7-1974

Basal Reading Texts: Change in Sex Role Attributes? With a Survey of the Literature on Sex Roles

Ronn Sieber

The College at Brockport

Follow this and additional works at: https://digitalcommons.brockport.edu/ehd_theses

Part of the Curriculum and Social Inquiry Commons, Elementary Education Commons, and the Language and Literacy Education Commons

To learn more about our programs visit: http://www.brockport.edu/ehd/

Repository Citation

https://digitalcommons.brockport.edu/ehd_theses/917

This Thesis is brought to you for free and open access by the Education and Human Development at Digital Commons @Brockport. It has been accepted for inclusion in Education and Human Development Master’s Theses by an authorized administrator of Digital Commons @Brockport. For more information, please contact kmyers@brockport.edu.
BASAL READING TEXTS:
CHANGE IN SEX ROLE ATTRIBUTES?
WITH
A SURVEY OF THE LITERATURE ON SEX ROLES

THEESIS

Submitted to the Graduate Committee of the
Department of Curriculum and Instruction
Faculty of Education
State University College at Brockport
In Partial Fulfillment of the
Requirements for the Degree of
Master of Science in Education

by
Ronn Sieber

State University College at Brockport
Brockport, New York
July, 1974
APPROVED BY:

Roberta A. Fulagar 6/13/74
Graduate Advisor

Robert A. Fulagar 6/13/74
Project Advisor

Joseph Jordan 8/27/74
Graduate Director
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A Study in Sex Role Attributes in Basal Reading Texts During Two Periods</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>A Survey of the Literature Concerning the Origins, Existence, and Effects of Sex Roles</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Design of the Investigation</td>
<td>37</td>
</tr>
<tr>
<td>4</td>
<td>Analysis and Interpretation of Results</td>
<td>40</td>
</tr>
<tr>
<td>5</td>
<td>Conclusions and Implications</td>
<td>46</td>
</tr>
<tr>
<td>Appendix 1</td>
<td>Sample Questionnaire</td>
<td>47</td>
</tr>
<tr>
<td>Appendix 2</td>
<td>Chi-Square Tables</td>
<td>48</td>
</tr>
<tr>
<td>References</td>
<td></td>
<td>53</td>
</tr>
</tbody>
</table>
ABSTRACT

Domination in humans is more behavioral than innate. Socialization conditions the sexes to react differently to a given situation; behavioral differences metaphor dichotomy of the sexes. Extreme stereotypic behavior inhibits intellect.

Males dominate most of the world's societies. Humans generalize status and lifestyles from primary roles; perhaps males, as mobile hunters, perceives themselves worthier of power.

Schools transmit cultural traits intact over generations, serving cultural lag. School environments and personnel often remained fixed in message. Media remains the variable to effect desirable changes.

This study, designed to sample sex role attribute changes in readers between two periods, used questionnaires compiling frequencies of these. Four popular basals were samples, 228 stories of grade 1-3 level. Results reveal few changes; basal readers are not keeping pace with their culture.
Chapter 1

A Study in Sex-Role Attributes in Basal Reading Texts During Two Periods

Statement of the Problem

The purpose of this investigation is to examine and compare the content of primary basal reading texts with respect to attributes and relationships of sex roles. The study will analyze sex roles as depicted in a random sampling of story content of four sets of basal readers. Comparisons will be made of readers published within two periods, 1964-1968 and 1969-1973, to determine whether any significant changes in attributes and relationships have occurred.

Significance of the Study

Historically, the content of school texts has reflected the attitudes, beliefs, and mores of American society. In the present pluralistic society, many vocal minorities with valid concerns have emerged to do battle with the American Dream as it stands. Changes are being continually wrought and accepted, but have they made it into the basal reading texts?

During the past decade intensified concern for inequitable treatment of women has been reflected in numerous reports of sex discrimination, increased efforts of activist groups, and in supportive legislation as well. Changes such as these have made lasting positive impact on the society's norms, and are becoming more and more accepted each day.

While sex role identification begins long before the child enters school, text materials, as well as school experiences tend to reinforce
attitudes and behaviors. Some studies have already revealed how texts depict children's sex roles, and how much they are lagging behind the norms of society. These initial studies, however, were based on earlier textual publications. Have the more recent publications reflected a change in sex role attitudes and relationships?

Scope of the Study

Since basal reading series provide the most widely used text materials for American school children, it is assumed that analyses of their content would give some indication of prevailing or changing attitudes with respect to sex roles. With this in mind the study was designed to measure the attributes and relationships of male and female, adult and child, within two successive periods of publication. Comparisons were made between the two periods to see if changes in attitudes, as manifested by the texts, had occurred.

Definitions of Terms

Certain terms were used in this study to describe attributes measured and are defined as follows:

"Significant characters" were those who made at least two verbal statements during the course of the story.

"Active" or "passive" members were characters, whether "significant" or not, that were either active or passive, respectively, for most of the story.

"Independent" or "dependent" members were characters who were either independent or dependent, respectively, in their actions, for most of the story.
Domination of one character over another was defined to be any situation in which a command or imperative of some sort was issued. It could be as simple as: "Look, Sally, Look!" Or, to be more explicit: "Be quiet!" she said to Bill." Each is a command, and thus, an item of domination.

Limitations of the Study

This investigation is confined to an analysis of but four sets of basal readers; howbeit, they are among those most frequently used in American schools.

Analyses of textual materials used at higher grade levels might provide greater insight into the differential depiction of sex roles. This investigator, however, believes the initial textual materials used by school children in the primary grades are of crucial significance.

The writer also recognizes that many school experiences, supplementary materials, and especially, the teacher's guidance in directing reading lessons either intensify or ameliorate the child's sex role concepts. These considerations are beyond the scope of this study.

Summary

Through an analysis of content in primary basal readers, the investigator will identify attributes associated with sex roles. The significance of differences were determined.

By comparing the content of basal materials published within two time periods, 1964-1968 and 1969-1973, any significant changes in sex role treatment were identified.
Chapter 2

A Survey of the Literature Concerning the Origins, Existence, and Effects of Sex Roles

Psychological Research

America in the nineteen-sixties experienced a minor social revolution in which attempts were made to exorcise several devils of inequality. Concern emerged about righting many of the accepted inequities in the American social ethic, one of the primary victims having been women. Concern has brought change to equalize the sexes in this culture, but it is only one task completed in what will be a long series.

Anthropological statistics reveal that a majority of societies in the world are male-dominant. In fact, such a plurality exists as to make one question if this may be an innate pattern in humans, manifested in their societies. Recent studies have indeed uncovered the possibility of evolutionary influence in related species. Hamburg and Lunde (1966) reported a few studies on primate behaviors that suggest such a pattern may be found in all primates. Harlow (1962) found male infants to have a greater proclivity for aggressive play and mounting behavior. Devore (1965) and Jay (1965) observed that young female primates exhibit greater interest in infants and engage in more grooming behaviors.

The above studies highlight examples of hormonal adaptation to evolutionary needs. The outcome can be seen that the two sexes exhibit different behaviors according to the duties they are adapted to fulfill: for the female primate, rearing and caring for the young; for the male, protection
of the herd and competition for leader of the group. The results can be seen to closely relate to other studies to be presented, and represent almost typical findings of this type of experiment that stereotype the human sexes in their individual striving within the realm of society. The question may be: are these due to hormonal influence or something else?

The Stanchfield (1969) study of the learning patterns of the sexes tabulate findings that are typical of both sexes, adult or infant. The study was of 550 boys and 550 girls in Los Angeles, involving a variety of experiments. At the end of one year, not only were the girls achieving more, but different behavior patterns were observed as well. The boys were observed to be more aggressive, less desirous of assuming responsibility, tending to be bored easier, less anxious to please the teacher, less self-motivated to read, and having more trouble coping with changing situations or stimuli. The girls were observed to be more verbally fluent, having better auditory discrimination, better listening skills, and a longer attention span if the activities were not dynamic. The results can be seen to closely relate to other studies to be presented, and represent almost typical findings of this type of experiment. In addition, the behaviors cited are indicative of behaviors observed and catalogued in the greater human population, and thus suggest a pattern of difference for the two sexes.

In the case of the lower primates, sex hormones are responsible for the differential behaviors of the sexes. Are there physiological differences in humans as well that cause differential behaviors to occur? Sivan Caukins (1970) believed so, and stated that difference due to neural mechanisms was found to change perception and learning for boys. Boys were more kinesthetic by nature, making stronger use of propriocenter stimulation and were thus hampered in the visual-auditory learning situations typically found in school.
Buck et al (1969) ran a study of 32 students of each sex from the University of Pittsburgh to investigate sex differences in facial expression and find a correlation between communication accuracy and physiological response. Females were found to be more communicative. A negative correlation was found to exist between skin conductance and communicative skill, as males were found to be more internal (less communicative) and had, in that situation, more skin conductance. This might seem strange in light of Weller and Bell (1965), who found that newborn females exhibited higher basal skin conductance than males, suggesting a physiological difference preceding any social learning situation. Buck (p11) explains this to be an outcome of American culture, wherein boys are discouraged from overtly expressing most emotions. The intensity of the emotion, however, is not lost; it becomes manifest another way, as in skin conductance. Brock and Buss (1966) pointed out that females show less aggressive behavior. It follows that, as they internalize these emotions, they will exhibit skin conductance more in these situations (Buck, 1970). A further Buck (1971) study explored three variables that changed in intensity according to different arousal states with no apparent relation. The three states were defined by Buck (p3) as: (1) overt-behavioral-visible to anyone observing; (2) self-report - a hidden emotion that has to be communicated verbally; and (3) physiological - apparent only by complex measuring apparatus. Since the three states varied independently of each other, the implication exists that different arousal states could be conditioned for each variable (Buck, 1971, p6). Thus, someone could react aggressively in a situation that another would remain passive in. Males have larger physiological responding in certain situations (such as communication), but are more overtly expressive in aggressive situations (Brown, 1964), where females are more physiologically responsive. This can be seen as an outcome
of social learning, wherein the male is expected to be overtly aggressive, and the female overtly communicative. Buck (1971, p9) concludes that the higher physiological states attained by males in communicative situations and females in aggressive situations suggests a negative relationship between overt-behavioral and physiological responses. The higher physiological states are due to the fact that there exists a tendency for social learning experiences associated with learning to inhibit overt emotional responding to be more unpleasant and threatening, and thus more intense, than those associated with learning to be expressive. Hence, when an overt expression is suppressed, physiological responding is observed to be more pronounced, manifest in the other's place.

Aside from certain measurable differences at birth are others that may in some manner cause differential outcomes for the sexes. Hamburg and Lunde (1966) state that it is a striking medical fact that males are more susceptible to disease. The addition of male hormone to the human fetus makes its sex male; however, in doing so, this also weakens its genetic make-up. The x-chromosomes have immunoglobulins to protect against diseases, and while the female has two X-chromosomes, the male has only one. The dangerous effects of some alleles are compensated for by loci on the allele they are paired with, except in males, where pairings do not exist. Added to the above chromosomal dangers is the likelihood that the male baby will be larger at birth. Since he has to travel the same birth canal as his female counterpart, the plates of his skull may have to squeeze closer in order to fit through, thus putting more pressure on the brain, with subsequent increased probability of brain trauma of some sort.

More recent research in hormones sheds new light on the contribution that physiology will give to the subject of sex differences affecting
behaviors. The Levine (1969) study revealed that hormone levels could be changed by experience; thus, no longer could they be thought of as innate, fixed. The Dalton (1968) experiment on toxemia pregnancies revealed that mothers who had progesterone treatment had babies who achieved more in school than the non-progesterone babies. Jacklin and Maccoby (1972) summarized all the above, stating that "at this time physiological explanations given for sex differences cannot be fully supported or refuted [p13]." It would appear that further study is necessary in this area before accurate generalizations can be safely made.

Although physiology cannot be argued further, the fact remains that there is a dominant sex existing, and something must account for it. The realm of intellect has been more thoroughly explored, and, although there remains much left to test, some points can be argued.

It is a commonly agreed upon observation that girls physically mature faster than boys. Jacklin and Maccoby (1972) add that girls can learn language earlier, and although boys do catch up on most verbal tasks, ability still favors the girls. Language, however, is not the only indicant of intellect; another quite similar area that has been closely measured is that of creativity. As Jacklin and Maccoby point out, the particular aspect of creativity one is measuring, as well as the method of measuring it, seem to determine the sex differences one will find. In general, boys do better in spatial tasks, and girls do better in verbal. The Keogh (1970) study involving spatial tasks reaffirms that boys do better; according to her, they were more task-oriented, paid more attention to directions, concentrated on components of the task, and seemed more involved in task completion. Although it would seem a clear case of sex difference here, the Berry (1966) and MacArthur (1967) studies of Eskimos shows no such dominance of one sex in spatial tasks. More clearly, a cultural factor seems at work.
To say, however, that the differences between the two sexes of children in the United States involving the aforementioned measures is purely cultural is too presumptive; there must remain some undiscovered variables to confuse the evidence. Welles (1971) studied 23 male and 23 female infants of an age range of 50-63 months on the measures of field independence-dependence, reflectivity-impulsivity, and verbal responsiveness, three measures of creativity. She found that boys were generally more field independent and girls more verbally responsive. Although Moss (1967) and Lewis (1971) both show that girls are talked to more at a very early age, Bauman and Lewis (1971) point out that infant females initially respond more to auditory signals than do males. For spatial organization, differential socialization seems to be the cause; for verbal responsiveness, a mixture of the above and some yet unspecified amount of biological determinant influence the results garnered.

Sociological determinants are much easier to isolate and observe than the biological, and thus, much more has been done in this area. The Repucci (1969) study of 24 male and 24 female children involved in three types of cognitive tasks indicated that sex and social class have a strong influence as early as 27 months. The girls seem more affected, and at a younger age, by environmental forces. Outcomes of differential reinforcement can be seen at an early age too. The Miller (1971) study of 350 preschool 3-5 year old children revealed that boys were more curious in a manipulative sense, but pointed out that girls may have evolved to a verbal stage at this point. Thus, female behavior may be reinforced for verbal rather than manipulative, setting the stage for developing masculine-feminine stereotype.
If the above behaviors were differentially reinforced indefinitely, it would appear that boys would be developing different cognitive skills than girls as puberty approached. What ramifications this has for school is not clear, as there does not appear to be strong evidence whether boys or girls have a higher intelligence quotient in relation to school achievement (Maccoby, 1966, p. 31). As puberty approaches, however, certain observations of each sex have been made. Shaw and McCuen (1960) point out that females, true to their sex role, start to underachieve as they approach puberty, although they do well in a broad range of subjects. Coleman (1961) points out that boys, who are trained to be autonomous, display independent behavior in high school by doing well in subjects they like, and doing poorly in subjects disliked.

Girls display behaviors that result from the double bind put upon them (Maccoby, 1966): caught between the demands of pleasing their teachers yet remaining popular, they do well in school but generally below their ability. Boys display behaviors expected of them also; reinforced to disdain school work, be competitive and independent, those that do well stay in school, while those that fail drop out to compete elsewhere. Thus, a lopsided picture of the true performance of both sexes (Jackin and Maccoby, 1972) is what is generally seen in research, with females largely under-achieving, and only males who "make the grade" remaining in the experimental population. However, Maccoby (1966) made two generalizations about the sexes that seem to synthesize the above: for boys, too much aggressive behavior seems to be an inhibitor of intellectual development; for girls, an extreme dependency behavior tends to inhibit intellectual functioning.

Maccoby (1966) stated that
members of each sex are encouraged in, and become interested in and proficient at, the kinds of tasks that are most relevant to the roles they fill currently or are expected to fill in the future [p40].

Encouragement for behaviors is more commonly known as reinforcement. Clearly, what are being developed are sex-typed behaviors, defined by Mischel (1966, p56) as behaviors that typically elicit different rewards for one sex than for the other. Mischel goes on to state that the first step in acquiring sex-typed behaviors is through live and symbolic models, such as parents, t.v., radio, film, and books. As will be discussed in the next section, cultural models insure transmission of the cultural message by differential reinforcement. Pointed out in the Fauls and Smith study (1966) of sex-role learning in five-year olds was that young children soon discover the consequences of performing certain behaviors are affected by their sex, quickly adjusting their role to do what's expected of them. What generally develops is that males become oriented to task performance, while females concentrate on smooth interaction with others (Dornbusch, 1966, p213).

Mischel (1966, p62) stated that most sex differences in behavior, such as the two cited above, are determined by the specific response of a particular culture to that behavior in the form of reinforcement. The Repucci (1969) study, previously mentioned, indicated that this form of programming may be apparent as early as 27 months. A study of children's toy preferences done by Robert Leibert and others (1971) involved 20 of each sex of predominantly white first-grade Tennessee students, ages 6-8. Both the presiding adult and the dummy "toy buyer" were female, and the toys were divided into two classes. The children were separated into four choices of what message they were told, from "all children would prefer the items in one group" to "only children of a certain sex would
prefer a certain group's toys;" the buyer served as the medium by which the modelling stimulus was implanted. When children learned what sex "preferred" what toy, they almost invariably chose that which corresponded to their sex.

With such predictable responding at quite an early age, it is easy to understand that the sexes will grow up thinking and acting differently, for they have been trained to be sensitive to different aspects of daily life. Mischel (1966, p75) stated that "dependent behaviors are less rewarded for males, and physically aggressive behaviors . . . for females in our culture." Mean differences in behaviors for the sexes start appearing within a few years, and as seen in the various Buck studies, each has a different way of responding to an emotion, uniquely conditioned by the cultural whim.

Although the sexes predictably respond to the differential prohibitions put on them, it could even be that the intensity of prohibition is not equal for both. A commonly held observation in our culture is that it is easier for a girl to be a "tomboy" than it is for a boy to be a "sissy." Deviance for the male is less tolerated, and Dornbusch (1966, p211) stated, "the difference in society's reaction to deviance may be the basis for the tendency of males to learn sex-linked behaviors more quickly than the females."

Perhaps the discrepancy in the intensity of taboo is an outcome of male dominance in society to date. Leaders of groups have more power of choice for the group and thus more responsibility. Responsibility brings with it the barb of constraint, in which the leader, true to his "noblesse oblige," is in a position of acting as an example for others, possessing the least freedom. This point was studied psychohistorically in Freud's research on the origins of taboo, Moses and Monotheism. A more recent case illustrates the subtle pressures put on males in the American culture. In a primary race for the election of 1972, Senator Edward Muskie, the victim of a smear
letter, made the "mistake" of publicly expressing grief. A strong Democratic contender for the Presidency before the letter, Senator Muskie's chances dissolved afterward, despite the overt nature of the political sabotage.

This section has endeavored to explore the apparent fact that there exists a dominant sex in American culture. Although readily observable in the lower primates, the physiological component, at this time, does not make a decisive contribution to the question of dominance. Perhaps the addition of the human intellect confuses the issue, counteracting the physiological influence. Something must, for it stands to reason that males are physically larger and stronger, yet prone to the excesses of their genetic make-up. Confusing also is the way intellect interferes with puberty and the emergent sexual stereotypes that were inculcated at an early age, remaining dormant in the pre-puberty, sex-segregated stage. Although boys and girls have been trained to perceive differently in terms of spatial relations, task performance, and verbal interaction, their I.Q.'s tend to be pretty close, regardless of school performance. However, it can be demonstrated that an excessive amount of "maleness" in the form of aggressive or dominant behavior, as well as "femaleness" in the form of compliant or submissive behavior, is detrimental to intellectual functioning. The most insidious psychological fact, however, is that modeling of behaviors starts at an early age, and may contribute most to the way children soon become boys and girls. The cues given them arise from the cultural need.

From the readings in Psychology it can be seen that dominance in Homo Sapiens is more behavioral than innate. Men were free of the relative immobility of childbirth and given a larger, sometimes stronger body with which to travel. Although flaws in their physical make-up rendered males more expendable, generalizations from their perceived role as provider may have led to the concept of male dominance.
Behavior is strongly influenced by the person's set, his perceptions of reality. Actions and behaviors, in turn, combine with others; on a large scale they produce the fabric of existence humans call culture. As defined by the Random House Dictionary (1969), culture is "the sum total of ways of living built up by a group of human beings and transmitted from one generation to another." Culture is a series of behavioral and attitudinal expectancies. It is a two-step process, wherein is assimilated a running total of all human experiences native to a particular population, while it is, at the same time, being summarized and transmitted to the succeeding generations in the form of attitudinal and behavioral expectancies. The experiences, however, are not as random as one would expect. Aberle (1961) theorized that the way in which people organize their life must in some degree be adapted to the basic natural resources available and the level of technological competence they have attained [p106].

Dependence on the environment biases the experiences and perceptions the people may have which, in turn, reflects upon the culture.

When a behavior or attitude is common enough to be validated by a majority, it becomes a social norm. Social norms are agreed upon by consensus, and are basic to formation of a community of people, a microcosm of a culture. It can be seen the "community feeling" is mutual cognizance of certain principles, and is a natural outcome of the process of culture, a ready-made organization of chaos through symbolization. The minds of people are united through mutual symbolization, mutual sharing of vicarious experience, and a consensus of opinion on perception of events. Although this aspect of culture may serve to be efficient, it can also become a Linus towel of dependency by serving to distort objective perception of an event (superstitions, etc.). Cohen (1971, p19) states that culture is a
particular way of shaping the mind. He goes on to say that people respond to cultural symbols rather than objective reality in their daily lives. These symbols are learned, with no basis in race or biology. The cultural symbols themselves, by virtue of their propagation, serve to perpetuate the culture. Castenade (1971) recorded his conversations with Don Juan, a Yaqui Indian sorcerer who revealed much insight into patterns of culture. Don Juan stated that

"... we maintain our world with our internal talk, ... Whenever we finish talking to ourselves the world is always as it should be. We renew it, we kindle it with life, we uphold it with our internal talk. Not only that, but we also choose our paths as we talk to ourselves. Thus we repeat the same choice over and over until the day we die, because we keep on repeating the same internal talk over and over until the day we die ... the world is such-and-such or so-and-so only because we tell ourselves that is the way it is. If we stop telling ourselves that the world is so-and-so, the world will stop being so-and-so [pp218-19]."

Don Juan goes on to explain that what people do in life (actions and expressions) serve as shields against the forces that surround and affect them, reasoning that these actions serve to comfort them. Thus, one can see that culture may serve as a defense mechanism that could determine how a person will perceive an environmental force. Don Juan defines it to be a form of selective perception that limits true perception ("seeing").

Henry (1971) too has observed the human effort into narrowing the perceptual field of the individual, stating that

"... man has always worried that his careful arrangement of cultural patterns would be destroyed if he learned without limit ... thus, it is that though man has poured what he knows into his cultural patterns, they have also frozen round him and held him fast [p179]."

The cultural symbols limit learning to not only make it more efficient, but to insure that a person learns the ways of his culture first, thus increasing the probability of the culture's perpetuation. This survival mechanism is most graphic in primitive or "conquered" cultures, such as
the New Guinea tribes or the American Indian. The elders may transmit
the culture, but the dominance or attractiveness of another may draw away
most of the succeeding generation, polluting, even dissolving the previously
intact society.

The perpetuation of a culture is almost wholly dependent upon social-
ization, a process all neophytes to the culture undergo. Clausen (1968)
said that

... the process of socialization includes the patternings of
social learning transmitted through child care and training,
the acquisition of language and of self-hood, the learning of
social roles and of moral norms. To a large degree, child
socialization is the social orientation of the child and his
enculturation, first within the small social world of family
and neighborhood, and then in relation to the larger society
and culture [p4].

Socialization practises are determined by environmental factors outlined
before that shape cultural values. Henry (1971, p. 178) agrees with this,
stating that there is no such thing as natural maturation in a social
sense; the central problem for humans is to adapt each new generation
to that culture. Henry [p. 178] postulates an institutionalized self-
concept that transmits the cultural goals and norms. As Clausen (p8) points
out, social roles can be acted out using these models in typical play
situations that induce the neophyte to adhere to the cultural norms.
Anticipatory socialization, either by using role models in imitative
play, or by exposure to media, is largely haphazard; much repetition is
necessary to insure transmission of the cultural goals (Clausen, p15).

Socialization, as aforementioned, can be viewed as shaping one's
reaction to everyday experiences so that they elicit the kinds of behavioral
or attitudinal response indicative of the culture. Socialization involves
a choice of behaviors, with differential rewards for the various choices.
As Clausen relates,
the individual is induced in some measure to conform willingly to the ways of his society or of the particular groups to which he belongs [p4].

Henry (1968, p178) relates the status treadmill in which children must qualify as adults by "filling their shoes," a neophyte's ticket to adult acceptance. Pettit (1965) points out that, rather than pure choice, one is more justified in calling this directed practice, as adult supervision is frequently the rule. Mead (1971, p83) relates that children whose abilities deviate sharply from normal expectancies experience great difficulty in learning; a contingency system with respect to cultural transmission is in effect, with learning disabilities resulting from the pressure of failure.

Although socialization may differ for individuals of a socially different class, the most universal differential socialization occurs between the sexes. D'Andrade (1966) theorized that sexually differentiated behaviors were related to the fundamental processes of a culture, such as the division of labor, and that the

division of labor by sex comes about as a result of generalization from activities directly related to physical sex differences to activities only indirectly related . . . [p179].

In a hunting society, the males are normally the hunter by virtue of their mobility. However, they usually make their own hunting equipment, having generalized from their hunting role that it is "man's work." In many other instances can this be seen; socialization as a process will serve to insure that these generalizations are passed on.

Murdock (1935, p176) too found a definite division of labor, seen in his study of 224 societies. Men tended to do the jobs that were more strenuous, cooperative, and required long periods of travel; women did jobs that were physically easier, more solitary, and less mobile in nature.
Dornbush (1966, p207) relates how hunting societies, indicative of a low-technology pattern, exhibit the most markedly differentiated sex behaviors. America, as indicative of a high-technology pattern, reveals an acceleration of liberalized cultural change in all aspects of society. Regarding this, Dornbusch stated:

there is a relatively low level of consensus on sex roles in American society. This lack of consensus is the result of a rapid rate of social change and the presence of considerable subgroup differentiation [p208].

In a high-technology society there exists more mobility, heterogeneity of the population, and less sex-related work activities; thus, more laterality and less consensus is achieved for the sex roles. Jacklin and Maccoby (1972) summarize the above, posing a continuum of sex differences and attitudes, ranging from the most differentiated in the underdeveloped countries to the least in the high technology societies.

The Spiro (1956) study of a kibbutz reveals this pattern to be more closely related to biology and technology than choice. In the kibbutz, initial work activities were equally divided up between the sexes. However, as women became pregnant and dropped out of the heavy labor tasks, they were found to be of more efficient use, and tended to stay, in the kitchen, regenerating an old, familiar cycle.

Certain behaviors are seen to be an outcome of, or generalizations from, sexual differentiation. Ford and Beach (1951) studied 200 societies, finding that males tended to be more sexually active (in terms of different sexual patterns) and females more restricted. D'Andrade (p181) pointed out that gender was the basic distinction in labor, transmission of rights, duties, and social statuses. Murdock's World Ethnographic Sample (1935) of 565 societies showed a 4:1 ratio in favor of patrilocality, and even more bias in the statistics on multiple marriage. The Barry, Bacon,
and Child (1957) study found boys trained to be more self-reliant and achievement-oriented, girls to be nurturant, responsible, and obedient. Perhaps it is that the female sex is devalued by regarding the male's mobility to be of greater status. The female's self-concept is undermined by her biological status, her tasks and contributions devalued accordingly. Miller and Woock (1970, p6) postulated an opportunity structure for social advancement as applied to blacks and whites in American society. So too can it be seen that there exists a sexual opportunity structure, engendered and perpetuated by the American culture, however subtle it may be due to the level of technology.

The schools, of course, present this opportunity structure for the sexes in their socialization process. Not only do they transmit the cultural message needed, but also serve as a form of cultural lag, in that the message transmitted over generations may remain essentially the same. Wolcott (1971, p113) related that American schools teach a selective set of attitudes and beliefs rather than a cross-section. Perhaps, he speculates, this is why schools provide a remarkable study of stability in the face of change. Henry (1966, p17) blamed the media, stating that basal texts have changed little over generations because they were "written largely by females who make a business of writing mindless stories, confronting no issue but the apathy of the children." In an edition of the Ethica Nichomachea, Aristotle (1925) spoke of pleasure, saying that it is thought to be most intimately connected with our human nature, which is the reason why in educating the young, we steer them by the rudders of pleasure and pain [p20].

Henry (1968, p36) agreed, relating the fundamental motivators to be hope of achievement and fear of punishment from failure. From the above it can be seen that not only do the schools "can" their boring message
to preserve it for generations, but rely as well on fundamental human motivation to insure retention of the message.

It appears then, that culture is a form of perceptual efficiency at the cost of behavioral inhibition. Culture, however, as a function of its people, is subject to the changes they encounter. As technologies increase or decrease, so too will the people's attitudes and behaviors change, as well as the culture that embodies them. It must be remembered that the cultural ballast is in perpetual operation, preventing a truly fluid nature in culture.

Henry (1955, p189) reminds us that people are rarely better than the culture they are a part of. Rather, they usually act out the roles expected of them since childbirth. It follows that in order to change cultural roles, expectancies can be manipulated, and should be at an early age; this will be discussed in more depth in the next section. Henry (1971, p74) stated that there exist no innate limits on learning. Mead (1935) pointed to an outcome of this:

. human nature is almost unbelievably malleable . . .
Standardized personality differences between the sexes are of this order, cultural creations to which each generation, male or female, is trained to conform [p185].

Her study of three New Guinea tribes revealed their sex behaviors and attitudes to be completely contrasting, indicating the inherent repertoire of behaviors of each sex.

In summary, it can be seen that there are really no limits of human sex role behaviors; rather, they arise from generalizations from activities directly related to the needs and limitations of each sex. In addition, one can see that sex roles are a function of the culture, subject to change as is the culture. The task at hand appears to be scrutiny of the American Way, getting a consensus of what is of value in an American's life. The
formation of a technology pattern that will reflect and reinforce the cultural values desired follows.

Educational Research

Determining who thinks what is right in such a pluralistic society, in order to equalize opportunity for the sexes, will prove to be a slow and arduous task. Until quite recently, the differential treatment of the sexes was a "sleeping dog," an accepted aspect of everyday life. Perhaps the key to its tolerance is that it is so pervasive, manifested in some form or other in all of our cultural institutions. Sexual stereotypes are closely related to differential treatment, in that both assume some form of difference between the sexes; in addition, it can be seen that the existence of each reinforces the other, although which came first cannot be ventured. Howe (1971, p77) stated that sexual stereotypes consist of: (1) assumed differences between the sexes, (2) social norms or conventions, (3) learned behavior, (4) attitudes, and (5) expectations. Like any form of opinion, stereotypes do not necessarily remain inert; rather, they are constantly being affirmed, denied, or re-shaped in daily interaction. Thus a stereotype, which is basically a form of misinformation, is ultimately mutable; therein lies the key to socio-cultural evolution.

Institutions perpetuate sexual stereotypes fostered within a culture; American education and its contribution to a sexist culture is of central concern in this paper, one aspect of which is generated the study performed by this writer. In the United States, most of what is known as formal education is accomplished in schools. The American schools have become prime contributors to the American way, by virtue of their socializing as well as educative bent; in effect, they are a mass producer of a shared experience, or culture. What the schools churn out in terms of information
has a deep and lasting impression on the people involved; in this manner future American cultural attitudes are in process right now.

According to many current articles, schools and all aspects of schooling are being carefully scrutinized for their contribution to sexism. Schooling may be operationally defined as all aspects of education that occur within the school situation, whether it be an impression garnered from a text, or the short end of a birch rod. Myra and David Sadker (1972) reported a "hidden curriculum," in which each sex is entitled to a different set of rewards, privileges, and punishments. Examples given were different standards of dress (boys wear slacks, girls wear dresses), and the probability that boys, who are usually regarded as stronger, would draw more maintenance tasks (moving desks, lifting objects). Thus one can see the school environment, a sort of sub-cultural milieu, as a seedbed for germinating sexual stereotypes. Whether it be consciously manipulated or not, incidentals such as the above contribute to the sexist attitudes formed within a classroom or school.

A very dominant part of a child's schooling is the teacher-pupil interaction, of which research on sexism has brought to light interesting data. The Felsenthal (1971) study indicates that this area is rather barren of information, but there exists some literature on the subject. Wickman (1929) is cited; he wrote that teachers perceived the problem child as disorderly and disobedient, and that they preferred the less active, more compliant behaviors of girls. Kerfoot (1967) is also cited; he reinforced Wickman's finding, stating that teacher characteristics and behaviors affected a child's learning to read. Rosenshine (1969) found that seven of thirteen studies he researched yielded a significant negative relationship between a teacher's use of criticism and some measure of achievement.
Furthermore, a number of studies revealed that teachers interacted more with boys, and that the interaction was primarily negative in nature. Felsenthal's questionnaire, administered to twenty first grade teachers from twelve different schools who taught a population of two hundred-twenty girls and two hundred-eighteen boys, yielded results that corroborate that previously found in other studies. Girls were perceived as more eager, cooperative, helpful, and obedient, while boys were seen to be significantly more defiant and aggressive [p6]. A significant positive correlation was found between a teacher's perception of more positive classroom behaviors and reading achievement; a negative but non-significant relationship was found between reading achievement and negative behaviors. Although she reported that boys were criticized more often, Felsenthal found no significant relationship between the negative reinforcement (criticism) and reading achievement (either sex).

Good and Brophy (1969) studied equal opportunity for the sexes in first-grade reading. Their survey of Davis and Slobodian (1967) revealed that, although boys were not called on less for questioning or criticized more in reading instruction, the pupils generally perceived differential treatment and achievement. Observing four first-grade classrooms in Austin, Texas, they concluded that boys and girls received equal reading instruction. However, their theory that overall classroom behavior would precipitate more criticism on the boys would account for pupil perceptions. In general, boys produced more correct answers, but also received more criticism.

Feshbach (1969) sampled student-teacher preferences for pupil characteristics, first noting that there was an
increasing amount of evidence indicating that teachers' perceptions, expectancies, and preferences might exert a considerable influence on the behavior and self-perception of their pupils [p126]. No doubt a teacher's attitudes toward pupils would affect his student-teacher, who may have his own preconceptions as well. A situation test, consisting of separate stories about sixteen different types of stereotypical pupils, was given to two groups of U.C.L.A. graduate student-teachers. The results primarily based on the student-teachers' attitudes and personal values, revealed that they preferred rigidity, conformity, orderliness, dependency, and acquiescence. They were, in general, opposed to independent and assertive boys, even more so to the same type of girls. Feshbach concluded that educators responsible for teacher training should attempt to increase student teachers' awareness of their particular preferences and the possible effects of these preferences upon their evaluation of, and behavior toward, varying kinds of pupils [p131]. Although contrary arguments were not raised, the subject of teacher attitudes and their effect on students is still an area of debate. The main effect looked for is the extent of influence external attitudes have on someone's formative experience; research indicates that there does indeed exist some relationship, but a specific amount is yet to be ascertained.

The reading curriculum of schools, consisting of trade books as well as basals, has received the most recent and thorough attention. Part of this is due to the increased awareness of the importance of reading the information gathering, as well as the growing belief that media has a crucial impact upon a person's attitudes and beliefs. The Weitzman et al (1972) study of preschool books cited Brown (1956), who found that preschool boys and girls identified with sex roles. Hartley (1960) reported that four-year-olds believed the primary role of the female was to be a housekeeper, while the role of the male was breadwinner. Weitzman stated that
picture books were a vehicle for the presentation of societal values to the young child [1126]; one is provided with ready-made role models and images. They reasoned that these books were an especially useful indicator of societal norms, since they articulated the prevailing cultural values. In studying Caldecott and Newberry winners as well as Little Golden Books, Weitzman found women to be underrepresented in titles, roles, pictures, and stories; in general, boys were active, girls passive [p1131].

Mary Kay (1971) wrote of the roles of male and female found in children's books. Her apt summary was that boys do--girls are [p167]. She cited Leah Heyn (1969) who stated that books influence: (1) the development of the senses, (2) idea reinforcement, (3) knowledge expansion, and (4) liberation from the born-in environment [p167]. Honigman (1967, p168) pointed out the domination of American readers by male characters, also stating that sex prejudice was the only prejudice now considered socially acceptable. Graebner's (1972) study of 554 stories in various editions of Scott-Foresman and Ginn readers verify that boys dominated story texts and pictures, and outnumbered girls as major characters. Although more occupations for women were found in the new editions, women's biological functions were still unrealistic and stereotyped. Indeed, Zwack's (1973) report on the stereotypic family in children's literature reveals that abortion, divorce laws, and daycare facilities have helped to maintain non-nuclear families, yet have made no impression on the stigma remaining in real life as well as in literature. There are hardly any non-nuclear families in the literature, indicating the existence of some form of taboo. This lack of material serves as cultural ballast, no doubt hindering or even misconstruing objective awareness of this increasingly occurring social phenomena.
Of all the studies that lay bare the sexist cues immersed in basals, the bread and butter of the American reading program, perhaps the most elaborate, engrossing, and revealing one was Dick and Jane as Victims. Authored by the committee of the Women on Words and Images and published by the National Organization of Woman (N.O.W.), the study sampled 134 readers from 14 different publishers. A statement summarizing each story was recorded on a worksheet and frequency notations of thematic attributes placed in the appropriate categories. A numbered code was used to rank characteristics. Illustrations, as well as written statements, were considered in the 2760 stories read. The frequencies of characteristics that ensured from the content analysis were used to derive ratios, sex being the dichotomous variable. Some quite startling ratios were found; to name a few:

- boy-centered stories to girl-centered: 5:2
- adult male characters to adult female: 3:1
- male biographies to female: 6:1
- male animal stories to female: 2:1
- male folk/fantasy to female: 4:1

There are many more ratios listed, and the source itself should be considered for these, as they are already too concise to summarize properly. The committee notes, however, that the child is exposed to sexual stereotypes long before he encounters reading: his family, his friends, and T.V. provide that. School readers have a special place in the process by conveying "official approval [p33]." By virtue of almost every child being exposed to the basal method, a universal cultural message becomes implanted. Programmed at a time when a child has yet to attain a self-critical perspective [p33], his vulnerability of opinion becomes the key to molding his future attitudes toward the opposite sex. Truly the victims of misunderstanding are Dick and Jane in reality, aided by their literary counterpart.
Zimet's What Children Read in School (1972) is a collection of studies about what children have read in school, what they are now reading, and what they would like to and should be reading. In the studies that concern aspects of contemporary basals, Hollins' (1955) unpublished study on the twelve most frequently used primers and preprimers was used; his sample contained 1307 stories in books used in ninety percent of all U.S. classrooms. Many of Zimet's premises are psychological in nature, and the Freudian influence may have colored the data. In "What the Story World is Like," it is mentioned that forty-six percent of the stories were found to be of a diffuse sex role nature [p10]; it is argued that this goes against the first-grader's need to find and stabilize a sex role. Needs such as these would seem to be based more on cultural conditioning, and thus be subject to scrutiny as to their desirability; a pat acceptance of such "needs" may be considered negligent. Observations like this may detract from Zimet's otherwise perceptive intuitions and conclusions.

The chapter entitled "Recommendations: To Whom It May Concern" congeals the book's findings into concise implications that reflect other, more meaningful insights into a child's perception of reality. The primary school child, upon leaving home for the first time, encounters unfamiliar faces in a situation alien to his experience. The authoress recommends stories that are anxiety-laden and full of unique experiences characteristic of this age child [136], which correlate with his primary grade encounter. Whether it be cathartic from the experience from the experience of (and release of) tension, or modelling with a positively resolved conclusion, this type of story line has many didactic possibilities. Also suggested are stories of non-nuclear, non-child centered families, and stories with parents and siblings manifesting a greater range of moods, (sibling rivalry, parent-child conflicts, etc.). Interpersonal and work roles should depict what is as
well as what should be (for the sexes); occupational and recreational roles outside of the family would satisfy children's curiosity about what adults actually do [p137-8]. Zimet recommends that sex roles should be neither diffuse nor stereotyped; rather, a combination of the two extremes, would allow a latitude of activities and emotions for both sexes, while also illustrating aspects unique to each sex, such as biological function.

Zimet states that basal readers should encourage a child's interest in reading for escape by more "reading for fantasy" stories. She reasons that increased content provides more potential interest in a story, providing the child with something rewarding beyond the mastery of reading mechanics [p139]. Having gained the ability to read fluently, the child will then have a reason to continue, and the motivation to do it with.

In relation to the culture of which they are a part, schools serve three basic purposes. First, they reflect cultural values; the material covered, the staff (most often recruited from within the culture), and the school's physical environment all play their part. The content of the basal readers, the behavioral cues emitted by the staff (who serve as cultural models), and the allocation of space for classrooms, lockers, bathrooms, even athletic fields; all serve their purpose in transmitting cultural values.

A second purpose follows from the first: schools perpetuate the culture by relating cultural values as neophytes are initiated to the culture. Initiation rites, more commonly referred to as socialization, are a necessary survival mechanism of a culture, insuring its self-perpetuation. A third purpose that evolves out of the two previous is that a school can act as an "agent of change," in which qualities which have yet to make an impact on the culture, yet are commonly deemed desirable, are programmed
into its future citizens. Perhaps the most flagrant example is contemporary Communist China, in which twenty years of concentrated effort has produced a generation of workers dedicated to the State and each other. Themes closer to home, as seen on T.V. and in the school, are the united brotherhood of man, pollution awareness, and even a return to nature; these, however, span a much shorter duration, and have yet to truly make a noticeable impact.

The agent of change concept is the most important of the three purposes, for it manifests two characteristics of the child that insure the perpetuation of culture. One is the extreme malleability of the child's personality. Cohen's *The Shaping of Men's Minds: Adaptations to Imperatives of Culture* (1971) points out the multiple impact of formative experiences [p23]. Not only does the initial experience mold a person, but if it is significant, it will tend to be remembered, ready upon recall to reinforce a particular attitude or value. Henry (1971) outlines the second characteristic as the child's need to establish his future adult identity. He states:

... children have always been aware that they have to validate their status as adults by learning adult techniques from older teachers. It follows that Homo Sapiens has been born on a kind of status machine--a status escalator or status treadmill, depending on the culture--which there has rarely been any socially acceptable escape ... [p178].

The child's socialization consists of modelling his own behavior after those he is exposed to until he is at an age to decide which roles are not expedient to his life-style within the culture.

Since a school is intimately involved in socialization, it functions as a major agent of change. In a school, the primary tools are its media, since they are an easily manipulated variable. The physical boundaries and set-up of a school are often fixed by durable material. So too are the staff frequently immovable, for it may be too late to control or change their cultural values. This leaves the media, which are primarily books, backed up by T.V., filmstrips, and audio recordings.
This section has hopefully exposed the reader to the problem of sexism in the American school. It can be seen that sexism is an integral part of the American culture, pervading all institutions, manifested continually in daily life. School is a cornerstone of society. Its primary contribution is to perpetuate the cultural message, but it also serves as a laboratory to experiment with new concepts of social attitudes. Aspects of schooling engender as well as reinforce sexism. However, culture is constantly evolving, and the key to its change lies in the schools.

The school media is the variable to produce change. Before changes in a culture be made, though, careful thought need prevail. Insight and objectivity are required in order to decide where a society is going, and where it should be directed next. The task will prove arduous, but not impossible.

Summary of Research

In the light of the previous discussions, culture can be seen as an entity growing out of some human needs. As an organism it demands certain patterns of existence to maintain health, steady-state conditions. One of these conditions entails perpetuation of the cultural message for the succeeding generation. The cultural organization of a population demands a division of labor, another condition to make the society efficient. Sex, being a dichotomous variable, became an important part of the division of labor, instigating and perpetuating sexism.

Learning one's sex-role starts early, and the training is quite intensive once it has begun. Mead (1971, p82-3) stated that sex identity is imposed on children from birth. As the child learns its sex identity, the appropriate cognitive style is also acquired; the child arrives at school with deeply ingrained expectations, and it soon shows up in the form of
differential classroom behaviors, as well as learning attitudes and rates. Lewis (1971) pointed out that even before the child is born, the parents have had many sessions of differentiation, deciding whether the child is a boy or girl (depending on the frequency and intensity of its movements), and naming it accordingly. He also mentioned that data on parents of newborns show more preoccupation with the child's sex and physical attributes than if it is healthy or sleeps well, pointing to a cultural concern over sex.

Maccoby (1966,p41) states that the differences in intellect are confusing, because both sexes do not have initial differential learning opportunities. However, more recent data by Lewis (1971) reveals that this may not be the case at all. According to him, the early learning environment is manipulated by the parents, who act according to their cultural conditioning. Lewis (p5) coined the term "attachment behavior" as the amount of proximal or distal behavior done by the child toward the parent. He found that girls initially received more distal treatment, and boys more proximal. At six months of age this reversed: girls now received more touching, talking to, fussing over, and bodily orientation toward the parent. The boys were encouraged to reach out, to explore, and to move away from the parent. As Lewis (p7) states, what the parent does to the infant, the child is likely to do back. The socialization of children, usually accomplished within two years of birth, involves moving from the proximal (infant) mode of behavior to that of the distal (adult) mode. Although girls are allowed to stay close to and touch the mother at the end of one year, by now socialization has worked overtime shaping the boys differently. What can easily be seen is that differential adult behaviors are an outgrowth of this crucial early shaping. Girls become oriented to dependency, while boys are encouraged to be independent.
Sexual differentiation occurs at an early age not only in learning situations, but in play situations as well. Laosa and Brophy (1971) studied 46 of each sex of white, middle-class kindergartners in Austin, Texas in a play situation. It was found that children tended to choose their sex for playmates. It can be seen that this is consistent with the anthropological notion that anticipatory socialization is an engrossing preoccupation that involves all aspects of children's behaviors, whether in the classroom, at the dinner table, or in the sandbox. The action of sex segregation in play situations, especially in early and mid-childhood, would tend to reinforce acquisition of sex-typed norms (Emmerich, 1971). Even though the adolescent's interest in heterosexual relationships corresponds with the relaxation of cultural taboos, the misperceptions and misconceptions caused by distance have already been cast. It takes years of interaction to work them out, if indeed they ever are.

Aside from personality hang-ups induced by cultural values, anticipatory socialization, as discussed by Maccoby (1966), has detrimental effects on intellectual functioning. Boys, reinforced for being aggressive and independent, shun school as being for sissys. Girls, in turn, are placed in a double bind of being unintelligent to be "attractive," yet achieving in school to please their elders. It would seem that too much dominance behavior, as well as too much submissive, is a deterrent to intellectual growth.

Anticipatory socialization can be criticized for being haphazard, which necessitates its continual exposure to the child. It can also be criticized for being sloppy, for in truth there exist no hard and fast norms for any one role or position in American society. However, daily interaction constantly shapes roles in a population. Peer group needs
will strongly influence an individual's self-concept and determine how much he or she is "liberated" in that setting. In this sense sub-groups or sub-cultures of a given society will largely define for its individuals that which is left vague by the societal norms. In effect, societal norms act as guidelines for roles, latitude structured within them.

Although the volume of literature assimilated in this chapter has been large, sometimes contradictory, certain apparent patterns in it will summarize the research to date. Even though the anthropological evidence points to a clear plurality of male-dominated cultures, no judgement should be made as to which type of society is more efficient for the sexes. Mead's study (1935) of three New Guinea tribes illustrates the infinite malleability of human sex characteristics. What most people don't perceive is that cultural processes are at work to make people act the way they do, rather than highlight sexual differences in mannerisms, actions, and intellect.

As Michael Lewis (1971) stated,

sex, social class, and culture are often used to explain differences rather than treat them as media which provide the variability necessary to pinpoint the [social] processes at work [p1].

In this sense culture can be viewed as a means, rather than an end, in sexual differentiation.

Using Lewis' perspective, another pattern emerges, that of segregation of the sexes by culture. Perhaps it is an outgrowth of the Aberle thesis in which work that is assigned based on direct sexual needs and abilities (men for hunting and long trips from home, women for childbearing) can be generalized to encompass other duties that could be done as efficiently by either sex. Henry (1971) explains:

culture has striven both to unite and separate the sexes, at the same time, thus their unity was sought by dividing them. . . . though it is correct to say that men and women are taught different
things because they have different things to do, the fundamental point is that they must have different things to do. From this stems the pressure to keep their educational areas separate [137].

In the United States it can no longer be said that men and women must limit their work roles. Thus it cannot be justified that men and women should be educated differently, or thought to be of different intellectual capacities. There is no practical need of it in the culture, yet this is still a common practice. The Johnson (1972) study of the reading achievement of the sexes in four separate English-speaking cultures reveals the influence of cultural expectations. The sample was of 1081 students in the second, fourth, and sixth grades from the United States, Canada, Great Britain, and Nigeria. Tested between May and June, 1971, girls scored better in the U.S. and Canada, where girls are expected to achieve more, while the boys outscored the girls in the U.K. and Muslim Nigeria; this is clear indication of cultural expectancy as to what sex will do best in school. If boys and girls of the same culture were thought of as being equal in capacity, there would be no difference in achievement.

A third and final pattern that may be discerned is an outcome of the differential behaviors reinforced for children in the United States. Already stated is the fact that boys are reinforced to be dominant, and girls to be submissive. Too much dominance behavior makes boys shun intellectual pursuit, while too much submissive behavior in girls deters original or creative thought. The implications of Maccoby's (1966) research were that more laterality of sex-role expectations would allow both sexes to balance their impulsive and inhibitive behaviors, thus increasing their intellectual performance (see Figure 1). A moderation of each achieves optimal, dynamic balance.
Slater's (1964) report on "Parental Role Differentiation" stated alternation of parental instrumental and expressive roles for interpersonal flexibility becoming more highly valued in this society. It would seem that children, as well as adults, could benefit from this flexibility. The outcome of this would be insight into the breadth of human personalities. Is that catching on? The birth and proliferation of sensitivity and encounter-group training would indicate so.

Modern technology has provided the means to relieve humans of most drudgery and heavy labor, so that there remains little that both sexes cannot do as functioning equals. Since technology to a large extent determines the work and social roles of its users, a cultural mandate has been slowly forged that now calls upon this society to tool up to the adjustments being made in its structure in order to reflect the needs and aspirations of its populace. Men and women can now do tasks equally well that were once restricted to one sex or another. They should be allowed to do them freely, with no cultural hang-ups or arbitrary "common sense."
The mandate for changing sex role expectancies has appeared. Modern times has seen acculturation made more pervasive, swift, and sure in impact. The electronic media, most notably television, has been responsible, along with the printed media in newspapers, magazines, and books to back it up. Although it may be too late to influence or change the attitudes of elders in contact with the young, the media will reinforce, expand, or eventually counter the child's formative beliefs, depending on what he or she has already been exposed to. If the cultural message need be changed to be made more equitable to all concerned, then it is the media which should be manipulated to reflect this desire, for it certainly will be the most effectively controlled. The increased liberation for both sexes resulting will no doubt allow each individual to more effectively determine his or her lifestyle within the realm of choices given. This should increase the chances of greater numbers of those who achieve self-fulfillment in life. Sex role liberation, a quiet revolution, has already begun its task to rectify that dream.
Chapter 3

Design of the Investigation

This investigation was designed to analyze sex-role treatment in primary basal readers over two successive four-year periods. A list of the "top ten" basal reading text publishers of the United States was determined from information given by numerous book company representatives. Of this list of ten, a random sample of four was chosen for study.

To keep the study brief and concise, six levels of reading were chosen to be looked at. Since the child's early years are typically the most formative, these levels were decided as important; therefore, the range of basal levels was from primer to the end of the third grade. A questionnaire was designed by the investigator to tabulate frequency notations of attributes as well as record the kinds of activities found in each story (See Appendix 1). Six stories were chosen from each reader, taking every sixth story beginning with the first, with the stipulation that the story had to contain human characters engaged in roles. Otherwise, the next story was chosen until one was found to sample. Thus, each series of each period had 36 stories sampled from it, a total of 288 stories for the two periods of publication. Only verbal statements were considered in the sample, since pictures were too subject to interpretation.

Period I was defined to be the earlier publication to be considered, covering editions from 1964 to 1968. Period II was to be the latest publication, spanning 1969 to 1973.
The null hypotheses generated are:

1. Within each period, there are no significant differences in the total number of males as opposed to the total number of females possessing the following attributes:
   a. significant character(s) of a story
   b. active member
   c. passive member
   d. independent member
   e. dependent member

2. There are no significant differences in the total number of males of period I compared with the total number of males of period II, and the same when comparing females of both periods, when testing the above five attributes.

3. There are no significant differences between the total number of boy activities as compared with the total number of girl activities, as well as the total number of men activities compared with the total number of women activities, for each of the two defined periods.

4. There are no significant differences in the following:
   a. the total number of boy activities in period I as compared with period II;
   b. the total number of girl activities in period I as compared with period II;
   c. the total number of men activities in period I as compared with period II; and
   d. the total number of women activities in period I as compared with period II.
5. There are no significant differences in the following occurrences for each period:
   a. the total number of males dominating males as compared with females dominating females;
   b. the total number of females dominating females as compared with females dominating males.

6. There are no significant differences in the following occurrences:
   a. males dominating males in period I as compared with period II;
   b. males dominating females in period I as compared with period II;
   c. females dominating females in period I as compared with period II; and
   d. females dominating males in period I as compared with period II.

Significances of differences was determined by use of the two-sample chi-square test.
Chapter 4

Analysis and Interpretation of Results

Since this was an original study dealing with comparisons heretofore not made the probability level assigned was \( p = .05 \), giving a chi-square figure of 3.841 to be exceeded by any one test in order to reject the null hypothesis. The degree of freedom was determined to be 1.

Each of the null hypotheses will be considered separately. Data from which the summary tables have been prepared are included in Appendix 2.

Hypothesis 1. Within each period, there are no significant differences in the total number of males as opposed to the total number of females possessing the following attributes:

a. significant character(s) of a story
b. active member
c. passive member
d. independent member
e. dependent member

There were significantly more males for each period cast as significant characters of stories. Because of sheer weight of numbers, there were significantly more active, independent, and even dependent males in each period, as revealed in Tables 1 and 2. There was no significant difference in the number of passive males or females for either period.
Table 1

Hypothesis 1. Character Attributes, Period I

<table>
<thead>
<tr>
<th>Sig. Char.</th>
<th>D.F. Criterion Level</th>
<th>$x^2$</th>
<th>$\varnothing$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>&quot;</td>
<td>26.90</td>
<td>reject</td>
</tr>
<tr>
<td>Passive</td>
<td>&quot;</td>
<td>1.06</td>
<td>accept</td>
</tr>
<tr>
<td>Independent</td>
<td>&quot;</td>
<td>34.96</td>
<td>reject</td>
</tr>
<tr>
<td>Dependent</td>
<td>&quot;</td>
<td>14.40</td>
<td>reject</td>
</tr>
</tbody>
</table>

Table 2

Hypothesis 2. Character Attributes, Period II

<table>
<thead>
<tr>
<th>Sig. Char.</th>
<th>D.F. Criterion Level</th>
<th>$x^2$</th>
<th>$\varnothing$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>&quot;</td>
<td>23.96</td>
<td>reject</td>
</tr>
<tr>
<td>Passive</td>
<td>&quot;</td>
<td>1.68</td>
<td>accept</td>
</tr>
<tr>
<td>Independent</td>
<td>&quot;</td>
<td>30.40</td>
<td>reject</td>
</tr>
<tr>
<td>Dependent</td>
<td>&quot;</td>
<td>12.28</td>
<td>reject</td>
</tr>
</tbody>
</table>

Hypothesis 2. There are no significant differences in the total number of males of period I compared with the total number of males of Period II, and the same when comparing females of both periods, when testing the above attributes.

Tables 3 and 4 summarize the results of the second hypothesis to see if any significant change had occurred in the attributes for either sex between the two periods used.

Table 3

Hypothesis 2. Male Attributes, Period I vs. II

<table>
<thead>
<tr>
<th>Sig. Char.</th>
<th>D.F. Criterion Level</th>
<th>$x^2$</th>
<th>$\varnothing$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>&quot;</td>
<td>1.36</td>
<td>accept</td>
</tr>
<tr>
<td>Passive</td>
<td>&quot;</td>
<td>.90</td>
<td>accept</td>
</tr>
<tr>
<td>Independent</td>
<td>&quot;</td>
<td>2.14</td>
<td>accept</td>
</tr>
<tr>
<td>Dependent</td>
<td>&quot;</td>
<td>1.58</td>
<td>accept</td>
</tr>
</tbody>
</table>

Table 4

Hypothesis 2. Female Attributes, Period I vs. II

<table>
<thead>
<tr>
<th>Sig. Char.</th>
<th>D.F. Criterion Level</th>
<th>$x^2$</th>
<th>$\varnothing$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>&quot;</td>
<td>.09</td>
<td>accept</td>
</tr>
<tr>
<td>Passive</td>
<td>&quot;</td>
<td>.32</td>
<td>accept</td>
</tr>
<tr>
<td>Independent</td>
<td>&quot;</td>
<td>1.14</td>
<td>accept</td>
</tr>
<tr>
<td>Dependent</td>
<td>&quot;</td>
<td>.92</td>
<td>accept</td>
</tr>
</tbody>
</table>
The results indicate that no significant changes had occurred.

**Hypothesis 3.** There are no significant differences between the total number of boy activities as compared with the total number of girl activities, as well as the total number of men activities compared with the total number of women activities, for each of the two defined periods.

In comparing the number of boy activities provided in the stories samples with the number of girl activities in both periods, the results summarized in Table 5 indicate the number of boy activities were not significantly greater.

<table>
<thead>
<tr>
<th>Table 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hypothesis 3. Boy vs. Girl Activities, Periods I &amp; II</strong></td>
</tr>
<tr>
<td><strong>D.F.</strong></td>
</tr>
<tr>
<td>Period I</td>
</tr>
<tr>
<td>Period II</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hypothesis 3. Men vs. Women Activities, Periods I &amp; II</strong></td>
</tr>
<tr>
<td><strong>D.F.</strong></td>
</tr>
<tr>
<td>Period I</td>
</tr>
<tr>
<td>Period II</td>
</tr>
</tbody>
</table>

Table 6, however, indicates that men were given significantly more activities than women in each of the periods.

**Hypothesis 4.** There are no significant differences in the following:

a. the total number of boy activities in period I as compared with period II;

b. the total number of girl activities in period I as compared with period II;

c. the total number of men activities in period I as compared with period II; and

d. the total number of women activities in period I as compared with period II.
Table 7

Hypothesis 4. Boy, Girl, Men, Women Activities,
Period I vs. II

<table>
<thead>
<tr>
<th></th>
<th>D.F.</th>
<th>Criterion Level</th>
<th>$\chi^2$</th>
<th>$\phi$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boy</td>
<td>1</td>
<td>.05(3.84)</td>
<td>.28</td>
<td>accept</td>
</tr>
<tr>
<td>Girl</td>
<td>1</td>
<td>&quot;</td>
<td>.08</td>
<td>accept</td>
</tr>
<tr>
<td>Men</td>
<td>1</td>
<td>&quot;</td>
<td>.02</td>
<td>accept</td>
</tr>
<tr>
<td>Women</td>
<td>1</td>
<td>&quot;</td>
<td>.38</td>
<td>accept</td>
</tr>
</tbody>
</table>

Hypothesis 4 is accepted. There are no significant increases or decreases in the number of activities assigned to each group in either of the two time periods.

Hypothesis 5. There are no significant differences in the occurrences for each period:

a. the total number of males dominating males as compared with females dominating females; and

b. the total number of females dominating females as compared with females dominating males.

Table 8

<table>
<thead>
<tr>
<th></th>
<th>D.F.</th>
<th>Criterion Level</th>
<th>$\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period I</td>
<td>1</td>
<td>.05(3.84)</td>
<td>14.28</td>
</tr>
<tr>
<td>Period II</td>
<td>1</td>
<td>&quot;</td>
<td>4.68</td>
</tr>
</tbody>
</table>

Table 9

<table>
<thead>
<tr>
<th></th>
<th>D.F.</th>
<th>Criterion Level</th>
<th>$\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period I</td>
<td>1</td>
<td>.05(3.84)</td>
<td>5.38</td>
</tr>
<tr>
<td>Period II</td>
<td>1</td>
<td>&quot;</td>
<td>.06</td>
</tr>
</tbody>
</table>

Conclusions drawn from the data presented in Tables 8 and 9 are:

1. In both periods, males clearly dominated females more than themselves.
2. In period I females dominated males more than themselves, but there was no significant difference in period II.

Hypothesis 6. There are no significant differences in the following occurrences:

a. males dominating males in period I as compared with period II;
b. males dominating females in period I as compared with period II;
c. females dominating females in period I as compared with period II; and
d. females dominating males in period I as compared with period II.

The results of the final hypothesis are presented below.

Table 10

<table>
<thead>
<tr>
<th>D.F.</th>
<th>Criterion Level</th>
<th>$X^2$</th>
<th>$\phi$</th>
</tr>
</thead>
<tbody>
<tr>
<td>M. dom. M.</td>
<td>1</td>
<td>.05(3.84)</td>
<td>1.14</td>
</tr>
<tr>
<td>M. dom. F.</td>
<td>1</td>
<td>&quot;</td>
<td>.48</td>
</tr>
<tr>
<td>F. dom. F.</td>
<td>1</td>
<td>&quot;</td>
<td>2.78</td>
</tr>
<tr>
<td>F. dom. M.</td>
<td>1</td>
<td>&quot;</td>
<td>.20</td>
</tr>
</tbody>
</table>

Reference to Table 10 discloses the fact that no significant changes between periods I and II in the instances of domination by males over males or females, nor of females dominating females or males, have occurred.

Summary of Analyses of Results of Comparisons

1. There were no significantly more males possessing attributes defined as significant character, active, independent, and dependent in both periods. Neither males nor females were significantly passive in either period.
2. There were no significant changes in attributes between the two periods for either sex.

3. While there were no significant differences in either period in the number of boy activities versus number of girl activities, men were given significantly more activities than women in both periods.

4. In neither of the two time periods were there any significant increases or decreases in numbers of activities assigned to each group: boys, girls, men, and women.

5. Within each period males dominated females more than displaying dominance over their own sex. In the first period only, females dominated males more than themselves.

6. In comparing periods I and II, however, there were no changes of domination of any group.
Chapter 5

Conclusions and Implications

It was stated before that basal reading texts have traditionally represented the values of American society. In the light of the data, one should be able to state that females have stopped dominating males; otherwise, no changes in the society have occurred. Yet we know that this is not true at all; therefore, the basal texts have become out of touch with the society they attempt to depict. The dominance in numbers by male characters almost insures that they will be dominant in every attribute presented in books, with the possible exception of passivity, which is evidently still considered by writers and publishers of reading texts to be unique to the female. The book jackets become brighter, the stories and illustrations more detailed and imaginative, but have the sex role cues hidden within significantly changed? Decidedly not.

A shift has occurred in children's trade books, a change to realism, concurrent with expanding roles and emotions for each sex. Basal reading texts are changing too, but not significantly so, and not fast enough either. As our technology expands more and more, new roles are being created, as are old ones being revised, that will provide for either sex a means of self-fulfillment without detriment to the other. The females of our society, adult and child, deserve their fair share of the bargain; it is time that our basal reading texts gear up to reflect this to its young, impressionable readers.
Changes should have registered by now in the media in order to keep pace with society. Implications follow that more research into changes in the reading texts of America's youth is needed, especially at the higher grade levels where roles are being actively debated.

However, important also is study of other forms of media. Evidence exists that children spend much time with T.V. and radio. Are they reflecting truthful or desirable roles for the young child, or is media selling America short? Only research into this will tell.
### Appendix 1

**Sample Questionnaire**

<table>
<thead>
<tr>
<th>Title ____________________________</th>
<th>Page ________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focal ____________________________</td>
<td>Period ________</td>
</tr>
</tbody>
</table>

1. **Significant Character(s)**
   - Male _______ Female _______

2. **Active**
   - M _______ F _______

3. **Passive**
   - M _______ F _______

4. **Independent**
   - M _______ F _______

5. **Dependent**
   - M _______ F _______

6. **Number of Activities**
   - Boys _______ Girls _______ Men _______ Women _______

7. **Kinds of Activities**
   - Boys
     1. _______ 6. _______
     2. _______ 7. _______
     3. _______ 8. _______
     4. _______ 9. _______
     5. _______ 10. _______
   - Girls
     1. _______ 6. _______
     2. _______ 7. _______
     3. _______ 8. _______
     4. _______ 9. _______
     5. _______ 10. _______
   - Men
     1. _______ 6. _______
     2. _______ 7. _______
     3. _______ 8. _______
     4. _______ 9. _______
     5. _______ 10. _______
   - Women
     1. _______ 6. _______
     2. _______ 7. _______
     3. _______ 8. _______
     4. _______ 9. _______
     5. _______ 10. _______

8. **Males Dominate Males _______**  **Males Dominate Females _______**

9. **Females Dominate Females _______**  **Females Dominate Males _______**
### Hypothesis 1

#### Significant Character

<table>
<thead>
<tr>
<th></th>
<th>Period I</th>
<th>Period II</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>Fe</td>
<td>147</td>
<td>107.5</td>
</tr>
<tr>
<td>Fe</td>
<td>107.5</td>
<td>147</td>
</tr>
<tr>
<td>(\frac{(F_0-Fe)^2}{Fe}) x 2</td>
<td>19.66</td>
<td>76.58</td>
</tr>
<tr>
<td></td>
<td>Reject (\phi)</td>
<td>Reject (\phi)</td>
</tr>
</tbody>
</table>

#### Active

<table>
<thead>
<tr>
<th></th>
<th>Period I</th>
<th>Period II</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>Fo</td>
<td>126</td>
<td>126</td>
</tr>
<tr>
<td>Fe</td>
<td>125</td>
<td>127</td>
</tr>
<tr>
<td>(\frac{(F_0-Fe)^2}{Fe}) x 2</td>
<td>26.90</td>
<td>23.96</td>
</tr>
<tr>
<td></td>
<td>Reject (\phi)</td>
<td>Reject (\phi)</td>
</tr>
</tbody>
</table>

#### Passive

<table>
<thead>
<tr>
<th></th>
<th>Period I</th>
<th>Period II</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>Fo</td>
<td>52</td>
<td>47</td>
</tr>
<tr>
<td>Fe</td>
<td>47</td>
<td>52</td>
</tr>
<tr>
<td>(\frac{(F_0-Fe)^2}{Fe}) x 2</td>
<td>1.06</td>
<td>1.66</td>
</tr>
<tr>
<td></td>
<td>Accept (\phi)</td>
<td>Accept (\phi)</td>
</tr>
</tbody>
</table>

#### Independent

<table>
<thead>
<tr>
<th></th>
<th>Period I</th>
<th>Period II</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>Fo</td>
<td>158</td>
<td>113.5</td>
</tr>
<tr>
<td>Fe</td>
<td>113.5</td>
<td>158</td>
</tr>
<tr>
<td>(\frac{(F_0-Fe)^2}{Fe}) x 2</td>
<td>34.96</td>
<td>30.40</td>
</tr>
<tr>
<td></td>
<td>Reject (\phi)</td>
<td>Reject (\phi)</td>
</tr>
</tbody>
</table>
### Hypothesis 2

#### Significant Character

<table>
<thead>
<tr>
<th></th>
<th>MI</th>
<th>MII</th>
<th>PT</th>
<th>FTT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fe</td>
<td>124</td>
<td>71</td>
<td>105</td>
<td>60</td>
</tr>
<tr>
<td>Po</td>
<td>97.5</td>
<td>97.5</td>
<td>82.5</td>
<td>82.5</td>
</tr>
</tbody>
</table>

- $(\frac{Po-Fe}{Fe})^2 \times 2$
  - 14.4
  - Reject $\phi$

#### Active

<table>
<thead>
<tr>
<th></th>
<th>MI</th>
<th>MII</th>
<th>PT</th>
<th>FTT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fe</td>
<td>140</td>
<td>124</td>
<td>75</td>
<td>53</td>
</tr>
<tr>
<td>Po</td>
<td>130.6</td>
<td>130.6</td>
<td>64</td>
<td>64</td>
</tr>
</tbody>
</table>

- $(\frac{Po-Fe}{Fe})^2 \times 2$
  - 1.36
  - Accept $\phi$

#### Passive

<table>
<thead>
<tr>
<th></th>
<th>MI</th>
<th>MII</th>
<th>PT</th>
<th>FTT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fe</td>
<td>52</td>
<td>45</td>
<td>42</td>
<td>57</td>
</tr>
<tr>
<td>Po</td>
<td>50.5</td>
<td>50.5</td>
<td>39.5</td>
<td>39.5</td>
</tr>
</tbody>
</table>

- $(\frac{Po-Fe}{Fe})^2 \times 2$
  - 0.90
  - Accept $\phi$

#### Independent

<table>
<thead>
<tr>
<th></th>
<th>MI</th>
<th>MII</th>
<th>PT</th>
<th>FTT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fe</td>
<td>158</td>
<td>133</td>
<td>69</td>
<td>57</td>
</tr>
<tr>
<td>Po</td>
<td>145.5</td>
<td>145.5</td>
<td>63</td>
<td>63</td>
</tr>
</tbody>
</table>

- $(\frac{Po-Fe}{Fe})^2 \times 2$
  - 2.14
  - Accept $\phi$

- 1.14
  - Accept $\phi$
### Hypothesis 3

**Number of Activities**

<table>
<thead>
<tr>
<th></th>
<th>Boy I</th>
<th>Girl I</th>
<th>Boy II</th>
<th>Girl II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fo Fe</td>
<td>60</td>
<td>54</td>
<td>67</td>
<td>55</td>
</tr>
<tr>
<td>(\frac{(\text{Fo}-\text{Fe})^2}{\text{Fe}}) \times 2</td>
<td>57</td>
<td>57</td>
<td>60.5</td>
<td>60.5</td>
</tr>
</tbody>
</table>

- 1.58  
  *Accept \(\phi\)
  
- 0.92  
  *Accept \(\phi\)

### Hypothesis 4

**Number of Activities**

<table>
<thead>
<tr>
<th></th>
<th>Boy I</th>
<th>Boy II</th>
<th>Girl I</th>
<th>Girl II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fo Fe</td>
<td>60</td>
<td>66</td>
<td>54</td>
<td>51</td>
</tr>
<tr>
<td>(\frac{(\text{Fo}-\text{Fe})^2}{\text{Fe}}) \times 2</td>
<td>63</td>
<td>63</td>
<td>52.5</td>
<td>52.5</td>
</tr>
</tbody>
</table>

- 1.0  
  *Accept \(\phi\)

- 0.8  
  *Accept \(\phi\)

<table>
<thead>
<tr>
<th></th>
<th>Men I</th>
<th>Men II</th>
<th>Women I</th>
<th>Women II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fo Fe</td>
<td>74</td>
<td>73</td>
<td>51</td>
<td>45</td>
</tr>
<tr>
<td>(\frac{(\text{Fo}-\text{Fe})^2}{\text{Fe}}) \times 2</td>
<td>72</td>
<td>72</td>
<td>48</td>
<td>48</td>
</tr>
</tbody>
</table>

- 6.24  
  *Reject \(\phi\)

- 0.38  
  *Accept \(\phi\)
### Hypothesis C

#### Domination

<table>
<thead>
<tr>
<th></th>
<th>Period I</th>
<th>Period I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fe</td>
<td>50</td>
<td>24</td>
</tr>
<tr>
<td>Fe</td>
<td>41.5</td>
<td>41.5</td>
</tr>
<tr>
<td>(Fe-Fe)²/Fe x 2</td>
<td>14.28</td>
<td>5.38</td>
</tr>
<tr>
<td></td>
<td>Reject H₀</td>
<td>Reject H₀</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Period II</th>
<th>Period II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fe</td>
<td>48</td>
<td>29</td>
</tr>
<tr>
<td>Fe</td>
<td>32.5</td>
<td>30.5</td>
</tr>
<tr>
<td>(Fe-Fe)²/Fe x 2</td>
<td>4.68</td>
<td>.06</td>
</tr>
<tr>
<td></td>
<td>Reject H₀</td>
<td>Accept H₀</td>
</tr>
</tbody>
</table>

### Hypothesis C

#### Domination

<table>
<thead>
<tr>
<th></th>
<th>Period</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fe</td>
<td>I</td>
<td>II</td>
</tr>
<tr>
<td></td>
<td>50</td>
<td>53.5</td>
</tr>
<tr>
<td>Fe</td>
<td>53.5</td>
<td>53.5</td>
</tr>
<tr>
<td>(Fe-Fe)²/Fe x 2</td>
<td>1.14</td>
<td>.48</td>
</tr>
<tr>
<td></td>
<td>Accept H₀</td>
<td>accept H₀</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Period</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fe</td>
<td>I</td>
<td>II</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>37</td>
</tr>
<tr>
<td>Fe</td>
<td>30.5</td>
<td>30.5</td>
</tr>
<tr>
<td>(Fe-Fe)²/Fe x 2</td>
<td>2.78</td>
<td>.20</td>
</tr>
<tr>
<td></td>
<td>Accept H₀</td>
<td>Accept H₀</td>
</tr>
</tbody>
</table>
References


25. Feshbach, N. D., Student teacher preferences for elementary school pupils varying in personality characteristics. Journal of Educational Psychology, 1969, 60, 126-32.


43. Keogh, B. K., Spatial organization of young children. Los Angeles Center for Head-Start Evaluation and Research, California University, December, 1970.


46. Laosa, L. M., and Brophy, J. E., Effects of sex and birth order on sex role development and intelligence quotient in kindergarten children. Austin, Texas University, April, 1973.


