

THE MEASUREMENT OF SEX-ROLE STEREOTYPES
IN CHILDREN'S PICTURE BOOKS

By

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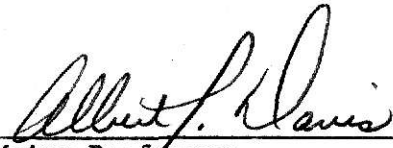
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CHAPTER I
INTRODUCTION, REVIEW OF LITERATURE,
AND PROBLEM STATEMENT

Introduction

Young children's attitudes, behaviors, and aspirations related to sex-role are probably socialized through a variety of sources including family, preschools, peers, and media. Picture books, as one form of media, are an important source of sex-role information for preschool age children. Since picture books are usually the first books children experience (Huck and Kuhn, 1968), the portrayal of males and females in these books may significantly contribute to the child's formulation of socially acceptable sex-role behaviors and attitudes. Like other forms of media, picture books serve to reinforce behavior and attitudes already experienced within the child's immediate environment, and also often serve to extend his experiences and awarenesses beyond the familiar bounds of the child's everyday world.

The importance of books as potential socializing agents for children has been attested to by numerous researchers (Weitzman, et al., 1972; Kummel, 1970; Zimet, 1968). Child, Potter, and Levine (1946) state:

It is assumed that in reading a story, a child goes through symbolically, or rehearses to himself, the episode that is being described. The same principles, then, are expected to govern the effect of the reading on him as would govern the effect of actually going through such an incident in real life (p. 3).

Kohlberg (1966), in discussing children's acquisition of sex-role conceptualizations, hypothesized that children do actively and cognitively restructure their sex-role concepts and values based on their experiences. Mischel (1966) postulates that observational learning from either live or symbolic models is a basic step in acquiring sex-typed behaviors. The picture book, therefore, provides the young child with influential and salient role models. By "rehearsing" or "observing" various behaviors, attitudes and events, the child may internalize them and begin to incorporate them into his own sex-role behaviors, attitudes and expectations.

The fact that children do learn specific sex-role attitudes and behavior expectations at an early age has been well substantiated in the literature (Williams, et al., 1975; Schlossberg and Goodman, 1973; Beuf, 1974; Siegel, 1973; Swick and Carlton, 1974). Chasen (1974) reported that four and five-year-old boys and girls believed males were generally better than females in all areas about which they were questioned except in cooking ability where women were judged superior. Williams, et al. (1975) found kindergarten children clearly differentiated between acceptable expectations of adult male and female behavior along stereotypic dimensions. Occupational choices and aspirations cited by three to five-year-old children indicate boys at this age already have much broader and more varied career aspirations than girls (Schlossberg and Goodman, 1973; Beuf, 1974; Siegel, 1973; Swick and Carlton, 1974).

Although sex-role appropriate behavior and attitudes may be functional in some ways, rigid sex-role prescriptions are potentially harmful to

children. Maccoby (1966) concludes that optimal cognitive functioning depends on a balance between feminine-passive and masculine-active orientations and that extremely sex-role stereotyped persons are handicapped intellectually because:

- 1) extreme passivity interferes with concept formation and manipulation, and
- 2) extreme activity interferes with sustained and concentrated analysis.

Block (1973) found that greater maturity, as measured by Kohlberg's Moral Development Test and Loevinger's Sentence Completion method of measuring ego functioning, is accompanied by more androgynous, less sex-typed definition of self.

As a result of empirical information regarding sex-role stereotyping in young children's behaviors, attitudes and expectations and recent popular interest in the effect of rigid sex stereotypes by women's groups (Gersoni-Stavn, 1974), an increasing number of books for young children are being published which purport to offer "positive image" or "non-stereotyped" alternative role images for both males and females. Publishing companies are also beginning to revise guidelines for children's books with these new trends in mind. However, little attention has been focused on carefully examining the content of children's picture books themselves.

The general and specific sex-role related dimensions of picture books are communicated to children in two ways -- through the text and through the illustrations. Unlike books for readers in which illustrations function simply to supplement the text, by definition, picture books are those in which text and pictures serve dual and equally important roles in overall presentation of content (Huck and Kuhn, 1968). Often, the child's first

experience with a picture book is when it is read to him by an adult, but typically the child returns to the book and "reads" it himself later. He follows the story line by remembering what was read to him and matching this to the pictures, or visa versa. Consequently, in evaluating the potential effect of picture books on children's behaviors and attitudes, both the text and illustrations need to be acknowledged as playing a dual role in influencing the child.

Summary

It has been found that young children do form sex-role stereotyped attitudes and expectations (Chasen, 1974; Williams, et al., 1975; Beuf, 1974). Research also indicates that young children at the preschool level do experience books that contain character portrayals through both the text and illustrations, which may serve as models for their own behavioral actions, attitudes, and expectations (Weitzman, et al., 1972; Nilsen, 1971; Stewig and Higgs, 1973). Some empirical evidence exists that the formulation of rigid sex-role stereotypes can be dysfunctional (Maccoby, 1966; Block, 1973). This, along with popular questioning of rigid sex-role stereotypes, has led to changes in current publishing trends and greater awareness among the public regarding media portrayal of male and female roles. However, before the effects of picture books on children's sex-role behavior and attitudes can be assessed, picture books need to be systematically analyzed according to how they portray males and females in their texts and illustrations.

Review of Literature

Research in the area of sex-role stereotyping in children's picture books is not extensive, although some studies do exist. Stewig and Higgs (1973) contrasted women's and men's roles in picture books by selecting a random sample of 154 books from 957 picture books available in one university education library. The books represented a 68-year time span (1903-1971), 78 different authors, and both award and non-award winning books. The following variables were included in the analysis:

- 1) the number of men and women represented
- 2) their occupational roles
- 3) their non-professional or recreational roles.

The results of the study showed 78 percent of the books included males and females as characters. Of the books which did portray human characters, all but three books included men while all but thirteen included women. Men were shown in 58 different occupations, the most frequent being farmers, fishermen, and sailors. Few men were shown engaged in domestic duties. Women were portrayed in 16 different occupations, roughly one-fourth as many as the number for men. Eighty-three percent of the women were depicted as homemakers. The most frequent roles for the remaining 17 percent of the women were either that of nurse or teacher.

Stewig and Higgs concluded that occupational roles, especially for women, were highly stereotyped. They also noted that men's roles most often depicted in picture books while less restricted, did not realistically represent the most common occupational roles for men. Non-professional and recreational roles were also judged to be stereotyped. Men were portrayed

in active recreational pastimes while women were represented in sedentary recreational activities.

The Stewig and Higgs study did not report operational definitions for occupational, recreational or behavioral categories, nor was reliability on the instrument reported. Furthermore, it was unclear whether the reported occupational and recreational roles were tabulated on the basis of representations in either the illustrations or the text alone or in a combined analysis of the text and illustrations.

A replication of the Stewig and Higgs study was conducted by Stewig and Knipfel (1975) to determine whether picture books published in the recent years reflected current societal trends toward a wider variety of occupational roles for women. One hundred books were randomly selected from 503 picture books published between 1972 and 1974. The same instrument developed for the initial study was used.

Stewig and Knipfel did find some differences in the two samples. Women were represented in 78 percent of the newer books while only 65 percent of the books surveyed earlier contained representations of women. While women were still most frequently portrayed as homemakers, thirty-two percent (as opposed to 17 percent in the earlier study) were shown in roles other than homemaking. The variety of non-homemaking roles also increased. These included medical professions, musical professions, lawyers, and theatre, film, or television actresses.

Weitzman, Eiffer, Hokada, and Ross (1972) investigated the sex-role treatment of males and females in Caldecott Award winning books and runners-up from 1968 through 1971. The Caldecott Medal has long been viewed as the most prestigious award for children's picture books and these books

are usually found in public libraries, preschools, and on the lists of recommended books for young children. Weitzman, et. al. focused their study on three areas of analysis:

- 1) the number of males and females illustrated
- 2) the activities boys and girls were engaged in
- 3) the activities and personality characteristics of adult role models.

The results showed illustrations of males outnumbered those of women by a ratio of 11:1. Males were pictured 261 times in the books while females were illustrated only 23 times. Consequently, a much larger number of role models was shown for males.

The types of activities and behavior characteristics of boys and girls were also quite different. Boys were shown as active, independent, adventurous, and engaged in a much wider variety of activities than girls. Girls were portrayed as passive and immobile, and were often depicted in subservient relationships to the men and boys in the stories.

Adult men's and women's activities were found to be similarly stereotyped. Women were passive, domestic servants, and often depicted only in relation to the men in their lives rather than as independent, intelligent individuals. Men were active and engaged in a variety of activities, but were excluded from participation in childcare and home maintenance activities. Men were also depicted in many more occupational roles than women. Seventeen different roles, including storekeeper, king, fighter, fisherman, policeman, soldier, father, judge, and farmer were shown for men; while women's roles included wife, mother, fairy, fairy godmother, and underwater maiden.

Personality characteristics of men and women were also reported to be clearly differentiated according to the adult's sex. Males were found to be portrayed as active, assertive, clever, achieving, unemotional and aggressive, females were helpful, cooperative, nurturant, passive, fearful, dependent, and seeking to please and be attractive to men.

On the basis of their study, Weitzman et al. concluded that the characters in Caldecott Award books and runners-up serve to reinforce traditional sex-role attitudes and behaviors and present "unrealistic" role models for both male and female children. However, no operational definitions were reported for judging active or passive activities or for the behavior categories used. Likewise, no reliability for the instruments used in the analyses was reported.

Caldecott books were also examined by Nilsen (1971). Eighty Caldecott winners and runners-up from 1951-1971 were evaluated along the following dimensions:

- 1) number of male and female names used in book titles
- 2) number of males and females shown in illustrations
- 3) activities engaged in by males and/or females as portrayed through both the text and illustrations.

Nilsen reported 14 male names as opposed to four female names in the book titles and found males illustrated 579 times while women were shown in illustrations 386 times. Nilsen noted that representation of girls through illustrations actually decreased from 228 to 29 over the twenty year span she investigated.

In evaluating the activities of the males and females in the books, Nilsen found that women and girls were often onlookers rather than active participants in activities, performed a multitude of services for men

and engaged in what she labeled "unobtrusive" roles. Men and boys, in contrast, were shown traveling, engaged in active pursuits such as swimming and climbing, and explaining while girls listened.

Like previous studies, Nilsen reported no reliability on the instrument nor did she include operational definitions of categories used in the study.

An admittedly informal investigation of books for young children was conducted by Fisher (1970) to examine the stereotypic portrayal of boys and girls in picture books. Fisher found females appeared in only 20-30 percent of the books she examined in bookstores and libraries. On the basis of her informal survey, Fisher noted that "through books, boys' achievement drive is encouraged; girls' is cut off. Boys are brought up to express themselves; girls to please. The general image of the female ranges from dull to degrading to invisible " (p. 6).

Summary and Problem Statement

Research in the area of sex-role stereotyping in children's picture books is in short supply. Current studies suggest that males and females are stereotyped in picture books according to their occupational roles, recreational activities, activity levels, and personality characteristics. Several methodological problems recur in the literature which must be noted however. All studies reviewed contained neither operational definitions of variables nor reports of reliability on instruments used in analyses.

Several reliable instruments with operationally defined variables have been developed to evaluate elementary textbooks along sex-stereotyped dimensions. (See Appendix A.) However, since the composition and intended audience of textbooks differs from that of picture books, it is necessary to develop a well-defined, reliable, and valid instrument to assess sex-role stereotyping in children's picture books.

The purpose of this study was to construct an instrument that would:

- 1) meet the standard psychometric requirements of reliability and validity, and
- 2) systematically analyze the behavioral characteristics of males and females which are portrayed to young children through both the text and illustrations of picture books.

CHAPTER II

METHODOLOGY

Studies of sex-role stereotyping in children's picture books indicate that males and females are portrayed in picture books along consistently stereotyped dimensions (Stewig and Higgs, 1973; Stewig and Knipfel, 1975; Weitzman, et. al., 1972; Nilsen, 1971; Fisher, 1970). However, the reliability of the measurement procedures used in these studies was not established or reported. Therefore, in order to accurately assess sex-role stereotyping in picture books, variables need to be identified and operationally defined, and the reliability of the resulting instrument has to be empirically determined. It is to this end that the present study is directed.

Parameters of the Study

Previous studies of sex-role stereotyping in children's picture books provided a variety of alternatives for the focal dimensions of the sex-role stereotyping scale. These included numbers of males and females in titles of books, number of males and females shown in illustrations and/or mentioned in texts, the occupational and recreational roles of men and women, and behavioral personality characteristics of males and females. Although each of these dimensions have merit in evaluating books, an instrument combining many or all of the dimensions listed would be unwieldy and limited as well.

The number of males and females in titles, illustrations, and text is important in terms of the quantity of models available to children, but

these variables do not address important issues related to the quality of those models. For instance, simply increasing the numbers of females in titles, texts, and illustrations within picture books would not serve to diminish the rigidity of the sex-role model if most females depicted exhibited passive, nurturant, supportive, and non-aggressive behaviors. Focusing only on the frequency of males and females, then, may not be a valid measure of stereotyping.

The use of occupational and recreational roles to assess sex-role stereotyping in children's picture books may also have some limitations. While the role labels of doctor, nurse, teacher, fireman, mother, etc. do identify potential adult roles for males and females and may therefore affect future personal expectations of children, the behavior of characters in the context of a particular role may be a crucial dimension in defining a role for a child. The role label is depicted through the behavior of characters and the impact of a given role on a child may be dependent on both the qualities of the character and the quantity, or **emphasis**, on sex-role behaviors.

The behavior exhibited by main characters through the text and illustrations, i.e., what male and female characters actually do in picture books, and in what ways these behaviors are different, provides the most direct and meaningful information regarding appropriate sex-role behavior to young children. Adult occupational and recreational roles are behaviorally defined in picture books. Therefore, the behavior exhibited by main characters through the text and illustrations served as the basis of analysis.

Behavioral Categories

The selection of behavioral categories for the instrument was based on sex-stereotyped behavioral dimensions noted in previous investigations of children's picture books. In addition, the following sources were also used to determine categories for inclusion:

- 1) children's demonstrated awareness of stereotyped behavioral characteristics of males and females
- 2) universal adult male and female stereotypes
- 3) variables investigated in studies of elementary textbooks
- 4) empirical evidence of behavioral differences displayed by children between the ages of three and six.

Awareness of sex-role stereotyped behavior characteristics has been demonstrated by preschool age children. Chasen (1974) reported four and five-year-old boys and girls believe males are better workers, stronger, and smarter than females. Furthermore, Williams, et. al. (1975) reported that kindergarten children viewed adult males as aggressive, strong, loud, adventurous, independent, dominant, and ambitious while adult females were viewed as appreciative, emotional, sophisticated, and soft-hearted.

Kagan (1964) reported universal male and female stereotypes depict males as aggressive, independent, and able to control and suppress strong emotion. In contrast, females were characterized as socially poised, friendly, non-aggressive, nurturant, and passive.

Several studies conducted on sex-role stereotyping in elementary school texts offered additional behavioral dimensions for analyses. Child et. al. (1946) conducted a descriptive study on sex-role stereotyping in third grade texts. Females were found to be portrayed as nurturant, affiliative, and avoiding harm. In contrast, males were shown as active, aggressive, achieving, and intelligent.

Frasher and Walker (1972) examined the stereotypic portrayal of males and females in 734 first grade readers and readiness books. Boys were found to be portrayed as active, independent, assertive, brave, persevering, and able to solve problems. In the same group of books girls were depicted as timid, dependent, passive, incompetent, easily discouraged, and in need of help and protection.

Basal readers were examined by Saario, Jacklin, and Tittle (1973) to determine stereotypic behavior characteristics of males and females. Boys were portrayed as more aggressive and physically exertive as well as displaying better problem-solving abilities than girls. Girls were more frequently conforming, engaging in fantasy, and making egocentric statements. Saario, et. al., also found adult behavior stereotyped according to sex. Men were portrayed as physically exertive, constructive, productive, and able to solve problems while women were shown as conforming, nurturant, and directive.

Behavioral differences displayed by young children also provide a source of behavioral categories for inclusion in a sex-role stereotyping scale. Maccoby and Jacklin (1974) compiled a comprehensive review of studies related to sex differences in young children. These studies investigated aspects of both social and intellectual performance including: task persistence, reasoning ability, general intellectual performance, impulsivity, creativity, curiosity and exploration, activity level, emotionality, dependence, independence, helping behavior, sharing behavior, aggression, competition, cooperation, dominance, compliance, conformity, imitation, and nurturance. Based on their examination of the research,

Maccoby and Jacklin concluded there were more similarities than differences in children. However, some consistent sex differences were found. Pre-school boys were found to display more curious, explorative, and aggressive behavior while preschool girls were more conforming and compliant to adult directions. In addition, boys seemed to exhibit a somewhat higher activity level than girls, who were found to be more emotional than boys in specific situations.

Examination of the previously cited dimensions used to assess sex-role stereotypes indicated a core of major variables which were consistently used in analyses, although labels for these variables and some aspects of their operational definitions varied somewhat. Twenty-five major variables were extrapolated from this review and labeled as follows: dependence, independence, cooperation, competition, directive, submissive, persistence, cessation, explorative, non-explorative, sharing, selfishness, creativity, imitative, nurturance, non-supportive, aggression, non-aggressive, intelligence, ignorance, emotional, unemotional, active, passive-active, and inactive. In order to achieve independent and mutually exclusive dimensions the twenty-five categories were grouped into eleven bi-polar pairs and one group of three variables (active, passive-active, and inactive). Since the text and illustrations function together to present a unified behavioral model of a given character, it was necessary to select specific behavioral dimensions that could be analyzed in both the text and illustrations. Parallel definitions were developed for text and illustration behavioral categories.

Operational Definitions for Behavioral Categories: Text

One bi-polar dimension that was frequently cited in the literature was dependence-independence. Typically, dependence was attributed to females while males were characterized as independent (Fraser and Walker, 1972; Weitzman, et. al. , 1972). The distinguishing characteristic between the two dimensions is reliance on self vs reliance on another.

Dependence: (Dep)

Behavior which is directed at relying on another for emotional or physical support. Exhibited by:

- 1) Verbal requests for assistance in a task or situation, material aid, protection, or reassurance, and statements in the text which refer to these behaviors.
- 2) Statements in the text which refer to nonverbal behavior such as seeking close physical proximity through: being carried by another; hugging another; sitting on another's lap; holding on to another; or hiding behind another.
- 3) Statements in the text which refer to clinging to another for support, reassurance, or protection or statements which include requests for help in a situation or task.

NOTE: In the preceeding definition "another" refers only to humans, personified animals, or inanimate objects.

Independence: (Ind)

Behavior which is directed at self-reliance or self-sufficiency. Exhibited by:

- 1) Verbal statements indicating the desire to do something by one's self ("I want to paint by myself," "I'll do it alone", etc.)
- 2) Verbal statements indicating a task was completed by one's own self.
- 3) Verbal resistance to an implied or explicit authority.
- 4) Statements in the text which refer to the following:
 - a) nonverbal self-reliant behavior (self-care skills of dressing, washing hands, brushing teeth, etc.)

- b) nonverbal resistance to an implied or explicit authority (disobedience, ignoring, or defiance of the authority).
- c) nonverbal behavior indicating someone is involved in a task by oneself without the physical assistance of another or is engaged in a task that differs from the tasks of the others around him.
- d) making decisions by oneself.

Another often cited bi-polar dimension is that of competition-cooperation. Females in picture books were portrayed as cooperative (Weitzman, et. al., 1972) while boys are usually more competitive (Maccoby and Jacklin, 1974). The crucial factor in this dimension is whether characters work together or against each other in the completion of a task, activity, or goal.

Cooperation: (Coop)

Behavior involving two or more persons or animals who work together in the same activity: a division of labor is apparent in which the efforts of one are supplemented by another. Exhibited by:

- 1) Verbalizations such as "We can finish this together," or "Let's work together," etc.
- 2) Statements in the text referring to nonverbal behavior such as one person bringing the paint while another brings the brushes, one person cooking food while another sets the table, etc.

Competition: (Comp)

Behavior involving two or more persons or animals which is directed at striving against another for some goal. Exhibited by:

- 1) Verbal statements revealing the need or desire to be first, best, the winner, etc.
- 2) Playing a competitive game where there is usually a winner. Competitive games include: tag; races; basketball; football; baseball; track; card playing; table games; hide and seek; drop the handkerchief; king on the mountain; ring-around-the rose; Easter egg hunts; and similar games.
- 3) Competing in a task to be the best or the first.
- 4) Statements in the text which refer to the above behaviors.

A directive-submissive bi-polar dimension was also included in the scale. Saario, et. al. (1973) reported females portrayed as conforming to the directions of another, while Maccoby and Jacklin (1974) report empirical evidence that preschool girls were more conforming than boys. Williams, et. al. (1975) found kindergarten children stereotyped males as dominant. The distinction between directive and submissive behavior is whether a character controls another or is controlled by another.

Directive: (Dir)

Behavior which guides, leads, controls, or directs the behavior of another and may or may not be used to achieve a desired personal ambition. Exhibited by:

- 1) Verbally directing how to do something, ordering another to do something, or stopping the behavior of another.
- 2) Verbally controlling or manipulating others to achieve a desired goal or to fulfill personal needs.
- 3) Statements in the text which refer to showing another how to do something, or to leading, guiding, or controlling another.
- 4) Statements in the text which refer to #1 or #2.

Submissive: (Sub)

Behavior which is compliant to another's direction or control. Exhibited by:

- 1) Verbal statements of compliance, obedience, or deference to the commands or wishes of another.
- 2) Statements in the text which refer to nonverbal behavior suggesting compliance such as: obeying commands, performing duties when asked or ordered to, or yielding to the directions of another.

Persistence-cessation, another dimension by which males and females are stereotyped in children's books, was included in the scale. Frasher and Walker (1972) report that boys are commonly portrayed as persevering while girls give up more easily. In constructing the operational definition

for the categories the primary distinction between the two bi-polar dimensions was whether a character continued at a task after failure or discontinued after difficulty or failure.

Persistence: (Per)

Behavior that is engaged in for goal achievement and is characterized by staying with a task or situation despite adverse or difficult conditions which present obstacle(s) to achieving a desired aim.

Exhibited by:

- 1) Verbal statements such as "I'm going to finish this," "I won't stop now," etc.
- 2) Statements in the text which refer to continuing at a task despite one or more failures.

Cessation: (Ces)

Behavior that involves discontinuing a goal-directed activity when adverse or difficult conditions arise which present obstacle(s) in achieving a desired aim. Exhibited by:

- 1) Verbal statements such as "I can't do this now that it is time to eat," or "I won't keep trying," etc.
- 2) Statements in the text which refer to the above or to stopping an activity when failure occurs.

Another behavioral dimension which recurred in the literature was explorative-non-explorative. Males are often depicted in picture books as explorative and adventurous (Weitzman, et. al., 1972; Nilsen, 1971). Empirical research on sex differences also reports males more curious and explorative than females (Maccoby and Jacklin, 1974). Explorative behavior was characterized by seeking knowledge of the environment through careful examination while non-explorative behavior was exemplified by a general lack of awareness of surroundings.

Explorative: (Exp)

Behavior characterized by seeking knowledge or information about an object, the surroundings, or phenomena through careful examination. Exhibited by:

- 1) Verbally asking questions to receive information.
- 2) Statements in the text which refer to seeking information or knowledge through investigating objects, the surroundings, or by asking questions.
- 3) Statements in the text which describe a character as curious, inquisitive, or explorative.

Non-Explorative: (N-Exp)

Behavior characterized by generally ignoring the environment or being seemingly oblivious to it. Exhibited by:

- 1) Not asking questions when a novel object or phenomena is encountered.
- 2) Statements in the text which refer to ignoring novel objects in the environment or displaying indifference to the surroundings.
- 3) Verbal statements such as: "Even though I want to look at it, I won't," "I don't care what it is," etc.
- 4) Statements in the text which indicate the character is uninvolved, or does not interact with the environment.

Although no evidence of the stereotyped portrayal of sharing-selfishness behavior was reported, this behavioral dimension was investigated because it was felt by the investigator that some instances of these behaviors might occur in children's picture books. Rather than ignoring these behaviors should they occur in picture books behavioral definitions were constructed so that sharing-selfishness behavior could be analyzed. The primary distinction between sharing and selfishness was willingness to recognize the desires of another and act upon these desires.

Sharing: (Sha)

Behavior characterized by giving part or all of what one has to another by one's own decision. Exhibited by:

- 1) Verbal statements such as "You can have this," "I'll share," "We can take turns," etc.

- 2) Statements in the text which refer to giving part or all of what one has to another by one's own decision.

Selfishness: (Sel)

Behavior characterized by keeping all of what one has and disregarding the wants and desires of another, even when asked or directed to share.
Exhibited by:

- 1) Verbal statements such as "You can't have that, it's mine," "I won't share," "Leave my things alone," etc.
- 2) Statements in the text which refer to keeping all of what one has to one's own self or to resistance to giving part of what one has to another when directed or asked to share.

As with the previous category, no evidence for the stereotypic portrayal of creativity-imitation was reported in the literature. Instances of these behaviors do occur in children's picture books, however, and it was thought by the investigator to be a potentially relevant dimension. The categories were distinguished by the novelty (or lack of same) of a character's behavior.

Creativity: (Cre)

Behavior characterized by producing a novel idea or unusual combination through one's own mental or physical efforts.

- 1) Verbally engaging in fantasy or imaginative play or offering a unique solution to a problem situation.
- 2) Statements in the text which refer to fantasy or imaginative play which is not displayed first by another in the book.
- 3) Statements in the text which refer to the construction of a novel object out of materials that one finds or are present.

Imitative: (Imi)

Behavior displayed either duplicates, repeats, or mimics the behavior of another in the book, or is an attempt to do so. Imitative behavior must occur after the verbalizations or actions of another in the book.
Exhibited by:

- 1) Verbal statements such as "I want to do that just like you did."

- 2) Statements in the text which refer to watching the behavior of another and attempting to perform in a similar fashion.

A behavioral dimension frequently cited in the literature was nurturance-non-supportive. Females were reported to be portrayed as nurturant by numerous investigators (Saario, et. al., 1973; Weitzman, et. al., 1972; Nilsen, 1971; Kagan, 1964; and Child, et. al., 1946). The primary distinction between nurturant and non-supportive behavior was willingness to aid and support another.

Nurturance: (Nur)

Behavior characterized by helpfulness or willingness to aid, comfort, or support another when asked or without specific request. Exhibited by:

- 1) Verbally praising or comforting another, such as "I like you," "You did a good job," "I'm sorry you are hurt," etc.
- 2) Statements in the text which refer to comforting another by hugging, kissing, patting, etc., by bringing food or toys someone, or to behavior which assists another (combing another's hair, helping another dress, helping another to attain something out of their reach), or to grooming or feeding an animal.

Non-Supportive: (N-Sup)

Behavior characterized by resisting to help another when asked or without specific request, or by ignoring the pleas of another for help. Exhibited by:

- 1) Verbal statements such as "I don't care if you are hurt," "I don't have time to help," etc.
- 2) Statements in the text which refer to ignoring a physically or emotionally hurt person or animal.

Aggression-non-aggression was another behavioral dimension frequently cited in the literature. Males were reported by a number of investigators to be depicted as aggressive (Williams, et. al., 1975; Kagan, 1964; and Weitzman, et. al., 1972). Maccoby and Jacklin (1974) also reported males

significantly more aggressive than females while Kagan (1964) reported non-aggression as a universal female stereotyped behavior. In defining the categories, aggression was characterized as negative behaviors designed to destroy or coerce while non-aggression was the passive acceptance of the aggression of others.

Aggression: (Agg)

Behavior directed at physically or emotionally hurting another person or animal, destroying an object, or hostile actions. Exhibited by:

- 1) Verbal statements such as "You're stupid," "I hate you," "You're a dummy," "You look like a freak," etc.
- 2) Verbal aggression and hostility such as yelling, screaming, name-calling, teasing, or bullying.
- 3) Statements in the text which refer to physical aggression and hostility such as: biting, kicking, or hitting another without smiling, destroying an object, or other hostile actions.

Non-Aggression: (N-Agg)

Behavior characterized by listening quietly to or accepting the aggression of another with no aggressive reaction. Exhibited by:

- 1) Verbal statements such as "I don't care if you hit me," "It doesn't matter if you tear my picture up," etc.
- 2) Statements in the text referring to nonverbally letting others hit, yell, tease, or bully oneself with no aggressive reaction, or watching as another destroys an object.

Intelligence was reported by several investigators as a stereotyped male characteristic portrayed in children's books (Nilsen, 1971; Weitzmen, et. al., 1972; and Child, et. al, 1946). However, construction of the definition for intelligence was difficult because so many behaviors can be labeled as intelligent. Therefore, the investigator decided to implement a narrow but manageable definition of intelligence and its counterpart ignorance.

Intelligence: (Int)

Behavior characterized by transmitting information verbally or nonverbally to another in the book when asked or without specific request. Exhibited by:

- 1) Verbally supplying information to requests, telling another where information may be found, or giving information to another in the book when not asked to do so.
- 2) Statements in the text referring to showing someone how to do something in response to a request.

Ignorance: (Ign)

Behavior characterized by not knowing an answer to a question or problem when asked by someone else. Exhibited by:

- 1) Verbal statements indicating ignorance such as "I don't know how to do that," "I don't know," etc.
- 2) Statements in the text referring to nonverbal behavior such as shaking one's head in response to a question, shrugging one's shoulders, etc.

The stereotypic portrayal of emotional-unemotional behavior was frequently mentioned in the literature. Young children typically stereotype females as emotional (Williams, et. al., 1975) while males are stereotyped as able to control and suppress strong emotions (Kagan, 1964). Children's books have been reported to stereotype male behavior as unemotional while females are depicted as emotional (Weitzman, et. al., 1972; Nilsen, 1971). Therefore, the emotional or unemotional portrayal of males and females in children's picture books warranted inclusion.

Emotional: (Emo)

Behavior displayed precede, follow, or occur during a situation which include the following reactions: pleasure, joy, happiness, excitement, love, surprise, fear, sorrow, anger, or disappointment, pride, satisfaction, caring, disgust, displeasure, anxiety, or timidity. Exhibited by:

- 1) Verbal statements specifying one of the above emotions, such as "I'm angry," "I'm afraid," "I'm sad," "I like flowers," "I don't like bugs," etc.
- 2) Statements which end with an exclamation point.
- 3) Statements in the text which refer to behavior illustrating one of the above emotions such as: crying, leaving or hiding from a potentially fearful situation, smiling, jumping up or down with excitement or anger, pouting, embarrassment, surprise, cowering, or hugging or kissing another.

Unemotional: (Une)

Absence of emotional behavior preceding, following, or during a situation. Exhibited by:

Failure to display one of the emotions included in the category "emotional" either verbally or through statements in the text.

The activity level of males and females was another stereotypic dimension frequently cited in the literature. Preschool age children were reported to stereotype males as having greater strength than females (Chasen, 1974; and Williams, et. al., 1975). Children's books have been reported to consistently portray males as more active than females (Child, et. al., 1946; Frasher and Walker, 1972; Saario, et. al, 1973; Weitzman, et. al., 1972; Stewig and Higgs, 1973; Stewig and Knipfel, 1975; Nilsen, 1971). Some empirical evidence also supports the greater activity level of boys (Maccoby and Jacklin, 1974). Because of the wide range of activity levels portrayed in children's picture books, three categories of behavior were constructed to discriminate the various levels of activity.

Active: (Act)

Behavior characterized by displays of, or engagement in, active physical effort. Exhibited by statements in the text which refer to the following:

- 1) Energetic movement in performance of active hobbies (ballgames, foot races, ring-around-the-rose, climbing, fishing, dancing, swimming, hiking, bike-riding, horseback riding, etc.).
- 2) Active work or play such as: construction (block building, sand play or other mediums of construction), lifting heavy objects, preparing dinner, taking out the garbage, walking, running, etc.
- 3) Standing or sitting while engaged in active leg, hand, or arm movements.
- 4) Play.

Passive-Active: (P-Act)

Behavior characterized by displays of passive physical or mental effort. Exhibited by statements in the text which refer to the following:

- 1) Watching others while not becoming physically involved in activity, watching television, or looking.
- 2) Sitting or standing while not physically involved in an activity.
- 3) Listening to the radio or to others.
- 4) Day-dreaming or dreaming while asleep.
- 5) Reading, studying, thinking, eating, or singing.
- 6) Sitting or standing while holding an object with little or no movement.
- 7) Resting on furniture while engaged in little arm or hand movement.
- 8) Talking to another.

Inactive: (Ina)

Behavior characterized by no physical or mental effort. Exhibited by sleeping or lying on bed or furniture.

Many statements in picture books are merely descriptive statements about a character's personal characteristics and do not constitute behavioral qualities. Therefore, a category was constructed to distinguish descriptive statements from behavioral characteristics.

Descriptive Behavior: (D-B)

To be coded as D-B, the message units are only descriptive; they cannot be coded as behavior. Examples: "He is short," "She is hungry," "All she ever caught was a cold," etc.

Statements in the text which describe an activity or emotion cannot be coded as D-B, however.

Operational Definitions for Behavioral Categories: Illustrations

Because text and illustrations serve a dual function in presenting behavioral models for children, a parallel scale was developed to analyze the content of illustrations. Every effort was made to construct closely aligned categories for text and illustrations although the illustration definitions and examples were necessarily tied to clearly observable behavior while text was tied to the written word. The following is a listing of the definitions for illustrations.

Dependence: (Dep)

Behavior which is directed at relying on another for physical or emotional support. Exhibited by:

- 1) Nonverbal behavior such as seeking close physical proximity through: being carried by another; hugging; sitting on another's lap; holding onto another; or hiding behind another.
- 2) Illustrations showing a character clinging to another for support, protection, or reassurance.
- 3) Nonverbal behavior showing reliance on another for assistance in a task or situation.
- 4) Illustrations showing a character following another.

Note: In the preceding definition, "another" is defined as a human, personified animal, or personified inanimate object.

Independent: (Ind)

Behavior which is directed at self-reliance or self-sufficiency.
Exhibited by:

- 1) Nonverbal self-reliant behavior such as: self-care skills (dressing, washing hands, brushing teeth by oneself, etc.).
- 2) Nonverbal resistance to an implied or explicit authority (disobedience, ignoring, or defiance of the authority).
- 3) Nonverbal behavior showing a character:
 - a) engaged in a task or activity by oneself without the physical assistance of another.
 - b) engaged in a task that differs from the tasks of others around him if others are shown in the picture.

Competition: (Comp)

Behavior involving two or more persons or animals which is directed at striving against another for some goal. Exhibited by:

- 1) Nonverbal behavior such as - playing a competitive game where there is usually a winner. Competitive games include: tag, races, basketball, football, baseball, track, card playing, table games, hide and seek, drop the handkerchief, king on the mountain, ring-around-the-rosey, Easter egg hunts, and similar games.
- 2) Nonverbal behavior showing a character competing in a task to be the best, or the first.

Cooperation: (Coop)

Behavior involving two or more characters who work together in the same activity -- a division of labor is apparent in which the efforts of one are supplemented by another. Exhibited by nonverbal behavior such as: one person bringing the paint while another brings the brushes; one person bringing the dishes to set the table while another cleans off the table; two persons cleaning the same floor, etc.

Directive: (Dir)

Behavior which consciously guides, leads, controls, or directs the behavior of another and may or may not be used to achieve a personally desired ambition. Exhibited by:

- 1) Nonverbally controlling or manipulating others to achieve an ambition or to fulfill personal needs.
- 2) Nonverbally guiding another (pointing, leading another by the hand, etc.) or showing another what to do when not asked.
- 3) Nonverbally stopping the behavior of another.

Submission: (Sub)

Behavior which involves compliance to another's direction or control. Exhibited by nonverbal behavior suggesting compliance such as obeying commands, performing duties when directed to do so, or yielding to the control or directions of another.

Persistence: (Per)

Behavior that is engaged in for goal achievement and is characterized by staying with a situation or task despite adverse or difficult conditions which present obstacle(s) in achieving a desired aim. Exhibited by non-verbal behavior which illustrates continuing at a task or situation despite one or more failures.

Cessation: (Ces)

Behavior that involves discontinuing a goal-directed activity when adverse or difficult conditions arise which present obstacle(s) in achieving a desired aim. Exhibited by nonverbal behavior such as stopping an activity when failure occurs or when obstacles are presented which could prevent achieving a desired aim. Cessation is coded in only the first illustration showing discontinuance of the goal-directed activity.

Explorative: (Exp)

Behavior characterized by seeking knowledge or information about an object, the surroundings or phenomena through careful examination. Exhibited by:

- 1) Nonverbal behavior involving the seeking of information through physically investigating the surroundings or objects which are not part of one's own person. Physical investigation is shown through:
 - a) carefully examining objects
 - b) picking objects up and looking at them
 - c) leaning over to look, smell, touch, hear, or taste an object
 - d) walking around an object while looking at it to investigate the object.
- 2) Illustrations which show someone asking another questions.

Non-Explorative: (N-Exp)

Behavior characterized by generally ignoring the environment or being seemingly oblivious to it. Exhibited by:

- 1) Nonverbal behavior such as generally ignoring an object or displaying indifference to the environment.
- 2) Nonverbal behavior characterized as:
 - a) Unoccupied behavior, which shows a character standing or sitting, while not involved in an activity.
 - b) Onlooker behavior, which is watching the activities of another while not physically seeking involvement.

Sharing: (Sha)

Behavior characterized by giving part or all of what one has to another through one's own decision. Exhibited by nonverbal behavior such as giving all or part of what one has (food, drink, money, toys, etc.) to another by one's own decision.

Selfishness: (Sel)

Behavior characterized by keeping all of what one has and disregarding the desires of another, even when asked or directed to share. Exhibited by:

- 1) Nonverbal behavior such as keeping all of what one has (food, drink, money, toys, etc.) to one's own self.
- 2) Nonverbal resistance to giving part of what one has to another when directed to do so, or when asked to share.

Creativity: (Cre)

Behavior characterized by producing a novel idea or unusual combination through one's own mental or physical efforts. Exhibited by:

- 1) Nonverbal behavior such as fantasy or imaginative play (mental or physical) which is not displayed first by another in the book, however, if the same character engages in the same activity again, it would be coded as creative each time the character is engaged in the activity.
- 2) Nonverbal behavior such as constructing a novel object out of materials that are presented or which one finds.

Imitative: (Imi)

Behavior displayed either duplicates, repeats, or mimics the behavior of another in the book or is an attempt to do so. Imitative behavior must occur after the actions or verbalizations of another in the book.

- 1) Nonverbally performing the same or a similar behavior of another in the book.
- 2) Attempting to perform in a similar behavior.

Nurturance: (Nur)

Behavior characterized by helpfulness or willingness to aid, comfort, or support another when asked or without a specific request. Exhibited by:

- 1) Nonverbally comforting another by hugging, kissing, patting, or holding.
- 2) Bringing food, toys, etc. to someone else through one's own decision.
- 3) Nonverbally assisting another (combing another's hair, helping someone dress, helping another attain something out of their physical reach, etc.).
- 4) Grooming or feeding an animal.

Non-Supportive: (N-Sup)

Behavior characterized by resisting to help another when asked or without specific request, or by ignoring the pleas of another for help. Exhibited by:

- 1) Nonverbal behavior such as ignoring a physically or emotionally hurt person or animal.
- 2) Ignoring the pleas of another for help.

Aggression: (Agg)

Behavior directed at physically or emotionally hurting another person or animal, destroying an object, or hostile actions. Exhibited by:

- 1) Nonverbal physical aggression and hostility such as: biting, kicking, or hitting another without smiling, or destroying an object.
- 2) Pictorial representations of aggressive or hostile behavior such as yelling, screaming, bullying, or teasing another.

Non-Aggressive: (N-Agg)

Behavior characterized by listening quietly to, or accepting the aggression of another with no aggressive reaction. Exhibited by:

- 1) Nonverbally letting another or others hit, yell, tease, or bully oneself with no aggressive reaction.
- 2) Nonverbally letting another destroy an object with no aggressive reaction.

Intelligence: (Int)

Behavior characterized by transmitting information verbally or non-verbally to another in the book when asked or without specific request. Exhibited by:

- 1) Nonverbally showing someone how to do something in response to a request.
- 2) Pictures showing a character whispering in another's ear.
- 3) Pictures which show printed words enclosed in line drawings or near the person which clearly indicate the person is verbalizing.

Ignorance: (Ign)

Behavior characterized by not knowing an answer to a question or problem when a question is asked by someone else. Exhibited by nonverbal behavior such as shaking one's head in response to a question, shrugging one's shoulders, etc.

Emotional: (Emo)

Display of one or more of the following actions:

- 1) The character's face must be shown in the following actions: smiling broadly with upturned lips, crying, pouting (protruding lip), laughing, frowning (down-turned lips), embarrassment (blushing), narrowing of the eyes, surprise (wide opened mouth, or wide eyes) which differ from previous illustrations.
- 2) The characters's face need not be shown in the following actions: fear (hands over face, or running from an object or situation), jumping up and down with excitement or anger, anger (hitting, kicking or throwing an object), cowering (slumped shoulders, or turning away from situation) or hugging or kissing another.

Unemotional: (Une)

No emotions as described in the category "emotional" are pictorially displayed.

Active Work or Play: (Act)

Behavior characterized by displays of active physical effort.
Exhibited by:

- 1) Nonverbal energetic movement or exercise in performance of active hobbies such as: dancing, organized games (ballgames, foot races, ring-around-the-rose, etc.), horseback riding, swimming, walking, hiking, climbing, or skipping.
- 2) Active work or play such as construction, building with blocks, sand, or other mediums of construction, and lifting heavy objects.
- 3) Sitting or standing while engaged in active leg or arm movement (throwing or kicking objects, swinging legs or waving arms actively). In this sub-category, the character must be involved in active physical work or play.

Passive-Activity: (P-Act)

Behavior characterized by displays of passive physical or mental activity. Exhibited by:

- 1) Watching others while not becoming physically involved in activity, or watching television.
- 2) Sitting or standing while not physically involved in an activity.
- 3) Listening to others or listening to the radio.
- 4) Day-dreaming or dreaming while asleep.
- 5) Reading, studying, thinking, eating, talking, or singing.
- 6) Sitting or standing while holding an object with little or no arm or leg movement (brushing teeth, combing hair, holding light object).
- 7) Resting on furniture while engaged in arm or hand movement.
- 8) Pointing

Inactive: (Ina)

Behavior characterized by no physical or mental activity. Exhibited by sleeping or lying on bed or furniture.

Definitions for Message Units and Main Characters

In order to perform a behavioral analysis of the text material, it was decided to convert the sentences into discrete scoreable units, or message units. Unlike elementary texts where the vocabulary and sentence length were somewhat controlled, picture book text is much more conversational and sentences are often compound or complex. Drawing from the previous work of Davis and Lange (1973) in converting verbal statements to message units, the following message unit definition was developed and used:

A message unit is defined as a statement or question which communicates a single message to the reader. A simple sentence composed of a subject, verb, and object contains one message unit. For example, the sentence "He ran to the store" contains a subject, verb, and object and would be coded as one message unit. Other simple sentences may not include an object but do contain a subject and verb, such as the sentence "She ran." The immediately preceding sentence contains one message unit.

Compound sentences such as "Sue walked hurriedly down the street and Jimmy followed closely behind," contain two or more message units. In the preceding example two message units are evident: 1) Sue walked hurriedly down the street, and 2) Jimmy followed closely behind. In compound sentences, the subject and verb are often understood. For example in the sentence "Mark has to feed the dog, empty the garbage, and sweep the floor," three message units are evident. These are: 1) Mark has to feed the dog, 2) (Mark has to) empty the garbage, and 3) (Mark has to) sweep the floor.

A complex sentence is composed of an independent clause and one or more dependent clauses. An example of this type of sentence is "When he goes to the store, he always remembers to take money." The preceding complex sentence contains two message units: 1) When he goes to the store, and 2) he always remembers to take money. Even though "when he goes to the store" is a dependent clause it transmits a message to the reader and therefore, constitutes a message unit.

Incomplete sentences are coded as message units only when the meaning is clearly apparent, such as "Don't!" where the word indicates a definite message to the reader or listener. Statements in the text which include verbalizations such as "'We went to town,' I said" are coded as one message unit. In statements such as this, the behavior stated is talking about what they did and should be coded as talking, rather than the event being described. Statements in the text which include more lengthy verbalizations are all coded for the talking except when a behavior is stated which is not included in quotation marks. An example follows: "'Jane,' she said, while sweeping the floor, 'bring me a sponge. Then go get the bottle for the baby.'" There are three message units in the preceding example which are: 1) "Jane," she said, "bring me a sponge," 2) while sweeping the floor, and 3) "Then go get the bottle for the baby." In this example, there was talking as well as the action of sweeping the floor. Therefore, message units #1 and #3 are coded for the talking and #2 is coded for the action of sweeping. Subsequently, in isolating message units which include verbalizations, it is imperative the quotation marks be included on the coding sheet so the coder knows the message unit is a verbalization.

Since the behavior of each main character portrayed in every picture book was analyzed, the following definition of main character was developed:

A main character is a person, personified animal, or personified inanimate object referred to in the text by name or by specific reference, such as "Sam and his friend" and who appears in thirty percent or more of the illustrations.

Consideration was given to the number of times each character was illustrated because some picture books present numerous characters in a variety of unrelated activities. The thirty percent criterion level permitted there to be more than one main character in each book in most instances. Consequently, the behavior of main characters was analyzed in relation to the behavior of other main characters.

Each main character was coded as male or female, child or adult, personified animal or inanimate object, or human. The investigator believed children would not readily identify with animals or inanimate objects realistically represented in picture books. Therefore, animals and inanimate objects must have been portrayed as having human characteristics to be considered main characters.

For a character to be coded as a personified animal the following definition was developed:

A personified animal is an animal presented as having human characteristics including the ability to think and reason, and is endowed with human emotions.

The following definition for personified inanimate object was utilized:

A personified inanimate object is defined as an inanimate object represented in the book as having life and endowed with human characteristics of thinking, reasoning, and emotions.

Interrater Reliability

Selection of raters. Three graduate students and one undergraduate student were selected and randomly assigned to code either the text or the illustrations of a sample of children's picture books. This separate coding procedure controlled for subjective generalizations from text to illustrations and cut down on the confusion of learning two parallel (but not identical) coding systems.

Training procedures. Each coder was given a set of written definitions for either the text or illustrations and asked to memorize them. After a period for learning the definitions, the coders were independently tested on their memorization of the categories. A criterion level of 90 percent was met by each rater before training procedures continued. Separate training sessions were conducted for each pair of coders throughout the training period.

During the training period, illustration coders were shown a series of 48 slides of illustrations from children's picture books. Each behavior category in the scale was represented at least twice in the slides. The coders analyzed the slides independently and then met together with the trainer to discuss the analysis. Some revisions and elaborations of definitions resulted from this discussion session.

Raters coding the text were asked to independently code 59 sentences that had been taken directly from the texts of a variety of picture books or constructed by the trainer to illustrate a particular behavior category. The sentences included two or more examples from each behavior category. After independently coding the sentences, the coders met together with the trainer for a discussion session and, as with the illustrations, some revisions and elaborations were made at that time. Additional changes in the original definitions for both the texts and illustrations were made, using small samples of children's picture books prior to the onset of the final reliability analysis.

Agreement on message units in the text was attained by extending the message unit definition to include more examples. After these revisions were made several training sessions were conducted on isolating message units.

Types of sentences found previously to cause interrater disagreement were constructed by the trainer and presented rather than selecting examples from texts.

Numerous picture books were used throughout the training period. Because of the nature of the variables investigated, only picture books which tell a story were utilized. Although a number of picture books are available which present specific concepts such as color, alphabet, or number recognition, these books usually do not have a main character by definition nor do they tell a story. Therefore, these "concept" books were excluded from analyzation. In selecting books used for training, the raters primary consideration was given to books which met the following criteria:

- 1) books which portrayed the behavior categories found to present the most difficulty in rater agreement,
- 2) books which portrayed specific behaviors (such as selfishness, nonsupportive, competition, and imitation) which are rarely depicted in picture books, and
- 3) books which represented the work of several different authors and illustrators.

These criteria were used to insure that raters had sufficient previous experience in analyzing all behavioral categories and were able to use the instruments on a variety of styles of many different authors and illustrators.

Coding format. Since two different aspects of children's picture books were being analyzed, different coding instructions were developed. (See Appendix B.) Originally, separate coding sheets were developed in which the coders wrote the behavior code adjacent to the message unit or picture number, but these were later revised to a checklist system for ease of coding and computation of frequencies. (See Appendix D.)

Picture book sample. Twenty-five books were selected for the reliability study. None of the books had been used previously in training. During the training period it became evident that books used in the reliability study would have to meet certain criteria in order to adequately evaluate the measure. Therefore, the following criteria were used in book selection:

- 1) the sample must represent a variety of authors and illustrators,
- 2) the books must include at least one main character by definition,
- 3) the books must tell a story,
- 4) the sample of books must include as close to an equal number of male and female main characters as possible, and
- 5) at least two examples of each behavior category should be represented in the books.

Table I provides a listing of books used in the study and the behavioral categories represented in each book. (See Appendix C for complete bibliography of books used in reliability study.)

**THIS BOOK
CONTAINS
NUMEROUS PAGES
WITH DIAGRAMS
THAT ARE CROOKED
COMPARED TO THE
REST OF THE
INFORMATION ON
THE PAGE.**

**THIS IS AS
RECEIVED FROM
CUSTOMER.**

CHAPTER III

RESULTS

The purpose of this study was to construct an instrument that would:

- 1) meet the standard psychometric requirements of reliability and validity, and
- 2) systematically analyze the behavioral characteristics of males and females which are portrayed to young children through both the text and illustrations of picture books.

To assess the effectiveness of the instrument developed in the present study, 25 picture books were selected for analysis. These books were chosen to include examples of each bi-polar behavioral dimension and to provide near equal numbers of male and female main characters. Each book was coded independently by the pairs of trained raters, one pair coding text message units and the other pair coding illustrations. The reliability of the Sex-Role Stereotyping Scale for text and pictures was assessed by means of interrater percentages of agreement in the following categories:

- 1) identification of main characters,
- 2) descriptive characteristics of main characters,
- 3) number of illustrations including main characters,
- 4) message units,
- 5) individual bi-polar dimensions of the scale for both text and pictures.

Interrater Reliability

There was 100 percent agreement on the number of main characters and their descriptive characteristics, i.e., male, female, child, adult, human, or personified animal, in the text and picture illustrations. (See Table II.) Nearly perfect agreement was also reached on the text message units (97 percent).

TABLE II

Percentage of Interrater Agreement on Descriptive Characteristics, Main Characters (Text and Pictures), and Message Units (Text)

Category	No. of Agreements	Total No. Reported	Percentage Agreement
Main Character Identification	56	56	100.00
Descriptive Characteristics	161	161	100.00
Pictures of Main Characters	935	943	99.15
Message Units (Text Only)	1724	1783	96.75

The behaviors exhibited by main characters in the text were examined by coding each message unit in one or more of the bi-polar scale dimensions. There were 1724 agreed upon message units in the twenty-five books and 4270 coded scores. Interrater reliability on each bi-polar behavioral dimension and total reliability on the behaviors communicated through the text is represented in Table III.

Overall interrater reliability for the Sex-Role Stereotype Scale was 94.05 percent. The reliability of individual bi-polar dimensions ranged from 78.16 percent for the Exp/N-Exp category to 96.35 percent for the Emo/Une category. A total of eight dimensions (Dep/Ind; Comp/Coop; Sha/Sel; Agg/N-Agg; Int/Ign; Emo/Une; Act/P-Act/Ina; D-B) exceeded 90 percent agreement; four (Dir/Sub; Per/Ces; Cre/Imi; Nur/N-Sup) exceeded 80 percent; and one (Exp/N-Exp) was below 80 percent.

TABLE III

Percentage of Interrater Agreement on Individual Bi-Polar Dimensions
(Text Message Units)

Bi-Polar Behavioral Dimensions	No. of Agreements	Total No. of Behaviors Portrayed	Percentage Agreement
Dep/Ind	343	379	90.50
Comp/Coop	38	42	90.48
Dir/Sub	84	102	82.35
Per/Ces	32	38	84.21
Exp/N-Exp	68	87	78.16
Sha/Sel	9	10	90.00
Cre/Imi	115	131	87.79
Nur/N-Sup	37	44	84.09
Agg/N-Agg	18	20	90.00
Int/Ign	248	273	90.84
Emo/Une	1610	1674	96.35
Act/P-Act/Ina	1605	1674	95.88
D-B	50	50	100.00

TOTAL AGREEMENT 94.05 PERCENT

The pictorial representations of behaviors exhibited by main characters were coded for each illustration which contained a main character resulting in a total of 935 illustrations and 2326 coded messages. The overall reliability of the scale for the pictures was 85.10 percent. Interrater reliability on the individual bi-polar behavioral dimensions, shown in Table IV, ranged from 55.28 percent for Exp/N-Exp to 92.00 percent for Act/P-Act/Ina. For three categories (Act/P-Act/Ina; Emo/Une; Dep/Ind) the percentage of agreement exceeded 80 percent; for four categories (Per/Ces; Sha/Sel; Agg/N-Agg; Cre/Imi) it exceeded 70 percent; three categories (Comp/Coop; Nur/N-Sup; Dir/Sub) exceeded 60 percent with one category (Exp/N-Exp) falling below 60 percent.

The overall reliability of the scale, as well as the reliability of individual bi-polar dimensions, was higher for text message units than for illustrations indicating the greater difficulty in coding behavioral dimensions in the latter form of representation.

TABLE IV

Percentage of Interrater Agreement on Individual Bi-Polar Dimensions
(Illustrations)

Bi-Polar Behavioral Dimensions	No. of Agreements	Total No. of Behaviors Portrayed	Percentage Agreement
Dep/Ind	248	293	84.64
Comp/Coop	36	52	69.23
Dir/Sub	56	87	64.37
Per/Ces	16	21	76.19
Exp/N-Exp	68	123	55.28
Sha/Sel	3	4	75.00
Cre/Imi	53	75	70.67
Nur/N-Sup	44	66	68.18
Agg/N-Agg	19	26	73.07
Emo/Une	849	963	88.16
Act/P-Act/Ina	886	963	92.00
TOTAL AGREEMENT 85.10 PERCENT			

CHAPTER IV

DISCUSSION

The purpose of the study was to construct an instrument which would accurately or reliably discriminate the behavioral characteristics of males and females portrayed through both the text and illustrations of children's picture books. Since children's picture books portray behavioral characteristics through both the illustrations and text, the scale constructed in the study consisted of two parallel forms of behavioral dimensions and definitions. Twenty-five books were selected to test the reliability of the instrument for discriminating twelve pairs of bi-polar behavioral dimensions. Two pairs of raters were trained to code the behaviors portrayed in the books, one pair for text and one pair for pictures. Interrater reliability was assessed for each parallel form of the scale.

The overall reliability for the measurement of sex-role stereotypes in the text or story line of the picture books was 94.05 percent. Interrater reliability on the scale for illustrations was somewhat lower -- 85.10 percent. This reflects the greater difficulty of coding pictorial representations of behavior. It should be noted that several books contained abstract paintings as illustrations rather than clear line drawings or photographs. There were also several pictures which superimposed one picture upon another making it difficult to separate the character from the background. Given these facts, the reliability figure of 85 percent is encouraging and respectable.

To control for the error of unclear illustrations, abstract or superimposed illustrations could be excluded from analysis. However, this weakens the general applicability of the scale. It may be possible to improve the accuracy of the scale by modifying operational definitions to be

used for pictorial material, particularly in the Exp/N-Exp; Dir/Sub; Nur/Non-Sup/ and Comp/Coop categories.

Several problems recurred throughout the reliability study. Some were general instrumentation problems affecting the entire study while others were restricted to specific behavioral dimensions. A general problem involving the present coding sheet became evident during the study. The coders had difficulty placing checkmarks in appropriate columns and lines unless other columns were restricted from view. A comparison of the coded data sheets with book content indicated several instances where the coders had checked the immediately adjacent column instead of the correct one. Therefore, the coding sheet needs to be constructed to minimize the error resulting from this aspect of the sheet format.

Another problem which probably affected the general outcome of the study was the short time period (one and a half weeks) in which all twenty-five books were coded. This may have inflicted a time pressure on coders and caused carelessness that would have not otherwise occurred.

Raters were directly involved in formative revisions and elaborations of the behavioral definitions during training. In some cases this may have been helpful since raters were made aware of reasons for definitional changes and actually contributed to changes. However, the raters did report some difficulty unlearning previous definitions.

Since the bi-polar behavioral dimensions in the text and illustrations were individually coded, it was possible to isolate the behavioral dimensions in need of further revision or clarification. Those dimensions which did not meet a level or 85 percent agreement warrant discussion.

The Dir/Sub behavioral dimension presented problems in both the text and illustration ratings, although the percentage of agreement was considerably lower for illustrations. The definition for Dir in the text was directed at discriminating a conscious desire to control or direct the behavior of another. A problem arose in the coding because each rater individually decided where the inflection in the message unit was placed and whether the statement was a direction or suggestion, such as the statement, "But, I would rather have a piece of cake" (Battles, 1970). This may be an internal definitional problem that is unavoidable and will recur. The category Dir/Sub in the illustrations was also a source of repeated disagreement. One of the ways Dir/Sub was often exhibited was through leading another or following the directions of another. Many instances were found where two persons were shown holding hands and it was the rater's responsibility to decide which character was leading and which was following. The definition needs to be revised and clarified to control for these disagreements.

Per/Ces was also found to yield a relatively low level of agreement in both the text and illustrations. Disagreements arose on when to code the behavior as persistent in the sequence of activities. An example should clarify this point: a character's block structure is knocked down by another and the character begins rebuilding, adding one block after another until the structure is complete. One rater coded each text message unit describing the rebuilding as persistent while the other coded only the final message unit as persistent behavior. Similar disagreement was found in the illustrations. Therefore, the definition needs to be revised to clarify when in the sequence of activities the behavior should be coded as persistent.

The behavioral dimension Exp/N-Exp resulted in the lowest level of reliability in both pictures and text. This problem was anticipated throughout the training period and many revisions were made in the definitions to control the errors. The primary problem seemed to be whether or not the character was seeking information through careful examination of the surroundings. Many pictures depicted a character looking at an object but disagreement arose in whether the character was carefully examining the object to receive information. Clarification on this point needs to be made. Another source of disagreement might well have been that the definition for both text and illustrations was changed the day before coding of the books began. As a result, the definition may not have been clearly understood by each rater.

Nur/N-Sup agreement was also relatively low in both the text and illustrations. One book showed a mother kangaroo carrying her baby in her pouch in nine illustrations. One rater coded this behavior as nurturant while the other rater did not code it as Nur or N-Sup. Disagreement on this one behavior therefore accounted for more than twelve percent of the disagreements. Statements of praise and support accounted for most of the disagreements in the text messages. Several instances of behavior were coded by one rater as nurturant when comments such as "What a beautiful picture!" (Buckley, 1970) were made to a child. Although this type of praise was included in the definition for nurturance, one coder overlooked four of these behaviors. Therefore the problem seemed not to be the definitions, but the fault of the rater to learn this aspect of the definition.

A greater problem was exemplified in the Cre/Imi category. It appeared that the definitions were not truly bi-polar. In the book The Way The

Animals Walk (Woodcock, 1946) a boy is shown imitating the walk of several animals but in a creative manner. One picture showed the boy imitating the walk of a turtle and the boy had attached a pillow to his own back to simulate the turtle shell. He was imitating the turtle but in an ingenious way. Therefore, an internal definitional discrepancy was evident, and needs to be clarified.

In the behavioral dimension of Comp/Coop there was disagreement on when a behavior was cooperative. In comparing the coding disagreements with the pictures there was evidence that the notion of division of labor needed revision and further clarification.

There were only four instances of Sha/Sel coded in the illustrations and one disagreement was found. The behavior disagreed upon was portrayed in the book In the Forest (Ets, 1944). In the picture a bear is shown feeding a boy something from a jar. Although this behavior was included in the definition, the pictorial representation of sharing seemed to be overlooked by one rater. Therefore the problem remains the rater's oversight and not the definition.

Disagreement in the behavioral dimension Agg/N-Agg also seemed to be an oversight of the raters in applying the definitions to the pictures. Four disagreements occurred on pictures showing a main character kicking or hitting an object or chasing another while smiling. The definition for aggressive behavior was constructed to discriminate behavior as aggressive when an object or person is kicked, hit, bitten, etc. while not smiling. Subsequently, the problem in achieving a high level of interrater reliability seemed to be the result of the rater's failure to completely learn the definition.

In some cases therefore, lower levels of accuracy were the result of incomplete operational definitions; in others, careless errors and lapses in attention, due in part to time demands, resulted in reduced agreement. These problems notwithstanding, the Sex-Role Stereotyping Scale constructed in the present investigation accurately discriminated personal and behavioral characteristics of main characters in the text of picture books. Furthermore, the reliability of the scale for illustrations was reasonably good and respectable, given the complexity of the judgements demanded.

The results of previous studies of sex-role stereotyping in children's picture books were limited by the lack of reliable measurement techniques. The Sex-Role Stereotyping Scale developed in this study will rectify this limitation and provide an accurate tool for the discrimination of sex-role portrayals in children's picture books.

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THE MEASUREMENT OF SEX-ROLE STEREOTYPES
IN CHILDREN'S PICTURE BOOKS

By

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The purpose of this study was to construct an instrument for the reliable measurement of sex-role stereotyping in children's picture books. The following twelve pairs of bi-polar behavioral dimensions were selected and operationally defined:

- | | |
|--------------------------------|------------------------------------|
| 1) Dependence/Independence | 7) Creativity/Imitation |
| 2) Competition/Cooperation | 8) Nurturance/Non-Supportive |
| 3) Directive/Submissive | 9) Aggressive/Non-Aggressive |
| 4) Persistence/Cessation | 10) Intelligence/Ignorance |
| 5) Explorative/Non-Explorative | 11) Emotional/Unemotional |
| 6) Sharing/Selfishness | 12) Active/Passive Active/Inactive |

Two parallel forms of the scale were developed -- one for illustrations and one for text. Twenty-five picture books were selected for the analysis to include examples of each bi-polar behavioral dimension and to provide near equal numbers of male and female main characters.

Two pairs of raters were trained to code the behaviors portrayed in these books. One pair coded the text and one pair coded the illustrations.

Overall percentage of interrater agreement for text was found to be 94.05 percent, while overall percentage of interrater agreement for illustrations was 85.10 percent.

A reliable technique for the measurement of sex-role stereotypes in children's picture books was found.

APPENDIX A

CONTENT ANALYSES USED OR RECOMMENDED BY INVESTIGATORS

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Child, I. L., Potter, E. H., Levine, E. M. Children's textbooks and personality development: An exploration in the social psychology of education. <u>Psychological Monographs</u> , 1946, 60, 1-54.	Third-grade reading texts were used to analyze the "certain content of the world of ideas which confronts children in the process of education, from the point of view of the probable effect of that content on the motivation of their behavior" (Child, Potter, and Levine, 1946, p. 1).	I. Classification of Characters A. Role in story 1. Central: from whose point of view the story was written. 2. Anti-social: characters who injured or threatened the wealth or happiness of the central characters. B. Type of character 1. Children: children were categorized as boys or girls, or as in a group of mixed sex. 2. Adults: adults were categorized as men or women, or as in a group of mixed sex. 3. Animals: animals portrayed realistically and those shown as behaving like human beings. 4. Fairies: all supernatural creatures including fairies, giants, dwarfs, gods, and inanimate objects imbued with life. II. Behavior Displayed by the Character A. Object-less behavior 1. Activity: activity engaged in for its own sake, ex.: play; exercise; exploration; work; activity leading to achievement; activity leading to construction.	No reliability was assessed by Child, Potter, and Levine (1946).

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Child, Potter, Levine 1946 (Con't.)		2. Passivity: opposite of activity, ex: sleep or rest; laziness; carelessness; inattentiveness. 3. Sentience: enjoyment of and seek- ing after sensory pleasure (esthetic pleasure in artistic or natural beauty, enjoyment of the satisfaction of bodily needs as hunger and thirst). 4. Elation: emotional behavior which includes joy, enthusiasm, opti- mism--classified only when elation was judged to be the principal or most conspicuous aspect of charac- ter's behavior. B. Behavior in relation to things and events 1. Cognizance: behavior directed at gaining knowledge--either informa- tion or understanding. Ex: ask- ing questions to secure informa- tion, passive spectator or the object of adult instruction which is unsolicited; seeking knowledge through autonomous or exploratory activity. 2. Achievement: incidents in which characters show either a general- ized ambition to succeed or a desire for specific physical,	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Child, Potter, Levine 1946 (Con't.)		intellectual, or social success. Kinds of achievement: effort, ingenuity, previous skill or knowledge, wishful thinking, persistence, appeal for assistance, strength, chance, mixed. a. Nurturant achievement: directed at helping others b. Intellectual achievement: directed at academic and other intellectual successes c. Achievement for personal advancement: other than intellectual. 3. Construction: emphasis is on the creation of a material or intellectual production-- objects constructed are either utilitarian or aesthetic in their use. 4. Imaginability: fantasy & imaginative play. 5. Acquisition: desire for material possessions and acts directed at satisfying this desire. Displayed by: effort; buying, selling or trading; asking, wishing or taking what is offered; or dominance, aggression, stealing, or trickery.	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Child, Potter, Levine 1946 (Con't.)		6. Retention: desire to conserve and hold on to objects through: selfish retention in the face of demands for sharing; or non-selfish retention where no demands for sharing are made. 7. Order: displayed through: cleanliness (habit of washing up & cleaning up); orderliness (neatness & order in the arrangement of one's possessions); or finickiness (orderly behavior concerned about details and small matters). C. Altruistic social behavior 1. Affiliation: manifestations of friendliness & good will, and of the desire to do things in company with others. Demonstrated through: respect, deference, sympathy, generosity, and helpfulness. 2. Nurturance: the manifestation of helpfulness & willingness to exert oneself to aid any creature that might be in need of assistance. Displayed through: nurturance in response to specific request by another; nurturance spontaneously initiated	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Child, Potter, Levine 1946 (Con't.)		by the character without specific request; or nurturance of those jeopardized by characters own previous acts (necessitated nurturance). 3. Succorance: behavior directed at obtaining protection, sympathy, or assistance from another person. Demonstrated by: asking for help in activities; asking for favors or permission; asking for material aid; expression through the condition of the character--where the emotional condition of an individual leads others to nurture him; asking for rescue or protection from harmful threats; asking for sympathy and reassurance by appealing to others for consolation and comfort when ill, lonely, disturbed, or otherwise emotionally disturbed. 4. Deference: behavior toward other persons directed at: compliance with requests or commands by obeying commands, running errands, or performing duties when asked; politeness through courteous replies,	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Child, Potter, Levine 1946 (Con't.)		expressions of gratitude, or conformity; subservience through humbling self before others, docility, meekness, or accepting a subordinate position; respect for authority; or imitation. D. Egoistic social behavior 1. Aggression: behavior which includes: displays of temper and of flagrant disobedience; verbal aggression such as criticism or arguments; domination of others by bullying or teasing; and physical attack and killing. 2. Dominance: subsumed behavior directed at controlling the activity of others by suggesting or ordering. 3. Recognition: behavior directed at obtaining social approval and social acceptance of egoistic claims (status, virtue) through: recitals of superiority and boasting; cathection of praise--experiencing pleasure when praised or flattered by others; or public performance--the public exhibition of skill and power.	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Child, Potter, Levine 1946 (Con't.)		4. Autonomy: behavior directed at independence, self-reliance, and freedom from constraint. Displayed through: direct disobedience of an expressed command by an authority; resistance to or disregard of an implied authority; all others, in which initiative and independence do not contravene any authority. 5. Rejection: feelings of indifference, annoyance or scorn towards other people, accompanied by acts of avoidance and neglect. E. Avoidant behavior 1. Harmavoidance: efforts to escape or avoid sources of danger. 2. Blamavoidance: sensitivity to parental and social disapproval, fear of reproach, guilt feelings, and remorse. a. that produced by others through social censure and disapproval b. that which is self-produced by the character c. that which is self-produced but is shown as resulting from previous censure and disapproval. 3. Infavoidance: the fears and avoidance associated with self-consciousness, shyness, and social	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Child, Potter, Levine 1946 (Con't.)		embarrassment. Includes: narcissensitivity and avoidance or fear of competition. III. Circumstances Surrounding the Behavior Displayed: Initially, no system of classification was used, however, notes on the circumstances surrounding the behavior were taken. IV. Consequences Following Displayed Behavior A. Reward (whether implied or explicit) B. Punishment (whether implied or explicit) C. No consequence: neither reward or punishment. D. Rewards and punishments further classified as: 1. Material consequences: the acquisition or loss of material objects, or changes in basic drive states. a. material rewards: gifts or possessions acquired by work, or escape from pain or hunger. b. material punishments: having possessions taken away, being prevented from obtaining material possessions, or being hurt by physical attack.	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Child, Potter, Levine 1946 (Con't.)		2. Social consequences: those provided by the behavior of other people without direct implications for physical possessions or basic drive states. a. social rewards: giving of advice, instruction, or praise to central character. b. social punishments: scoldings, threats, and expressions of disapproval. 3. Internal consequences: those supplied by the character himself as a result of his having internalized social rewards and punishments. a. internal rewards: feeling virtuous or good at having done the right thing. b. internal punishment: feeling guilty at what he has done, or by fearing that what he has done may lead to future punishment. 4. Automatic consequences: those which are an integral part of the behavior itself. a. automatic reward: if not punished. b. automatic punishment: expression of fear or shame, experience discomfort, and sleep.	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Child, Potter, Levine 1946 (Con't.)		V. Type of Story A. Fairy Stories: all stories in which supernatural creatures appear, including fairy tales, legends, and myths. B. Animal Stories: all those in which animals are the principal characters. C. Hero Stories: all stories about individuals well known to children and commonly presented in an idealized fashion. D. Everyday Stories: all the stories not falling into other classifications and stories about everyday life in which the characters are more or less representative of normal human beings.	
Fraser, R., Walker, A. Sex roles in early reading textbooks. <u>The Reading Teacher</u> , May, 1972, 741-749.	To compare the roles, relationships, activities, and relative importance assigned to male and female characters in stories in readiness and first and second grade reading textbooks. (Fraser and Walker, 1972, p. 742).	I. Number of Male and Female Main Characters II. Adult Occupations III. Adult Role in the Family A. Breadwinner-provider: on their way to work; by indicating ownership of house or farm; or by showing specific parent at work. B. Homemaker-shopper: doing housework; cooking; buying groceries,	None reported

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Fraser and Walker 1972 (Con't.)		clothing or household items; or wearing apron. IV. Child Activities and Play A. Quiet: playing dolls, house, and "dress-up"; painting; reading; cooking; sewing; picking flowers; watching TV; and observing (watching others engaged in active play). B. Active: running; jumping; climbing; riding bikes; building; playing ball; or swimming.	
Jacobs, C., Eaton, C. Sexism in the elementary school. <u>Today's Education</u> , 1972, 61, 20-21.	A suggested method of analysis to evaluate sexism in elementary school readers.	Evaluating Sexism in Readers I. Number of stories where main character is: II. # of illustrations of: III. # of times children are shown: A. in active play B. using initiative C. displaying independence D. solving problems E. earning money F. receiving recognition G. being inventive H. involved in sports I. fearful or helpless J. receiving help IV. Number of times adults shown: A. in different occupations B. playing with children	Male Female

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Jacobs and Eaton 1972 (Con't.)		C. taking children on outings D. teaching skills E. giving tenderness F. scolding children G. biographically	Male Female _____ _____ _____ _____ _____
Nilssen, A. P. Women in children's literature. <u>College English</u> , 1971, <u>32</u> , 918-926.	Examined the roles of men and women in Caldecott Award winning books from 1951 through 1970.	I. Number of males and females listed by name in book titles. II. Number of males and females illustrated. III. Number of books in which boys or girls were the leading character. IV. Activities engaged in by males and females.	None reported
Saario, T., Jacklin, C. N., Tittle, C. K. Sex role stereotyping in the public schools. <u>Harvard Educational Review</u> , 1973, <u>43</u> , 386-416.	To provide some information on the magnitude, direction, and type of stereotyping present in early based readers by comparing different grade levels of readers and various publishing companies (Saario, Jacklin, and Tittle, 1973).	I. Main and Secondary Characters II. Type of Environment A. Home B. Outdoors C. Place of business D. School III. Behavior Exhibited A. Nurturant: helping, praising, serving B. Aggressive: biting, kicking, verbal putdown C. Self-care: dressing, washing D. Routine-repetitive: eating, going to school	100% on type of environment For behaviors and consequences, correlation coefficients ranged from .953-1.00 with 75% greater than .98.

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Saario, Jacklin, Tittle 1973 (Con't.)		E. Constructive-productive: building, writing story, planning party F. Physically exertive: sports, lifting heavy objects G. Social-recreational: visiting someone, card games H. Fantasy activity: doll play, cowboys and Indians I. Directive: initiating, directing, demonstrating J. Avoidance: stop trying, run away K. Statement about self: pos., neg., neutral L. Problem solving: producing idea, unusual combinations M. Statements or information: "I know", non-evaluative observations about other people N. Expression of emotion: crying, laughing O. Conformity: express concern for rules, social norms, other's expectations, do as told P. General verbal: trivial motor behavior such as dropping something, looking for something, or listening IV. Type of Consequences A. Positive 1. from others: directed toward subject (praise, recognition, support, signs of affection)	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Saario, Jacklin, Tittle 1973 (Con't.)		2. from self: self praise, satisfaction 3. from situation: reaching goal, unintended positive result 4. chance 5. author's statement, text B. Negative 1. from others--directed toward subject: criticism, correction, rejection of ideas 2. from self 3. from situation: inability to reach goal, unintended neg. results 4. chance 5. author's statement, text C. Neutral Consequences: not clearly positive or negative. Additionally: agent & recipient of all consequences was noted.	None reported
Stewig, J. and Higgs, M. A study of sexism in children's literature. <u>Library Journal</u> , Jan., 1973, 236-241.	Examined the roles of women in children's picture books.	I. Number of men and women represented. II. Occupational roles of men and women. III. Recreational roles of men and women; nonprofessional roles of men and women.	None reported

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Stewig, J. and Knipfel, M. Sexism in picture books: what progress? <u>Elementary School Journal</u> , 1975, <u>76</u> , 151-155.	A replication of Stewig and Higgs' 1973 study was done to discover what changes have occurred in books published since 1972.	I. Number of men and women represented. II. Occupational roles of men and women. III. Recreational roles of men and women; nonprofessional roles of men and women.	None reported
Weitzman, L. J., Eifler, D., Hokada, E., and Ross, C. Sex-role socialization in picture books for pre-school children. <u>American Journal of Sociology</u> , 1972, <u>77</u> , 1125-1150.	Investigated the aspects of sex-role socialization presented to pre-school children through picture books.	I. Number of illustrated males and females. II. Activities of boys and girls A. Activity level of boys and girls. B. Activities engaged in by boys and girls. C. Location of activity. III. Adult role models A. Activity levels of men and women. B. Activities engaged in by men and women. C. Location of activity. D. Occupational roles of men and women.	None reported
Zimet, S. G. "Sex role models in primary reading texts of the United States: 1600-1966." Unpublished Ed.D. Dissertation, University of Denver, 1968.	"To examine the sex role models portrayed in primary reading texts during six contiguous historical periods in the United States from 1600-1966" (Zimet, 1969, p. 1).	All of the following variables and definitions were copied verbatim from Zimet, 1969, pages 275-283. I. Story/Sample Type A. Usual story type: characters present; action taking place within story.	95%

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Zimet 1968 (Con't.)		B. No story; usually no characters; action taking place between sample and reader (eg., instructions, information, directions, principles, etc., aimed at the reader. II. Time Setting of Story/Sample: Assume period within which book is published unless explicit indication that story is of another time setting. A. Before Period I B. Period I 1600-1776 C. Period II 1776-1835 D. Period III 1835-1898 E. Period IV 1898-1921 F. Period V 1921-1940 G. Period VI 1940-1966 H. After Period VI III. Place Setting of Story/Sample (Environment) A. Urban B. Suburban C. Rural D. Not clear--write comment E. Unrealistic, or imaginary--write comment F. No place setting; just verbal message G. Other IV. Specific Setting Write in specific setting if possible (i.e., home, church, school, etc.). May be converted to coding if sufficient information is available.	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Zimet 1968 (Con't.)		V. Theme/Activity A. Active play: organized games such as ball games, blind man's bluff and unorganized sports such as swimming, hiking, fishing, running, skipping, wading, etc. B. Aesthetic expression and appreciation: beauty, poetry, music, painting. C. Folk tales: fairy stories, Paul Bunyan, etc. D. Imaginative play: with or without props or toys such as cops and robbers, policemen, play acting, etc. E. Lessons from life: morals, why one must be good, etc. F. Nature: life of the honey bee, animal activities, not including pets, storms, growing flowers. G. Outings: trip to zoo or to grandmother's or picnics, etc. H. Parties: birthday parties, tea parties, etc. I. Pets: playing with or taking care of pets. J. Pranks, humorous situations: involving people and/or pets, teasing. K. Quiet activities: reading, table games, watching TV, listening to radio, etc.	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Zimet 1968 (Con't.)		L. Real life situations with negative affect or excitement: being lost, running away from home, participating in family arguments, etc.	
		M. Religious activities; any stories which make reference to God, the Lord, (or other such terminology); Quotations and references from the Bible, catechisms, etc., should also fit into this category. Be careful to distinguish between: a) religious lesson-from-life and b) moral lesson-from-life. Attending church, praying, etc.	
		N. School activities: not in terms of imaginative play.	
		O. Work projects: painting chairs, raking the lawn, etc.	
		P. Real life situations with positive affect or excitement: parents working, planning surprises, getting reward or prize, errands, going to the store, etc.	
		Q. Unclassified (indicate activity by writing it in): not included in the above.	
		VI. Outcome of Theme/Activity	
		A. Success: the activity or purpose is accomplished.	
		B. Failure: the activity or purpose is frustrated, failed, or not achieved.	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Zimet 1968 (Con't.)		C. Help: the activity or purpose if frustrated but then is finally accomplished through the efforts of someone else or an animal. D. Self-help: the activity or purpose is frustrated but then is finally accomplished through the efforts of the individual(s) involved. E. Uncertain: unable to determine the outcome. VII. Agent of Help A. God or other supernatural force B. Male - Adult C. Male - Child < 5 D. Male - Child > 5 E. Female - Adult F. Female - Child < 5 G. Female - Child > 5 H. Animal I. Natural phenomenon J. No single character: more than one helping; may be animals and/or people. VIII. Agent of Frustration A. God or other supernatural force B. Male - Adult C. Male - Child < 5 D. Male - Child > 5 E. Female - Adult F. Female - Child < 5 G. Female - Child > 5 H. Animal	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Zimet 1968 (Con't.)		I. Natural phenomenon J. No single character; more than one frustrator; may be animals and/or people. IX. Characters A. Children only B. Children and animals (no adults) C. Animals only, no real people D. Make believe characters, may include real animals and people E. Inanimate objects that are either personified or described may include real people or animals as characters F. Adults only G. Children and mother H. Children and father I. Children and mother and father J. Children and other adults X. Outcome for the Child Characters in the Story A. Success B. Failure C. Help: individual is frustrated but is helped by someone else or an animal D. Self-help: individual is frustrated but finally succeeds through his own efforts E. Uncertain	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Zimet 1968 (Con't.)		XI. Response of Adults either as Observers or Recipients to Aggressive Behavior. Aggressive behavior includes: negative attention-getting behavior, anti-social behavior, or physical aggression. Reward includes anything from approval to material reward. Punishment includes anything from disapproval to physical punishment. A. No response to aggression B. Rewarded by male C. Rewarded by female D. Punished by male E. Punished by female F. Rewarded and punished by male G. Rewarded and punished by female H. Rewarded by male and female I. Punished by male and female J. Rewarded and punished by male and female XII. Response of Children as Observers or Recipients to Aggressive Behavior. (Same description as above; same coding categories A through J as above); in response to aggressive behavior by: A. Male - Child < 5 B. Male - Child > 5 C. Female - Child < 5 D. Female - Child > 5 E. Male - Adult F. Female - Adult	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Zimet 1968 (Con't.)		XIII. Response of Adults to Dependency Behavior. Dependency behavior: asking help, clinging to others, expressing a need to be near others, etc. Reward includes anything from approval to satisfying need expressed. Punishment includes anything from disapproval to physical punishment. A. No response to dependency B. Rewarded by male C. Rewarded by female D. Punished by male E. Punished by female F. Rewarded and punished by male G. Rewarded and punished by female H. Rewarded by male and female I. Punished by male and female J. Rewarded and punished by male and female XIV. Response of Children to Dependency Behavior (same description as above; same coding categories A through J as above in response to dependent behavior by: A. Male - Child ≤ 5 B. Male - Child > 5 C. Female - Child ≤ 5 D. Female - Child > 5 E. Male - Adult F. Female - Adult	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Zimet 1968 (Con't.)		XV. Adult Male Role (Father and Other Males) A. Provider: earns a living B. Regulator: regulates family matters inside and outside the home; makes major decisions effecting the activities of all members of the family; gives commands and directions. C. Disciplinarian: is the main source of discipline and control; expects obedience; punishes and rewards. D. Mentor: provides for the education and training of the children; gives guidance and advice. E. Protector: protects and safeguards family from dangers inside and outside the home; keeps the house in physical repair. F. Caretaker of the home: cleans and picks up around the house; shops for food; prepares the food; does the laundry; sews; provides clothes for the family. G. Nurturer: takes care of sick members of the family; soothes scratches and hurt feelings; comforts; helps children with difficulties. H. Companion: joins in children's play and pranks; participates in general family activities. I. Adult Present: no clear active role. J. Active role outside family setting	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Zimet 1968 (Con't.)		XVI. Outcome of Adult Male Role A. Success B. Failure C. Help D. Self-help E. Uncertain XVII. Adult Female Role (Mother and Other Females): same as under Adult Male Role (XV). XVIII. Outcome of Adult Female Role: same as under XVI. XIX. Behavior Expectancy: If the story communicates through lecture, preaching, example, or implication, how people are expected to behave, classify according to the age and sex of the person(s) at whom the statement is directed, and the valence of the statement. A. Behavior Expectancy Age (age of person(s) at which the statement is directed) 1. Children > 5 2. Children ≤ 5 3. Children in general 4. Adults 5. People in general B. Behavior Expectancy Sex (sex of person(s) at which the statement is directed) 1. Male 2. Female	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Zimet 1968 (Con't.)		3. Male and female together (i.e., both should do such and such) 4. Male and female separately (i.e., male should do this and female should do that) 5. Not specified C. Valence or direction of the statement 1. Positive 2. Negative 3. Positive and negative; used when + and - are essentially equal 4. Male positive and female negative 5. Male negative and female positive XX. Learning and School Activities A. Learning or school reference - sex 1. Male 2. Female 3. Male and female together 4. Male and female separately 5. Not specified B. Valence or direction of the statement 1. Positive 2. Negative 3. Positive and negative 4. Male positive and female negative 5. Male negative and female positive XXI. Time Period for which the particular activity is appropriate A. Period I 1600-1776 B. Period II 1776-1835 C. Period III 1835-1898	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Zimet 1968 (Con't.)		D. Period IV 1898-1921 E. Period V 1921-1940 F. Period VI 1940-1966 XXII. Sex and Age of Child for whom the particular activity is appropriate A. Male <5 B. Male >5 C. Female <5 D. Female >5 E. Both <5 F. Both >5 G. All children H. All female children I. All male children J. Infants XXIII. Sex of Adult for whom the particular activity is appropriate A. Male B. Female C. Both D. Male appropriate and female appropriate XXIV. Time Period for which the particular Adult Male Role is appropriate (same categories as XXI). XXV. Time Period for which the particular Adult Female Role is appropriate (same categories as XXI). XXVI. Aggression/Animal, Nature, Supernatural A. Aggression by animal against animal B. " " " boy C. " " " girl	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Zimet 1968 (Con't.)		D. Aggression by animal against adult male E. " " " " adult female F. " " " boy against animal G. " " " girl against animal H. " " " adult male against animal I. " " " adult female against animal J. " " " animal against more than one person K. Aggression by people against animal L. " " " animal against nature M. " " " animal against object (personified or other) N. Aggression by children against supernatural O. " " " adult against supernatural P. " " " all present against supernatural Q. Aggression by object (personified or other) against supernatural XXVII. Response to Aggression/Animal, Nature, Supernatural A. No response to aggression B. Rewarded by male C. Rewarded by female D. Punished by male E. Punished by female F. Rewarded and punished by male G. Rewarded and punished by female H. Rewarded by male and female I. Punished by male and female J. Rewarded and punished by male and female	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Zimet 1968 (Con't.)		XXVIII. Dependency/Animal, Nature, Supernatural A. Dependency by animal on animal B. " " " boy C. " " " girl D. " " " male adult E. " " " female adult F. " " " boy on animal G. " " " girl on animal H. " " " adult male on animal I. " " " adult female on animal J. " " " animals on more than one person K. Dependency by people on animals L. " " " animals on nature M. " " " animals on supernatural N. " " " children on nature O. " " " children on supernatural P. " " " adults on nature Q. " " " adults on supernatural R. " " " all or more than one on nature S. Dependency by all or more than one on supernatural T. Dependency by all on personified object U. " " " all on physical object (security blanket) XXIX. Response to Dependency/Animal, Nature, Supernatural (same as for XXVII).	

Article	Purpose of Study	Variables Investigated and Definitions of Variables if Reported	Reliability
Zimet 1968 (Con't.)		XXX. Further Notes on Coding A. Indicate occupations referred to or described and designate sex-appropriateness. B. Indicate references to death, serious accident or serious illness. C. Indicate references to birth or the arrival of another child in the family. D. Indicate if it is impossible to distinguish characters by age or sex. E. Describe dress, face and bodies of children in illustrations as being adult-like male or female or child-like male or female. F. Write in the names or describe the games or play activities referred to in the stories, designate sex of the participants.	

APPENDIX B

DIRECTIONS FOR ANALYZING ILLUSTRATIONS
AND TEXT

Analysis of Illustrations

Step #1: Identification of Main Characters

Identify the main characters in the book using the following definition:

A main character is a person, personified animal, or personified inanimate object referred to in the text by name or by specific reference, such as "Sam and his friend" and who appears in thirty percent or more of the illustrations.

To determine the main characters in the books, first, scan the text for references to or names of characters and make a list of these characters. Then, count the total number of illustrations including the endpapers (the pictures before and after the story), but do not include the picture on the bookcover. If two adjacent pictures are a continuation of each other, count the adjacent pictures as one picture. After arriving at the total number of illustrations, count the number of times each character is illustrated, and determine the percentage of illustrations in which each character is shown. For the purposes of this research, those who appear in thirty percent or more of the illustrations are main characters. Then, make a list of the main characters, and attach the list to the front of the book.

Step #2: Descriptive Characteristics of Main Characters

Select the first main character on the list and complete the descriptive characteristics of one main character before continuing with the other main characters. Each character should be coded as male, female, child or adult, and as a personified animal, personified inanimate object, or human. The categories: males, females, child, adult, and human are self-explanatory. The definition for personified animal is as follows:

A personified animal is an animal presented as having human characteristics including the ability to think and reason, and is endowed with human emotions.

A personified inanimate object is defined as follows:

A personified inanimate object is an object represented in the book as having life and endowed with human characteristics of thinking, reasoning, and emotions.

After completing the descriptive characteristics for one main character, proceed through the list of the other characters and complete the descriptive characteristics for each character on a separate coding sheet.

Step #3: Behavior Analysis

To begin behavior analyzation, first, number in order all of the illustrations in the book including the endpapers. Then, select the illustrations in which the main character is pictured, and record the picture numbers on the coding sheet for the character being coded. The behavior of the character should then be analyzed in each picture where he/she is depicted. Since the illustrations in picture books "tell the story" the behavior of main characters will necessitate being coded in relation to preceding and following pictures. If there is more than one main character in the picture, the

behavior of the main character should also be coded in relation to the others in the picture. Each picture of the main characters will be analyzed as either "Emotional" or "Unemotional" and as "Active", "Passive Active", or "Inactive" in addition to any other behaviors.

The behaviors of one main character in all of the illustrations in which he/she is pictured should be coded before proceeding to code the behaviors of other main characters. To code the behaviors of the characters use the definitions provided to you by the trainer. After the behaviors have been distinguished in each picture, place a checkmark in the appropriate column on the coding sheet. Behavior categories on the coding sheets are designated by the abbreviated code following the behavior name, such as: Dep (dependence), Ind (independence), Coop (cooperation), P-Act (passive-active), etc.

When the behavior for one main character is completely analyzed and coded, complete Step #3 for the next main character in the book, and then begin coding the next book.

Analysis of the Text

Step #1: Isolation of Message Units

To begin the text analysis, use the list of main characters from the front of the book, and isolate all the message units which refer to one main character (definition for message units follows). To isolate these message units, read the text and write the units which refer to one main character on the coding sheet. A separate coding sheet should be used for each main character.

A message unit is defined as a statement or question which communicates a single message to the reader. A simple sentence composed of a subject, verb, and object contains one message unit. For example, the sentence "He ran to the store" contains a subject, verb, and object and would be coded as one message unit. Other simple sentences may not include an object, but do contain a subject and verb, such as the sentence "She ran." The immediately preceding sentence contains one message unit.

Compound sentences such as "Sue walked hurriedly down the street and Jimmy followed closely behind," contain two or more message units. In the preceding example, two message units are evident: 1) Sue walked hurriedly down the street, and 2) Jimmy followed closely behind. In compound sentences, the subject and verb are often understood. For example, in the sentence "Mark has to feed the dog, empty the garbage, and sweep the floor," three message units are evident. These are: 1) Mark has to feed the dog, 2) (Mark has to) empty the garbage, and 3) (Mark has to) sweep the floor.

A complex sentence is composed of an independent clause and one or more dependent clauses. An example of this type of sentence is, "When he goes to the store, he always remembers to take money." The preceding complex sentence contains two message units: 1) When he goes to the store, and 2) he always remembers to take money. Even though "when he goes to the store" is a dependent clause it transmits a message to the reader and, therefore, constitutes a message unit.

Incomplete sentences are coded as message units only when the meaning is clearly apparent, such as "Don't!" where the word indicates a definite message to the reader or listener.

Statements in the text which include verbalizations such as "'We went to town,' I said" are coded as one message unit. In statements such as this, the behavior stated is talking about what they did and should be coded as talking, rather than the event being described. Statements in the text which include more lengthy verbalizations are all coded for the talking except when a behavior is stated which is not included in quotation marks. An example follows: "'Jane,' she said while sweeping the floor, 'bring me a sponge. Then, go get the bottle for the baby.'" There are three message units in the preceding example which are: 1) "Jane," she said, "bring me a sponge," 2) while sweeping the floor, and 3) "Then go get the bottle for the baby." In this example, there

was talking as well as the action of sweeping the floor. Therefore, message units #1 and #3 are coded for the talking and #2 is coded for the action of sweeping. Subsequently, in isolating message units which include verbalizations, it is imperative the quotation marks be included on the coding sheet so the coder knows the message unit is a verbalization.

Step #2: Analyzing and Coding Message Units

Analyze the described or stated behavior of the main characters in each message unit according to the definitions provided to you by the trainer. Each message unit will be coded as "Emotional" or "Unemotional" and as "Active", "Passive-Active" or "Inactive" in addition to any other behaviors, unless the message unit is classified as "Descriptive Behavior" (D-B).

When analyzing and coding the behavior of main characters, the behavior described or stated in some message units will necessitate being coded in relation to the preceding and following message units. To code the behaviors, place a checkmark in the appropriate column on the coding sheet. The behavior categories on the coding sheet are designated by the abbreviated code following the behavior name such as: Dep (dependence), Coop (cooperation), and P-Act (passive-active).

When all the message units are analyzed and coded for one main character, complete Step #2 for the next main character in the book, and then begin coding the next book.

APPENDIX C

PICTURE BOOK SAMPLE

- Battles, E. The Terrible Trick or Treat. Illustrated by T. Funk. New York: Young Scott Books, 1970.
- Beim, J., and Beim, L. Two Is a Team. Illustrated by E. Crichlow. New York: Harcourt, Brace, and Co., 1945.
- Blue, R. I Am Here. Illustrated by M. Barnett. New York: Franklin Watts, Inc., 1971.
- Brandenberg, F. No School Today! Illustrated by A. Brandenberg. New York: Macmillan Publishing Co., Inc., 1975.
- Braucher, B. H. Belinda and Me. Illustrated by B. Turkle. New York: The Viking Press, 1966.
- Brown, M. B. Benjy's Blanket. Illustrated by Marino. New York: Franklin Watts, Inc., 1962.
- Brown, M. B. (author and illustrator). Amy and the New Baby. New York: Franklin Watts, Inc., 1965.
- Buckley, H. E. Grandfather and I. Illustrated by P. Galdone. New York: Lothrop, Lee, and Shepard Co., Inc., 1959.
- Buckley, H. E. The Wonderful Little Boy. Illustrated by R. Howard. New York: Lothrop, Lee, and Shepard Co., Inc., 1970.
- Cook, B. Looking for Susie. Illustrated by J. Shahn. Wisconsin: E. M. Hald and Co., 1965.
- Ets, M. H. (author and illustrator). In the Forest. New York: The Viking Press, 1944.
- Ets, M. H. (author and illustrator). Play With Me. New York: The Viking Press, 1955.
- Freeman, D. (author and illustrator). A Rainbow of My Own. New York: The Viking Press, 1966.
- Gordon, S. Amy Loves Goodbyes. Illustrated by J. Goldsborough. New York: Platt and Munk, 1966.
- Keats, E. J. (author and illustrator). Peter's Chair. New York: Harper and Row, 1967.
- Kennedy, M. Come and See Me. Illustrated by M. Alexander. New York: Harper and Row, Publishers, 1966.

- Klein, L. Mud! Mud! Mud! Illustrated by G. Wiggins. New York: Alfred A. Knopf, Inc., 1962.
- Kraus, R. (author and illustrator). The Littlest Rabbit. New York: Harper and Row, Publishers, Inc., 1961.
- Kraus, R. The Carrot Seed. Illustrated by C. Johnson. New York: Harper and Row, Publishers, Inc., 1945.
- Lenski, L. (author and illustrator). On a Summer Day. New York: Oxford University Press, 1953.
- Parish, P. Willy Is My Brother. Illustrated by S. Hughes. New York: Young Scott Books, 1963.
- Rey, H. A. (author and illustrator). Curious George Rides a Bike. Boston: Houghton Mifflin Co., 1952.
- Rice, E. (author and illustrator). New Blue Shoes. New York: MacMillan Publishing Co., Inc., 1975.
- Scott, A. H. Sam. Illustrated by S. Shimin. New York: McGraw-Hill Book Co., 1967.
- Woodcock, L. The Way the Animals Walk. Illustrated by I. Binney. New York: William R. Scott, Inc., 1946.

APPENDIX D

THE MEASUREMENT OF SEX-ROLE STEREOTYPES
IN CHILDREN'S PICTURE BOOKS

By

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B. S., OKLAHOMA STATE UNIVERSITY, 1974

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The purpose of this study was to construct an instrument for the reliable measurement of sex-role stereotyping in children's picture books. The following twelve pairs of bi-polar behavioral dimensions were selected and operationally defined:

- | | |
|--------------------------------|------------------------------------|
| 1) Dependence/Independence | 7) Creativity/Imitation |
| 2) Competition/Cooperation | 8) Nurturance/Non-Supportive |
| 3) Directive/Submissive | 9) Aggressive/Non-Aggressive |
| 4) Persistence/Cessation | 10) Intelligence/Ignorance |
| 5) Explorative/Non-Explorative | 11) Emotional/Unemotional |
| 6) Sharing/Selfishness | 12) Active/Passive Active/Inactive |

Two parallel forms of the scale were developed -- one for illustrations and one for text. Twenty-five picture books were selected for the analysis to include examples of each bi-polar behavioral dimension and to provide near equal numbers of male and female main characters.

Two pairs of raters were trained to code the behaviors portrayed in these books. One pair coded the text and one pair coded the illustrations.

Overall percentage of interrater agreement for text was found to be 94.05 percent, while overall percentage of interrater agreement for illustrations was 85.10 percent.

A reliable technique for the measurement of sex-role stereotypes in children's picture books was found.