

THE EFFECTS OF PICTURE BOOKS ON
PRESCHOOL CHILDREN'S SEX ROLE CONCEPTS

by

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B. A., MESSIAH COLLEGE, 1974

A MASTER'S THESIS

submitted in partial fulfillment of

requirements for the degree

MASTER OF SCIENCE


Department of

Human Development and Family Studies

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1986

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Acknowledgements

Sincere appreciation is extended to members of my advisory committee for their support on this project. My special thanks to Dr. Al Davis whose quest for academic excellence sets him apart as a truly unique educator. Your friendship, humor and professionalism contributed greatly to this endeavor. It's been my pleasure to work with you. To Candice Russell and Susan Wanska-George, for your suggestions and assistance, goes my heartfelt gratitude.

Special appreciation is expressed to Margaret Adams, LuAnn Hoover, and Lou West, Kansas State University child care center directors, whose cooperative spirits so willingly accommodated this research project. I also wish to thank the parents as well as the delightful preschoolers for their contribution to this study.

Finally, to my husband Kevin, special thanks for your ever-present support and encouragement; to my children Meghan and Nathanael, thanks for cheering me on to complete this task. Your love and affirmation was a continual source of strength.

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Effects of Picture Books on Preschool Children's Sex Role Concepts

INTRODUCTION

The acquisition and development of children's sex role concepts has been the focus of a growing body of research in recent years. A survey of this literature reveals the emergence, during the preschool years, of children's conceptions of their own gender identity (Thompson, 1975), as well as defined preferences for sex-appropriate toys and activities (Maccoby & Jacklin, 1974). Furthermore, beliefs about the characteristic attributes of males and females in the society are observed in young children, and these concepts have been found to closely parallel traditional sex role stereotypes in our culture (Edwards & Williams, 1980; Harris & Satter, 1981; Kuhn, Nash & Brucken, 1978; Reis & Wright, 1982; Williams, Bennett & Best, 1975). In fact, conceptual differentiation of stereotyped male and female traits, roles, and activities have been verified in children as young as two years of age (Kuhn et al., 1978). Clearly, the preschool years are formative ones for the development of gender identity, sex role preferences and concepts, and sex role stereotypes.

Research into the determinants of sex-differentiated characteristics has focused on the socialization process, and in particular, the systematic reinforcement of culturally appropriate, sex-specific behaviors and the impact of sex-typed role models on sex role development in young children (Birns, 1976; Block, 1978; Hoffman, 1977; Maccoby & Jacklin, 1974). Although most of this research has examined the role

played by parents, preschool teachers and peers in this process, attention has recently been focused on the potentially significant role of the media in this process, including children's literature.

Children's picture books, those written primarily for preschool children, are especially significant because they provide sex role models for young children and thereby define societal standards and expectations for acceptable sex role behaviors and attitudes (Davis, 1984). Additionally, picture books are introduced to children at an impressionable age, a period marked by the emergence of sex role concepts and sex role stereotypes.

Analyses of the content of preschool picture books have revealed extensive sex role stereotyping of males and females along traditional lines, reflected in characterizations of active, achieving males and passive, emotional females; furthermore, sex differentiated occupational roles have also been documented in picture books (Davis, 1983; Davis, 1984; Mitchell, 1973; Nilsen, 1971; Stewig & Knipfel, 1975; Weitzman, Eifler, Hokada & Ross, 1972).

The impact of stereotyped characterizations in children's literature on young children's sex-related characteristics has only recently come under investigation. Preliminary evidence has revealed relationships between stereotyped character portrayals and story content, and children's achieving behaviors (McArthur & Eisen, 1976), dependent/independent behaviors (Fischer & Torney, 1976), and memory and recall (McArthur & Eisen, 1976; Jennings, 1975; Koblinsky, Cruse & Sugawara, 1978). It is certainly feasible that these books may also play an important role in shaping children's conceptions regarding appropriate sex role behaviors and sex differentiated behaviors as well. In this

regard, Connor and Serbin (1978), McArthur and Eisen (1976), and Jennings (1975) have documented children's preferences for same-sex characters from children's literature which typically portrays males and females in stereotyped roles. Thus, these stereotyped literature portrayals seem to in some way impact children's beliefs and concepts about sex roles and behaviors.

In recent years the potentially restrictive and dysfunctional effects of sex role stereotyping on children's long-term life experiences has been the focus of much concern (Bem, 1975; Flerx et al., 1976; Guttentag & Bray, 1976; Roddy, Klein, Stricker & Kurdek, 1981). It is contended that females, whose stereotyped traits tend to be less highly valued in our culture than male traits, find their potential particularly limited (Flerx et al., 1976); and that males, limited by polarized sex roles denying them the opportunity to participate in traditionally feminine roles and activities or to express the need for love and tenderness, are also restricted, both behaviorally and emotionally (Fasteau, 1975).

Responding to evaluations charging that children's literature is stereotyped and sexist in its content, a number of organizations (Feminists on Children's Media, 1974; Feminist Book Mart, 1975; Women's Action Alliance, 1973; Women on Images and Words, 1975) and publishing companies (Feminist Press, Lollypop Power) have pressed for nonsexist characterizations in children's books, ones allowing both male and female models to be shown in flexible and diverse roles and portraying characters of both sexes as equally competent individuals. Content evaluations of nonsexist books reveal a greater frequency of females as main characters and an increase in instrumental roles performed by males

and females (St. Peter, 1979). In terms of behaviors, females in non-sexist books are portrayed as independent, more emotional and nurturing and less active than males, whereas males evidence greater nurturance and less aggression than male counterparts in conventional books (Davis, 1984). Although nonsexist books have received endorsements from women's groups advocating equality among the sexes, the impact of nonsexist picture books upon children's sex role concepts has received very limited attention in the research literature.

Two investigations (Guttentag & Bray, 1976; Johnston, Ettema & Davidson, 1980) have been successful in reducing sex role stereotypes in school age children using nonsexist literature (in a prescribed school curriculum) and nonsexist television programming respectively. However, several studies with preschool age samples produced inconsistent results. Flerx et al. (1975) and List (1976) reported that the reading of stories from nonsexist books decreased stereotypes in three to five year old children; in contrast, Roddy et al., (1981) found no changes in children's sex role concepts after the presentation of nonsexist stories, songs and toys.

These few studies, their conflicting results, and the multimedia nature of the various interventions do not yield unequivocal conclusions regarding the impact of nonsexist books per se on young children's sex stereotyped conceptions. The present study was designed to directly assess this impact.

REVIEW OF RESEARCH

Emergence of Sex Role Concepts

Gender Identity

Recent research has clearly shown that children's acquisition of sex role concepts occurs during the preschool years and develops in stages over a period of time (Barry, 1980; Eaton & Von Bargen, 1981; Maccoby & Jacklin, 1974). These stages include, in sequential order: 1) gender identification, the process of categorizing self and others by sex; 2) gender stability, the understanding that gender remains permanent over time; and 3) gender consistency, the realization that gender remains constant across various situations and circumstances (Eaton & Von Bargen, 1981; Slaby & Frey, 1975; Thompson, 1975; Ward, 1968).

It has been established that gender conceptualizations begin to emerge at age 2; however, studies have produced inconsistent results as to the age at which the final stage, gender constancy, is achieved. While several researchers have documented the attainment of gender constancy as early as age 3 or 4 (Kuhn, et al., 1978; Slaby & Frey, 1975), other research utilizing alternative evaluative techniques indicates that gender constancy is not firmly established until age 7 or 8 (Emerich, Goldman, Kirsh and Sharabany, 1977; Marcus & Overton, 1978).

Sex Role Concepts

In addition to developing conceptions of one's own gender identity, young children also form a belief system about the characteristic attributes, traits and behaviors associated with males and females.

Children's understanding of sex role concepts reflects an awareness of the traditional sex role stereotypes commonly held by adults in our culture (Edelbrock & Sugawara, 1978; Harris & Satter, 1981; Kuhn et al., 1978; Reis & Wright, 1982; Thompson, 1975; Williams et al., 1975). A stereotype has been defined as an expectation that many behavior patterns are significantly more prevalent among persons of one sex as compared with the other (Hensley & Borges, 1981). Those behavior patterns thought to be characteristic of males in this society include, among others, being independent, aggressive, logical, competitive, self-confident and ambitious. Much in contrast are feminine behaviors such as being submissive, gentle, dependent, emotional, talkative and domestic (Broverman, Broverman, Clarkson, Rosenkrantz & Vogel, 1970).

The fact that sex role stereotypes are firmly established in children of kindergarten age has been well substantiated in the literature (Harris & Satter, 1981; Williams et al., 1975). In measures of vocational choices and personality traits kindergarten children revealed extensive knowledge of adult stereotypes. Occupations such as airplane pilot, U. S. President, and fire fighter were classified by children in the Harris and Satter sample as male professions whereas librarian, housekeeper and seamstress were viewed as feminine roles. Additionally, children in the Williams et al. study consistently described females as gentle, talkative persons who cry a lot and always say "thank you." Males, on the other hand, were perceived as strong, fighting, adventurous individuals who would possibly own a big store or brag about themselves.

Recent research has addressed the question of sex role stereotyped conceptions among preschool children. Kuhn et al. (1978) administered a

sex role stereotype task to a sample of 72 children, ages 2 years-6 months to 3 years-11 months, at a university laboratory school. The task was comprised of a series of pictures depicting common activities (block-building, doll play) and adult future roles (flying airplanes, doing dishes) as well as a list of 44 traits administered verbally ("I am strong/weak;" "I am quiet/loud"). Children were asked to select either the male or female paper doll, whichever they thought was most appropriate for the given activities, roles and traits. Traditional sex role stereotyping was evident among the children, including the youngest group of two year olds, in the areas of attitudes, traits, and future roles.

Reis and Wright (1982), in an effort to further explore children's understanding of adult sex role stereotypes, examined the sex-linked trait concepts of 86 children, ages 1 years-9 months to 5 years-8 months. Responses to a sex role questionnaire consisting of 14 masculine and 14 feminine items measuring stereotyped traits (e.g. male--self-reliant, cruel and female--weak, loving) revealed that children possess a significant knowledge of adult stereotypes by the latter half of the third year, not at age 2 as previously indicated by Kuhn et al. (1978). Both studies revealed that as children get older, their ability to categorize traits and behaviors by gender labels also increases.

In addition to manifesting sex-linked stereotypes of social roles, activities and traits, young children also display commonly held occupational stereotypes (e.g. male-doctor; female-nurse) by the time they are of kindergarten age (Drabman, Robertson, Patterson, Jarvie, Hammer & Cordua, 1981). In fact, Gettys and Cann (1981) found that children began to differentiate male and female occupations at 2½ years corroborating

rating the earlier work of Kuhn et al. (1978), and that these stereotyped conceptions increased linearly with age between $2\frac{1}{2}$ and 8 years. Furthermore, young children tended to personally aspire to sex-appropriate occupations as well (Harris & Satter, 1981); thus, sex stereotyped conceptions are formed well before school years.

Socialization of Sex Role Concepts

It is clear that the preschool years are formative ones in the development of children's sex role understanding. Serving as the foundation for their sex role attitudes and behaviors these concepts define for children what is sex-appropriate for them and what is not. In an effort to determine how children acquire and formulate these conceptualizations, the socialization process has received investigative attention. Mischel (1970) hypothesized that reinforcement and modeling are the environmental factors which shape children's sex role identities and behaviors. Through observation of live or symbolic models children internalize the exemplified behaviors and attitudes thereby making them part of their own sex role repertoire. Positive reinforcement affirms those behaviors, traits, and attitudes deemed sex-appropriate in our society, and children thus learn to distinguish their sex role identity as they recognize gender attribute similarities between themselves and salient role models in their environment.

An alternative explanation for the acquisition of sex role concepts is offered by Kohlberg (1966) who postulates that children's cognitive processes provide the framework within which sex role concepts are built. As children recognize male and female distinctions as being permanent and irreversible they then actively seek out same-sex models

from within their environment and form rules for socially appropriate sex role attitudes and behaviors. The process of defining these rules is based not only on what children observe, but also on how they interpret what they see and what they are told.

Whether children are passively shaped by the environment or actively construct reality through cognitive interpretations of their experiences it is generally agreed society prescribes different roles for boys and girls, and that from birth boys and girls receive differential treatment thereby encouraging those behaviors and attitudes consistent with cultural expectations.

Although most of the research into the socialization of males and females has examined the role of parents, siblings, teachers and peers in this process, recent attention has focused on the role of the media in socializing children.

Media Influences on Sex Role Development

Television

Television, because of its easy accessibility and wide usage, is probably the most potent source of information for children (Miller & Reeves, 1976), and has been found to have a strong modeling effect on children (Busby, 1975; Nolan, Galst & White, 1977). Content analyses of commercials, children's shows and prime-time programming reveal that males and females are portrayed differently in the media. Male characters outnumber female characters two to one (Feldstein & Feldstein, 1982; Nolan et al., 1977; Sternglanz & Serbin, 1974), are more active, aggressive and constructive than females (Nolan et al., 1977; Sternglanz & Serbin, 1974), and receive more verbal approval/disapproval for

behaviors than do females (Nolan et al., 1977). Personality profiles likewise emphasize the predominance of male characters who are more powerful, smart, rational and stable than the attractive, sociable, warm female counterparts (Peevers, 1979; Tedesco, 1974).

Additionally, impact studies provide evidence that a significant relationship exists between television viewing and sex role stereotyping in children ages 3 to 6 (Beuf, 1974) and in elementary aged children (Frueh & McGhee, 1975).

Children's Literature

Sex Stereotyped Content: Conventional Picture Books. Although television is the dominant form of children's media (Sternglanz & Serbin, 1974), illustrated picture books, those designed specifically for young children, must also be considered as possible sources of sex role information. These books have special significance because of the societal values they transmit to children. From books children learn what behaviors are acceptable for both boys and girls, what roles will be appropriate for them when they grow up and what traits, attitudes and qualities are valued in the world outside their immediate environment. In addition, picture books provide children with influential and salient role models (Davis, 1984; Weitzman et al. 1972). Furthermore, picture books are usually the first books children experience, often in the context of the home, and are presented to children during an impressionable period when they are establishing their sexual identities. Because these books are frequently read and reread to children prior to the influence of schools and teachers, they may indeed prove to be significant in the socializing process.

Research into both the content and impact of picture books has provided insight into their importance in the lives of preschool children. Examinations of the content of children's literature, from the years 1938-1970 and 1950-1970, were undertaken by Weitzman et al (1972) and Nilsen (1971), respectively. The books evaluated in these studies included Caldecott award-winning books, Golden books, Newberry award-winners and children's etiquette books. These content analyses revealed that women were underrepresented in book titles, central character roles and illustrations in addition to being portrayed as passive, servant personalities. Boys, in contrast, were found to be active and independent, participating in outdoor adventures. Weitzman et al. found that males exhibited a much wider range of occupational possibilities while females were most often portrayed in the home or as achieving status through their relationships to men.

St. Peter (1979) substantiated these results in a study which analyzed the content of 163 picture books published between 1903 and 1975. Underrepresentation of female characters, overrepresentation of males in instrumental roles as well as male underrepresentation in expressive activities characterized the conventional picture books in the study. Furthermore, St. Peter found that males participated almost exclusively in instrumental roles (91% instrumental, 9% expressive) whereas females more evenly shared instrumental and expressive roles (47% instrumental, 53% expressive). This suggests that male stereotyping seems to be more severe than female stereotyping in conventional books.

In a replication of a 1972 study by Stewig and Higgs, Stewig and Knipfel (1975) analyzed 100 children's picture books published between

1972 and 1974 to determine whether a more realistic representation of women's roles, as encouraged by societal trends, was being presented in recently published books. These authors documented findings from the original study which indicated that women were portrayed in homemaker roles with twice the frequency they were shown as participants in community and professional activities. However, this study does suggest that "qualified" progress is being made to more fairly represent women since 32% of the women as compared to 17% in the earlier study, were involved in non-homemaking activities. Although teaching remained the predominant occupational role for women, greater diversification of non-homemaking roles was evidenced with women involved in medicine, law, theatre and music professions. These content analyses of conventional picture books are strongly indicative of stereotyped representations of both men and women.

In response to literature suggesting that stereotypes are pervasive, not only in children's television and literature, but in society as a whole, questions have recently been raised as to the effects these rigid sex role prescriptions have on young children. Several authors have purported that these deeply embedded stereotypes are potentially deleterious and dysfunctional due to their restrictive nature, which tends to oversimplify reality and narrow professional aspirations and long-term life experiences (Bem, 1975; Flerx et al. 1976; Gettys & Cann, 1981; Roddy et al. 1981; Weitzman et al. 1972). These limitations are said to inhibit and impoverish behaviors by confining children to conduct themselves according to sex-appropriate rules (Bem, 1975). Block (1976) criticized these traditional standards by declaring that "machismo dissimulates manhood, and hyper-femininity feigns womanhood" (p. 84).

As a result of these concerns and the empirical evidence regarding sexism in children's picture books (Mitchell, 1973; Nilsen, 1971; Stewig & Knipfel, 1975; Weitzman et al. 1972) and elementary readers (Women on Images and Words, 1975), several women's groups and organizations (Feminists on Children's Media, 1974; Women's Action Alliance, 1973) have pressed for nontraditional alternatives, specifically nonsexist books. These groups have compiled bibliographies of nonsexist books which portray females leading active, assertive, independent lives and pursuing a broad variety of goals and careers. Also recommended are books portraying males and females as equally intelligent, physical human beings as well as books in which males assume nurturant, sensitive roles. In response to charges of sexism in children's literature several publishing companies, e.g. Feminist Press; Lollypop Power, have been established to meet the demand for nonsexist literature.

Although the content of nonsexist books is purportedly different from conventional picture books, little empirical evidence is available to verify these claims. St. Peter (1979), comparing conventional books published between 1903 and 1975 with purportedly nonsexist picture books identified in Little Miss Muffet Fights Back, discovered comparatively greater preponderance of females in main character roles, book cover illustrations and book titles in the nonsexist book category than in conventional books. Furthermore, nonsexist books presented female characters as highly instrumental role models whereas male characters in these same books were found to be more expressive than in conventional books.

Davis (1984) conducted an analysis of sex differentiated behaviors exhibited by male and female characters in 96 picture books comprised of

children's best sellers, recent Caldecott award-winners and recommended nonsexist books (Feminists on Children's Media, 1974; Feminist Book Mart, 1975; Women's Action Alliance, 1973). Several behavioral differences between nonsexist and conventional (best sellers and award-winners) books were evident. Female characters in the nonsexist books were found to be highly independent; however, they also exhibited more emotional behaviors and less activity than males in all book categories. Additionally, nonsexist females evidenced a greater degree of nurturance than males in the conventional books. A less stereotyped male model demonstrating increased nurturance and decreased aggression than conventional book counterparts characterized the nonsexist books. These differences in nonsexist books, reflective of change in traditional sex role stereotyping of males and females, offer further verification that nonsexist and conventional books provide different role models for children.

Impact of Literature Upon Children's Behaviors, Memory and Recall, and Preferences

Because the content of nonsexist and conventional picture books has been found to differ in their depiction of male and female behaviors, activities and role descriptions as well as frequencies of male and female characters in story titles, covers and illustrations, it is important to determine if and how these books impact on children. Relatively little is known about these effects, as only a few studies have addressed this question directly.

Behavior

A significant relationship between children's behaviors and the stories read to them was documented by McArthur and Eisen (1976) who found preschool males more persistent at a task following a story about an achieving male than following one with an achieving female character exhibiting identical behaviors. Girls similarly tended to evidence greater task persistence following stories with achieving female characters than in those stories depicting an achieving male character.

Fischer and Torney (1976) examined the influence of story models on 5 year old children's dependent and independent behaviors as measured by requests for help (dependence) and withholding of help-seeking responses (independence). Children listened to a story in which the sex as well as the independent/dependent behaviors of the story character were varied. Following the story children were asked to complete a block design task. Those children exposed to a dependent story model tended to request help on the task sooner than children exposed to an independent story model. Also significant was the fact that girls in the experimental group requested help earlier than boys regardless of the modeled behavior in the story.

Memory

In addition to impacting children's behaviors of persistence and independence, further evidence of the impact of children's literature can be seen in the evaluation of both memory and recall following story presentations. McArthur and Eisen (1976) reported that male and female preschoolers exhibited better recall of story content when a same-sex achieving character was featured as opposed to an opposite-sex achieving

character. Greater recall also occurred for all subjects when males were portrayed in a stereotyped role than in a non-traditional role. Interestingly, the more males recalled about the stereotyped story, the longer their persistence on the block task thus indicating some correlation between persistence and recall. Conversely, the more girls remembered about a non-traditional story, the longer they persisted at the task.

Similar recall patterns were demonstrated by older children following a story. Koblinsky, Cruse and Sugawara (1978) found fifth grade students remembered more male characteristics of male characters and female characteristics for female characters after reading stories in which male and female characters both exhibited an equal number of masculine and feminine characteristics. Children were more proficient in citing behavioral descriptions rather than trait descriptions of the male and female characters.

In contrast to these findings, Jennings (1975) found preschoolers' recall was better when the story character's sex role was atypical, that is, when a male portrayed feminine behaviors rather than masculine behaviors or a female demonstrated masculine rather than feminine behaviors. Jennings suggested that these findings may indicate the effect of novelty or the departures from cultural norms on children's memory.

Although the data is not conclusive and it is therefore difficult to make clear generalizations regarding the relationship between children's literature and children's behaviors and memory, the research does seem to suggest that both the sex and behavior of a story character does in some way impact the listener's behaviors and ability to recall. Boys seem to be affected by male characters and girls seem to be

affected by female characters. The data is inconsistent as to whether traditional or non-traditional role models have the greatest impact on children.

Sex Preferences and Stereotypes

Do children, upon hearing a story, prefer a character of the same or opposite sex as themselves? Connor and Serbin (1976) found that fourth, sixth and eighth grade boys and girls who had read stories from third grade readers in which the sex of the main characters was varied evidenced same-sex preferences for main characters. Boys liked stories about males, and older girls tended to prefer stories with female characters. A general masculine bias of more favorable responses emerged when children were asked "Would you like to be (character's name)?" and "Would you like to do the things (character's name) did?" Boys also tended to be more sensitive to the sex of the main character than girls and less accepting of stories about girls than girls were about accepting male story characterizations.

At the preschool level McArthur and Eisen (1976) similarly found a strong same-sex preference with 90% of the boys and 96% of the girls identifying with the central character of the same sex. Jennings (1975) also documented preschoolers preference for same-sex characters who display behaviors consistent with their sex. Girls preferred the female ballerina to the female mail carrier just as boys preferred the male mail carrier to the male dancer. In a study of preschoolers affective responses to a story sequence, Deutsch (1975) found significant interaction between the sex of the child and the sex of the story character. Children's empathetic responses to questions about how the main char-

acter would feel were more accurate on stories with a same-sex character than on stories with an opposite-sex character. This seems to suggest that children's same-sex preferences for a story character are related to their ability to correctly perceive the feelings that character would experience within a story scenario. This data likewise seems to indicate that children's preferences for same-sex characters in literature closely parallel the societal stereotypes for males and females. For example, boys prefer achieving males (McArthur & Eisen, 1976) in traditional occupational roles (Jennings, 1975), whereas, girls prefer female story characters, yet at the same time, they value the role and activity of male story characters (Connor & Serbin, 1976).

If conventional children's literature reinforces these traditional stereotypes which may prove restrictive to children's healthy development, what will occur as children are exposed to literature which portrays males and females in non-traditional roles? Although limited in number, studies have revealed that literature in which females participate in traditionally male roles and males perform characteristically female roles does effect the beliefs and conceptions children hold regarding sex roles.

Scott and Feldman-Summers (1979) presented third and fourth grade students with a series of stories portraying either a majority of males or a majority of females as main characters. Students exposed to female main characters engaging in traditionally male roles were more likely to believe the described activity could indeed be appropriate for women than did children who read stories with male characters in the same role. Children could conceptualize the specific non-stereotyped activity presented in the story as appropriate for females, yet they had

difficulty generalizing this belief to roles and activities not specifically addressed in the story.

Similar results were documented by Ashby and Wittmaier (1978) who measured attitude changes in fourth grade girls after they listened to one story about women in traditional roles and one story portraying women in non-traditional roles. Girls who heard non-traditional stories were more likely to rate traditionally male occupations and characteristics as appropriate for women than girls who heard traditional stories.

Both Scott and Feldman-Summers (1979) and Ashby and Wittmaier (1978) present data indicating that at least in terms of story content, non-traditional representations have an effect on school-age children. However, it is still unclear as to the effect of non-stereotyped picture book role models and character portrayals on preschool age children's sex role stereotypes. If, indeed, a link can be established between characterizations of males and females in children's books and young children's beliefs about males and females, then a valuable instrument for establishing healthy sex role concepts as well as for breaking down existing stereotypes can be utilized. In assessing these various studies on the impact of children's literature on the behavior, memory, preferences and stereotypes of young children it is apparent that the evidence is limited. Although lacking in consistency in terms of direction, preliminary evidence seems to suggest that nonsexist characterizations do effect sex role attitudes and beliefs exhibited by children.

Intervention Efforts to Modify Sex Role Stereotypes

With this limited evidence as a basis, research has further exam-

ined the possibility of using literature as a specific tool for modifying sex role attitudes in children.

Guttentag and Bray (1976) introduced a 6-week nonsexist curriculum into the classes of kindergarten, fifth and ninth grades. The intervention at the kindergarten level consisted of role-playing, reading stories, class discussions, and music and art experiences geared toward expanding children's perceptions of male and female occupational possibilities. Pretesting at the kindergarten level revealed little more than the fact that children do have strong beliefs that males and females do very different things. At the post test these children were able to name many more occupations for women than at the pre-test, and the number of jobs children perceived as acceptable for both men and women increased dramatically. The authors, providing no statistical data to support their conclusions, stated, "It was clear that kindergartners' attitudes were influenced by the ideas presented in the curriculum units" (p. 281). Based on data from an experimental group only, Guttentag and Bray determined that attitude changes at all age levels showed significant positive changes following intervention; they further generalized that intervention programs can successfully be geared to any age level.

Operating under the assumption that the older children are, the more difficult it becomes to modify conventional sex role attitudes and beliefs, Roddy, Klein, Stericker and Kurdek (1981) initiated a home-based short-term intervention program (total of 13 hours) to reduce stereotypes in children ages 4 to 5½. Mothers were not employed outside the home and were trained to initiate and supervise two 40-minute play sessions twice a day for 10 days. The experimental group's sessions

included listening to stories and songs representing males and females in non-traditional roles and playing with toy materials considered to be nonsexist. The control group heard the same stories as the experimental group except the characters were portrayed in conventional roles; songs and stories for the control group were from Mother Goose literature. Girls in the control group were given toys that the boys in the experimental group played with; control group boys used the same toys as the experimental group girls. The researchers found little support for their hypothesis that sex role stereotypes would be reduced for the experimental group. But, Roddy et al. suggest that the 13 hours of intervention represent a small portion of the input received daily by the children and may not have been powerful enough to elicit measurable changes in stereotype perception.

Only two studies have specifically examined the use of picture books to modify sex role stereotypes in preschool children. Flerx et al., (1976) designed an experimental manipulation consisting of literature presentations to 47 4- and 5-year old subjects for 30 minutes a day over a five day period of time. The egalitarian treatment group heard stories selected from surveys listing books in which males and females assume non-traditional roles, whereas the control group was read traditional story books. Using a pre-test/post-test design the researchers incorporated a doll choice testing technique to determine sex role stereotypes, including attitudes about intelligence, play and work activities, androgynous activities and dimensions of affective-expressiveness for both children and parents. Results of the literature intervention supported the hypothesis that books which portrayed characters contradicting traditional sex role stereotypes reduced stereo-

typing and increased egalitarianism in children more than books modeling traditional sex roles. Boys were not as strongly affected by the treatment as were girls, and the impact more positively effected 5 year olds than 4 year olds.

List (1976) also approached modification of sex role stereotypes in 4 and 5 year olds with a literature intervention consisting of 12 egalitarian stories accompanied by a series of questions for each book asked following its presentation. The 12 story sessions extended over a 4 week period of time and appeared to successfully reduce some sex-typed responses in the experimental group. When questioned in the post-test about who should perform stereotypically male and female adult jobs and chores, the experimental group showed less stereotyping than did the control group. Experimental group females responded less stereotypically than control group females regarding questions about boys' and girls' behavioral characteristics, whereas control and experimental group males had no significant differences in their responses. However, the intervention had no effect in changing attitudes regarding what children would be when they grow up, what they would be if they were a person of the opposite sex, and which of three toys (masculine, feminine or neutral) they would choose if they could keep it. Thus, some conventional sex-role attitudes appeared to change following intervention while others remained the same.

Summary and Statement of the Problem

Throughout the early preschool years children's sex role concepts are formed and established. Recently, the media, and more specifically, children's literature has been examined to determine its role in the

socialization of sex-linked concepts and stereotypes. Content analyses of conventional picture books reflect a close parallel between the characterizations of males and females in the literature and commonly held stereotypes for males and females in our society. A newer body of nonsexist literature has emerged which purportedly portrays male and female characters as more flexible, less stereotyped role models. Analyses comparing conventional books and nonsexist books suggest that representations of males and females are different not only in male/female behaviors, activities and role enactments, but also in the frequencies of male and female characters in story titles, covers and illustration.

Research designed to determine whether or not literature characterizations in any way impact children's behaviors, preferences and concepts has generated inconsistent results. Behaviors such as independence and persistence seem to increase following story presentations in which same-sex main characters exhibited these traits. However, conflicting findings exist regarding the effects of literature on memory and recall with some data indicating children remember more about a story when characters exhibit stereotypical behaviors and other results suggesting that memory skills increase when story characterizations are non-traditional in their roles and behaviors. Additionally, children evidence same-sex preferences for male and female characters in literature, and these characterizations tend to reflect societal stereotypes for males and females.

Since conventional books tend to portray males and females in highly stereotyped roles, additional research has attempted to assess the impact of nonsexist literature on children's behaviors and concepts. At

both the elementary and preschool levels there is documentation which indicated that stereotypes are reduced following nonsexist literature interventions. However, in two of the studies with preschoolers (Guttentag & Bray, 1976; Roddy et al., 1981) literature was only part of larger intervention packages which included other elements such as toys, songs, art, and verbal discussions. In two studies in which literature was the sole intervention agent (Flerx et al., 1976; List, 1976) there was a general trend in the direction of reducing stereotypes and increasing egalitarianism; however, age and sex variables effected the impact of the stories on reducing stereotypes. List found stereotypes to be decreased for males and females regarding roles and occupational choices, yet attitudes concerning toy choices and personal future roles children were unchanged.

The research examining the impact of picture books on young children's sex role conceptions is limited and not strongly consistent, suggesting that further research is necessary to clarify this issue. The present study was undertaken with this in mind, and was intended to assess the impact of conventional and nonsexist picture books on the sex role concepts of preschool-age children. Forty, 3 - 5 year old children were randomly assigned to two groups--one hearing only stories selected from award-winning and best-selling books (Conventional Books), and the other listening only to stories which are purportedly nonsexist in their portrayals (Nonsexist Books). The interventions included reading one story a day to children in each group, 5 days a week, for one month. A pretest/posttest design was employed to determine the effect of these respective classes of books on children's sex role concepts. Given the differences between conventional and non sexist picture books

in their portrayal of males and females, group differences at the post-test were expected.

Hypothesis 1: Children in the nonsexist book group will exhibit significantly fewer sex stereotyped concepts than children in the conventional book group at the conclusion of the intervention.

Based on evidence suggesting that male traits are more highly desired than female traits (Rosenkrantz et al., 1968) and that boys reject stories about girls more readily than girls reject stories with male characters (Connor & Serbin, 1978), it was expected that:

Hypothesis 2: Girls in the nonsexist book group will display significantly fewer sex stereotyped concepts than boys in this group at the conclusion of the intervention.

METHODS

Subjects and Design

The sample was comprised of 40 preschool children (20 males and 20 females) from the three Kansas State University laboratory schools. (Mean age = 4 year 5 months; range = 3 years, 0 months to 6 years, 0 months.) Children were primarily from middle income families with parents being university faculty and staff, students or community professionals. Thirty-four of the 40 children were from two-parent homes, and all spoke English as a primary language.

Children were divided into an older and younger group via a median split (older mean age = 5.0, males = 4.9, females = 5.05; younger = 3.78, males = 3.9, females = 3.62) resulting in 10 boys and 10 girls in each group. An equal number of older and younger boys and girls were randomly assigned to two treatment groups: one group which was read stories from 20 conventional picture books and the other group which heard stories from 20 nonsexist picture books. All books were read by the experimenter, one story a day, for four weeks. Daily reading time was approximately 15 minutes per group.

Parent permission was obtained for children's participation in the study. A copy of the parent letter is included in Appendix A. Although the parents and teachers were aware that the study involved an assessment of the impact of picture books on young children's concepts, they were not aware of the specific hypotheses under study, nor were they aware of the treatment group assignment of individual children.

Materials

Book Sample

The books read to the children were selected from a collection of books (Davis, 1984) which included 96 conventional and 50 nonsexist books published or popular during the years 1965 - 1975. The following criteria were established for all books included in this sample:

1. A male or female main character must be included, both by a mentioned name in the text and representation in at least 30 % of the illustrations.
2. The book must contain one or more plots or story lines thereby eliminating alphabet and counting books.
3. Each book must have both story text and illustrations, thus excluding wordless books from the sample.

In selecting books for this study a deliberate attempt was made to choose books that had succinct texts and vivid, colorful illustrations to maintain the interest of younger subjects with short attention spans. A complete list of both conventional and nonsexist books used in this study can be found in Appendix B.

The 20 conventional books in this study consisted of Caldecott award winners and runners-up and best-selling/popular picture books. Best-sellers were selected from the New York Times Book Review's Children's Best Sellers lists between 1965 and 1972, at which time the list was discontinued; and from publisher's lists of children's picture books with sales figures exceeding 100,000 in one or more years during this 10 year period.

Nonsexist books were chosen from recommended bibliographies published by the Feminists on Children's Media (1974), Feminist Book Mart (1975), Women's Action Alliance (1973) and from book publishers,

Feminist Press and Lollypop Power. These books, as reviewed by selected librarians, teachers, editors, writers and reviewers, purportedly provide nonstereotyped role models for boys and girls by presenting both males and females engaging in physical and intellectual activities, equally pursuing diverse career and vocational choices, and exhibiting a variety of social and emotional traits. Preliminary analyses of non-sexist books by St. Peter (1979) and Davis (1984) substantiate claims by feminists and women's groups that nonsexist books portray males and females in different roles, behaviors and activities than do conventional books in addition to providing greater frequencies of females in main character roles, pictures and book titles.

In the 20 nonsexist books selected for this sample five of them portrayed women in a variety of nontraditional occupational roles, i.e., doctor (My Doctor), veterinarian (What Can She Be? A Veterinarian), researcher, mail carrier, and television director (Mothers Can Do Anything, Mommies at Work) in addition to presenting women in traditional roles such as mother, teacher, dancer and librarian. Two books specifically projected adult males as warm, loving, nurturant fathers who enjoy interacting with and caring for their children (A Father Like That, The Summer Night). The other 13 nonsexist books focused on children in nontraditional roles and activities in which girls dreamed of being boat captains (Hurray for Captain Jane!), monsters (Millicent the Monster), pilots and United States President (Girls Can Be Anything); and boys enjoyed playing with dolls (Williams Doll) and teddy bears (Ira Sleeps Over) and caring for baby brothers (Go & Hush the Baby). Several books show both boys and girls engaging in household activities such as playing dress up (Tommy and Sarah Dress-Up), setting the table and doing

dishes, while others presented boys and girls hunting treasures and building things (Boys and Girls, Girls and Boys).

Instrument

An instrument developed by Kuhn et al. (1978) for assessing pre-school-age children's beliefs (stereotypes) about male and female attributes was employed in this study. This instrument consisted of a series of 72 situational stimuli and verbal descriptors identifying evaluating children's concepts about the appropriateness of particular activities, future roles and traits for males and females (36 male stereotyped and 36 female stereotyped items).

The activities section of the task consisted of pictures accompanied with verbal statements and included, among others, play equipment, e.g. a kite, sliding board, and tricycle ("I like to play outside"), a doll ("I like to play with dolls"), trains ("I like to play with trains"), a tree ("I like to climb up a tree"), and two stick figures hitting one another ("I like to fight"). Similarly, the 12 pictures for future roles included a baby and bottle ("When I grow up I'll take care of babies"), a lawn mower ("When I grow up I'll mow the grass"), dirty dishes stacked by a kitchen sink ("When I grow up I'll wash the dishes"), an airplane ("When I grow up I'll fly an airplane"), and cleaning equipment such as a vacuum, broom, bucket and scrub brush ("When I grow up I'll clean the house"). Concepts about male and female traits were assessed only with verbal statements and included, among others, "I'm a slow runner," "I never cry," "I'm strong," "I'm quiet," "I'm smart," "I'm naughty," and "I'm going to be first."

For each section of the task children were given two paper dolls, a

male named Michael and a female named Lisa, and were asked to select the doll they believed would have made the statement for each of the 72 items. In addition to assessing concepts about male/female activities, future roles and traits, gender identity was also evaluated by asking children a series of six gender-related questions tapping gender identity (e.g., ("Are you a boy or a girl?"), gender stability (e.g., "When you grow up will you be a man or a woman?"), and gender consistency (e.g., "If you put on boy's/girl's clothes could you be a boy/girl?"). The complete sex role concept interview is presented in Appendix C.

Dependent Measure

Sex Role Concepts. Responses to questions and statements regarding male and female activities, future roles and traits were scored by assigning 1 point if the doll choice correctly matched the predetermined stereotype, i.e., selection of Michael for male stereotype items and Lisa for female stereotype items; a total score of 36 points was possible for male stereotypes and 36 points for female stereotypes with the categories for each as follows: 9 points - activities, 6 points - future roles, 21 points - traits. The higher the score, the greater the degree of stereotyping; conversely, the lower the score the less the stereotyping.

Gender-Identity. Children were assigned 1 point for each of the six questions presented to determine the level of gender understanding if their responses were accurate for their own sex. Thus, a maximum score of 6 reflected the highest level of gender identification.

Procedure

Prior to collecting data, the experimenter, in this case the author, spent several hours in each laboratory school interacting with the children to become familiar with them and to lessen their anxiety once the testing began. Each subject was individually administered the sex role concept test over a 5-day period of time. Children were escorted to a quiet area which was removed from classroom activities and noises, for the interview, a series of five individual sessions none of which exceeded 15 minutes.

Sex Role Concepts and Gender Identity

Session 1. To familiarize subjects with the interview procedure the child was presented with a male and female paper doll and told, "Here are some pictures of two children who go to a nursery school like yours. One's name is Lisa and the other's name is Michael. Which one is named Lisa? Which one is named Michael?" The child was corrected if responses were inappropriate. The interview continued with, "We're going to play a guessing game. I'm going to tell you some things that one of these children said, and I'd like you to guess who said it, Michael or Lisa, O. K?" The following four statements were made:

1. My name is Lisa.
2. My name is Michael.
3. I'm a boy.
4. I'm a girl.

Following this introduction the experimenter continued, "Now we'll play the guessing game using some pictures I have. These are pictures of things that nursery school children, just like you, do and play. I

will show you a picture and tell you what someone said. Then you can tell me who you think said it, Michael or Lisa. Put the one who said it, Lisa or Michael, in the picture, O.K? Let's play the game."

Pictures dealing with activities were shuffled prior to each presentation to insure randomization.

Session 2. The procedure was the same as before except that item pictures and statements dealt with future roles.

Sessions 3 and 4. Again, a similar procedure was used to evaluate traits; however only verbal statements were given. No accompanying sketches were presented to the children. Children were encouraged to listen carefully and to hand the experimenter the doll they thought would have said the given statement. Two traits from Kuhn et al. interview were deleted in this study because of their close similarity to other traits described in the interview. The 72 traits were divided into two groups, the first half of which were administered on one day and the second half on the following day, to avoid adjacent placement of "opposite" items (I'm fast. I'm slow).

Session 5. The child was asked the following series of questions to determine their level of gender identity and constancy.

1. Are you a boy or girl?
2. When you're 10 will you be a boy or girl?
3. When you grow up will you be a man or a woman?
4. If you have children when you grow up will you be a mommy or daddy?
5. If you put on boy's (girl's) clothes, could you be a boy (girl)?
6. If you wanted to, could you be a daddy (mommy) when you grow up?

Story Telling Intervention

For participation in the story intervention children were taken in groups of three or four, including an older and younger male and female, to an isolated room within the school. Children sat in a semi-circle on the floor facing the reader who sat on a low chair. Books were held open so that children could view the illustrations throughout the entire reading. No introduction was given prior to reading the stories, and every effort was made to avoid discussion of story content. No comments were added to story texts. If children asked questions during or after the story the reader responded with, "What do you think?" or she would briefly clarify those questions which clearly reflected confusion or misunderstanding.

So that children were alert and attentive stories were read during the morning in the full-day programs and at the beginning of the school day, either early morning or early afternoon, to children in half-day programs. When a child appeared to be restless during a story the reader would pause and verbally encourage the child to sit quietly and listen. At the conclusion of the story children were immediately taken back to the classroom, avoiding conversation related to the story.

When children from all four laboratory schools were periodically absent throughout the literature intervention, stories were made-up on subsequent days, thus insuring that children heard all twenty stories. Books for absentees were read to groups of children when possible; otherwise, the individual child heard the story in a one-to-one situation with the reader.

Following the 4-week book intervention children were once again

administered the sex role concept interview using the same prescribed procedure.

Reliability

Kuhn et al. (1978) reported test-retest reliability coefficients for this instrument ranging from .80 to .99 in a subsample of 10 children in their study. This investigator administered the Kuhn et al. instrument to 20 children, 5 each from the Kansas State University laboratory school sample; Sunwheel Preschool, Manhattan, Kansas; the Abilene Community Nursery School, and the Dickinson County Child Care Center, both in Abilene, Kansas. Two weeks later the instrument was readministered to these same children. Test-retest reliability of the instrument was determined in two ways: product moment correlation and percentage of agreement.

In terms of the former, the total number of times the 20 children chose the male doll for the 36 male stereotype items, and the female doll for the 36 female stereotype items at times 1 and 2 were correlated, yielding r values of .91 and .92 respectively. The correlation between test and retest frequencies across all 72 items was $r = .92$. Percentages of agreement between responses at time 1 and 2 for each child were calculated in the following manner: total number of agreements divided by total number of agreements and disagreements. This procedure yielded test-retest agreement for male stereotype items of 95.81%, 95.45% for female stereotype items, and 95.12% for all 72 items.

RESULTS

The principal question being addressed in this study concerned the differential effects of conventional and nonsexist picture books of pre-school children's sex role concepts. In order to assess the effects of hearing either conventional or nonsexist stories daily over the course of a month, a pretest-posttest experimental design was employed, with children's conceptions of sex-linked activities, future roles, and traits serving as the major dependent measures. Table 1 provides an overall summary of the male and female sex role concept scores (means

Table 1

Mean Sex Role Concept Scores of Children in the Conventional and Nonsexist Book Groups at the Pretest and Posttest Assessments.

<u>Sex Role Concepts</u>	<u>Conventional Books</u>				<u>Nonsexist Books</u>			
	<u>Pretest</u>		<u>Posttest</u>		<u>Pretest</u>		<u>Posttest</u>	
	<u>\bar{X}</u>	<u>SD</u>	<u>\bar{X}</u>	<u>SD</u>	<u>\bar{X}</u>	<u>SD</u>	<u>\bar{X}</u>	<u>SD</u>
<u>Male: (n=20)</u>								
Activities	6.00	1.62	6.20	2.24	6.55	1.67	6.40	2.01
Future Roles	4.85	1.35	4.20	1.64	4.50	1.43	4.35	1.23
Traits	13.80	3.46	12.60	3.28	12.70	3.54	13.15	3.88
<u>Female: (n=20)</u>								
Activities	5.70	2.08	6.70	1.49	6.35	1.69	6.20	2.28
Future Roles	4.70	.98	4.50	1.15	3.80	1.40	4.75	1.29
Traits	12.35	2.69	12.35	2.23	11.95	3.80	12.45	2.76

for Activities, Future Roles, and Traits) of children in the Conventional and Nonsexist book groups at both the pretest and posttest assessments. The lower the score, the lower the degree of stereotyping. An examination of the pretest-posttest scores for each group reveals relatively small mean differences, indicating little overall change as a result of the intervention. Further, the posttest means of the Conventional and Nonsexist groups are also quite similar, raising immediate doubts about the principal hypothesis under investigation. However, before testing for group differences at the posttest, it was necessary to test for any differences between the groups at the pretest. This was done via a 2 x 2 x 2 (Age x Sex x Treatment) Analysis of Variance on pretest sex role concept scores of the Conventional and nonsexist book groups. A summary of these analyses are presented in Tables 2 - 7.

The analysis of pretest male activities concepts (Table 2) revealed

Table 2

Pretest ANOVA Summary: Male Activities

<u>Variable</u>	<u>df</u>	<u>SS</u>	<u>F</u>	<u>p</u>
Age	1	3.025	1.30	.2625
Sex	1	7.225	3.11	.0875
Age X Sex	1	1.225	0.53	.4732
Treatment	1	3.025	1.30	.2625
Age X Treatment	1	0.225	0.10	.7578
Sex X Treatment	1	1.225	0.53	.4732
Age X Sex X Treatment	1	15.625	6.72	.0142*

*p < .05

no main effect for treatment, but there was an interaction effect involving treatment, age, and sex. A post hoc analysis (Least Signifi-

cant Differences Test) indicated that the pretest scores of the young females in the Conventional group (mean = 4.40) were significantly lower than those of the young males (mean = 7.20) and older females (mean = 6.40) in the Conventional group, as well as the young females (mean = 6.40) and older males/females (mean = 7.60) in the Nonsexist group.

The analysis of pretest future role scores (Table 3) revealed an Age x Sex interaction, with the scores of the young females (mean = 3.60) significantly lower than those of either the young males (mean = 5.30) or the old females (mean = 5.10). There were no treatment differences, or interactions involving treatment.

Table 3

Pretest ANOVA Summary: Male Future Roles

<u>Variable</u>	<u>df</u>	<u>SS</u>	<u>F</u>	<u>p</u>
Age	1	2.025	1.19	.2832
Sex	1	4.225	2.49	.1248
Age X Sex	1	11.025	6.49	.0159*
Treatment	1	1.225	0.72	.4023
Age X Treatment	1	0.625	0.37	.5486
Sex X Treatment	1	0.625	0.37	.5486
Age X Sex X Treatment	1	0.625	0.37	.5486

*p < .05

Table 4 presents the analysis of pretest male trait scores. In this case, a significant effect for sex was obtained, with the scores for males (mean = 14.75) significantly exceeding those of females (mean = 11.75) in terms of their conceptions of male traits. Again, no main effect for treatment nor interactions involving treatment were obtained.

Table 4

Pretest ANOVA Summary: Male Traits

<u>Variable</u>	<u>df</u>	<u>SS</u>	<u>F</u>	<u>p</u>
Age	1	3.600	0.36	.5525
Sex	1	90.000	9.01	.0052**
Age X Sex	1	16.900	1.69	.2026
Treatment	1	12.100	1.21	.2792
Age X Treatment	1	0.000	0.00	1.0000
Sex X Treatment	1	6.400	0.64	.4293
Age X Sex X Treatment	1	28.900	2.89	.0986

**p < .01

In sum, although the children were randomly assigned to the Conventional and Nonsexist book groups the groups did differ at the outset in their conceptions of male activities.

The pretest analyses of children's concepts of female activities, future roles, and traits are presented in the next series of tables. Table 5 contains the summary of the analysis of female activities. This analysis revealed no main effects and no interactions.

Table 5

Pretest ANOVA Summary: Female Activities

<u>Variable</u>	<u>df</u>	<u>SS</u>	<u>F</u>	<u>p</u>
Age	1	2.025	0.53	.4721
Sex	1	5.625	1.47	.2341
Age X Sex	1	0.625	0.16	.6887
Treatment	1	4.225	1.10	.3011
Age X Treatment	1	1.225	0.32	.5754
Sex X Treatment	1	4.225	1.10	.3011
Age X Sex X Treatment	1	0.625	0.16	.6887

Table 6 presents the analysis of female future roles, and reveals a significant main effect for treatment. Post hoc analysis indicated that

the children's scores for female future roles in the Conventional group (mean = 4.70) significantly exceeded those of children in the Nonsexist group (mean = 3.80).

Table 6

Pretest ANOVA Summary: Female Future Roles

<u>Variable</u>	<u>df</u>	<u>SS</u>	<u>F</u>	<u>p</u>
Age	1	3.600	2.80	.1042
Sex	1	2.500	1.94	.1731
Age X Sex	1	3.600	2.80	.1042
Treatment	1	8.100	6.29	.0174*
Age X Treatment	1	0.400	0.31	.5811
Sex X Treatment	1	2.500	1.94	.1731
Age X Sex X Treatment	1	1.600	1.24	.2733

*p <.05

The last analysis of pretest scores on children's conceptions of female traits are presented in Table 7. No main effects (although close for age) and no interactions were obtained for female traits.

Table 7

Pretest ANOVA Summary: Female Traits

<u>Variables</u>	<u>df</u>	<u>SS</u>	<u>F</u>	<u>p</u>
Age	1	36.100	3.87	.0580
Sex	1	12.100	1.30	.2634
Age X Sex	1	16.900	1.81	.1880
Treatment	1	1.600	0.17	.6817
Age X Treatment	1	32.400	3.47	.0717
Sex X Treatment	1	19.600	2.10	.1571
Age X Sex X Treatment	1	25.600	2.74	.1075

Thus, pretest treatment group differences were obtained in one domain in the analyses of children's conceptions about females (i.e., future roles), just as there was one difference in male conceptions

(i.e., activities).

In order to test the principal hypothesis under investigation here, that the Nonsexist group would exhibit fewer sex role stereotypes than the Conventional book group, an analysis of posttest scores was planned. However, due to differences between the groups in male activities and female future roles at the pretest, a $2 \times 2 \times 2$ (Age x Sex x Treatment) analysis of covariance was run on the posttest scores, with male activities (MA) and female future roles (FFR) as covariates. The analyses of children's conceptions of male activities, future roles and traits are presented in the following tables.

Table 8 presents the analysis of male activities, and it reveals no treatment effect or interactions, although age was nearly significant (younger child mean = 7.28; older child mean = 6.05).

Table 8

Posttest ANCOVA Summaries: Male Activities

<u>Variable</u>	<u>df</u>	<u>SS</u>	<u>F</u>	<u>p</u>
Age	1	13.799	3.85	.0560
Sex	1	0.502	0.14	.7071
Age X Sex	1	0.542	0.16	.6963
Treatment	1	1.741	0.50	.4859
Age X Treatment	1	0.897	0.26	.6160
Sex X Treatment	1	2.844	0.81	.3739
Age X Sex X Treatment	1	0.003	0.00	.9780
Pretest MA	1	0.384	0.10	.7542
Pretest FFR	1	0.384	0.10	.7542

The analysis of male future roles is presented in Table 9, and it shows a significant Age x Sex x Treatment interaction effect. Post hoc analyses revealed that the male future roles scores of the young females in the Conventional group were significantly lower (mean = 2.56) than

Table 9

Posttest ANCOVA Summaries: Male Future Roles

<u>Variable</u>	<u>df</u>	<u>SS</u>	<u>F</u>	<u>p</u>
Age	1	0.829	0.60	.4463
Sex	1	1.209	0.87	.3588
Age X Sex	1	3.278	2.35	.1354
Treatment	1	0.419	0.30	.5870
Age X Treatment	1	1.878	1.35	.2546
Sex X Treatment	1	3.012	2.16	.1518
Age X Sex X Treatment	1	6.671	4.79	.0365*
Pretest MA	1	1.870	1.34	.2556
Pretest FFR	1	3.008	2.16	.1520

* $p < .05$

those of the young males (mean = 5.02), older males (mean = 4.25), and older females (mean = 4.81) in the Conventional group, as well as the young females (mean = 4.70) and older females (mean = 4.27) in the Nonsexist group. These results do not provide support for the hypothesis. They point instead to the fact that one of the subgroups (young females in the Conventional group) was significantly different from virtually every other subgroup for some reason or other at the posttest assessment.

Table 10 contains the analysis of male traits at the posttest. No treatment effects or interactions involving treatment were obtained for male traits. However, a substantial sex effect was found, with the scores for boys (mean = 14.33) significantly exceeding those for girls (mean = 11.42).

Table 10

Posttest ANCOVA Summaries: Male Traits

<u>Variable</u>	<u>df</u>	<u>SS</u>	<u>F</u>	<u>p</u>
Age	1	0.945	0.13	.7244
Sex	1	69.825	9.36	.0046**
Age X Sex	1	19.080	2.56	.1202
Treatment	1	0.288	0.04	.8455
Age X Treatment	1	0.582	0.08	.7819
Sex X Treatment	1	4.643	0.62	.4363
Age X Sex X Treatment	1	2.260	0.30	.5860
Pretest MA	1	1.707	0.23	.6358
Pretest FFR	1	68.108	9.13	.0051**

**p < .01

In summary then, the expected differences between the Nonsexist and Conventional book groups in the children's conceptions of male sex roles did not materialize in this study. In general, the treatments did not differentially affect this sample of preschool children.

The analyses of female sex role conceptions are presented in the following tables. Table 11 shows the results of the ANCOVA on female activities, and reveals no treatment effects or interactions.

Table 11

Posttest ANCOVA Summaries: Female Activities

<u>Variable</u>	<u>df</u>	<u>SS</u>	<u>F</u>	<u>p</u>
Age	1	3.404	1.00	.3242
Sex	1	1.826	0.54	.4686
Age X Sex	1	0.066	0.02	.8900
Treatment	1	0.424	0.12	.7262
Age X Treatment	1	0.714	0.21	.6494
Sex X Treatment	1	0.651	0.19	.6644
Age X Sex X Treatment	1	1.344	0.40	.5335
Pretest MA	1	17.770	5.24	.0292*
Pretest FFR	1	3.392	1.00	.3251

*p < .05

The analysis of female future roles is presented in Table 12. It shows a significant Age x Sex x Treatment interaction effect. Post hoc analyses revealed that the scores of the young males in the Nonsexist group were lower than the young males in the Conventional group (means = 3.34 vs. 4.99); but, they were also lower than the young females (mean = 4.90), older males (Mean = 4.90), and older females (mean = 5.16) in the Nonsexist book group. Further, the scores of the latter group were also greater than those of the younger females (mean = 3.71) and older males

Table 12

Posttest ANCOVA Summaries: Female Future Roles

<u>Variable</u>	<u>df</u>	<u>SS</u>	<u>F</u>	<u>p</u>
Age	1	1.331	1.26	.2710
Sex	1	1.072	1.01	.3220
Age X Sex	1	0.428	0.40	.5295
Treatment	1	0.661	0.62	.4354
Age X Treatment	1	2.717	2.57	.1195
Sex X Treatment	1	2.873	2.72	.1098
Age X Sex X Treatment	1	6.189	5.85	.0219*
Pretest MA	1	0.025	0.02	.8782
Pretest FFR	1	0.353	0.33	.5674

*p < .05

(mean = 3.76) in the Conventional book group. Thus, while one of the Nonsexist subgroup scores were very low (young males), scores of another Nonsexist group (older females) were very high. The pattern of results was not consistent with the hypothesis under investigation.

The final analysis on female traits is presented in Table 13. Here again, no treatment or interaction effects were obtained.

In summary, as was the case in the analyses of children's conceptions of males, the sex role concepts children held about females after

exposure to nonsexist picture books were generally not different from

Table 13

Posttest ANCOVA Summaries: Female Traits

<u>Variable</u>	<u>df</u>	<u>SS</u>	<u>F</u>	<u>p</u>
Age	1	1.420	0.25	.6212
Sex	1	1.005	0.18	.6775
Age X Sex	1	1.405	0.25	.6231
Treatment	1	5.472	0.96	.3349
Age X Treatment	1	1.120	0.20	.6606
Sex X Treatment	1	0.112	0.02	.8894
Age X Sex X Treatment	1	2.008	0.35	.5571
Pretest MA	1	30.975	5.44	.0266*
Pretest FFR	1	0.941	0.17	.6874

*p < .05

those of children exposed to conventional picture books. Thus, the directional differences predicted in the hypothesis were not realized.

Before concluding that the intervention failed to bring about the expected changes in preschool children's sex role concepts, it should be recalled that in addition to the development of sex role stereotypes during the early years of life, children are also developing their own sense of gender identity. And it is probable that considerable variation exists among preschool children in their understanding of their own gender identity, stability, and consistency. Level of gender understanding was assessed during the pretest screening of the children in this sample. In order to determine if the children in the conventional and nonsexist book groups differed in gender identity, an Analysis of Variance was run on the gender identity scores. This analysis, presented in Table 14 revealed a sex difference but no treatment group difference and no interaction effects. Post hoc analysis of the sex

effect indicated that the level of gender identity of the females consistently exceeded that of the male children in this sample (mean scores = 5.40 vs. 4.70).

Table 14

Pretest ANOVA: Gender Identity

<u>Variable</u>	<u>df</u>	<u>SS</u>	<u>F</u>	<u>p</u>
Age	1	1.600	1.38	.2494
Sex	1	4.900	4.22	.0483*
Age X Sex	1	0.400	0.34	.5616
Treatment	1	0.000	0.00	1.0000
Age X Treatment	1	0.900	0.77	.3855
Sex X Treatment	1	0.000	0.00	1.0000
Age X Sex X Treatment	1	0.900	0.77	.3855

*p <.05

The gender identity scores of the children were then entered into a second series of posttest analyses of sex role concepts as an additional covariate, i.e., the analyses of male and female activities, future roles, and traits at the posttest were run again with pretest MA, pretest FFR, and pretest ID (gender identity) as covariates. These results were virtually identical to those presented in Tables 8-13. Thus, even after controlling for level of gender identity, the predicted differential effects of nonsexist and conventional picture books were not obtained.

The second hypothesis under investigation here predicted that the sex role stereotyped conceptions of preschool boys would significantly exceed those of girls. Table 15 presents the mean posttest scores for boys and girls in each dimension of sex role tapped by the Sex Role Concepts Inventory.

Table 15

Mean Sex Role Concept Scores of Boys
and Girls at Posttesting

<u>Male Concepts</u>	<u>Boys</u>	<u>Girls</u>
Activities	6.70	6.54
Future Roles	4.46	4.08
Traits	14.33	11.42
<u>Female Concepts</u>		
Activities	6.21	6.68
Future Roles	4.25	4.61
Traits	12.22	12.57

With the single exception of the previously reported sex effect for male traits, with the scores of boys exceeding those of girls, no other main effects for sex were obtained in these analyses. Furthermore, the interactions involving sex failed to reveal a consistent pattern of lower scores for girls. Thus, hypothesis 2 was not supported in these analyses.

DISCUSSION

The intent of this study was to assess sex role concepts held by preschool children and to determine the impact of literature, and more specifically, pictorial story books, on these conceptions. In terms of the latter, the effect of exposure to nonsexist picture books was a primary interest. These books, it is claimed, portray females and males, both adults and children, in less restricted and more flexible fashion in terms of activities, social roles and characteristic traits. For example, women are portrayed as assertive and independent in professional roles such as television directors, doctors, and veterinarians, whereas men are presented as warm, nurturant individuals who share in home and child care activities (Davis, 1983; Davis, 1984 St. Peter, 1979).

Research suggests that literature portrayals and characterizations impact on children's behaviors (Fischer & Torney, 1976; McArthur & Eisen, 1976), memory and recall (Jennings, 1975; Koblinsky, Cruse & Sugawara, 1978; McArthur & Eisen, 1976) and sex role preferences (Connor & Serbin, 1976; Jennings, 1975; McArthur & Eisen, 1976). However, results of studies evaluating the impact of books containing non-traditional characterizations on sex role beliefs and attitudes are not clearly consistent with one another. Guttentag and Bray (1976), using nonsexist stories as part of a more extensive intervention program found sex role stereotypes to be reduced while Roddy et al., (1981) found no change using a similar intervention approach. However, when

nonsexist stories were the only intervention agent, results indicated a trend toward reduced stereotypes and increasing acceptance of more egalitarian beliefs in preschool children (Flerx et al., 1976; List, 1976). In the present study, therefore, it was hypothesized that children exposed daily to unconventional characterizations of males and females in nonsexist pictorial story books for an extended period of time would exhibit fewer sex stereotyped beliefs than children hearing stories from conventional picture books during the same period. It was also expected that this effect would be greatest for preschool girls.

The analyses reported in Chapter 3, however, failed to support these expectations, as no differences were found between the nonsexist and conventional book groups on their sex typed conceptions of male or female activities or personal traits. Age x Sex x Treatment effects were found for both male and female future role conceptions, but in neither case was there a trend indicating a consistent group difference in the predicted directions. In the case of male future role concepts, the interaction effect resulted from the low scores of only one group, i.e., young females in the Conventional Group. In the case of female future role concepts, two groups stood out--young males in the Nonsexist Group (low scores) and older females in the Nonsexist Group (high scores). Further, there was little consistent evidence for the anticipated greater stereotyping of preschool boys in this study. While this prediction was confirmed in the case of male trait conceptions, no sex differences were obtained for conceptions of female traits, or male or female activities. And the interaction effects for male and female future role concepts did not reveal consistently lower stereotyping by the preschool girls in the sample.

Although previous research (Flerx et al., 1976; List, 1976) suggest that nonsexist literature in itself may be an effective means by which some stereotyped beliefs in young children can be reduced, this study did not similarly document that effect. Several factors may account for the apparent lack of effectiveness of nonsexist picture books in reducing sex stereotypes in this sample's 3-5 year old children. First, it must be noted that the Flerx et al. study produced qualified, albeit significant results only in their older sample of children (5 year olds); no such effect was observed in the 4 year old group. An additional significant group by sex interaction was found for the measure of children's intelligence in which females but not males were most affected by the egalitarian (nonsexist) treatment.

In the List (1976) research the effects of the nonsexist literature intervention although significant on several measures, failed to demonstrate significant consistency on posttest scores (those immediately following the intervention) and subsequent retest scores five weeks later. List found that children hearing nonsexist stories were more apt to see jobs and chores as appropriate for either sex, not just their own or the opposite sex, and that females more frequently agreed that a job was appropriate for both sexes to perform than did males. However, the hypothesis that members of the experimental as compared to the control group would become more liberal in their sex role stereotypes following intervention, was not confirmed for children's vocational choices for themselves or for a member of the opposite sex; nor did measures on children's decision-making regarding toy choices or on behavioral characteristics support the hypothesis. Thus, in the view of List (1976) herself, the effect of nonsexist

stories must be considered to be "relatively weak" (p. 77).

In addition to the conditional and limited nature of the effects reported by Flerx et al. (1976) and List (1976), the latter two studies differed from the present study in several respects. First, the intervention, its time span, and subsequent posttest procedures were significantly different among the three studies. In the Flerx et al. study children heard stories for 30 minutes per day for 5 days for a total intervention time of $2\frac{1}{2}$ hours. Posttesting followed immediately. There was no discussion or questioning following the story presentation. The List (1976) intervention consisted of 12 single-story presentations on Monday-Wednesday-Friday intervals over a 4-week period of time. Following each story a series of questions were posed to children. Total intervention time was approximately 3 hours with a posttest immediately following. In an effort to increase the intensity of the intervention in the present study, reading was extended over 4 weeks with children hearing one story daily for a total of 20 stories (approximately 5 hours total intervention time). Discussion following the story presentations was intentionally avoided. The posttest procedure beginning on the Monday following the end of the intervention, extended over 5 days unlike the Flerx et al. and List studies in which posttests were administered in 1 day and lasted approximately 15 minutes and 10 minutes respectively. Perhaps the effort to increase the intervention for this study was lessened by the fact that a greater amount of time lapsed between the intervention and posttesting thereby affecting children's memory and recall. It may be that children understood the concept that females may perform traditionally male roles or males may exhibit typically female traits at the time the specific

stories were read, but failed to retain this information over time. Of course, if this study's failure to find an effect of the nonsexist books reflects problems in recall due to prolonged and delayed posttesting, then one might question the strength of the learning experienced during intervention as well.

A second factor possibly affecting the results of this study is the role of the classroom teacher in the experiment. In the List (1976) research teachers were enthusiastic about the project promising full cooperation. Teachers were responsible, as well, for the reading of traditional stories to the control group as part of the daily classroom schedule. Although it is not certain that teachers in the Flerx et al. (1976) study were fully aware of the objectives of the study, they were involved in the decision to eliminate 3 year old subjects because it was felt they were too young to attend to stories for $\frac{1}{2}$ hour periods of time. In the present study the classroom teachers were informed only that children's beliefs, concepts and attitudes about society were being examined in relationship to children's picture books thereby eliminating the possible interference of external biases with the literature intervention. Roddy et al., (1981) found that the mother's role in a nonsexist intervention with preschoolers positively effected the child's memory of auditory nonsexist presentations. Similarly, Guttentag and Bray (1976) found a strong relationship between the enthusiasm and involvement of the teacher and the decrease in the children's stereotyped beliefs. It is certainly possible that the teacher's awareness of and involvement in the List and Flerx et al. studies may have affected their behavior during the intervention, both in terms of the intervention per se and their other child-directed

behaviors and communications as well. Thus, unlike this study, the actual intervention in these two studies may have gone substantially beyond the mere reading of nonsexist stories (and even beyond the post-reading question session conducted by List). And perhaps therein lies an important difference contributing to the differences in effectiveness of the varying interventions. And if this is the case, then the message in these results may not be the ineffectiveness of nonsexist picture books in bringing about changes in children's stereotyped conceptions, but rather than their ineffectiveness as the sole agent of change.

But perhaps there is even a more fundamental reason for the failure of this intervention to modify preschool children's sex role concepts, one involving the very nature of preschool children's cognitive processes and the natural development of stereotyped thinking during the preschool years. In 1981, Martin and Halverson addressed this possibility directly in their proposed cognitive processing model for the development of sex role stereotypes in children.

In contrast to prevailing attitudes which view stereotypes as detrimental and restrictive therefore limiting behaviors and thinking to only sex-appropriate roles Martin and Halverson (1981) argue that stereotyping is a normal cognitive process which allows individuals to categorize social information into simpler units. The most basic unit, known as a schema, is a belief which directs information processing by structuring experiences, regulating behavior and offering a foundation from which children can interpret and make inferences. Two specific schemas are utilized by children when learning about sex roles. First, a general "in-group--out-group" schema provides children with general information needed to separate objects, traits and behaviors into either

male or female categories. A second and more specific schema, known as an "own-sex" schema, serves to specify the general information known about objects, traits and roles to that which is unique for one's own sex. For example, girls know from the overall schema (in-group--out-group) that making cookies is generally a female behavior. However, the actions required to actually make cookies, to carry out this sex-appropriate behavior, must be learned in order to become part of one's "own-sex" schema.

The function of schemas in processing sex-related information is threefold: to regulate children's behaviors by providing information about which things and activities are self-appropriate and about those which should be avoided; to provide organization by which sex-related information is processed and retained; and, to allow children to infer and interpret new information by relying on existing sex-typing schemas. This schematic method of processing information is generally efficient and accurate; however, because of the complexities involved with attending, encoding, representing and retrieving information, distortion and loss of information may also occur. Martin and Halverson (1981) discuss two liabilities in schematic processing which are particularly significant to sex-role stereotyping in children and to this study.

The first of these is an illusory data base which leads to an incorrect interpretation of the situation being perceived. If a schema is applied too enthusiastically to a particular situation, a faulty data base will result. It has been established that young children have well-developed sex-typing schemas (Edelbrock & Sugawara, 1978; Thompson, 1975; Williams et al. 1975). Based on the expectation that children may apply these correct schemas too vigorously, incorrect information

will become part of their thinking processes. For example, children will frequently state that dads "work" even though they've seen both moms and dads going to work each day. Regardless of contradicting information, children will continue to maintain that "work" is a masculine activity. It is not surprising then, that young children in the present study continued to associate certain roles, traits and activities with the stereotyped sex despite exposure to contrasting situations. For instance, if young children with the pre-existing schema that men are doctors are shown women serving as doctors, their schemas will continue to be too enthusiastically applied thereby reinforcing "doctoring" as a masculine activity. Faulty data bases will continue to support incorrect thinking regarding sex-typed activities and behaviors thus maintaining sex role stereotypes.

A second bias in schematic processing occurs when information is accepted as consistent with an existing schema when in reality it is inconsistent or neutral. Information is thus distorted. Children may attempt to confirm an existing schema by changing sex-inconsistent information into sex-consistent information. For example, a child may see a picture of a dad holding a baby. Since this is sex-inconsistent, the child will attempt to make it sex-consistent in his memory in one of two ways: by changing the person holding the baby to a mom or by changing the activity and remembering a dad holding a newspaper. In both instances the child attempts to make the new information congruent with the existing schema. This process has been documented by Cordua, McGraw and Drabman (1979) who introduced a videotaped presentation of males and females portraying both stereotyped and reversed-stereotyped

roles as doctor and nurse to 5 and 6 year olds. Children, questioned immediately following the film presentation, tended to relabel counter-stereotypical occupational portrayals into the traditional male-doctor, female-nurse roles. A similar study by Martin and Halverson (1984), in which 5 and 6 year olds were shown pictures of males and females in sex-consistent and sex-inconsistent activities, produced findings which supported those of Cordua et al. (1979). Children, tested one week following the presentation, distorted the given information by changing the sex of the actor in those pictures which were sex-inconsistent and by correctly remembering the sex of the actor in sex-consistent pictures. The addition of verbal occupational labels to the characters in the sex-consistent and sex-inconsistent pictures did not enhance the children's ability to correctly label the sex-inconsistent portrayals (Cann & Newbera, 1984). In fact, the appropriate labels for non-traditional portrayals seemed to inhibit children's performances making it more difficult for them to correctly process the information.

If children in the present study, like the samples in the preceding studies, distorted information regarding the sex-of-the-characters in the nonsexist books, then it is understandable that stereotypes were not altered following the intervention. Children, seeing females as doctors, pilots and mail carriers and males caring for small children and playing with dolls, may have encoded the sex-of-character information incorrectly or either altered the situations to accommodate the sex-inconsistent character. Whatever the case, the sex-reversals served to confirm rather than change sex role stereotypes. When information intended to change sex-typing schemas becomes distorted to align with pre-existing schemas it appears as if these schemas will be

vigorously maintained regardless of new evidence to the contrary. Young children become almost resilient to non-schematic information thereby strengthening rigid, existing sex-typed categories.

The schematic-processing model of sex-type stereotyping, according to Martin and Halverson (1981), evolves as part of the child's self-socializing process. As children define who they are in relationship to others, new sex-typed information is acquired. Thus, sex-typed schemas result from normal cognitive processes. Young children, restricted by preoperational thinking, are unable to categorize people into complex, multiple classifications and tend to rely on the obvious and highly-salient male/female sex-role classifications. Stereotypes may serve the useful purpose of simplifying children's environments by providing an easy structural system and restricting incoming information. Further, as Martin and Halverson point out,

Given the concreteness of young children's thinking and the attendant limitations on information processing, it is unlikely that children's sex stereotyping can be made flexible with much success. The view taken here is that flexibility in sex typing can only occur after a certain level of cognitive development has been reached. Then it is possible that the individual can change the evaluations associated with sex typing and/or redefine group membership, and develop a more flexible sex-typing orientation (p. 1131).

According to the schematic processing model therefore, the findings of the present study are not only surprising, they were to be expected given the age of the target group and the previously mentioned delay in the posttesting and the relatively mild form of intervention.

Concerns Regarding the Assessment Instrument

Although Kuhn, et al. (1978) found coefficients of reliability between initial and subsequent test performances to range between .80

and .99 for their subsample of 10 children and this research similarly documented test-retest reliabilities of .92 (product-moment correlation) and 95.12% (percentage of agreement), many questions regarding the validity of the instrument arose during the testing situations. Children's comments were recorded directly onto the score sheet throughout the test and retest interview, and these oral statements frequently revealed more understanding than the singular male or female doll choice indicated. For instance, the following comments were made by some children in the sample. The doll choice for each question is in the parentheses following the comment.

"Boys can be teachers, too." (Lisa)
 "A girl can be naughty, too." (Michael)
 "Boys can clean house, too." (Lisa)
 "...even though girls can be doctors." (Michael)
 "Sometimes Mom mows the grass when Dad gets tired
 of doing it." (Michael)

Because children chose the indicated doll, that choice was the only recorded score; however, it seems evident that some children were aware that both males and females could perform various tasks and display varying behaviors. How many other children may have realized or believed both males and females could participate in activities and roles yet consistently chose only one doll because of the test design? Because discussion was discouraged it is unknown whether children's test scores accurately reveal their beliefs and attitudes about males and females. Although the option existed to use both the male and female dolls as an acceptable response to test questions in this study, it was never explicitly presented as a choice in the pretesting practice session. Thus, some children may have been unaware that they could select both dolls even though they believed certain roles, activities

and traits were appropriate and acceptable for both males and females. Flerx et al. (1976), in pretest instructions, taught children the appropriateness of a male and female selection thereby providing that option as a viable choice in the test procedure. However, it may have been unrealistic, given rigidly defined schemas (Martin & Halverson, 1981), to expect 3, 4, and 5-year old children to realize and proclaim that both men and women can assume common roles and traits. In fact, dual choices were seldom made by children in this sample at either pre- or posttest levels.

A second concern regarding the assessment instrument stems from the many questions asked by children about word meanings used in the interview. Several children asked what "weak" meant, and one child volunteered that weak means "you can't hear." Other words generating questions were "governor" and "boss." Another child asked "What kind of work?" in response to the statement "I like to work." Again, the question can be posed, even though they responded consistently, how much of what children responded to did they accurately understand?

The major portion of the test interview was focused on assessing the attitudes and beliefs about male and female traits, and it is within this section that further questions arise concerning the validity of the instrument. When evaluating children's beliefs about traits associated with males and females the instrument was designed so that only oral questions were asked without any accompanying pictures to assist. For example, children were asked to find the doll which would have said, "I never hit," "I'm messy," "I did it wrong," or "I give up." Additionally, children were asked 22 questions from this section on Day 3 of the interview and 22 more questions on Day 4. Because young

children are dependent on visual stimuli and tactile manipulation to maintain interest in an activity some of the children, particularly the younger ones, became restless, distracted and disinterested. At times some children would simply begin to alternate the male and female dolls for responses as if playing a game until the tester would remind them to think carefully about which doll would say a given statement. Several children evidenced a heavy preference for either the male or female doll, and some children demonstrated inconsistency in their responses by indicating that the same doll would say opposing comments such as "I'm scared" and "I'm not scared," or "I run fast," and "I'm a slow runner." Other children would point to a doll before the tester completed the statement. Further, the research of Williams et al. (1975) indicated that children acquire sex-related knowledge in a developmental progression in which behaviors and activities are first understood prior to acquiring information about the more subtle traits associated with sex roles. If this is the case, it would certainly have been more difficult for young children to evidence understanding of sex role traits particularly without the assistance of visual stimuli to maintain interest. The validity then of this component of the inventory is open to question.

Literature sample. In addition to raising questions regarding the interview technique and content one might also ask how different the sex role portrayals were in the conventional and nonsexist picture books employed in this study. Although Davis (1984) and St. Peter (1979) found several differences in the behavioral characterizations of the sexes in these two classes of books, the differences were not as pervasive as expected. Further, since nonsexist books have received

very limited attention thus far in the research, we know very little about their precise content, aside from publisher and editorial claims. Without knowing the precise nature of the differences between conventional and nonsexist picture books, it is difficult to predict with any degree of certainty, their differential impact on children.

Additionally, the Nonsexist and Conventional books used in this research were all published and/or popular during the 1960's through the early 1970's. Because of the developing Women's Movement during those years publishing companies and public audiences may have become more sensitive to the demand for less sexism in all types of children's literature. Thus, the 1965-1975 conventional books may have been more similar to the nonsexist books than conventional books published at an earlier date. And if so, this similarly would have reduced the chances of finding differences between them in this experiment.

Another issue which should also be raised is whether the nonsexist books used in this study are a representative sample of all nonsexist literature. Selected from a larger sample consisting of 50 nonsexist books, the 20 books used in the study all included one named male or female main character and contained a plot, illustrations and text. Because these books were to be read to young preschool-aged children with short attention spans, those stories with few illustrations and lengthy, complicated story lines were deleted from the sample. Every effort was made to include a cross-section of stories with both male and female characters displaying a variety of behaviors, occupations and traits. It is feasible, however, that because deliberate choices were made by the tester, the final sample of nonsexist books was restricted and not clearly representative of all nonsexist literature.

Implications for Intervention and Research

Martin and Halverson (1981) contend, and the present results confirm, that mere exposure to new or schema-conflicting models and social roles will not insure change in young children's stereotyping. According to Martin and Halverson, young children must have opportunities to practice and perform sex role behaviors traditionally restricted to the opposite sex for change to occur. Therefore, if nonsexist literature is to play a part in either an intervention or research program designed to modify sex stereotypes in preschool children, elaborations of the literature and additional supplementary experiences will be needed as well.

For example, the introduction of verbal labels and/or role-play activities in combination with literature may strengthen the intervention effort. Verbal labels (the use of language to define behaviors and traits exhibited in books) and oral questions following each session would provide children with alternate methods of cognitively filing newly learned information, especially since 3 to 5 year olds do not easily generate verbal labels for their own experiences. Children may need to have a character's traits associated with reading a book verbally labeled (i.e. "This is a smart girl") since they may not be able to generalize that concept based solely on the character's activities or behaviors. Likewise, children may better integrate information if told "The boy is kind" when viewing a male character sharing or helping a friend. List (1976) successfully utilized questions following the nonsexist story presentations to emphasize the sex-inconsistent portrayals and found children's sex role attitudes regarding jobs and chores became less stereotyped. Frederick

and Stein (1975) found that when verbal label training, in which television characters' feelings and actions were orally defined and articulated (e.g., "Mary feels sad when Susie hits her" or "Bill likes to rock his baby sister"), followed a prosocial television program, children's ability to understand and generalize the program's content was enhanced. A discussion in a question-answer format or simple puppet conversation with children following the story presentation may enable children to correctly encode and commit to memory sex-inconsistent information.

Role play could also be used to enhance story presentations. By allowing children to personally rehearse the behaviors and traits exhibited in a story, role play enables children to learn by participating. Furthermore, it provides preschoolers, egocentric by nature, with an opportunity to take on the role of another and experience the feelings and behaviors of others. Following a story like Ira Sleeps Over, children, boys and girls alike, could be encouraged to play with a teddy bear while enacting the scenario of sleeping overnight at a friend's house just as Ira did in the story. Or, children could dress up as doctors, practice caring for babies or hunt for a hidden treasure as did characters in other nonsexist storybooks. Practice in performing the behaviors and qualities demonstrated by story characters may allow children to include those same traits in their behavioral repertoires. Frederich and Stein (1975) used role play following prosocial television programming and found it successfully generated increased helping behaviors. The combination of role play and verbal labels led to the highest scores on questions regarding prosocial program content. Providing children with both verbal labels/discussion and role play

opportunities following story presentations may likely increase their comprehension and help avoid the distortion of non-traditional, sex-inconsistent information.

A second strategy which could be integrated with a story intervention is the use of live models to reinforce behaviors and traits presented in a book. Research done by Wolf (1973, 1975) has demonstrated the effectiveness of live models on children's toy choices. Children's play behavior with a sex-inappropriate toy was promoted following exposure to a same-sex live model as opposed to an opposite-sex model (Wolf, 1973) and following exposure to an older (vs. younger) model (Wolf, 1975). Similarly, Flerx et al., (1976) documented the impact of live modeling in films. An experimental group viewing commercial nonsexist films such as "Free to Be You and Me" and specially produced films depicting a high ratio of egalitarian vs. traditional acts was compared to groups exposed to egalitarian and conventional story treatments. Those children exposed to egalitarian treatments, both books and films, evidenced modification of sex-typed beliefs with the impact of films being more enduring than that of picture books. Future research and educational programs could examine the usefulness of live models, both adult and peer, in conjunction with storytelling. Having an adult re-enact a story in which a sex-inconsistent role is modeled may further clarify for children the appropriateness of the behavior. Children may likewise re-create a story character's behavior--a girl building a race car or a boy cooking dinner--and model an untypical sex-typed role for their peers. Comparing the effect of personal role-play versus viewing a peer model similar behavior is an area yet to be examined.

A final option, similar to those previously discussed, is the use of manipulatives to enhance a story presentation. Children hearing a story about a female veterinarian could see and touch instruments, animals or clothes unique to that profession. A story about a male who likes to cook could be accompanied by cooking utensils or food samples. Allowing children to retell the story using flannelgraph figures may likewise serve to reinforce the characterizations and behaviors presented in books. The elaboration of stories with props and two and three dimensional figures representing objects, characters, and events portrayed in the story were successfully employed by Davis and Hathaway (1986) to enhance preschool children's recall and comprehension of prose. The use of such a strategy to modify beliefs merits consideration.

Conclusion

In conclusion, although the strategy of reading young children stories consisting of nonsexist character portrayals failed to bring about changes in their sex stereotyped beliefs about the activities, social roles and traits of males and females, this finding is in itself instructive. It offers validation of Martin and Halverson's (1981) schematic processing model which suggests that stereotypes serve a constructive cognitive function in structuring children's perception of the world. Because of the concreteness of young children's preoperational thinking, stereotypes, which are firmly established, are not easily modified until the advent of a higher level of cognitive thinking. Thus, the results of this study, though initially unanticipated, confirm what Martin and Halverson postulate, that

expectations for changing stereotyped conceptions of male and female activities, traits and future roles in preschool children may be unrealistic.

It should further be noted that the reading intervention in itself is probably not sufficient to generate change in stereotyped beliefs. Research findings which suggest that modification can successfully occur often employed additional strategies such as teacher involvement, questions following story presentations, verbal labeling of characters behaviors and traits, and role play. The addition and/or combination of supplementary activities with literature interventions attempting to alter stereotyped conceptions of young children is an area meriting further investigation.

It may be concluded that this study, indicating the inability or insufficiency of a nonsexist literature intervention to alter sex role beliefs held by preschool children, does serve to point the way for future research and provides valuable information to educators and parents of young children.

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APPENDIX A

APPENDIX A
LETTER TO POTENTIAL PARENTS

Dear Parents,

One of the more enjoyable activities for young children is listening to (and reading) stories in preschool picture books. Although parents and teachers engage their children in this activity on a regular basis, under the assumption that it is a valuable experience for the child, we really know very little about the child's comprehension of stories, or the effect of these stories and character portrayals on the child's ideas and/or behavior. A graduate student whose thesis I will be supervising, Gail Ryan, and I wish to conduct a research project this Spring in the University Child Care Centers in order to shed some light on these issues. More specifically, we are interested in ascertaining the impact of preschool picture books, i.e., the themes, concepts, and values presented in these books on young children's concepts and ideas about society. I am writing to you at this time to inform you of the project, in hopes that we might obtain your permission for your child's participation, and to enlist your participation as well.

The specific steps of the project are these: First, Gail will attempt to identify 3-5 year old children's social concepts and attitudes in each of the University Centers in the beginning of the Spring semester, and once again four to six weeks later in the term. She will use a task which includes a set of brightly colored pictures of adults and children engaged in a variety of every-day activities. The children will be asked to comment on the different activities portrayed in the pictures. They will not however be asked anything about themselves or their families, and there is no intention to teach them anything. The task is very short, and will not interfere in any way with the children's regular activities in the program.

Following this phase, the children will be randomly divided into small reading groups, probably 4 children per group. Gail will then read one story a day to each reading group for four consecutive weeks. In effect, Gail will be presenting a daily "story-time" experience for each child, one that will be carefully integrated into the normal program in each center. The books that will be used in the study are not unlike those already available in the centers, and they include best sellers, popular (heavily selected library books), and award-winning books.

Finally, as I indicated before, I'd like to enlist your participation in the research, and that of your spouse as well. Although we are primarily interested in the effect of children's literature on preschoolers' social concepts and attitudes, it is quite clear that parents play an important role in the development of concepts and attitudes in their children. Consequently, we are interested in parent-

child relationships in this domain, and we'd like to involve you in the research in a direct way. Specifically, later on in the Spring, I'd like to send you a questionnaire and survey designed to tap your own attitudes and child rearing practices. These tasks are not difficult, and you and your spouse can fill them out in your own home at your convenience. Let me assure you that there is no intention to evaluate you personally, your child rearing practices, or your attitudes in this project. Your participation is completely voluntary, and your responses will be kept completely confidential. Neither your name, nor the name of your spouse or child will be associated with your responses in any public or private report of the results.

I hope that you will permit your child to participate in the project in the Spring, and that you and your spouse will agree to participate as well. We believe that valuable information about the development of children's social concepts and attitudes will result from this research.

Please sign the enclosed informed consent form and return it to the Head Teacher in your child's Center before the end of the semester. If you have any questions regarding the project, feel free to call me at 532-5510. Thank you for your cooperation and support.

Yours sincerely,

Albert J. Davis, Ph.D.
Associate Professor

APPENDIX B

APPENDIX B

Conventional and Nonsexist Picture Book Sample

Conventional Books

- Devlin, H., and Devlin, W. (1963). Old Black Witch. Illustrated by H. H. Devlin. New York: Parent's Magazine Press.
- Ets, M. H. (Author). (1965) Just Me. New York: The Viking Press.
- Freeman, D. (Author and illustrator). (1968). Corduroy. New York: Puffin Books.
- Jeffers, S. (Author and illustrator). (1973). Three Jovial Huntsmen. Scarsdale, NY: Bradbury Press.
- Keats, J. E. (Author and illustrator). (1969). Goggles! New York: Collier Books.
- Leadhas, S. N. (1965). Always Room for One More. Illustrated by N. Hogrogian. New York: Holt, Rinehart and Winston.
- Ness, E. (Author and illustrator). (1966). Sam, Bangs & Moonshine. New York: Holt, Rinehart and Winston.
- Preston, E. M. (1969). Pop Corn & Ma Goodness. Illustrated by R. A. Parker. New York: The Viking Press.
- Ryan, C. D. (1971). Hildilid's Night. Illustrated by A. Lobel. New York: Collier Books.
- Sendak, M. (Author and illustrator). (1970). In The Night Kitchen. New York: Harper & Row, Publishers.
- Silverstein, S. (Author and illustrator). (1964). The Giving Tree. New York: Harper & Row, Publishers.
- Sleator, W. (Adaptor). (1970). The Angry Moon. Illustrations by B. Lent. Boston: Little, Brown and Company.
- Steig, W. (Author and illustrator). (1969). Sylvester and The Magic Pebble. New York: Windmill Books/Simon and Schuster.
- The Funny Little Woman. Retold by A. Mosel. Illustrated by B. Lent. New York: E. P. Dutton and Company, Inc., 1972.
- Turkle, B. (Author and illustrator). (1969). Thy Friend Obadiah. New York: Viking Press.

- Viorst, J. (1972). Alexander and The Terrible, Horrible, No Good, Very Bad Day. Illustrated by R. Cruz. Hartford, CT: Connecticut Printers, Inc.
- Walt Disney Motion Pictures. (1976). Cinderella. Story adapted by J. Werner. Illustrated by Walt Disney Studio, adapted by R. S. Worcester. Racine, WI: Golden Press.
- Wyse, L. (1967). Grandmothers Are To Love. Illustrated by M. Alexander. New York: Parent's Magazine Press.
- Yashima, T. (Author and illustrator). (1967). Seashore Story. New York: The Viking Press.
- Zemach, H. (1969). The Judge. Illustrated by M. Zemach. New York: Farrar, Straus and Giroux.

Nonsexist Books

- Bemelman, L. (Author and illustrator). (1939). Madeline. New York: Puffin Books.
- Brownstone, C. (1969). All Kinds of Mothers. Illustrated by M. Brofsky. David McKay Company, Inc.
- Byars, B. (1971). Go and Hush The Baby. Illustrated by E. A. McCully. New York: The Viking Press.
- DePoix, C. (1973). Jo, Flo and Yolanda. Illustrated by S. S. Ney. Chapel Hill, NC: Lollipop Power, Inc.
- Goldreich, G., and Goldreich, E. (1972). What Can She Be A Veterinarian. Photographs by R. Ipcar. New York: Lothrop, Lee & Shepherd Company.
- Klein, N. (1975). Girls Can Be Anything. Illustrated by R. Doty. New York: E. P. Dutton & Co., Inc.
- Lasker, J. (Author and illustrator). (1972). Mothers Can Do Anything. Chicago: Albert Whitman & Company.
- Lystad, M. (1968). Millicent-The Monster. Illustrated by V. Chess. New York: Harlin Quist, Inc.
- McGovern, A. (1974). Sram, Kid! Illustrated by N. Langer. New York: The Viking Press, 1974.
- Merriam, E. (1972). Boys & Girls, Girls & Boys. Illustrated by H. Sherman. New York: Holt, Rinehart & Winston.
- Merriam, E. (1961). Mommies at Work. Illustrated by B. Monteresor. New York: Scholastic Book Services.

- Reavin, S. (1971). Hurray For Captain Jane! Illustrated by E. A. McCully. New York: Parent's Magazine Press.
- Rockwell, H. (Author and illustrator). (1973). My Doctor. New York: Macmillan Publishing, Co., Inc.
- Surowiecki, S. L. (1972). Joshua's Day. Illustrated by P. R. Lenthall. Chapel Hill, NC: Lollipop Power, Inc.
- Thayer, J. (1964). Quiet on Account of Dinosaur. Illustrated by S. Fleishman. New York: William Morrow and Company.
- Waber, B. (Author and illustrator). (1972). Ira Sleeps Over. Boston: Houghton Mifflin Company.
- Wolde, G. (Author and illustrator). (1972). Tommy and Sarah Dress Up. Boston: Houghton Mifflin Company.
- Zolotow, C. (1971). A Father Like That. Illustrated by B. Schechter. New York: Harper & Row Publishers.
- Zolotow, C. (1974). The Summer Night. Illustrated by B. Schechter. New York: Harper & Row Publishers.
- Zolotow, C. (1972). William's Doll. Illustrated by W. P. DuBois. New York: Harper & Row, Publishers.

APPENDIX C

APPENDIX C

Sex Role Concept Interview

Day 1

I. Introduction

Here are some pictures of two children who go to a nursery school like yours. (Present boy and girl paper dolls of appropriate ethnic group.) One's name is Lisa, the other's name is Michael.

Which one is named Lisa? (Correct child if wrong.)

Which one is named Michael?

We're going to play a guessing game, O.K.? I'm going to tell you some things that one of these children said, and I'd like you to guess who said it, Lisa or Michael. O.K.?

1. My name is Lisa. Hand me the picture of the one who said that.
2. My name is Michael. Hand me the picture of the one who said that.
3. I am a boy.
4. I am a girl.

(Eliminate Ss who do not answer 3 and 4 correctly.)

II. Concepts: Activities

Fine. Now we'll play the guessing game using some pictures I have. These are pictures of things that nursery school children, just like you, do and play. I will show you a picture and tell you what someone said. Then you can tell me who you think said it, Michael or Lisa. Put the one who said it, Lisa or Michael (point to each paper doll), in the picture, O.K.? Let's play the game. (Remember to shuffle the stack of pictures before going through them with each child. Put paper dolls side by side before saying each picture.)

1. I like to play ball.
2. I like to play dolls.
3. I like to play house.
4. I like to play with trains.
5. I like to play with cars.
6. I like to build things.
7. I like to cook dinner.
8. I like to sew.
9. I like to clean house.
10. I like to play outside.
11. I like to play inside.
12. I like to help my mother.
13. I like to help my father.
14. I like to fight.

15. I like to put my best clothes on.
16. I'll build a tower.
17. I like to climb up a tree
18. I like to give kisses.

Day 2

III. Concepts: Future Roles

Today we'll play the game with Michael and Lisa again. These are different pictures we'll see today. I will show you a picture and tell you what someone said. Then you tell me who you think said it, Michael or Lisa. Put the one who said it, Lisa or Michael (point to each paper doll), in the picture, O.K.? Let's play the game. (Shuffle pictures before each child. Put paper dolls side by side before each picture.)

19. When I grow up, I'll take care of babies.
20. When I grow up, I'll fly an airplane.
21. When I grow up, I'll clean the house.
22. When I grow up, I'll wash the car.
23. When I grow up, I'll cook the dinner.
24. When I grow up, I'll wash the dishes.
25. When I grow up, I'll be a doctor.
26. When I grow up, I'll be a nurse.
27. When I grow up, I'll be a boss.
28. When I grow up, I'll be a teacher.
29. When I grow up, I'll be governor.
30. When I grow up, I'll mow the grass.

Days 3 and 4

IV. Concepts: Traits

Today we're going to play the guessing game with Michael and Lisa, but it will be different from last time. We won't have pictures this time because I know what a good listener you are! I will tell you what someone said. Then you tell me who you think said it, Michael or Lisa. Give me the one who you think said it, either Lisa or Michael (point to each doll), O.K.? Let's play the game.

(These 44 items will be presented in 2 blocks of 25 on separate days. Day 3 odd numbers, Day 4 even numbers, so "opposite" items are not adjacent. Shuffle stack of cards before each child.)

Someone said "I" Who said that?

1. I'm a slow runner.
2. I can run fast.
3. I can hit you.
4. Omit
5. I never hit.

6. Sometimes I cry.
7. I never cry.
8. I talk a lot.
9. I'm fast.
10. I'm slow.
11. I'm strong.
12. I'm weak.
13. I'm scared.
14. I'm not scared.
15. I can do it myself.
16. I need some help.
17. I'm loud.
18. I'm quiet.
19. I like to work.
20. Omit
21. I don't like to work.
22. I'm kind.
23. I'm mean.
24. I can't do it.
25. I give up.
26. I'm neat.
27. I'm messy.
28. You hurt my feelings.
29. I'll never give up.
30. I'm the leader.
31. I'm the best.
32. I'm smart
33. I'm naughty.
34. I'm polite.
35. I'm all dirty.
36. I look nice.
37. I fight.
38. I never fight.
39. I can make you cry.
40. I love you.
41. I'm going to be first.
42. You're not letting me have my turn.
43. I can do it best.
44. I did it wrong.

V. Preference (Leave dolls visible.) (Done after traits on Day 4.)

O.K. Now I want to ask you some things.

1. Who are you like, Lisa or Michael? (actual)
2. Who would you like to be, Michael or Lisa? (ideal)

(Counterbalance order.)

Day 5

VI. Identity

You have been such a good listener. Today I am going to ask you some things and I would like you to tell me what you think. Here we go.

1. Are you a boy or a girl?
2. When you're 10, will you be a boy or a girl?
3. When you grow up, will you be a man or a woman?
4. If you have children when you grow up, will you be a daddy or a mommy?
5. If you put on boy's (girl's) clothes, could you be a boy (girl)?
6. If you wanted to, could you be a daddy (mommy) when you grow up?

SEX-ROLE CONCEPT INTERVIEW

Name _____ Sex _____ Age _____

School _____ Date of Tests _____; _____

I. Introduction

Comments:

1. _____
2. _____
3. _____
4. _____

II. Concepts: Activities

Comments:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____

Total _____

III. Concepts: Future Roles

Comments:

19. _____
20. _____
21. _____
22. _____
23. _____
24. _____

25. _____
 26. _____
 27. _____
 28. _____
 29. _____
 30. _____
Total _____

IV. Concepts: Traits

Comments:

1. _____
 3. _____
 5. _____
 7. _____
 9. _____
 11. _____
 13. _____
 15. _____
 17. _____
 19. _____
 21. _____
 23. _____
 25. _____
 27. _____
 29. _____
 31. _____
 33. _____
 35. _____
 37. _____
 39. _____
 41. _____
 43. _____
Total _____

2. _____
 4. *****
 6. _____
 8. _____
 10. _____
 12. _____
 14. _____
 16. _____
 18. _____
 20. *****
 22. _____
 24. _____
 26. _____
 28. _____
 30. _____
 32. _____

34. _____
36. _____
38. _____
40. _____
42. _____
44. _____
Total _____

V. Preference

1. _____
2. _____

VI. Identity

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

THE EFFECTS OF PICTURE BOOKS ON
PRESCHOOL CHILDREN'S SEX ROLE CONCEPTS

by

GAIL LEHMAN RYAN

B. A., Messiah College, 1974

AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of

Human Development and Family Studies

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Manhattan, Kansas

1986

ABSTRACT

It has been well documented that children's sex role concepts emerge during the preschool years (Kuhn, Nash & Brucken, 19788; Thompson, 1975; Williams, Bennett & Best, 1975) and that these beliefs closely parallel the sex role stereotypes held by society in general (Edwards & Williams, 1980; Harris & Satter 1981; Reis & Wright, 1982). To determine how this process of differentiation occurs, much of the research has examined the socialization process, particularly the role of parents, preschool teachers and peers who both reinforce and model sex-appropriate behaviors to young children (Birns, 1976; Block, 1978; Hoffman, 1977; Maccoby & Jacklin, 1974).

Recently, however, the role of the media in the sex role socialization process, including children's literature, has become a focus of investigation. Picture books, those written primarily for preschool children, are especially significant because they provide sex role models for children during an impressionable time period in which sex role concepts are being formed and are emerging.

Analysis of the content of preschool picture books have revealed extensive sex role stereotyping of males and females (Davis, 1984; Mitchell, 1973; Nilsen, 1971; Stewig & Knipfel, 1975; Weitzman, Eifler, Hokada & Ross, 1972). Additional research has established the relationship between the stereotyped portrayals in children's literature and children's achieving behaviors (McArthur & Eisen, 1976), dependent/independent behaviors (Fischer & Torney, 1976), memory and recall (McArthur & Eisen, 1976; Jennings, 1975; Koblinsky, Cruse &

Sugawara, 1978), and sex role preferences (Connor & Serbin, 1978; McArthur & Eisen, 1976; Jennings, 1975).

In response to charges that sex role stereotypes are both restrictive and dysfunctional, a newer body of literature has emerged which purportedly portrays males and females in nonsexist roles. Content evaluations of these nonsexist books have found a higher frequency of female main characters and an increase in instrumental roles portrayed by males and females (St. Peter, 1979). In terms of behaviors, females in nonsexist books are portrayed as independent, more emotional and nurturing, and less active than males whereas males evidence greater nurturance and less aggression than males in conventional books (Davis, 1984).

The impact of nonsexist literature on young children's sex role concepts has received limited attention in the research literature. Flerx, Fidler and Rogers (1975) and List (1976) found that reading stories from nonsexist books to preschool children decreased stereotyping in 3 to 5 year old children; in contrast, Roddy, Klein, Stericker and Kurdek (1981) reported no changes in children's sex role beliefs following a presentation of nonsexist stories, songs and toys. Because of the limited number of studies addressing this issue and their conflicting results, the present study was designed to directly assess the impact of nonsexist picture books on preschool children's sex role concepts.

A sex role concepts inventory was administered to 40 male and female, 3, 4, and 5 year old children from Kansas State University laboratory schools. Children were divided into an older and younger

group and randomly assigned to two treatment groups, one which was read stories from 20 conventional picture books (including best-sellers and Caldecott award winners) and the other group which heard stories from 20 nonsexist picture books (those recommended or published by feminist groups). Children were read one story a day for four weeks. Following the intervention children were readministered the sex role concept inventory which assessed children's concepts about the appropriateness of particular activities, future roles and traits for males and females as well as gender identity.

It was anticipated that children exposed to the nonsexist characterizations of males and females would exhibit fewer stereotyped beliefs than children hearing conventional picture books during the same period. However, analyses failed to support these expectations as no differences were found between the nonsexist and conventional books groups on their sex-typed conceptions of male and female activities and traits. Age x Sex x Treatment effects were found for male and female future role conceptions, but in neither case was there a trend indicating a consistent group difference in the predicted direction.

Results were discussed in terms of Martin and Halverson's (1981) schematic processing model which suggests that stereotypes serve a constructive cognitive function and are not easily altered until the transition to a higher level of cognitive thinking occurs. It may be further noted that a reading intervention in itself may be insufficient to render changes in stereotyped beliefs of preschool children, and that further strategies may be a necessary part of future modification efforts. This study, while indicating the inability of a literature intervention alone to change stereotyped beliefs in preschool children, does propose questions for future research.