play

Although children may learn about gender from different sources, such as peers or the media, very young children spend most of their time in the company of their parents. Parents, therefore, have the opportunity to be significant contributors to children's gender role development. In addition to identifying parents as a primary socialization agent, it is important to recognize play situations as the context in which children acquire some of their knowledge about gender.

Play provides a rich learning environment for children. Smith (1982) recognizes four types of play that may affect a child's developing ideas about gender roles: (i) locomotor play; (ii) object play; (iii) social play; and (iv) fantasy play. Locomotor play involves a child learning actions using his/her body such as running and jumping. Object play involves pulling, tugging and shaking things, while social play involves a child learning to interact with others through activities such as chasing or wrestling. Finally, fantasy play occurs when a child transforms the meanings of objects and actions to fit an imaginary situation.

Through play, children may learn and enact activities and actions considered socially appropriate for males and females. For example, boys are much more physically active than girls (e.g., Eaton & Yu, 1989) and are more likely than girls to engage in non-aggressive rough and tumble play (e.g., Humphreys & Smith, 1987) which illustrates gender differences in locomotor play and social play. Girls' play, on the other hand, is characterized by restricted bodily movement and higher levels of cooperation (Lever, 1976). Through the enactment of these gender-appropriate behaviours, children may learn to associate certain characteristics with boys and certain characteristics with girls. In addition to the physical and social activities, children's notions of gender roles may be seen during fantasy play with a peer. In this type of play, children often assume a role of others in their environment, acting out their notions of the characteristics and status of these others (Matthews, 1981). Therefore, observing a child at play may reveal his/her understanding of gender roles.

A reciprocal relationship between play and children's knowledge may exist. If knowledge impacts play, children may enter a play situation with knowledge of gender-appropriate activities and behaviours and use their knowledge to facilitate their play. For example, children may know that it is appropriate for girls to play with dolls and it is appropriate for boys to play with trucks. Subsequently, when placed in a toy play situation, children may use their knowledge to engage in play with toys they know to be considered appropriate for their gender and avoid toys they know are considered inappropriate for their gender.

On the other hand, if play impacts on knowledge then children use the play situation as a way of gathering information and forming knowledge on gender-appropriate behaviours and activities. Parental instruction during play, such as praise for play with gender-appropriate toys and punishment for play with gender-inappropriate toys, may provide children with knowledge of gender-appropriate behaviours. This is called reinforcement (Bandura, 1989) and it teaches children how to behave. Children may also learn about gender-appropriate behaviours by observing same gender models and their mothers and fathers (Bandura, 1989). Both reinforcement and observation may serve as ways children acquire knowledge about gender-appropriate behaviours in a play situation. It is most likely that children use both existing knowledge and information gained from play to further their understanding of gender and gender roles.

Play and Children's Understanding of Gender and Gender Roles

Research indicates that play makes numerous contributions to children's developing understanding of gender and gender roles. For example, when children realize that they are boys or girls and that certain characteristics are differentially associated with each gender (Mischel, 1966) they make an effort to act in ways considered appropriate for their prescribed role. Play with toys (i.e., object play) and fantasy play both contribute to children's ability to label gender, their ability to correctly point to pictures of boys and girls and act in gender-appropriate ways. For instance, Martin and Little (1990) found that with knowledge of gender labels children stereotypically associated masculine toys with boys and feminine toys with girls. Additionally, Smith and Daglish (1977) found that 14 to 22-month-old boys were more likely to play with trucks and cars while girls were more likely to play with dolls and soft toys.

Fantasy play is another type of play through which children learn to label gender and act in ways that they consider appropriate for their gender. Matthews (1981) found that, when engaged in fantasy play with a same sex playmate, 16-month-olds most often assumed the roles of mother and father. When boys engaged in role-playing as a father/husband, they felt their role included taking control in an emergency situation and working in an office, but their role did not include ironing. In addition, girls, role-playing as a mother/wife, felt their role included ironing, sweeping, staying home and taking care of babies.

Examining children's behaviours in free play situations also illustrates their conception of gender roles. It is within a play situation such as this that parents have the

opportunity to instruct children about gender roles. For example, Fagot (1978) observed parents' reactions to their toddler's play behaviour in their homes. One way children's behaviours were categorized was with respect to gender-appropriateness. A total of seven behaviours showed significant gender differences. For example, boys played more with blocks and transportation toys, and manipulated objects while girls danced and played more with soft toys and dolls. Parents' reactions to their toddler's behaviour were categorized as positive (mother or father initiates, joins play, praises child, gives physical comfort, guides and explains), negative (father or mother criticizes or restricts, stops play, physically punishes), or neutral (parents observe and do not interact).

Fagot (1978) found different parental reactions to their toddler's behaviour based on the child's gender. Parents gave boys more positive responses when they played with blocks than they did with girls, and gave girls more negative responses when they manipulated objects, both of which were considered gender-appropriate activities for boys. On the other hand, on an activity considered gender-appropriate for girls, such as doll play, parents gave girls more positive responses than they did to boys while boys received more negative responses. Fagot's findings suggest that the parents' differential reactions explicitly identified appropriate and inappropriate gender roles for their children.

The Impact of Parental Gender Role Beliefs

One potential determinant of children's gender role development is their parents' ideologies about the roles of males and females. Traditional gender roles, adopted by many parents, permeate ideas about what tasks should be assigned to each gender and what preferred environments and wardrobes are appropriate for each gender. For

example, in traditional gender roles, mothers are primarily responsible for household tasks such as cooking and cleaning, whereas fathers are primarily responsible for tasks external to the household, such as mowing the lawn (e.g., Huston, 1983). Parents' adoption of these traditional gender roles suggests to children that there are certain prescribed gender roles associated with performing household tasks, earning the family living and taking care of children (Huston, 1983).

Parents' traditional gender role ideologies may also extend to children's environments. Pomerleau, Bolduc, Malcuit & Cossette (1990) found that children have rooms, clothes and toys which match traditional colour schemes (i.e., pink for girls and blue for boys). Adults may decide whether a toy is masculine or feminine by attending to the toy's cues, such as the colour or logo (Fisher-Thomspon, 1990). For example, red bicycles are considered more appropriate gifts for boys while pink bicycles are considered more appropriate gifts for girls. Fisher-Thompson also suggests that although a toy chest may be appropriate for both boys and girls, the logo on the chest (e.g., airplane, Barbie doll) may make it more appropriate for boys or girls.

Finally, parents' traditional gender roles are not confined to gender-appropriate activities and gender-appropriate environments. Parents also transmit their ideas about appropriate gender roles through their assignment of gender-typed toys to children described as having either masculine or feminine characteristics. Fisher-Thompson, Sausa and Wright (1995) demonstrated this when they had participants read a description of either a masculine, feminine or neutral boy or girl and then select toys they felt were

appropriate for the child. As an example, participants may have read a masculine profile of a girl such as:

> Imagine meeting an 8-year-old girl who is in the second grade. She is tough and rough. Her favorite activities at home are climbing trees and wrestling with friends. She enjoys playing baseball and making model airplanes. She is good at fixing things and wants to be a construction worker when she grows up...

Other participants may have read a description that provided a feminine profile of a boy. The findings demonstrated that participants disregarded the gender of the child described in the scenario and instead attended to the child's description when assigning toys. After reading a masculine description of a child (e.g., tough, enjoys wrestling) adults assigned masculine toys, while feminine descriptions were assigned feminine toys. These findings were consistent regardless of whether the child being described was a boy or girl.

Toy Selection

Toy play occupies an important role in children's development. While playing, children learn how to have one object represent another, use their imagination and interact with others. Children receive toys from many sources. However, many of the toys they receive and the way they play with their toys is primarily defined through their parents. Overall, toy store customers are more likely to purchase gender-typed than non-gender-typed toys, especially when buying for a boy (Fisher-Thompson, 1993). Evidence for this toy-purchasing pattern is revealed when examining children's home environments (Pomerleau et al., 1990). Boys are provided with more sports equipment, tools, and large and small vehicles. Girls, on the other hand, are provided with more dolls,

fictional characters, child's furniture, and other toys for manipulation (e.g., doll furniture). However, there are gender differences between mothers and fathers, in the extent to which they provide gender-typed toys to their children. For example, Fisher-Thompson (1993) found that men chose gender-typed toys to a greater extent than women and were more likely to purchase gender-typed toys for boys. Alternatively, Pomerleau et al. (1990) asked parents who provided their children with their toys, and found that women were the primary toy providers. Therefore, women are important participants in the unequal distribution across gender.

Although adults are the primary toy providers, children may also influence their parents' toy-purchasing patterns. Fisher-Thompson (1993) explored this relationship by asking adults exiting a toy store about their purchases. The customer's gender, the type of toy purchased, the age and gender of the child for whom the toy was intended, and whether the child requested the toy were recorded. Parents were more likely to buy gender-typed toys rather than non-gender-typed toys when selecting toys requested by their son or daughter. Therefore, children may influence the types of toys they receive. In turn, children may contribute to their own gender role development by requesting toys considered appropriate to their gender. In essence, both adults and children play a role in toy selection and therefore both may have an impact on children's gender role development.

Mothers' and Fathers' Contributions and Reactions to Toy Play

In addition to gender-typed toy purchasing, adults also demonstrate gender-typed behaviour when engaged in play. For example, in a free play situation, Bradley and

Gobbart (1989) gave parents a selection of masculine (e.g., a hammer), feminine (e.g., a doll) and neutral (e.g., a cloth turtle) toys and recorded the first three toys the parent presented to their child. Parents also completed a scale examining their gender role orientations. The researchers found that fathers with traditional gender role orientations treated boys and girls differently. Toys conventionally considered appropriate to their child's gender (e.g., doll for a girl or a truck for a boy) were offered more frequently than non-gender-typed toys (e.g., a doll for a boy). Mothers, on the other hand, did not discriminate in their toy selection.

Roopnarine (1986) found similar results when examining parents' responses toward children's gender-typed toy play. Children were observed playing separately with their mother and father in a room containing toys such as kitchen utensils, books, puzzles, stuffed animals, blocks, dolls, puppets, and trucks. In the play session, parents' responses to their child's toy play were recorded. Responses were categorized in one of several categories including: attended to the play of their child, gave their child objects, ridiculed their child, or physically prohibited their child from using the object. Neither mothers' nor fathers' responses to the toy play of children included ridicule or physically prohibiting children from using certain toys. However, mothers and fathers differed in the way they attended to the play of children and the toys they offered to children. Although mothers did not differ in their treatment of boys and girls, fathers were more likely to attend to the doll play of girls than the doll play of boys, and were more likely to give dolls to girls than to give dolls to boys (Roopnarine, 1986). Fathers' interactions with boys were characterized by gender-typed play.

In addition to selecting gender-typed toys and attending to gender-typed play, other differential responses to children's play with non-gender-typed toys exist. For example, children may receive direct instruction and negative feedback for cross-gender play. Specifically, fathers' responses to boys engaging in female typical play are typically negative (Fagot & Hagan, 1991). Home observations of children's behaviours, including male and female typical toy play, and parent responses to those behaviours, were recorded. Parent responses were classified as instructional (e.g., initiate), positive (e.g., comment favorably), or negative (e.g., criticize). Fagot and Hagan demonstrated that fathers gave fewer positive reactions to 18-month-old boys engaging in play considered appropriate for females. However, boys received more positive reactions for play with toys considered appropriate for males from both parents. Fathers, therefore, were less flexible in allowing boys to be involved in play considered appropriate for females. Similarly, children exhibited less flexibility in permitting boys engagement in female typical play. When asked to select presents for a boy named John and a girl named Sally given a list of three masculine, three feminine and three neutral toys, children felt it more permissible for Sally to choose a boy's toy than for John to choose a girl's toy (Henshaw, Kelly & Gratton, 1992).

Research has also demonstrated that mothers have differential responses to the play of girls and boys. However, findings of their reactions to cross-gender play are inconclusive. For example, Fagot and Hagan (1991) found that mothers had more positive responses than did fathers to female-appropriate toy play for both boys and girls at 12 months of age. In addition, mothers did not follow the pattern demonstrated by

fathers of giving fewer positive reactions to boys' play with female-appropriate toys. However, Fagot et al. (1992) did not demonstrate this pattern of non-gender-typed toy play for mothers. Fagot et al. had children complete a gender-labeling task and then observed a free play situation. They also had mothers complete a number of measures assessing their attitudes towards women and stereotypical behaviours for men and women. Results indicated that mothers whose children successfully labeled gender tended to provide their children with more gender-typed toys and responded more positively to gender-typed play. In addition, these mothers initiated less cross-gender toy play with sons than did mothers whose children were not as successful at gender-labeling. Mothers of the children who succeeded at the gender-labeling task had more traditional attitudes towards both the role of women and gender roles within the family, suggesting that maternal attitudes and behaviours play a part in gender role development.

A Recent Study in Children and Parent Toy Play

A recent study by Idle, Wood & Desmarais (1993) contradicts the findings of previous research that masculine toys are most often assigned to boys and feminine toys are most often assigned to girls. Idle et al. had mothers and fathers interact separately with their sons or daughters during a free play situation. Toys representing masculine (e.g., truck, ball), feminine (e.g., doll, house) and neutral (e.g., puzzle, book) categories were utilized for each play session. During the play sessions, a researcher observed and recorded the type of toy selected, the duration of play for both the child and the parent, and children's responses to the toy (i.e., opposes, considers, or adopts/accepts the toy presented). Following the play session, parents completed a Toy Desirability Scale, which

asked them to rate how desirable each of the toys was for their child, and a Gender Sorting Task, which involved grouping the toys into one of three categories: masculine, feminine and neutral.

Idle et al. found that when placed in a play situation, parents and children spent the least amount of time with feminine toys when compared to both the masculine and neutral toys. However, examining the individual means for mothers, fathers, sons and daughters revealed slightly different patterns. For example, fathers followed the pattern described above, however, their sons spent an equal amount of time with masculine, feminine and neutral toys. Mothers, like their daughters, spent most of their time with neutral toys, relative to both masculine and feminine toys, and spent the least amount of time with the feminine toys. However, when parents were independently rating the desirability of each toy using the Toy Desirability Scale, a different pattern emerged. Both mothers and fathers rated masculine toys as most desirable and feminine toys as least desirable for their sons and they agreed that neutral toys were most desirable and that masculine toys were least desirable for their daughters.

Overall, the findings of Idle et al. suggest that parents' ideas about the gender-appropriateness of toys for girls may be changing demonstrated by the amount of time parents spent with the neutral toys and the high desirability ratings of the neutral toys. However, consistent with previous research, Idle et al. demonstrated that masculine toys are considered most desirable and feminine toys are considered least desirable for boys. Despite this gender-typed toy rating for boys, parents did not adhere to this pattern in the free play situation. Idle et al. (1993) offer the suggestion that, although parents are aware

of gender-stereotyped values, they reinforce a different set of values during a free play situation.

This conclusion is particularly important, as it suggests that parents do not want to convey gender-stereotypical behaviour to their children. Therefore, although parents may believe that certain toys are for boys and certain toys are for girls, they may try to conceal traditional gender role beliefs during free play situations. This may be due to the fact that they are being observed and do not want to appear stereotypical in their gender socialization practices. However, an individual who is not a parent, playing with a child may not be concerned with the social ramifications of their behaviour. As such, non-parents may assign toys differently than parents. In particular, non-parents may not be concerned about the image they portray to the observer (i.e., researcher).

Beyond Parental Influences in Child Play

The study by Idle et al. (1993) provided a picture of the gender-typed toy play of parents. Because parents are the primary socialization agents for children, their gender-typed use of toys may contribute to children's gender development. In addition, parents feel a responsibility to socialize their children within a gender-appropriate environment to ensure their children are socially accepted. We do not know whether people adhere to this strict gender-typing norm as a function of parenting experience. No research has been conducted to contrast parents playing with their own child versus playing with a child other than their own (i.e., "other parents") or the play of individuals without children

(i.e.,"non-parents"). It may be expected that these groups would demonstrate a pattern of gender-typed play different from that of parents, because they experience different consequences for their play behaviour with a child.

Parents may be encouraged to engage in gender-typed toy play with their own child because they are aware that their actions may have personal consequences. For example, a father, who gives a doll to his son, may experience consequences such as ridicule from other parents, or a fear that his child may experience negative social consequences. A parent playing with a child other than his/her own, however, may demonstrate one of two patterns. First, an other parent may experience freedom from personal consequences since the child they are playing with is not his/her own, and may more easily disregard the gender stereotypes placed on children's toys. Instead, an other parent may play with any and all toys, regardless of their gender-typed category. On the other hand, other parents may exhibit more gender-typed toy play because they are using their own child as a referent during the free play situation and may be worried because of personal experiences with the consequences of cross-gender play. The toy play of adults without children is relatively unknown. However, because non-parents have neither parenting experience nor personal experience with the consequences of gender-typed toy play, it is possible that their dependence on stereotyped toy play could be either minimal or extensive. The present study examines toy play across adults with differing levels of parenting experience.

The Present Study

The present study explored gender-typed play through an expansion of the design employed by Idle et al. (1993). Because limited research has investigated the role of other parents and non-parents in gender socialization through play, the present study investigated the process of gender role socialization in a play situation with the child interacting separately with three adults: the child's parent, an other parent, and a non-parent. As with Idle et al., this study observed adults and children in a free play situation with masculine, feminine and neutral toys. The amount of time spent with the toys chosen for play was recorded. Adults also completed the two questionnaires employed by Idle et al. to determine how adults sort the toys into three categories: masculine, feminine, and neutral, and how adults, when separated from the child, rate the desirability of the toys.

The study follows Idle et al. (1993) in addressing two methodological issues identified by Eisenberg et al. (1985). First, in past studies, the experimenter often presents toys, and consequently, a measure of parental choice of toys is not possible. The present study eliminates this bias by having parents select toys. Second, many past studies have occurred in artificial laboratory settings which may have interfered with natural play interaction; therefore, this study takes place in a day care or home environment familiar to the child and adult.

Method

Participants: A total of 48 preschool children and 144 adults participated. The 24 female and 24 male preschoolers ranged in age from 15 months to 60 months. Adults belonged

to one of three groups: parents who were either the mother or father of a participating preschooler (n=48), other parents who were mothers or fathers of children within the same age range (15 months to 60 months) and gender as the participating preschooler (n=48), and non-parents who were partners involved in a marital or long-standing common-law relationship of one year or more who did not have children (n=48). In total, 48 adult-child play groups were constructed. A play group consisted of one preschooler who interacted with one parent, one other parent and one non-parent. In some cases, the members of the play groups were acquainted, for example, when one adult participant knew of friends or family members who would be willing to participate. Adults were matched as closely as possible for age and socio-economic status, using educational level.

Participants were predominately white, middle to upper class Canadians in mid-sized cities in Southern Ontario. The ethical guidelines set out by APA were followed. Verbal consent was obtained from all preschool children. Children were asked whether they would like to play with the toys that the researcher(s) had brought, and with the adult participants (names were used) involved in the study. Children verbally indicated their answer to the researcher and there were no instances where the child indicated that they did not want to participate. Written consent was obtained from parents/guardians. Participants received a Parent Information Form (Appendix A) and a Parental Consent Form (Appendix B), sent home with their preschooler. Completed forms were returned to the day care centre and collected by the researcher(s).

Materials: Fifteen toys were utilized for play sessions. They represented feminine, masculine, and gender-neutral categories, based on their use in previous research (Caldera,

Huston & O'Brien, 1989; Eisenberg, Wolchik, Hernandez & Pasternack, 1985; Idle et al., 1993; Langlois & Downs, 1980; O'Brien & Huston, 1985; Roopnarine, 1986).

Feminine toys included:

1. a plastic baby doll with a bib and bottle
2. a plastic soft doll with long hair, a brush and curlers
3. an Elmo kitchen with an stove, sink, dishwasher, utensils and food
4. a red and yellow rotary telephone
5. a Fisher-Price two story doll house with accessories such as a dog, people and beds

Masculine toys included:

6. a blue "Thomas, the Tank Engine" train,
7. a yellow Tonka dump truck,
8. an orange basketball,
9. a Fisher-Price gas station and parking garage complete with plastic cars and people
10. a Fisher-Price red tool box with tools such as a hammer, measuring tape and screws

The gender-neutral toys included:

11. a Fisher-Price learning shapes puzzle,
12. a brown, furry, stuffed teddy bear,
13. purple, pink, green and yellow PlayDoh,
14. fifteen plastic red, yellow and blue blocks,
15. a Dr. Seuss book, called I Can Read with My Eyes Shut

Participation occurred in a room within the child's day care, or at the parent participant's home. The day care supervisor or the child's parent decided on the area for the play sessions. The room chosen was familiar to the child. Specifically, play sessions occurred in a play area at the daycare or a family living area at the child's home.

Parents, other parents, and non-parents completed two questionnaires following their play session. Participants were given a brief verbal introduction to the

questionnaires (Appendix C). The Toy Desirability Scale (Appendix D) asked respondents to assess their impression of how desirable each of the toys was for the child with whom they interacted. A seven-point response format was utilized, ranging from "very desirable" to "very undesirable." Reverse scoring was used on half of the items. A score of 4 corresponded to a neutral desirability rating. The Gender Sorting Task questionnaire (Appendix E) asked respondents to categorize the 15 toys into one of three categories: masculine, feminine or gender-neutral. Respondents indicated their categorization of each toy by placing a check in one of the respective boxes.

Procedure: Twelve male preschoolers and twelve female preschoolers played with their mothers, other mothers, and non-mothers. Twelve male preschoolers and twelve female preschoolers played with their fathers, other fathers and non-fathers. All play sessions involved one adult interacting with one child in a room familiar to the child. Play interactions were counterbalanced such that an equal number of female and male children participated in each of three possible adult orders: 1) parent, non-parent, other parent; 2) other parent, parent, non-parent; and 3) non-parent, other parent, parent.

Play groups were constructed, matching the age of the participating parent's child and the other parent's child (who was not participating) for preschooler gender and age. First, consent for participation from a parent and child was obtained. The participating child's gender and age were obtained and an other parent with a child of the same gender and age as the participating child was recruited. The other parents were informed that they would play with a child other than their own. Finally, non-parents were recruited from the neighbourhood or workplace adjoining the daycare.

The complete design employed in the previous study by Idle et al. (1993) had parents (i.e., mother and father) as the independent variable and child's time spent with toys, parent's time spent with toys, the Toy Desirability Task and the Gender Sorting Task as the dependent variables. Mothers and fathers were observed separately with their child. Therefore, only one child was used to examine both parents. The present study used the same dependent variables as those used in Idle et al. However, the independent variable in the present study, parenting experience, had three levels: parent, other parent, and non-parent. The complete design would have had each child play with six adults, one male and one female non-parent, his/her mother and father (i.e., parents), and one other parent who is a mother and one other parent who is a father (i.e., other parents). Due to constraints on the availability of participants and that it would be to tiring for each child to play with six different adults, the complete design was not used. Instead, each child played with three adults: either his/her mother or father, either a female or male non-parent, and either an other parent who was a mother or an other parent who was a father. Therefore, each child played with either three female adults or three male adults.

In total, each preschooler was involved in three fifteen-minute play sessions, one play session for each member of the adult play group. Play sessions were sequential. At the beginning of each play session, toys were arranged in a constant order in one straight line. Toy order was as follows; garage, baby doll, puzzle, PlayDoh, tool box, kitchen set, blocks, truck, ball, train, book, soft doll, teddy bear, telephone and house.

Prior to each play session, each adult was provided with a brief outline (Appendix F) describing their participation in the study. They were told that they would be

introduced to one preschool child with whom they would play for fifteen minutes. Adults were also informed that they would be asked to complete two short questionnaires following the play session. Adults were not told the nature of the study (i.e., gender assignment of toys) before playing with the child. However, when the researcher explained the purpose of the two questionnaires participants may have realized the nature of the study. For example, verbal instructions for the completion of the Gender Sorting task included, "this questionnaire asks you to place a check mark into one of three boxes; masculine, feminine or neutral, for each of the fifteen toys available to you during your play session." Due to the fact that participants may have realized the purpose of the study at this point they may have completed the questionnaires in a socially acceptable manner to avoid gender stereotyping.

The session began by introducing the adult to the preschooler with whom he/she was to play. Adults were then encouraged to sit with the child and the toys to begin the play session. Refer to Appendix G for the Verbal Instructions for Play Sessions. The play session officially began as soon as the child and/or adult picked up a toy for play. Throughout the play session, the researcher(s) observed and recorded the toys played with and the duration of play with each toy (refer to Appendix H for Toy Time Line). The researcher(s) sat a few feet away from the play area while recording.

At the end of the fifteen-minute play session, adults were asked to complete, the Toy Desirability Scale first, and then the Gender Sorting Task questionnaire. Completion of the questionnaires took approximately 10 minutes. During this time, the researcher

played with the child with materials not utilized in the study. Upon completion of the questionnaires, participants were thanked for their participation and given a feedback form outlining the nature of the study (see Appendix I). Following their three fifteen-minute play sessions, children were given a sticker as a reward for their effort.

Results

Three aspects of the data were analyzed. First, the amount of time children and adults played with each toy type was examined separately. Second, adults' rating of the desirability of each of the fifteen toys was examined. Third, the data involving adults' categorization of the fifteen toys into one of three gender-specific categories (masculine, feminine or neutral) was examined.

Time Spent with Toy

The amount of time children played with each toy and the amount of time adults played with each toy was assessed independently. Children and adults were supposed to play with the toys for a total of 15 minutes; however, the amount of time recorded was greater for some participants due to discrepancies between start and stop times.

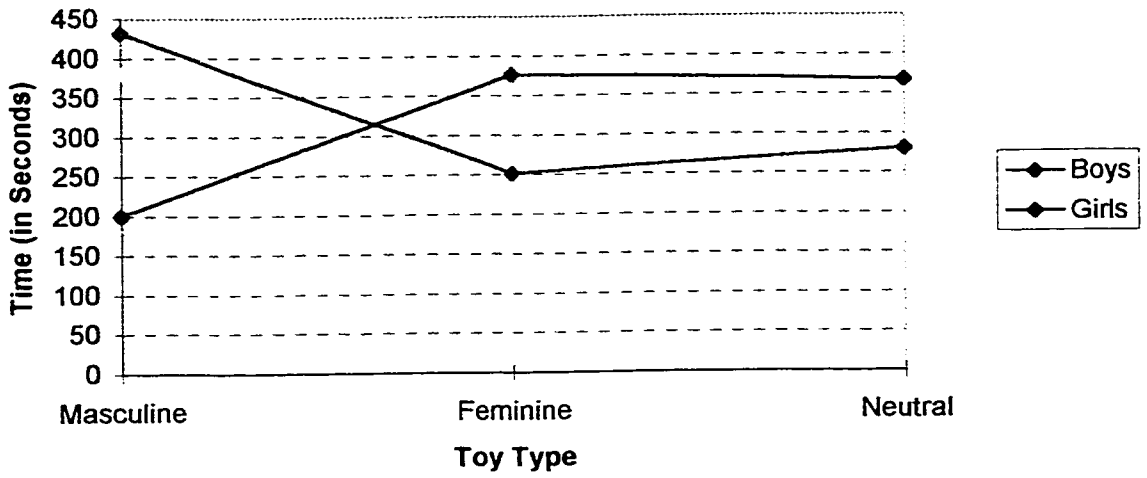
Children. The amount of time (in seconds) spent with each toy type was measured for children. Table 1 presents the mean number of seconds boys and girls spent with each of the three toy types.

Table 1. Mean Amount of Time (in Seconds) Children Spent with Toys as a Function of Gender-Specific Categories

	Feminine	Masculine	Neutral
Children Overall			
M	313.76	315.51	323.62
SD	199.27	179.05	199.22
Boys			
M	251.06	431.55	280.67
SD	189.82	159.24	165.04
Girls			
M	376.44	199.47	367.06
SD	192.13	109.78	223.44

A 2 (child gender: male, female) X 3 (toy type: masculine, feminine, neutral) mixed design analysis of variance (ANOVA) was performed to test differences in the amount of time boys and girls spent with each toy. The between subjects variable was gender and the within subjects variable was toy type (i.e., masculine, feminine, neutral). The main effect for gender [$F(1, 46) = .39$, $p > .53$] and the main effect for toy type [$F(2, 92) = .03$, $p > .97$] were not significant. Overall, boys and girls spent an equal amount of time (in seconds) playing with the toys. In addition, children spent an equal amount of time playing with each of the three toy types (masculine M=315.5, SD=179.05; feminine M=313.8, SD=199.27; neutral M=323.6, SD=199.22). These main effects were qualified by a significant two-way interaction between gender and toy type as shown in Figure 1 [$F(2, 92) = 10.30$, $p < .0001$].

Figure 1. Gender of Child by Toy Type Interaction



Pairwise comparisons using Tukey's Test of Wholly Significant Difference (WSD), (Howell, 1992) [$q(0.5) = 30.86$] showed that boys spent a greater amount of time playing with toys traditionally (i.e., based on past research findings) considered masculine than with toys traditionally considered feminine and neutral, with boys spending the same amount of time with feminine or neutral toys. Girls, on the other hand, spent a greater amount of time playing with toys traditionally considered feminine and neutral than with toys traditionally considered masculine, with girls spending an equal amount of time with feminine and neutral toys. Refer to Table 1 for an examination of the mean amount of time boys and girls spent with each of the three toy types.

Adults. The amount of time (in seconds) spent with each toy type was measured for adults. Table 2 presents the overall mean number of seconds adults spent with each of

the three toy types. In addition, Table 2 presents the overall mean number of seconds parents, other parents and non-parents spent with the three toy types.[1]

Table 2. Mean Amount of Time (in seconds) Adults Spent with Toys as a Function of Gender-Specific Categories

	Toy Type		
	Feminine	Masculine	Neutral
Adults Overall			
M	295.29	318.73	338.15
SD	185.54	168.98	189.23
Parents			
M	334.08	294.10	322.33
SD	257.05	254.64	249.75
Other Parents			
M	282.92	353.00	315.87
SD	244.16	272.77	294.78
Non-Parents			
M	268.88	309.10	376.25
SD	232.54	227.55	266.18

A 2 (adult gender: male, female) X 3 (parenting experience: parent, other parent, non-parent) X 3 (toy type: masculine, feminine, neutral) repeated measures analysis of variance (MANOVA) was performed to test differences in the amount of time adults spent with each toy type. Gender of adult and parenting experience were the between subjects variables and toy type was the within subjects variable. There were no significant main effects for adult gender [$F(1, 46) = .00$, $p > .99$], parenting experience

[1] Based on the results of the gender sorting task, revised toy categories were used for this analysis. The revised toy categories took into account when a traditionally masculine or feminine toy was categorized as neutral by 67 per cent of the adults. As a result the ball and phone were considered neutral for this analysis. The amount of time adults spent with the three toy categories using these new toy categories also yielded non-significant results (see Appendix J).

[F(2, 92) = .01, p > .99], or toy type [F(2, 92) = .46, p > .63]. Overall, males and females, and parents, other parents and non-parents, spent the same amount of time (in seconds) playing with the toys. In addition, adults spent an equal amount of time playing with masculine, feminine and neutral toys (M=760.1, SD=411.74; M=663.2, SD=435.35; M=799.6, SD=469.25 respectively).

The three two-way interactions (gender of adult by parenting experience, gender of adult by toy type and parenting experience by toy type) were also not significant [F(2, 92) = 1.77, p > .18; F(2, 92) = .79, p > .46; F(4, 184) = 1.07, p > .37 respectively]. In addition, the three-way interaction of gender of adult by parenting experience by toy type was not significant [F(4, 184) = .51, p > .73]. Table 3 contains the same data as that presented in Table 2, however, Table 3 includes adult gender in addition to parenting experience and toy type.

Table 3. Mean Amount of Time (in Seconds) Parents, Other Parents and Non-Parents Spent with the Toys as a Function of Gender of Adult and Gender-Specific Toy Categories

		Toy Type		
		Feminine	Masculine	Neutral
Males	Parents			
	M	280.83	352.33	319.46
	SD	227.27	259.73	257.33
	Other Parents			
	M	294.00	371.96	307.04
	SD	241.46	239.79	259.61
	Non-Parents			
	M	233.83	322.33	374.37
	SD	241.75	259.45	297.88
Females	Parents			
	M	387.33	235.87	325.21
	SD	278.31	240.77	247.44
	Other Parents			
	M	271.83	334.04	324.71
	SD	251.52	306.25	331.67
	Non-Parents			
	M	303.92	295.88	378.13
	SD	222.47	195.27	236.74

Gender Sorting Task

For the gender sorting task, adults were asked to sort each of the 15 toys into one of three categories: masculine, feminine or neutral. Previous research (Caldera, Huston & O'Brien, 1989; Eisenberg, Wolchik, Hernandez & Pasternack, 1985; Idle et al., 1993; Langlois & Downs, 1980; O'Brien & Huston, 1985; Roopnarine, 1986) has consistently categorized five toys as traditionally masculine (i.e., truck, train, ball, tool set, garage), five toys as traditionally feminine (i.e., hair doll, soft doll, kitchen, telephone, house) and

five toys as traditionally neutral (i.e., PlayDoh, book, blocks, bear, puzzle). The present analysis examined whether participants agreed with these previous research categorizations. Specifically, agreements between adult participants and "experts' " toy categorizations were analyzed for each of the three gender-specific toy categories.

Three scores were calculated for each adult: a masculine gender sorting score, a feminine gender sorting score and a neutral gender sorting score. Adult participants' scores could range from "0" to "5" for each gender category. If an adult assigned all five of the traditionally rated feminine toys (i.e., hair doll, soft doll, telephone, house, and kitchen) to the feminine category, they received a score of five. If an adult categorized only the house, soft doll and kitchen as feminine, however, they received a score of three because they only agreed with the traditional ratings of the "experts" for three of the five toys. A score of five indicated complete agreement with the "experts." Scores lower than five indicated some disagreement with traditional "expert" ratings of the gender categorization of toys.

A 2 (gender of adult: male, female) X 3 (parenting experience: parent, other parent, non-parent) X 3 (toy type: masculine, feminine, neutral) between subjects analysis of variance (ANOVA) was conducted. The only significant finding was a main effect of toy type [$F(2, 92) = 178.60$, $p > .001$], indicating that adults had different categorizations than the "experts' " traditional categorization for at least one toy type. Examination of the means revealed that, regardless of gender or parenting experience, adults agreed with the "experts' " ratings of the five neutral toys (M=4.78, SD=.53), [$t.05\ (143) = \pm 4.98$]. That

is, for the most part, adults agreed with the "experts' " categorization of the book, PlayDoh, puzzle, stuffed animal and blocks as neutral.

Adults did not have a high level of agreement with the "experts' " categorization of toys considered traditionally masculine and feminine. Adults agreed with the "experts' " traditional categorizations for approximately half of the five masculine toys ($\underline{M}$=2.37, SD=.93) and half of the five feminine toys ($\underline{M}$=2.52, SD=.86) [t.05 (143) = $\pm$ 33.94; t.05 (143) = $\pm$ 35.94] respectively. A summary of adults' gender categorization of the five traditionally masculine toys is shown in Table 4 and the adults' gender categorization of the five traditionally feminine toys is shown in Table 5. As the summary in Table 4 indicates, the majority of adults categorized the traditionally masculine ball as neutral, while approximately half of the adults categorized the traditionally masculine train and garage as neutral. These results indicate a shift in the gender categorization of the ball, train and garage from the traditionally masculine category to the neutral category. In addition, the remaining two masculine toys, the truck and tools, were also categorized as neutral by approximately one third of the adults. However, over half of the adults agreed with the "experts' " traditional masculine categorization. In addition, there were no instances of a traditionally masculine toy being categorized as feminine.

Table 4. Parents', Other Parents' and Non-Parents' Gender Classification of Traditionally Masculine Toys

		Gender Classification		
Toy	Parenting Experience	Masculine	Feminine	Neutral
Ball	Parents	10.4%		89.6%
	Other Parents	12.5%		87.5%
	Non-Parents	10.4%		89.6%
Train	Parents	43.8%		56.3%
	Other Parents	45.8%		54.2%
	Non-Parents	35.4%		64.6%
Garage	Parents	52.1%		47.9%
	Other Parents	39.6%		60.4%
	Non-Parents	41.7%		58.3%
Truck	Parents	68.8%		31.3%
	Other Parents	85.4%		14.6%
	Non-Parents	70.8%		29.2%
Tools	Parents	64.6%		35.4%
	Other Parents	66.7%		33.3%
	Non-Parents	62.5%		37.5%

Similar to the shift in the gender categorization of the traditionally masculine toys to the neutral category, the summary in Table 5 indicates that adults also did not agree with the "experts' " traditional categorization of all the feminine toys. Specifically, the traditionally feminine phone and kitchen were categorized as neutral by more than half of the participants. The remaining three feminine toys, the soft doll, hair doll and house, were categorized as neutral by approximately one third of adults. However, over half of the adults agreed with the "experts' " traditional feminine categorization of these three toys.

Interestingly, four adults categorized some traditionally feminine toys as masculine. Specifically, one other parent categorized the kitchen, soft doll, hair doll, and

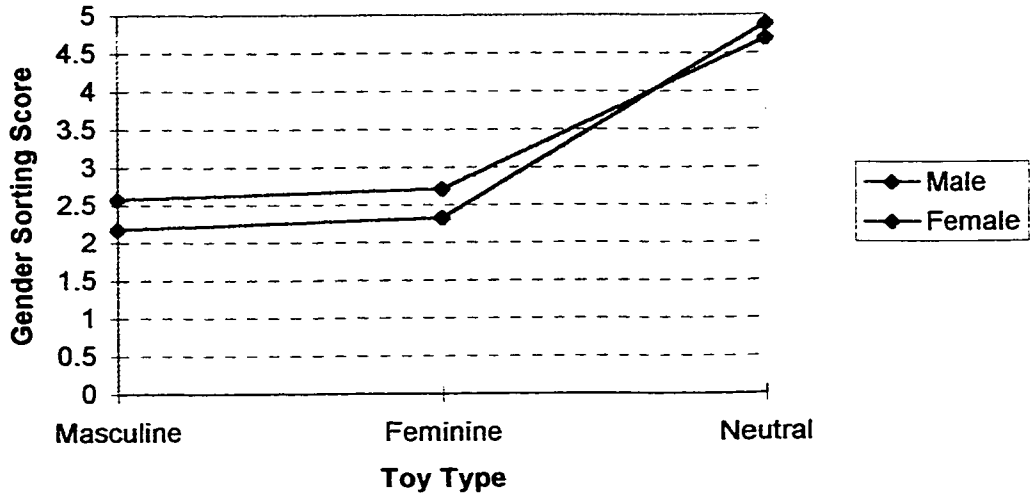
house as masculine; a second other parent categorized the soft doll and hair doll as masculine; a third other parent categorized the soft doll as masculine. In addition, one parent categorized the soft doll as masculine.

Table 5. Parents', Other Parents' and Non-Parents' Gender Classification of Traditionally Feminine Toys

		Gender Classification		
Toy	Parenting Experience	Masculine	Feminine	Neutral
Phone	Parents			100%
	Other Parents		2.1%	97.9%
	Non-Parents		6.3%	93.8%
Kitchen	Parents		45.8%	54.2%
	Other Parents	2.1%	43.8%	54.2%
	Non-Parents		41.7%	58.3%
Soft Doll	Parents	2.1%	66.7%	31.3%
	Other Parents	6.3%	58.3%	35.4%
	Non-Parents		62.5%	37.5%
Hair Doll	Parents		75.0%	25.0%
	Other Parents	4.2%	68.8%	27.1%
	Non-Parents		78.7%	21.3%
House	Parents		62.5%	37.5%
	Other Parents	2.1%	70.2%	27.7%
	Non-Parents		60.4%	39.6%

The main effect of gender of adult and the main effect of parenting experience were not significant [$F(1, 46) = 1.68$, $p > .20$; $F(2, 92) = .46$, $p > .64$ respectively] for the gender sorting task. Only one of the three possible two-way interactions approached significance. As shown in Figure 2, the interaction of gender of adult by toy type approached significance [$F(2, 92) = 2.64$, $p > .08$].

Figure 2. Gender of Adult by Toy Type Interaction



This finding indicates differences between males' and females' agreement with the "experts' " traditional categorization of masculine, feminine and neutral toys. Specifically, males tend to agree with the "experts' " categorization of the masculine and feminine toys more than females. However, a reversal of this pattern occurs for neutral toys. That is, for neutral toys, females tend to agree with the "experts" more than males. Table 6 outlines males' and females' mean level of agreement with the "experts" for the three toy types.

Table 6. Mean Level of Agreement with "Experts" Rating of Masculine, Feminine and Neutral Toys as a Function of Adult Gender

	Toy Type		
Adult Gender	Masculine	Feminine	Neutral
Male	M=2.57 SD=.85	M=2.71 SD=.88	M=4.69 SD=.65
Female	M=2.17 SD=.97	M=2.33 SD=.82	M=4.88 SD=.35

The gender of adult by parenting experience and the toy type by parenting experience interactions were not significant [$F(2, 92) = .29$, $p > .75$; $F(4, 184) = .42$, $p > .79$]. In addition, the three-way interaction of gender of parent by toy type by parenting experience was not significant [$F(4, 184) = 1.03$, $p > .39$]. Refer to Table 7 for a summary of means as a function of parenting experience, adult gender and toy type.

Table 7. Male and Female Parents', Other Parents' and Non-Parents' Mean Level of Agreement with "Expert" Classifications of Masculine, Feminine and Neutral Toys

		Toy Type		
Adult Gender	Parenting Experience	Masculine	Feminine	Neutral
Male	Parent	M=2.54 SD=1.59	M=2.46 SD=1.61	M=4.92 SD=.28
	Other Parent	M=2.63 SD=1.35	M=2.92 SD=1.32	M=4.58 SD=1.14
	Non Parent	M=2.54 SD=1.14	M=2.75 SD=1.19	M=4.58 SD=1.10
Female	Parent	M=2.25 SD=1.62	M=2.54 SD=1.41	M=4.96 SD=.20
	Other Parent	M=2.38 SD=1.44	M=2.21 SD=1.41	M=4.96 SD=.20
	Non Parent	M=1.88 SD=1.87	M=2.25 SD=1.75	M=4.71 SD=1.04

Toy Desirability Task

Using a seven-point scale, adults were asked to evaluate the desirability of each of the 15 toys for the child with whom they played. For each of the three toy types (masculine, feminine, neutral), scores could range from a minimum of one to a maximum of seven. A score of seven on the Toy Desirability Task indicated that the adult participants thought the toys were very desirable. A score of one indicated that adult participants thought the toys were very undesirable. .

The mean desirability ratings of the 15 toys is shown in Table 8. Adults' desirability ratings averaged 4.61(SD=.40), indicating that the fifteen toys were neither very undesirable nor very desirable (masculine toys M=4.64, SD=.74; feminine toys M=4.55, SD=.85, neutral toys M=4.62, SD=.66). Instead, adults' desirability ratings indicated a favorable but not overly enthusiastic rating for the toys.

Table 8. Adults' Mean Desirability Ratings of the Fifteen Toys

Traditional Gender Category	Toy	Mean Desirability Score
Feminine	Phone	M=4.28, SD=.89
	Kitchen	M=5.51, SD=.89
	Soft Doll	M=4.11, SD=1.28
	Hair Doll	M=3.97, SD=4.87
	House	M=4.87, SD=1.13
Masculine	Ball	M=4.51, SD=.93
	Train	M=4.39, SD=.96
	Garage	M=4.76, SD=1.08
	Truck	M=4.17, SD=1.05
	Tools	M=5.39, SD=1.04
Neutral	PlayDoh	M=5.62, SD=1.06
	Book	M=4.76, SD=.92
	Blocks	M=4.22, SD=.97
	Bear	M=4.12, SD=.93
	Puzzle	M=4.41, SD=1.17

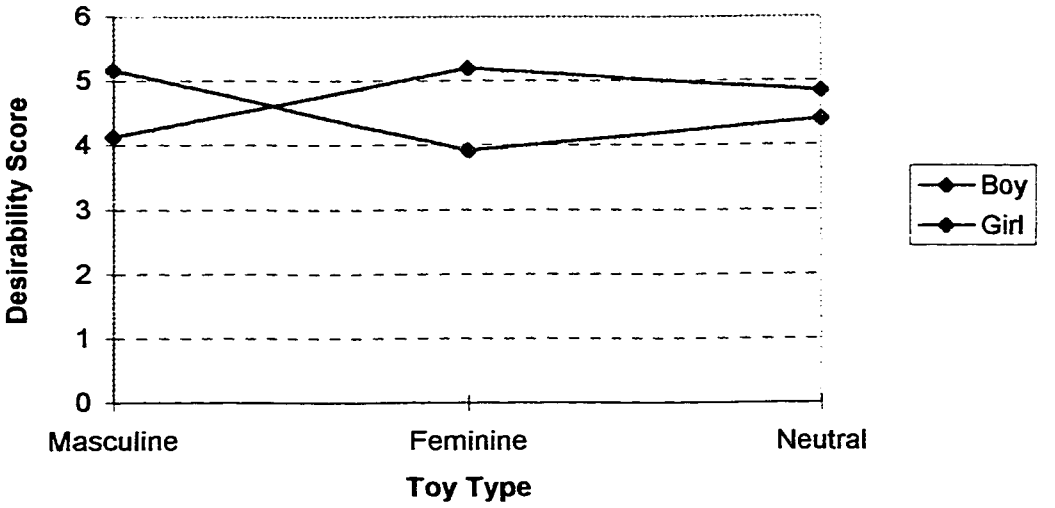
A 2 (gender of adult: male, female) X 2 (gender of child: male, female) X 3 (toy type: masculine, feminine, neutral) X 3 (parenting experience: parent, other parent, non-parent) mixed design analysis of variance (ANOVA) was conducted to determine how parents, other parents and non-parents rated the desirability of the toys for the child with whom they played. The three between subject variables were adult gender, child gender and parenting experience and the within subject variable was toy type. Overall, two of

the four main effects were significant. Specifically, the gender of child and the parenting experience main effects were significant [$F(1, 44) = 4.04$, $p < .05$; $F(2, 88) = 9.02$, $p < .001$ respectively]. However, the gender of parent, and toy type main effects were not significant [$F(1, 44) = .07$, $p > .80$; $F(2, 88) = .46$, $p > .63$ respectively].

The significant gender of child main effect indicated that, overall, adults who played with boys rated toy desirability differently than adults who played with girls. Specifically, adults rated all of the toys as more desirable for girls (M=4.72, SD=.32) than for boys (M=4.49, SD=.44). The significant parenting experience main effect indicated that parents, other parents and non-parents rated the desirability of the toys differently. Pairwise comparisons using Tukey's Test of Wholly Significant Difference (WSD) indicated that parents (M=4.86, SD=.55) rate the toys as significantly more desirable than non-parents (M=4.37. SD=.67) [$q(.05)$=.277]. Other parents' desirability ratings are between, but not significantly different from, that of parents and non-parents (M=4.60, SD=.65).

Only one of the six possible two-way interactions was found to be significant. Figure 3 indicates the pattern of the significant gender of child by toy type interaction [$F(2, 88) = 63.79$, $p < .001$].

Figure 3. Gender of Child by Toy Type Interaction for Toy Desirability Dependent Variable



As shown in Table 9, the most desirable type of toy (masculine, feminine, neutral) to adults depends on the gender of the child with whom they played. Pairwise comparisons using Tukey's Test of Wholly Significant Difference (WSD) indicates that when playing with boys, adults selected masculine toys as more desirable than both feminine and neutral toys, while feminine and neutral toys are equally desirable [q(.05)=.511]. However, when playing with girls, adults selected feminine and neutral toys as more desirable than masculine toys, with feminine and neutral toys being equally desirable [q(.05)=.351].

Table 9. Masculine, Feminine and Neutral Toy Desirability Scores for Boys and Girls

	Toy Type		
Gender of Child	Masculine	Feminine	Neutral
Boy	M=5.16 SD=.52	M=3.91 SD=.64	M=4.40 SD=.69
Girl	M=4.12 SD=.53	M=5.19 SD=.47	M=4.84 SD=.55

The remaining two-way interactions, gender of parent by gender of child [$F(1, 44) = .01$, $p > .90$], gender of parent by toy type [$F(2, 88) = 2.31$, $p > .11$], gender of parent by parenting experience [$F(2, 88)=.98$, $p > .38$], gender of child by parenting experience [$F(2, 88)=2.40$, $p > .10$] and the toy type by parenting experience [$F(4, 176)=.84$, $p > .5$] were not significant.

The gender of adult by gender of child by parenting experience three-way interaction was significant [$F(2, 88) = 3.35$, $p < .04$]. As shown in Table 10, this significant three-way interaction identifies differences between parents', other parents' and non-parents' desirability ratings of the toys dependent on their own gender and the gender of the child with whom they played.

Four pairwise comparisons using Tukey's Test of Wholly Significant Difference (WSD), [$q(.05)=.39$], were conducted. The four comparisons were: 1) male parents', other parents', and non-parents' desirability ratings for boys; 2) female parents', other parents' and non-parents' desirability ratings for boys; 3) male parents', other parents' and non-parents' desirability ratings for girls; and 4) male parents', other parents' and non-parents' desirability ratings for girls.

As Table 10 indicates there were differences between parents', other parents' and non-parents' desirability ratings for children of the opposite gender (i.e., female adults' desirability ratings for boys and male adults' desirability ratings for girls). For example, for boys, female parents rated the toys as more desirable, that is gave higher desirability

ratings, than other parents and non-parents. On the other hand, male parents, other parents and non-parents rated the desirability of the toys for boys the same. A similar pattern was found for girls. That is, for girls, male parents and other parents gave higher desirability ratings for the toys than non-parents. Female parents, other parents and non-parents, on the other hand, rated the desirability of the toys for girls the same.

Table 10. Male and Female Parents', Other Parents' and Non-Parents' Toy Desirability Ratings for Boys and Girls

	Gender of Child			
	BOYS		GIRLS	
Adult Gender	Male	Female	Male	Female
Parenting Experience				
Parents	M=4.70 SD=.61	M=4.90 SD=.41	M=5.12 SD=.43	M=4.71 SD=.65
Other Parents	M=4.44 SD=.55	M=4.28 SD=.54	M=4.89 SD=.65	M=4.82 SD=.53
Non-Parents	M=4.40 SD=.81	M=4.23 SD=.68	M=4.17 SD=.84	M=4.61 SD=.40

The remaining three-way interactions, gender of parent by gender of child by toy type [$F(2, 88) = 1.16$, $p > .32$], gender of parent by toy type by parenting experience [$F(4, 176) = 1.95$, $p > .10$], and gender of child by toy type by parenting experience [$F(4, 176) = .40$, $p > .81$] were not significant. Finally, the four-way interaction gender of parent by gender of child by toy type by parenting experience was not significant [$F(4, 176) = .47$, $p > .76$].

Discussion

This study is an extension of previous research in the area of child play and gender socialization. Traditionally, research on gender socialization has focused on the role of parents in shaping children's gender knowledge through free play situations (e.g.,

Idle et al. 1993). The present study expands the literature by examining the role of parenting experience on the gender socialization of children. This study examined toy play and the preferences of parents, other parents and adult couples without children. Specifically, the amount of time children and adults played with gender-specific toys, adults' categorization of the toys into gender categories, and adults' desirability ratings of the gender-specific toys. Each of these factors will be discussed in turn.

The Parenting Experience Factor. Although previous research has found that parents are significant contributors to children's gender socialization, little is known about the role individuals other than parents play in gender socialization. As such, the parenting experience variable was examined in the present study. Specifically, one of the purposes of the present study was to examine whether parents gender-type when playing with a child other than their own (i.e., other parents) and whether individuals without children (i.e., non-parents) gender-type during toy play situations. The findings of the study indicate that parenting experience is not related to differential gender socialization within the confines of the present investigation. However, since this study was exploratory in nature, future research may build on this initial study to further our understanding of the role other parents, non-parents, and adults in general play in gender socialization.

Time Spent with the Toys. The present study found differences in the amount of time boys and girls spent playing with the three different toy types. Girls spent an equal amount of time playing with feminine and neutral toys and the least amount of time playing with masculine toys. Boys, on the other hand, spent most of their time playing with masculine toys. In addition, boys spent less time playing with feminine and neutral

toys and the amount of time they spent with feminine and neutral toys did not differ. For girls then, it appears that a larger number of toys were perceived to be appropriate for play: that is, both neutral and feminine toys appear to be equally acceptable. Boys, however, seem to be more restricted in the toys that they find appropriate for play because they confine their play primarily to the masculine toys. Together, these findings suggest that boys may be more constrained in their toy play than girls. Girls, on the other hand, have a broader set of toys from which to choose for play.

Traditional Research Findings on the Toy Play of Children. The finding that boys spent the majority of their time playing with traditionally masculine toys is consistent with previous gender-stereotyping research (e.g., Caldera, Huston & O'Brien, 1989; Langlois & Downs, 1980; O'Brien & Huston, 1985; Roopnarine, 1986;). Typically, traditional research findings indicate that both boys and girls select same-gender-typed toys for play more frequently than cross-gender-typed toys (Langlois & Downs, 1980; O'Brien & Huston, 1985). That is, boys are more actively involved with masculine toys, and girls are more actively involved with feminine toys during toy play sessions (Caldera, Huston & O'Brien, 1989). These previous research findings indicate that both boys and girls play with toys considered gender-appropriate. In regards to children's play with neutral toys, Caldera, Huston and O'Brien (1989) found that girls were slightly more involved with neutral toys than boys.

Overall, the present study supports earlier research with regards to boys' preference for masculine toys over feminine and neutral toys. However, the results find a somewhat different trend from that of previous research for girls. Girls, in the present study, spent an equal amount of time playing with feminine and neutral toys. In essence, girls have two categories of gender-appropriate toys, feminine and neutral. Although earlier studies indicated three distinct categories with feminine toys alone being most appropriate, recent work (e.g., Caldera et al., 1989) and the present study suggest a trend toward greater acceptability of neutral toys. On the other hand, the finding that boys spent most of their time playing with traditionally masculine toys is consistent with previous research. In turn, this indicates that boys remain constrained in the number of toys they have for play. However, unique from past research is the finding that boys treat neutral and feminine toys as equally acceptable for play.

Comparison to Idle, Wood and Desmarais (1993). Although the present findings tend to support traditional research findings, they are inconsistent with one of the most recent research reports by Idle et al. (1993). Specifically, Idle et al. found that boys played with masculine, feminine and neutral toys equally. However, close examination of individual means in the Idle et al. study suggests an alternative pattern. That is, boys spent most of their time playing with masculine toys or neutral toys followed by feminine toys (masculine M=393.20, sd=136.17; neutral M=356.85, sd=147.04; feminine M=136.60, sd=92.37). A similar trend was replicated in the present study, although there were significant differences among all the categories. It could be that the sample size in the Idle et al. study was too small to detect significant differences suggesting a shift in the types of

toys boys find enjoyable and acceptable for play. For example, Idle et al. used a total of 10 boys whereas the present study used a total of 24 boys.

The pattern found by Idle et al. suggests that boys preferred playing with masculine and neutral toys over feminine toys. Overall then, past and present research suggests that boys spend more time with masculine toys relative to feminine ones with mixed results regarding their preference for neutral toys.

There is also a discrepancy between the findings of Idle et al. and the present study for girls' toy play patterns. For example, girls in the Idle et al. study spent substantially more time with neutral toys and a smaller but equal amount of time with masculine and feminine toys. The present study, on the other hand, found that girls spent an equal amount of time with neutral and feminine toys, suggesting that girls find feminine toys as desirable as neutral toys. However, girls are still selecting feminine toys, and in this study, neutral toys, for play more than they are masculine toys. So, even though girls may be expanding their toy play to include a wider variety of toys, that is neutral toys, they are still excluding traditionally masculine toys from their toy play.

Similarities between Boys' and Girls' Toy Play. Interestingly, both boys and girls did not differentiate between feminine and neutral toys. That is, for both boys and girls there was no statistical difference in the mean amount of time they spent playing with feminine and neutral toys. More specifically, boys spent more time playing with masculine toys, and an equal but less amount of time playing with feminine and neutral toys, while girls spent an equal amount of time playing with feminine and neutral toys,

and less time playing with masculine toys. Together, these findings support the inclusion of neutral toys as equally acceptable to feminine toys for both boys and girls. This finding contradicts traditional research findings.

Traditionally, research suggests that boys have spent most of their time playing with masculine toys, followed by neutral toys, and finally feminine toys. Girls, on the other hand, have traditionally spent the majority of their time playing with feminine toys followed by neutral toys and masculine toys. This pattern of toy play has been three-tiered. That is, boys and girls made a clear distinction among the three toy types, evident in the amount of time they spent with each toy type. The present study, however, found that boys and girls to select feminine and neutral toys equally. This pattern contributes to a two-tiered toy play pattern, as the distinction between feminine and neutral toys is not evident in the mean amount of time spent with the three toy types. Table 11 illustrates the difference between traditional toy play patterns and present toy play patterns for both boys and girls.

Table 11. Traditional and Current Toy Play Patterns for Boys and Girls

Gender of Child	Traditional Toy Play Pattern	Current Toy Play Pattern
Boys	1. Masculine 2. Neutral 3. Feminine	1. Masculine 2. Neutral = Feminine
Girls	1. Feminine 2. Neutral 3. Masculine	1. Feminine = Neutral 2. Masculine

In summary, this toy play pattern suggests that the distinction between feminine and neutral toys may have become ambiguous as both boys and girls have combined

feminine and neutral toys into one toy category. In turn, boys and girls may select traditionally feminine toys for play, because they view them as neutral, or they may select neutral toys for play, because they view them as feminine.

The reason boys and girls may find feminine and neutral toys equivalent may be explained by examining the findings of the gender sorting task. The gender sorting task found that adults assign specific toys, such as the traditionally feminine phone and kitchen, to the neutral category. In turn, the number of toys considered neutral, by adults, is greater than the number of toys considered feminine. Just as adults' opinions regarding the gender categorization of the 15 toys is evident by examining the gender sorting task, children's opinions of the gender categorization of the 15 toys may be revealed when examining their toy play patterns. Specifically, boys and girls spent an equal amount of time with feminine and neutral toys. However, the reason children played with the feminine toys may have been because they assigned some of the feminine toys to the neutral category, and, in turn, found them more desirable. In summary, it is possible that children played with the feminine toys because they viewed them as neutral, just as adults assigned specific feminine toys to the neutral category.

Gender Sorting Task. The gender sorting task assessed the level of agreement between adult participants and previous research or "expert" categorizations of 15 toys. One problem with both the gender sorting task and the toy desirability task is that adults may have been aware that the study was examining gender when completing the questionnaires. As a result, they may have avoided categorizing the toys as masculine

and feminine and purposefully categorized the toys as neutral so as to appear socially "acceptable".

Overall, the findings indicate that, for the most part, adults do not uniformly agree with the "experts' " categorization of traditionally masculine and feminine toys. Instead, adults assign some of the toys from the traditionally masculine and feminine categories to the neutral category. This finding is consistent with recent research (e.g., Idle et al., 1993), where parents assigned some of the traditionally masculine and feminine toys to the neutral category. Specifically, in the present study, adults categorized the traditionally feminine phone and kitchen and the traditionally masculine ball and train as neutral. The shift of traditionally feminine toys into the neutral category may be explained by changing traditional gender roles. For example, the phone was traditionally categorized as feminine, perhaps due to the fact that phones were stationary and they involved responsibilities associated with female dominated professions, for example, secretaries or telephone operators. The cellular phone, however, has made the use of a phone more generic. For example, the accessibility and portability of cellular phones has made them vital for business related activities. In addition, both males and females use the cellular phone as a social tool. In turn, the telephone has lost its strong association as a secretarial or strictly home based tool.

Shifting gender roles may also explain the categorization of the traditionally masculine ball and train as neutral. For example, although females have played sports in

the past, recent media exposure has made female competitive sports more visible to the public. For example, the establishment of a female professional basketball league has brought female athletes "into the living room" via televised games and corporate sponsor endorsements. In turn, the increasing visibility of professional female athletes may have removed the traditional masculine categorization of sports equipment, in this instance, the basketball.

The phone, house, ball and train were considered neutral by over half of the adult participants. However, adults also were divided on the gender categorization of the remaining masculine (i.e., garage, truck, tools) and feminine (i.e., soft doll, hair doll, house) toys. Although the majority of the participants agreed with the "experts' " traditional categorizations of these toys, a minimum of one quarter of the participants categorized each of these toys as neutral. This finding indicates a number of significant trends. First, it appears that a number of toys used in the present study are shifting from their traditional gender category to the neutral category. This indicates that the toys in the present study have characteristics deemed appropriate for both boys and girls. A second interesting trend is that it appears difficult to categorize unequivocally the toys used in the present study into only one gender category.

Differences between Adult Males and Females. Interestingly, adult males and females have different levels of agreement with the "experts". Males tend to agree with the "experts' " traditional categorizations of masculine and feminine toys more than females. Therefore, males agree with the "experts" that the phone, kitchen, soft doll, hair doll and house are feminine more than females. Similarly, males are more likely agree

with the "experts" that the ball, train, garage, truck and tools are masculine more than are females. The reason for this difference may be explained by previous research which has indicated that males are less flexible on the toys they will provide to boys and girls, and attend to same-gender toy play more than cross-gender toy play. Langlois and Downs (1980), for example, found that fathers rewarded play (i.e., praise) with same-gender toys and punished play (i.e., ridicule) with cross-gender toys for both sons and daughters. This research suggests that males may be more rigid than females in their thinking about the gender-appropriateness of toys for boys and girls. The present study also supports this notion, as evident in males' gender categorization of the masculine and feminine toys. That is, males have higher levels of agreement with the "experts' " traditional categorization of masculine and feminine toys than females. The fact that females do not agree with the "experts' " traditional categorizations as much indicates that females may be more flexible than males in their assignment of toys.

Toy Desirability Task. The desirability task asked adults to assess the desirability of the fifteen toys for the child with whom they played. Therefore, adults were using the child as a reference when making their evaluation. It was discovered that the most desirable type of toy for a child is dependent on that child's gender. For example, according to adults, masculine toys are the most desirable toy type for boys, with neutral and feminine toys equally but less desirable. For girls, feminine and neutral toys are the most desirable, with masculine toys being less desirable. Interestingly, this finding is identical to the toy play pattern of boys and girls (see Children's Time Spent with Toys).

Therefore, adults formed similar impressions of the toys found desirable by the child with whom they played.

Alternatively adults may have used their preconceptions of what toys they thought the child might find desirable to direct the play situation. However, given that adults and children's toy play patterns were similar, this explanation does not seem probable. Therefore, it does not appear that adults were redirecting children's play to the toys they thought were desirable. It seems more likely that adults' desirability ratings are a reflection of the toys children preferred for play.

Finally, perhaps the most interesting result is the finding that parents, other parents and non-parents only disagree on the desirability of the toys when they are rating the toys for a child opposite of their own gender. For example, male parents, other parents and non-parents agreed on the desirability of the toys for boys whereas female parents, other parents and non-parents rated the desirability of the toys differently. This same pattern occurred for male adults playing with girls. That is, male parents, other parents and non-parents rated the desirability of the toys for girls differently while female parents, other parents and non-parents rated the desirability of the toys the same. This pattern suggests that differences in desirability ratings are a function of mixed dyad groups (i.e., female adults rating the toys for boys and male adults rating the toys for girls) and parenting experience.

The pattern for female adults playing with boys was for parents to give higher desirability ratings than both other parents and non-parents. Given that the toy

desirability task asked adults to rate the desirability of the toys for the child they played with, female parents may have been comfortable rating cross-gender toys as desirable for their own sons. Other parents, on the other hand, may not have been comfortable suggesting that a cross-gender toy is desirable for a child other than their own.

The pattern for male adults playing with girls, however, differed from that of female adults. For male adults, parents and other parents gave higher desirability ratings than non-parents. Therefore, parents and other parents rated the desirability of the toys the same. This may be due to the fact that they were both using their own experiences with their daughters to rate the desirability of the toys for girls. Although they were using different experiences for reference, male parents and other parents shared a common knowledge of the consequences of play with the three toy types. Therefore, their higher desirability ratings than non-parents indicates that they are comfortable with rating the cross-gender toys (i.e., masculine toys) as desirable. This, in turn, may have increased their overall desirability ratings. Male non-parents, on the other hand, do not have experience with assigning cross-gender toys to females during play and may be unsure about the consequences of suggesting a masculine toy is desirable for girls. Therefore, to be safe non-parents may have rated the masculine toys as not very desirable. In turn contributing to a lower overall desirability rating from that of parents and other parents.

Summary. The present study has contributed to existing research on the gender socialization of children through toy play in a number of ways. First, there appears to be a shift in the type of toys boys and girls find enjoyable. The present study found that a

two-tiered toy play pattern exists for boys and girls which is different from the traditional three-tiered toy play pattern. The difference is that both boys and girls, in the present study, did not make a distinction between neutral and feminine toys. This is interesting because it suggests that either neutral toys are becoming more feminine or feminine toys are becoming more neutral. Along these same lines, adults did not agree with the "experts' " traditional categorizations of the feminine toys. Instead, on the gender sorting task, many adults categorized the traditionally feminine toys as neutral. This suggests that traditionally feminine toys are becoming more neutral.

One possible reason traditionally feminine toys are considered neutral may be because adults and children are not categorizing the toys into masculine, feminine and neutral categories based on the toys' functionality. Instead, they may be using different cues, such as the toys' appearance, for example colour or logos, to decide the gender category of toys. For example, the traditionally feminine telephone used in this study was red and yellow, both of which are neutral colours. If the telephone was pink, on the other hand, adults and children may have assigned it to the feminine gender category. As it is unclear how toys are currently assigned to gender categories, future research may examine the criteria adults and children use to categorize toys into the three gender categories and devise a new list of toys which are considered masculine, feminine and neutral.

A second interesting finding of the present study involved the parenting experience variable. Traditional research has typically investigated the role of parents in children's gender socialization. The present study has extended our awareness of the

impact of parents on gender socialization and also examined parenting experience in general. For the most part, other parents and non-parents appear to have a small but interesting differences in how they play with gender-typed toys, categorize toys into gender categories and rate the desirability of toys. Specifically, it appears that when rating the desirability of toys for a child of the opposite gender, differences between parents, other parents and non-parents exist.

In summary, it appears that the gender socialization of children through play continues. However, in order to expand the existing research it is important to be constantly vigilant about understanding areas of gender socialization through toy play. For example, it is important to understand how adults and children code toys as masculine, feminine and neutral: that is, the criteria they use to assign toys to gender categories. Perhaps future research could focus on devising an updated list of toys considered masculine, feminine and neutral. This new list of toys may then be used to determine whether a two-tiered or three-tiered toy play pattern exists. It is possible that a three-tiered toy play pattern still exists, however, since many of the feminine and masculine toys in the present study were rated as neutral by participants, a two-tiered toy play pattern emerged.

Finally, with this new list of toys, the parenting experience variable may be explored to further determine the effect individuals other than parents have on the gender socialization of children.

Appendix A

Dear Parents,

As part of the ongoing research of adult-child interaction at Wilfrid Laurier University we are interested in studying the adult with preschool children at play. This study is being conducted with the assistance of the School House Playcare. We would like to involve some of the children and their parents from this preschool in the study. This letter will briefly describe the study and will request your permission for your and/or your child's participation in this research.

During this study, fathers and/or mothers will be asked to play with either their child or with another child at the facility. They will play with a variety of toys that will be provided. Play sessions will last approximately fifteen minutes and will be scheduled at your convenience (which most likely will be either at drop off or pick up times). An observer will record the toys selected and the time spent playing with each toy. Following the play session, the researcher will request that the participants fill out two brief questionnaires which will take approximately ten minutes. If you agree to allow your child to participate, he or she will participate in a total of three play sessions: one with his or her parent; one with another parent; and one with a non-parent. We request that fathers consider participating as both male and female participation is crucial for this study.

The play sessions should be an enjoyable experience for both you and your child. If at any time, however, either you and/or your child do not wish to continue participating in this study you are free to cease participation. All information gathered from this study will remain anonymous and will be stored in a secure place. The raw data will only be seen by the researchers listed below. Information from the data will only be presented in terms of group averages, not individual scores. The results of this study will be made available to the cooperative for anyone interested once the study is completed. This project has been approved by the Office of Human Research at Wilfrid Laurier University and the Office of Human Research at the University of Waterloo.

We do hope that you will consider participating in this study but we would appreciate the attached form completed and returned to the day care as soon as possible regardless of your decision. We would like to extend our thanks to you for taking the time to read this letter and we appreciate your assistance in this research. Any questions or concerns regarding this project could be directed to either Eileen Wood at 519-884-1970 ext 3738 or if calling after hours to Sara Gugula at 519-886-8799 or to Susan White at 519 884-6950.

Sincerely,

Sara Gugula and Susan White
Undergraduate Researchers

Dr. Eileen Wood
Research Advisor

Appendix B

Title of Research: Parent-Child Toy Play

Researchers: Sara Gugula and Susan White

Advisor: Dr. Eileen Wood

Please indicate your decision by checking ONE of the statements below:

_____ We both agree to participate and give permission for our child to participate.

_____ We both agree to participate but do not give permission for our child to participate

_____ I agree to participate and give permission for my child to participate.

_____ I agree to participate but do not give permission for my child to participate.

_____ We/I do not agree to participate in the play study.

Child's Name: _____

Child's Date of Birth: _____

Child's Time in Daycare: _____

Parent/Guardian's Name: _____

Signature: _____

Parent/Guardian's Name: _____

Signature: _____

Telephone Number: _____
(Please indicate the best time to call and whether the phone number is a home or work number)
Please fill in you address in the space below if you wish to receive the results of our study once it is complete or add any comments or concerns you may have.

_____

_____

Appendix C

Verbal Instructions for Administration of Questionnaires

"Now that you have completed your fifteen minute play session I have two questionnaires which I would like you to complete. They should take approximately ten minutes to finish. The first questionnaire is a Toy Desirability Questionnaire which asks you to rate how desirable you thought the toys were for the child with whom you were playing. You may not have had the opportunity to play with all fifteen toys. If this is the case and you are unsure of how desirable they are for (fill in the name of child), use your judgment based on the impression you had of (fill in the name of the child).

The second questionnaire is a Gender Sorting task. This questionnaire asks you to place a check mark into one of three boxes, masculine, feminine or neutral, for each of the fifteen toys available to you during your play session. You may place any number of toys into each of the categories. For example, you may feel all of the toys were masculine and have check marks only placed in that category or you may disperse them over the three categories. If you are unsure about which toy corresponds to the toy name listed on the questionnaire just ask and I will show you the correct toy."

Appendix D

Toy Desirability Scale

For each of the following toys, please circle the number which most appropriately describes YOUR impression of how desirable the toys would be for YOUR/THE child.

Truck	1	2	3	4	5	6	7
	Very Undesirable			Neutral		Very Desirable	
Tools	1	2	3	4	5	6	7
	Very Desirable			Neutral		Very Undesirable	
Puzzle	1	2	3	4	5	6	7
	Very Undesirable			Neutral		Very Desirable	
Book	1	2	3	4	5	6	7
	Very Desirable			Neutral		Very Undesirable	
Blocks	1	2	3	4	5	6	7
	Very Undesirable			Neutral		Very Desirable	
Doll House	1	2	3	4	5	6	7
	Very Desirable			Neutral		Very Undesirable	
Baby Doll	1	2	3	4	5	6	7
	Very Undesirable			Neutral		Very Desirable	
Train	1	2	3	4	5	6	7
	Very Desirable			Neutral		Very Undesirable	
Soft Doll	1	2	3	4	5	6	7
	Very Undesirable			Neutral		Very Desirable	
Play-doh	1	2	3	4	5	6	7
	Very Desirable			Neutral		Very Undesirable	
Gas Station	1	2	3	4	5	6	7
	Very Undesirable			Neutral		Very Desirable	
Stuffed Animal	1	2	3	4	5	6	7
	Very Desirable			Neutral		Very Undesirable	
Telephone	1	2	3	4	5	6	7
	Very Undesirable			Neutral		Very Desirable	
Kitchen Set	1	2	3	4	5	6	7
	Very Desirable			Neutral		Very Undesirable	
Ball	1	2	3	4	5	6	7
	Very Undesirable			Neutral		Very Desirable	

Appendix E

Gender Sorting Task

Please indicate with a check mark which category YOU feel best describes each toy.

	Masculine	Feminine	Neutral
Stuffed Animal			
Truck			
Book			
Baby Doll			
Ball			
Puzzle			
Gas Station			
Kitchen Set			
Blocks			
Train			
Tools			
Doll House			
Play-Doh			
Telephone			
Soft Doll			

Appendix F

Dear Participant

As part of ongoing research of adult-child interaction at Wilfrid Laurier University we are interested in studying the adult with preschool children at play. During this study, you are asked to play with another child at this facility with a variety of toys provided. This play session will last fifteen minutes. We are interested in seeing what toys you would select for this child, so please keep this in mind as you play. An observer will record the toys selected and the time spent playing with each toy. Following the play session, the researcher will request that you fill out two brief questionnaires which will take approximately ten minutes. The play sessions should be an enjoyable experience for both you and the child. If at any time, however, either you and/or the child do not wish to continue participating in this study you are free to leave. All information gathered from this study will remain anonymous and will be stored in a secure place. The data will only be seen by those listed below. Information from the data will only be presented in terms of group averages, not individual scores. The results of this study will be made available to you should you desire. This project has been approved by the Office of Human Research at Wilfrid Laurier University and the Office of Human Research at the University of Waterloo. We would like to extend our thanks to you for taking the time to read this letter and we appreciate your assistance in this research. Any questions or concerns regarding this project could be directed to either Eileen Wood at (519) 884-1970 extension 3738 or if calling after hours, to Sara Gugula at (519) 886-8799.

Sincerely,

Sara Gugula

Undergraduate Researcher

Dr. Eileen Wood

Research Advisor

Appendix G

Verbal Instructions for Play Sessions

"To begin I would like to introduce you to (fill in the name of the child) who you will be playing with today. I would like you to read over an information about the study sheet to give you a brief outline about the nature of the study before we begin the play session (give participant Information About the Study form). As you may know, you will be playing with (fill in the name of the child) for fifteen minutes with the toys displayed. During this time I will be sitting over there (point) recording which toys you play with and how long you spend with the toys you select. Following your play session I will ask you to complete two questionnaires which should take approximately ten minutes to complete. I will explain those questionnaires further after the play session. Do you have any questions? To begin the play sessions you can sit with (fill in the name of the child) and begin to play with the toys.

Appendix H
Toy Time Line

Adult Toy Time Line

T#	Time	Toy	Accumulative	Total Per
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				

Child Toy Time Line

T#	Time	Toy	Accumulative	Total Per
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				

Appendix I

Feedback

"Adult-Child Toy Play"

The study you just participated in was an attempt to examine the types of toys adults select for play with preschool children. Specifically, we are interested in whether or not the toy selections were gender-specific for boys or girls. These toys were rated in past research as being either masculine, feminine, or neutral. Past research has shown that mothers do not make gender based decisions when selecting toys while at play with their child. However, when asked to rate the desirability of the toys, feminine toys were rated as more desirable for girls while masculine toys were rated as more desirable for boys. This study was designed to confirm these findings while also examining the toy selections and ratings of adults who are not the preschooler's parents.

The issue of gender-specificity of toys was not discussed with you prior to the study as this may have influenced the selection and rating of the toys. We really wanted to encourage as natural a play session as possible. By not telling you this we allowed you to comfortably interact with the child free of any bias from us. This insures that we do not interfere with the adults' interaction with the children. If you have any concerns about your interaction with the child, or if you feel you were biased in some way, please let Sara know. If you have already left the study, you may contact her at (519) 886-8799. We would appreciate any knowledge of these concerns if you feel they may affect our results. We would also appreciate that if you have a spouse or partner who will be participating in the experiment after you that you do not inform them that this study is concerned with gender-specific issues. Such pre-informed knowledge could hamper their performance during the play session.

If you would like any further information concerning gender and play, we would be pleased to discuss this with you at your convenience. Please contact Dr. Eileen Wood during business hours (519-884-1970, ext. 3738) for any further information that you may require regarding this study or the issues surrounding this study. Please note that, as with all research, if you feel uncomfortable with the data collected, you are able to decline your participation as well as the participation of your child.

We would like to sincerely thank you for your kind participation in this study. Without volunteers such as yourself studies such as this would not be possible.

Sincerely,

Sara Gugula
Undergraduate Researcher

Eileen Wood
Research Advisor

Appendix J

Adult Time Spent with the Toys Using Revised Toy Categories

The amount of time (in seconds) spent with each toy type was measured for adults using revised toy categories based on adults' gender categorization of the 15 toys on the Gender Sorting Task. This analysis examined the amount of time adults spent with the toys using revised toy categories. The revised toy categories took into account when a traditionally masculine or feminine toy was placed in the neutral category by 67 per cent or more of the adults. Using this criterion, the traditionally feminine phone and the traditionally masculine ball were considered neutral for the purpose of the present analysis. Therefore, the masculine toy category consisted of the train, garage, truck, and tools; the feminine toy category consisted of the kitchen, soft doll, hair doll and house, and the neutral toy category consisted of the phone, ball, book, PlayDoh, bear, puzzle, and blocks. Table 11 presents the mean amount of time parents, other parents and non-parents spent with the three toy types using the revised toy categories.

Although the revised toy categories did not yield any significant results, an interesting pattern emerged when examining the individual means. That is, parents, other parents, and non-parents spent most of their time playing with neutral toys. Interestingly, non-parents toy play pattern remained the same in both analyses.

Table 12. Mean Amount of Time (in seconds) Adults Spent with Toys as a Function of Gender-Specific Categories Based on New Toy Categorizations

Parenting Experience	Feminine	Masculine	Neutral
Parents			
M	328.69	261.52	360.38
SD	259.51	237.75	252.03
Other Parents			
M	275.79	312.65	363.35
SD	242.26	265.35	294.17
Non-Parents			
M	246.58	262.91	442.77
SD	229.36	210.64	253.77

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