In an attempt to uncover the influence of primary reading textbook content on reading achievement, both historical and contemporary reading textbooks were analyzed in terms of sex role portrayal in a variety of settings. The implications of the observed portrayals for children's own sex role modeling are discussed. Among the observations are: a prevalence of rewarded dependent behavior and punished independent behavior, a sparsity of aggression themes, and a lack until recently of characters clearly identifiable as being similar to the children reading about them. Patterns of sex differences in reading, maintenance of these patterns, and the role of reading textbooks in the establishment are discussed. (TO)
SEX DIFFERENCES IN READING: THE RELATIONSHIP OF READER CONTENT TO READING ACHIEVEMENT

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It has been estimated that up to 80 percent of instructional time is spent each school day on reading instruction and (ther reading related activities (Zimet, et al, 1973). In spite of this time commitment, and the fact that skill mastery is considered role appropriate for both sexes (Kagan, 1964), boys continue to have significantly more trouble than girls in mastering the reading skill (Money, 1966). The specific contribution of the reading text to this problem is the subject of my paper today.

With the significant discrepancy that exists between boys' and girls' reading performance, it is tempting to say that if textbook content is a factor influencing achievement, it appears to be working against boys and for girls. Stated in another way, the content for young boys is likely to be inappropriate since they make up 70 percent of the disabled readers. The content for girls on the other hand must be more appropriate since girls not only read better and more than boys, but they make up only 15-20 percent of the disabled reader population. I would prefer to say that despite the fact that textbook content has been documented as being devoid of interesting themes and realistic portrayals

of adult and child life and behaviors (Zimet, 1972), it appears that girls are more willing than boys to disregard content in the process of learning the reading skill. This last explanation is more compatible with what we know about the deference to authority which marks young girls' behavior as being different from young boys' behavior (Maccoby, 1974). And in this instance, girls may be responding to two authority figures: the teacher and the textbook.

In my own research groups' initial attempts to uncover the influence of primary reading textbook content on reading achievement, we systematically analyzed the most widely used publishers' series of the 1960's, the new multiethnic series as they began to emerge in the 1960's, and a representative sample of texts used from 1600 to the late 1960's (Zimet, 1972). In addition to our own studies, other investigators have published content analyses of complete reading series from first through sixth grade (Frasher and Walker, 1972; Britton, 1973). Consequently, we have been able to get a relatively complete profile of books used to teach generations of American school children to read. Not only are we apprised of what is included but we are also aware of what has been left out. None of the findings have been complimentary. Many have been startling as we begin to realize the messages being transmitted through texts, messages which motivate or inhibit, messages which prealert children to role expectations, and messages which teach children society's attitudes and values. It may be useful to look at some of those content variables and speculate on their impact.
For example, reports on the sex differences in reading performance go back to the early 1930's (St. John, 1932). In primary reading texts examined from 1921 through 1966, a significant number of incidents of dependent behavior were recorded for all characters: boys, girls, men, women, and animals. This dependent behavior was rewarded overwhelmingly for both sexes at all age levels (Zimet, 1968). In 1946, Child, Potter, and Levine, in a study of third grade readers, also found that independent action initiated by children or adult characters was more likely to be punished than similar behavior performed under the direction of an authority figure. Thus, the self-initiated pursuit of knowledge through exploration was frequently punished whereas knowledge gained through dependence upon authority was always rewarded. What might be the consequences of presenting such a model of behavior to children beginning to learn to read? Dependency is one of those behaviors stereotypically linked with the process of sex-typing. Generally girls are encouraged and rewarded for dependency; boys are discouraged and punished for dependency. Thus models of rewarded dependent behavior in the texts are discrepant with society's expectations of men and boys. In order to avoid social disapproval, behavior that deviates markedly from sex-role standards is likely to be inhibited and situations which bring it forth are likely to be rejected. In this case, it is possible that such models create anxiety in the boy and set up an aversive response to the reading content and
subsequently to the act of reading as well. Since the female de-
pendency model in the texts is consistent with stereotypic be-
ior expectations for girls, it is less conflictual for them
to read about female characters behaving in this way. Whereas
dependent behaviors may at times be appropriately adaptive for
both sexes, one could argue that such an overabundance of de-
pendent behavior in texts is inappropriate if one is hoping to
capitalize upon and maximize the child's search for knowledge
and desire for skill mastery upon entering the educational es-
tablishment.

The sparsity of aggression themes in first and third grade
reading texts has also been noted (Child, Potter & Levine, 1946;
Zimet, 1968). When it was present, non-human characters were
usually the aggressors and the aggression was punished. Aggres-
sion, too, is a sex-typed behavior and one that plays a potent
role in both the fantasies and real life of the young boy. Its
absence from texts provides a missed opportunity to openly recog-
nize that people do have aggressive feelings which can and do get
them into trouble with parents, siblings, friends, neighbors,
and teachers. Object lessons could be provided by presenting
a repertoire of solutions to problems created by aggression.
Learning and achieving requires a form of aggressiveness which is
also missing from the texts. Both boys and girls could benefit
from the inclusion of both aggression and dependence themes in
texts.
One of the basic assumptions to investigating the influence of textbook content on behavior is that learning to read will be motivated by presenting characters in the textbook stories who are clearly identifiable as being similar to the children reading them, and who are carrying out activities that are considered interesting and prestigious. The development of multiethnic texts in the 1960's is one dramatic instance where black and white children and adults were primary characters in reading instructional materials for the first time in our history. Using this new multiethnic series, the hypothesis that learning to read is facilitated when children can identify more readily with the characters in the books was tested (Whipple, 1963). Three multiethnic pre-primers were compared with a standard all-white preprimer series in a multicultural, innercity neighborhood in Detroit. The two series, one at a time, were placed in the hands of pupils in twelve first grade classrooms. Six classes received the multiethnic series first and six classes received the all-white series first. After a period of time, the books were switched. Measurements of word recognition and oral reading accuracy were obtained after exposure to each series. The new multiethnic series was more effective than the all-white standard series with all classes in teaching the skills mentioned. When asked which they would prefer to reread, all of the children in all of the groups designated the new series. In content analyses done by my research group (Blom, Waite, & Zimet, 1972), we found that with the exception of the ethnic composition
of the characters and the outcome of the activities, the two series were essentially alike. Thus, the learning of specific reading skills by black and white children of both sexes improved significantly as a result of including both black and white primary characters in a basal reading series, thereby supporting the identification hypothesis.

It is also interesting to speculate on the contribution that outcome of the activities may have had on the improved skill performance as well. All of the stories in all of the series were coded for the outcome of the activities in which the children were involved. Success was coded if the main activity was accomplished; failure was coded if the main activity ended without the goal being carried out; and help was rated if the characters engaged in the activity succeeded with the aid of another person. In the multiethnic texts, 52 percent of the stories were rated Failure, 28 percent were rated Help and 20 percent were rated Success. These findings were in direct contrast to the all-white series studied where 26 percent were rated Failure, 11 percent were rated Help and 64 percent were rated Success. In a study of stories made up to stimulus pictures, young children the age of first graders, tended to end stories on a negative rather than a positive note (Cramer & Boryson, 1973). The large number of failure outcomes in the multiethnic texts therefore, may have had a greater appeal to the first grade boys and girls reading them since they more closely matched their own story endings than do
the standard all-white series. In this sense, then the outcome finding strengthens the identification hypothesis.

An additional question was asked the children participating in the Detroit reading study. They were asked to indicate which series had their favorite characters. Most boys designated the new multiethnic series where there were three boys and one girl as primary characters. Conversely, most of the girls chose the all-white text where the primary characters were two girls and only one boy. Identification with same sex characters has been reported by other investigators studying children's behavior during film viewing (Maccoby, 1964). The Detroit study findings are somewhat less clear, however, regarding the relationship between textbook content, identification with story characters, and reading achievement. In this study boys appear to have identified with the black and white boys in the reading series from which they learned best. On the other hand, girls performed best after using the multiethnic series, despite the fact that they preferred the characters in the all-white texts. It may be that for the girls the presence of black characters had a stronger pull in the identification process and was a greater motivator to wanting to read the books. Another explanation may relate to the socialization of boys and girls into sex-typed behaviors. We know that girls are much less tied to stereotypic behaviors than are boys (Kagan, 1964; Nadelman, 1973). For example, boys will give up participating in games
and athletic activities that become very popular with girls (Sutton-Smith & Rosenberg, 1961). On the other hand, girls more willingly participate with boys in play that is boy-associated.

This same issue was highlighted in another study where a high boy-interest basal reading series was compared with the standard state adopted text considered low in boy-interest (Stanchfield, 1973). It should be kept in mind, however, that the fact that it was low in boy-interest does not mean that it was high in girl-interest. In effect, the standard series had characters and themes that were low in interest to both sexes (Wilberg & Trost, 1972). However, in this study, the purpose was to provide evidence that content that was tailor-made to appeal to boys would foster improved reading performance for boys. Thus one group of Los Angeles first grade classes were taught with the new high-interest series and another group of first grade classes were taught with the standard low-interest series. Some of the other features of the new series are worth mentioning. Unlike the standard series, there was a continuous story line throughout with the same main characters involved. None of the principal characters were females. Boys and men dominated the texts and they were courageous, strong, intelligent, daring, adventurous, and nurturant—clearly prestigious, attractive models with whom both boys and girls could identify (Mussen & Distler, 1959). In addition, an action-oriented in-
structional method was a crucial part of this new series. Not only did the experimental groups achieve significantly higher scores in reading than did the control groups, but there were no differences between the reading achievement of boys and girls in any of the experimental groups, a credit to all the women teachers who taught these children. Subsequently, our research group did a content analysis of this new series and compared it with the other series in wide use (Blom & Zimet, 1973). And, indeed, we concurred with Stanchfield that this new series was high in interest. We would challenge the premise, however, that in order to have high interest reading texts for boys that girls and women need to be underplayed or eliminated entirely from textbook stories. The implications of this kind of exclusion have serious other consequences for both boys and girls educated for life in an egalitarian, democratic society.

In the late 1780's, Caleb Bingham, author of the reading text, THE CHILD's COMPANION, wrote in the introduction that it was hardly worthwhile teaching girls much except sewing and housework. Less than ten years later, in his new text, THE AMERICAN PRECEPTOR, Mr. Bingham wrote that special care in the selection of content suitable for the fairer sex should be given due consideration. Today some educators are saying that more consideration should be given to content appropriate to boys. I would like to suggest the obvious third possibility - that a content appropriate for boys and for girls, together and separately, needs to be written -
one that will reflect the plurality of the American people, their varying life styles, interests, occupations, recreations, fantasies, interpersonal relationships and problems. This means a real breaking away from old patterns of stereotyping. Until that happens we will not be able to carry out the definitive research project - where early achievement problems by boys as well as later achievement reversals by girls are examined in terms of the content of reading texts from which they had been taught to read.
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