The Effects of Consciousness-Raising Groups on Sex Role Stereotyping with Fifth Grade Children in an Urban School Setting

Susan Maria Lotto

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THE EFFECTS OF CONSCIOUSNESS-RAISING GROUPS
ON SEX ROLE STEREOTYPING WITH FIFTH GRADE CHILDREN
IN AN URBAN SCHOOL SETTING
BY
SUSAN MARIA LOTTO

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REQUIREMENTS FOR THE DEGREE OF
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IN
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1985
The purpose of this investigation was to determine whether five one-hour consciousness-raising sessions could alter inner-city fifth-graders' scores on a measure of sex role stereotyping. Three groups, comprised of twenty-two (22) children each, were given the Maferr Inventory of Feminine Values and a short question asking the approximate amount of television watched every week in both the pre- and post-tests conditions. The children were randomly assigned to either of the following three groups: (1) Consciousness-raising group emphasizing sex role stereotyping, (2) Consciousness-raising group emphasizing viewing less television for illogical reasons, and (3) A control group receiving no consciousness-raising intervention. The purpose of the second group was to discover if children would show change on measures regardless of the topic's logic. A matched t-test demonstrated that the children did not significantly change the amount of television that they viewed each week. A t-test was performed on all of the original pre-test data indicating that boys will initially report more traditional sex role values than girls. A 3x2 factorial analysis of variance with repeated measures was performed indicating that there was a significant interaction effect between group and intervention. A simple main effects test illustrated that the significant interaction was occurring with the sex role consciousness-raising group and their intervention; however, the significant change within this group was contrary to the predicted more liberal direction. The experimenter posits possible explanations for this finding.
Special thanks to Dr. Paul Florin for his help as major professor.
Many thanks to Dr. Peter Merenda for his methodological contributions.
Many thanks to Dr. Marge Bumpus and Dr. Henry Biller for their special input into the subject of interest.
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A contextual and comprehensive paradigm of human development is based on the supposition that an individual's psychosocial functioning is associated with all other levels of phenomenal organization comprising the individual's context: e.g. the physiological, social, physical environment, and cultural (Eato and Lerner, 1981). From this perspective one would seek to understand an individual's developmental process and personality by examining the relationship between individual processes with contextual ones. The pre-adolescent developmental period is the period in which a youth's social context affects their attitudes, values, and perspective in life. Hypothetically, it is agreed upon by developmentalists from various disciplines that this period involves the individual's interactions with his or her physical and social environment for the purpose of establishing an individually adaptive mode of behavior in, and oriented to, the contexts. Such interactions lead the individual to form appropriate role behavior and appraisals of the self and their unique function in life (Eato and Lerner, 1981; McCandless, 1961).

One's basic self-concept is believed to be critical in the adjustment of the individual because it represents the safest and most satisfactory solution to his/her life situation that he/she can manage at a given time (McCandless, 1961; Lawrence, 1981). Adhering to this position, one may infer that an individual's self-concept would be reflected in such important features of life as one's sex role orientation. Knowledge of culturally defined sex roles is called one's sex role concept of sex role standards. Although one's sex role concept is continuously developing during early childhood, this concept begins to solidify during the years of pre-adolescence. By the time children reach adolescence, their sex role concepts are well developed; they can provide approximately the
By the time a child reaches adolescence, many of the personality attributes and behavioral patterns related to sex role concept are already present, and the difference among adolescents can be traced back to similar differences at an earlier age (Kagan and Moss, 1962).

Self-esteem and self-concept are multi-dimensional constructs. An individual's sex-role concept is one component of their self-concept; however, one's self-concept is comprised of many other components as well. An individual's self-esteem is directly influenced by their self-concept. Hence, if an individual has a negative self-concept, this would be directly related to their low self-esteem. As previously mentioned, one's sex role concept is only one part of their general self-concept and thus is only partially related to their self-esteem.

The sex role concept component of individuals' self-concept is reflected in such behaviors as their choice of career, their attitude toward their appropriate role in the family and the individuals' estimate of their abilities. Thus, if individuals have a traditional sex role concept which is reflected in their limited view of their capabilities, this could influence their behaviors.

More subtle sex role concepts appear to be learned during pre-adolescence and they may continue to be modified during adolescence. For example, adults and late adolescents perceive certain types of achievements as sex-typed. They consider reading, verbal skills, artistic skills, and social skills to be feminine forms of achievement, whereas, mechanical, spatial, athletic, and math skills are considered to be masculine (Stein, 1971). Children entering school have some of these sex role concepts, but others are not yet developed. Second graders in
one survey considered both math and reading as appropriate for their own gender. That is, boys thought these skills were masculine and girls thought they were feminine. A comparable group of sixth graders held sex role standards that were somewhat closer to those of adults, and twelfth graders had clear notions that reading was feminine and math masculine (Adams, 1976). It appears, then, that some changes in sex role concepts about achievement takes place as children grow and progress through school. The changes appear to involve gradual elimination of certain areas of achievement from those that the child considers appropriate for her or his own sex role (Adams, 1976). Unfortunately, development seems to involve learning what not to do, not adding new possibilities of what to do.

During the last twenty years, social definitions of the activities and roles that are appropriate for women at various stages of the life cycle have changed. Women's participation in the work force has become more prevalent and more acceptable, regardless of women's marital status. At the same time, marriage and childbearing are no longer regarded as necessary life choices for women (Van Dusen and Sheldon, 1976). Thus, the pattern of adult roles likely to be experienced by today's women is quite different from the pattern of roles held by women in the past. This new pattern of roles may require different personality characteristics and behaviors than those traditionally associated with femininity. In particular, some aspects of traditional femininity may deter young women from commitment to a work role (Marecek and Frasch, 1977).

A number of authors have proposed that early adolescence represents the first point in development when females receive intense social pressure to comply with the feminine standard. Before they reach
puberty, many girls can happily be tomboys, not worry about how they look or whether they are sweet, attractive and feminine. Girls who prefer to play baseball to dolls are tolerated during elementary school. With the onset of early adolescence, however, comes a high premium on being socially successful, attractive to boys, and on giving up "masculine" activities and interests. Some girls exhibit a "flight into femininity" perhaps as the beginning of the long-range effort to attract a husband (Douvan and Adelson, 1966). One of the results may be a decline in school achievement. In one study, the previous academic records of high school students who were underachievers (i.e. their grades were lower than one would expect on the basis of their intelligence) were examined. The males who were underachievers in high school had histories of poor achievement from the third grade on. However, the females had been performing well until they reached junior high school. During the seventh, eighth, and ninth grades, their achievement levels had gradually dropped and had remained low in high school (Shaw and McCuen, 1960). This contrast is a further indication that the achievement drop-off among girls as they reached maturity may be linked to the adult female sex role. Many females report increased concern during high school about appearing too smart or getting better grades than males. College women also often believe that high achievement will lead to social rejection and lack of femininity (Horner, 1972). Thus, it appears as if pre-adolescence is the developmental period in which sex role concepts and stereotypes begin to noticeably influence the future lives of many individuals.

It has been suggested that women are lower in self-confidence than men in all achievement situations (Maccoby and Jacklin, 1974). This sex difference has been found in many studies across a variety of tasks
and settings. For example, one study asked expectancy estimates from elementary school children for their future performance at a series of novel intellectual tasks (Crandall, 1969). Females had lower pre-task expectancies than did males. Further, in some cases in which it was possible to ascertain the subjects' objective ability levels, males tended to estimate their future performance above the predictions that would be made on the basis of their actual abilities, whereas females tended to estimate their future performance below such predictions. That this tendency is likely to have debilitating effects is strongly suggested by evidence that individuals who approach tasks with a low expectancy of success are, in fact, likely to perform less well than those with a high expectancy (Battle, 1965; Feather, 1966). Furthermore, low expectancies may not only depress performance but may adversely affect an individual's initiative. That is, there is evidence that individuals who expect to perform poorly tend to choose not to engage in achievement activities, to select less demanding tasks, and to be more readily discouraged in the face of failure (Lenney, 1977). This could explain the phenomena that compared with men, fewer women elect to take advanced level mathematics courses or choose to enter mathematically oriented careers (Meece, Parsons, Kaczala, Goff and Futterman, 1982). Several researchers propose that sex differences in math achievement and course selection can be explained by the different socialization experiences of boys and girls. The attitudes of teachers, parents, and counselors often reflect cultural stereotypes regarding not only the alleged natural superiority of boys' mathematical abilities, but also the different utility of mathematical skills for boys and for girls (Meece, Parsons, Kaczala, Goff and Futterman, 1982).
In a study exploring differences in children's acceptance of occupational roles that are traditionally sex-typed by society, it was found that both boys and girls viewed occupations as the role of one sex or the other, according to traditional sex-typed views (Scheresky, 1976). Moreover, traditionally role oriented women are less likely to be achievement oriented than women whose role orientation is non-traditional (Alper, 1974).

Sex roles may be defined as the behaviors that are considered to be appropriate to an individual on the basis of social definitions of his or her sex. They mark the limits of permissible behavior for individuals who have been categorized as members of a given sex. In sex as in race, "separate but equal" does not seem to be viable condition. Although males and females are perceived to possess different qualities, these qualities are not generally viewed as being equivalent in value in society. Men and masculine characteristics are more highly valued by members of both sexes. One renowned study depicted negative sex role stereotyping by seventy-nine mental health clinicians (Broverman, Broverman, Clarkson, Rosenkrantz and Vogel, 1970). These clinicians completed a sex role questionnaire on the characteristics of a mature, healthy, socially competent adult man, woman, and person (sex unspecified). Both men and women agreed that competence was more characteristic of the healthy male than of the healthy female. The clinicians suggested that healthy women differ from healthy men by being more submissive, less independent, less adventurous, less objective, more easily influenced, less aggressive, less competitive, more excitable in minor crises, more emotional, more conceited about their appearance, and more prone to having their feelings hurt. Moreover, the clinicians ratings of the
Consciousness-raising

healthy adult did not differ from their rating of the healthy male. Healthy women are perceived as less adult by clinician standards. Thus, females find themselves entrapped in this double bind as early as in childhood, and males suffer from similar debilitating stereotypes which are placed on them.

Pubescent girls must contend with the various negative characteristics stereotypically attributable to women. Several of the characteristics stereotypically attributed to women such as dependence, passivity, and submissiveness, imply limited personal control over events (Broverman et al., 1972). Along with this perceived sense of limited personal control over events may come a lower self-esteem. One familiar theme in the sex role literature is the argument that women are accorded lower social status in society, that they have internalized this widespread cultural assumption about their inferiority, and that they have consequently have damaged self-concepts (Bardwick, 1971; Freeman, 1970). In this view, both boys and girls are socialized to think of women as less competent, able, and praiseworthy. As a consequence of reflected appraisals, girls may come to see themselves as inferior, to have lower self-esteem. The data vary on this issue, however, is inconsistent. Some studies do show evidence of lower self-esteem among girls (in the sixth and seventh grades) and find essentially no change in this pattern between 1968 and 1975 (Bush et al., 1977-1978). On the other hand, other studies indicate that there is no consistent evidence of lower self-esteem among girls or women (Maccoby and Jacklin, 1974; Wiley, 1979).

Rigidity of beliefs about sex roles may also be related to social class. In one study, children were divided by sex into middle and lower class groups. Lower class boys were the first clearly to identify
themselves with masculine interests, whereas, middle class girls were the last to take on a pattern of feminine interests. Lower class girls and middle class boys were intermediate between these two extremes. By the time he was about four or five years old the average lower class little boy manifested sex-typed behavior quite clearly (choice of masculine rather than feminine toys). Not until some three or four years later did the average middle class girl manifest similarly appropriate sex-typed behavior. Lower class children seem to achieve appropriate sex-typing earlier than middle class children, and in both social classes boys sex-type earlier than girls (McCandless, 1961). Speculations about the reasons for this discrepancy are varied. It is probable that sex roles are clearer for lower class children than for middle class children; their fathers engage in rough work, and are more clearly the heads of their households; mothers do not engage in masculine activities, and are placed in an inferior role. Children in the lower class may also be punished for failing to adhere to sex role standards. Early acquisition of traditional masculine characteristics is also most probably learned by lower class boys due to their parents' intensive training with regards to their independence and assertiveness. Research in a low income public housing project in Washington D.C. noted two features of the play of urban, low income minority boys; the need to learn to hold one's own and the delayed development of play skills. The importance of fighting back against other children, protecting one's person and one's possessions, was learned very early by these children. Mothers seemed to deny their young children much protection from other children, pushing them to fight and take care of themselves. The intent of the mothers seemed to be on teaching their children some of the harsh
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lessons of survival. In this sense, the court, the playground, and the streets are frequently grim, informal, and effective educational settings for low income populations. However, these children seem to be learning about these survival techniques as young as the age of two and three (Silverstein and Krato, 1975). Thus, it appears that both male and female lower class children are trained to be independent and to possess other traditional masculine characteristics. However, females are still looked upon in a stereotypically negative fashion by lower class populations.

Existing data on children indicate that despite a common adult assumption that sex role standards are changing at a rapid rate, children continue to believe that aggression, dominance, and independence are more appropriate for males; passivity, nurturance, and affect more appropriate for females (Parsons, 1948; Hartley, 1960).

"In response to those who are overly concerned about the effect of apparent recent sex role changes...from the child's point of view, there are no changes; he/she sees only the picture as it appears in his/her time and this picture shows remarkably little change from traditional values".

(Hartley, 1960, p. 85) (See Figure 1)
Thus, culturally defined sex-role standards are transmitted via modeling and/or direct reinforcement to children. In turn, children internalize these sex-role standards into their own sex-role concepts. These internalized sex-role concepts are manifested in sex-related expectations and behaviors.

With the advent of the women's liberation movement small groups of women began meeting together informally for "consciousness-raising". Consciousness-raising (CR) is the name given to the group process of evaluating and interpreting an individual woman's conflict or discomfort in view of this culture's socialization of women rather than viewing problems as personal deficiencies or inadequacies (Eastman, 1973; Gor­nick, 1972). Several researchers have reported positive evaluations by group members following a CR group experience. Group members have reported increased self-esteem and autonomy, a redefinition of their identities in terms of their own feelings rather than expectations from external sources, and a decrease in submissiveness (Follingstad, Robinson Pugh, ···, 1977). However, much of the evidence regarding the enduring effectiveness of consciousness-raising groups is debatable due to the use of self-report pencil and paper questionnaires and the relatively few tests for cumulative effects and characteristic effects (Berman and Zimpfer, 1980). The CR group process has not yet been applied to children of both sexes in schools, although there have been suggestions for several consciousness-raising games for the classroom. The few efforts to run CR groups in the schools have been with teachers (Grady, 1972). It seems as if it should
be both easier and more effective to work toward changing sex roles with children than with adults; children are, after all, still in the process of forming attitudes (Gerson, 1974).

Another approach which has been put into practice when endeavoring to alter groups of individuals' orientations is labeled as the "didactic-experiential" approach. This program emphasizes a type of didactic-experiential blend in which acquired knowledge is heavily reinforced with observation, very practical and concrete concepts and experiences, and frequent modeling and feedback (Gershon and Biller, 1977).

![Figure 2. The Effect of Consciousness-raising Intervention on the Transmission of Sex-role Standards to Children.](image)

This study, then was an attempt to intervene and change the internalized sex-role concepts of children in the training process by altering children's sex-role concepts via consciousness-raising. However, our consciousness-raising intervention borrowed some didactic procedures from the didactic-experiential approach due to the young age of our subjects.
If such change were successful, changes in sex-related expectations and behaviors should follow. (See Figure 2.)

In this study, then, consciousness-raising groups were held with pre-adolescents for the purpose of changing their sex role concepts. It was the researcher's hypothesis that consciousness-raising groups would result in durable effects. Previous findings concerning the effects of consciousness-raising with adults lead the researcher to form this hypothesis. The validity of the effectiveness of consciousness-raising groups can be valuable and significant. If its effectiveness can be ascertained, such groups could be implemented into our educational system to combat the phenomenon of unrealized potential that results from sex-role concepts. There is nothing that is more fundamental to effective living than a sound base of self-worth, which, as previously mentioned, is affected by stereotypes regarding sex roles. The more we build upon our feelings of self-worth, the more we build our capacity to contribute to the improvement of our organization, neighborhood, family and society (McAlindon, 1981). If we can find an effective way of reducing the various detrimental effects of sex role stereotyping and thus enhance self-esteem in our youth, especially those who are disadvantaged, then our entire society would benefit from an increase in actualized potential.

Hypothesis

It is the researcher's hypothesis that consciousness-raising groups result in changes in sex-role concept. The following predictions will be tested as well: (A) Boys will initially report more stereotypic sex-role standards and values than girls, and (B) Participation in the CR
Consciousness-raising group experience will produce shifts in attitudes and behaviors toward a more contemporary pro-feminist view for both boys and girls, with demand characteristics not contributing to this shift in attitude.

Method

Subjects

There were originally one hundred and twelve subjects taken from the entire fifth grade population in a New York City urban school located in the low income section of East New York, Brooklyn, from which the experimenter had previous contact and who agreed to cooperate with this experiment. The subjects were randomly assigned by means of a table of random numbers to one of four groups. Only three of these groups were used for this study (N=85). One group was dropped because no technical manual was found for the topic under study.

Approximately two-thirds of these children were black with the remaining one-third being comprised of children of either Hispanic or West Indian origin. The mean age of these children was eleven years and one month, with the range of nine years and nine months to thirteen years and one month. The reason for this large range was due to the fact that there were children who were included who had skipped one grade or who had repeated one or more grades during their education period. Despite the apparent large range, in actuality there were very few extreme cases with most of the subjects' ages hovering closely about the mean.

Due to the fact that all of the subjects resided in one particular low income community and the sample was comprised of members from pre-
dominantly three minority groups, one must question the generalizability of the findings. Due to this limitation, it would be difficult to generalize these findings to other communities and other individuals from different ethnic backgrounds.

**Experimenter**

The researcher served as the primary experimenter in all conditions. She was assisted by two assistants, one male and one female, in the distribution of materials, and in the control of discipline during the open discussions and exercises of the consciousness-raising groups. The experimenter administered all the measures that were given prior to the consciousness-raising groups as well as all subsequent testing, with the experimenter working with the same subjects every experimental day.

**Instruments**

The Maferr Inventory of Feminine Values (MIFV) is a self-administered likert scale designed to measure female and male attitudes toward the feminine role. (See manual, Steinman, 1979). The MIFV consists of thirty-four statements, each of which expresses a particular value or value judgement related to women's activities and satisfactions. The respondent indicates the strength of her or his agreement or disagreement to each statement on a five-point scale, ranging from "completely agree" (2) to "completely disagree" (-2), through the midpoint of "I have no opinion" (0). The statements are sometimes stated positively, sometimes negatively, to avoid a respondent being able to adopt one position by always agreeing
or disagreeing. The possible scores range from -68 through +68. Thus, a respondent who consistently took the strongest possible family oriented (traditional) position would obtain a score of -68, and a score or +68 if they always took the strongest possible self-oriented (liberal) position. Negative scores between 0 and -68 thus represent degrees of family orientation (traditional); positive scores between 0 and +68 represent degrees of self-orientation (liberal or non-traditional).

According to the MIFV manual, split-half reliability of the MIFV stepped up by the Spearman-Brown prophecy formula is .81 (N=4638; Males N=1389; Females N=3249). The authors did not offer an explanation for reporting split-half coefficients for a 5-point Likert scale rather than the alpha coefficient which is not only appropriate, but would be based on the full 34 items of the scale rather than 17. In much the same way, the authors did not report the structure (i.e. subscales) of this instrument which could have been identified through the use of principal component analysis considering the very large sample size reported by the authors. The experimenter's decision to incorporate the MIFV was based on two premises; first, the authors reported its use in over ninety experiments, and second, it was intended to obtain from the authors all of the reliability and validity data they had gathered from their original large sample. It was assumed further that their reported split-half reliability of .81 was an honest report from which more reliability information could have been obtained after review of all their data. Unfortunately, after having completed the experiment, when it was requested that the authors provide the necessary reliability and validity data, they reported that all of this required detailed information had been lost - a
violation of APA standards concerning the psychological testing. Thus, when the paucity of this detailed information became apparent it was decided to conduct reliability analyses using the original sample (N=112) of the study. Therefore, it was not until the completion of this study that it was discovered just how problematic the MIFV was in terms of reliability and validity. Using this sample, the MIFV reliability was found to be below acceptable limits (Alpha=.28, N=112; Spearman-Brown=.21, N=112). This information regarding the inventory's internal consistency and split-half reliability causes one to question the usefulness of this inventory as well as the meaningfulness of any interpretations from the use of this inventory. These reliability analyses which were subsequently conducted indicate that there are a great deal of uncontrol­lable influences that impact upon the usefulness of this instrument. These data suggest a substantial amount of measurement error.

An instrument of this length should have some structure (i.e. sub­ scales). If so, scoring the instrument on the basis of all 34 items might explain the very low reliability found by the researchers. The sample size of the 112 subjects does not permit exploration of the structure of the MIFV using a technique such as principal component analysis. The authors should have done this and reported their findings in the manual. According to the manual, content validity of the MIFV was based on the judgement of seven experts, all professionals in the social disciplines, who were in unanimous agreement on the categorization of the items comprising the instrument, as family, home, other oriented (traditional) or self-oriented (liberal) (Steinman, 1979). However, there is no mention of which items belong to which category and how these subscales cor-
relate with one another. Since, without accurate reliability and validity information, there is reason to question whether this instrument measures what it purports to measure. This issue also influences the accuracy of replications of this study. Problems with reliability and validity of instrumentation often manifest unstable weights upon replication.

The items have face validity in that it was agreed upon by experts that they are statements with generally accepted connotation. A validity of response check was built into the instrument by expressing the same idea in two different ways. Also, some items were presented as axioms; "Marriage and children should take precedence over everything else in a woman's life". Others again were presented as feelings; "I sometimes feel that I have to do everything myself, that I can accept nothing from others". The statements were read aloud by the experimenter and explained if the children were not able to understand the vocabulary.

Concurrent validity of the MIFV has been investigated in more than ninety research studies (Steinman and Fox, 1979). However, the authors do not describe or reference these studies in the manual.

Despite the apparent methodological limitations of the Mafer Inventory, the author chose to include it in her present study because it was accompanied by a manual which referred to the instrument's positive characteristics such as seemingly high split-half reliabilities. Moreover, the instrument seemed to be appropriate since the manual stated that it was designed to measure female and male attitudes toward the feminine role. This is the construct the author was interested in
assessing and the other inventories which claimed to measure similar attitudes were either lacking a manual or reporting inadequate reliabilities and validity information.

The question relating to the children's television viewing habits was simply, "Approximately, how many hours of television do you watch every week?" It was devised by the experimenter for the purpose of assessing whether demand characteristics were interfering with the post-test responses.

Procedure

The eight-five children were randomly assigned through usage of a table of random numbers to one of three groups: (1) Sex role group - here, the five consciousness-raising sessions emphasized the children's perceptions of sex roles. Some of the lesson plans included topics such as career goals, the family and sex roles, and "The Story of Baby X". Self-esteem issues were discussed if they related to sex role stereotypes. (2) Silly group - as a check for demand characteristics. In other words, the researcher wanted to ensure that the positive results obtained from consciousness-raising were a result of content and not merely from the process of attention and desire to please the leaders. In this group, consciousness-raising consisted of "silly and illogical" reasons for stopping their television watching. For example, they were told that if they stopped watching television they would have more time to plant and contribute to the nation's agricultural market. (3) The Control group was not exposed to any CR sessions. The prediction was that there would be no change in these children's scores both pre- and post-treatment. (See
Appendix A for detailed description of activities in various conditions).

The order of interventions went as follows: first, the children were randomly assigned to one of the above groups, administered the inventories, exposed the experimental groups to one consciousness-raising group per week for a period of five weeks, administered the inventories to all of the children again, and made a party for each of the groups to reward them for cooperating in the experiment.

Results

Due to excessive absences or incomplete responses, the inventories of nineteen subjects had to be left out of the post-test analyses. Thus, the statistical analyses were performed with sixty-six subjects (N=66). Attrition took place across all three groups in the experiment and not selectively in one of these groups. Whereas each group originally possessed 28 subjects (with the exception of the control group which contained 29), the subject who were used in the final analyses equaled 22 per group. Thus, each group lost 6 subjects, with the exception of the control group which lost 7 subjects. This non-random reduction of the sample size may have introduced a bias into the results because the characteristics of those children who were unable to be included may be different from those who were included in the data analysis; thus, caution must be used when reviewing the external validity of the results. Hence, generalizations are not likely to be justified from these results to all inner-city fifth-graders.

Firstly, a t-test was performed on the initial pre-test data of all groups to explore the first prediction that boys will initially
report more traditional sex role values than girls. The results indicate (Table 1) that there is a statistically significant difference ($t(83)=2.00$, $p<.05$) between the boys and girls in this sample regarding their initial sex role values. The boys ($M=5.00$) had significantly more traditional sex role values than the girls in our sample ($M=9.15$).

Table 1

<table>
<thead>
<tr>
<th>Group</th>
<th>$M$</th>
<th>S.D.</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>5.00</td>
<td>8.45</td>
<td>39</td>
</tr>
<tr>
<td>Girls</td>
<td>9.15</td>
<td>10.37</td>
<td>46</td>
</tr>
</tbody>
</table>

A matched t-test was performed on the pre- and post-test scores of the subjects in the "sill" condition. The results indicate that the "silly" intervention did not significantly change the childrens' scores on their reported hours of television viewing ($t(21)=1.56, p>.05$). (See Table 2).
Table 2

Means and Standard Deviations of Hours of Television

Viewing of the Children Both Pre- and Post-Intervention

<table>
<thead>
<tr>
<th>Group</th>
<th>M</th>
<th>S.D.</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-silly</td>
<td>3.59</td>
<td>2.84</td>
<td>22</td>
</tr>
<tr>
<td>Post-silly</td>
<td>2.38</td>
<td>2.29</td>
<td>22</td>
</tr>
</tbody>
</table>

An F max was performed to determine whether the parts that were pooled to form the denominators of the F ratios were homogenous since the experimenter had no previous knowledge about the effect of the treatment (interventions upon the variance). It was necessary to check the homogeneity of SS subj w. groups as well as on the homogeneity of SS B x subj w. groups (Winer, 1971). The results of these analyses allowed the experimenter to continue with the ANOVA since the assumptions of the homogeneity were not contradicted by the experimental data ($F_{max}$ for SS subj w. groups $(3,21)=2.51$, $p>.05$; $F_{max}$ for SS B x subj w. groups $(3,21)=1.27$, $p<.05$).

A 3 x 2 factorial analysis of variance, with equal cell frequencies, ($n=22$) with repeated measures was performed on the data. The results indicate that neither the intervention or membership within a particular condition (experimental, silly, or control) produced significant differences on the Maferr scores. However, the ANOVA did demonstrate that there was a statistically significant interaction effect ($F(2,63)=4.16$, $p<.05$) between the interaction and groups (Table 3).
Table 3

Analysis of Variance Summary Table

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Subjects</td>
<td>6180.49</td>
<td>65</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (Groups)</td>
<td>59.56</td>
<td>2</td>
<td>29.78</td>
<td>0.31</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Subjects within Groups</td>
<td>6120.93</td>
<td>63</td>
<td>97.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within Subjects</td>
<td>3618.50</td>
<td>66</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B (Time)</td>
<td>122.19</td>
<td>1</td>
<td>122.19</td>
<td>2.49</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>AB</td>
<td>407.56</td>
<td>2</td>
<td>203.78</td>
<td>4.16</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>B x Subjects within Groups</td>
<td>3088.75</td>
<td>63</td>
<td>49.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9798.99</td>
<td>131</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An Omega-squared statistic was calculated to demonstrate the amount of variance accounted for by the interaction effect ($\omega^2 = 0.031$). Thus, 3.1% of the variance was accounted for by the significant interaction effect.

Inspection of the means (Table 4) within each cell suggests that the interaction effect is occurring in the experimental condition.
Table 4
Means and Standard Deviations of Each Cell in the Analysis of Variance

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exper.</td>
<td></td>
<td>M=7.91</td>
<td>M=1.09</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SD=7.96</td>
<td>SD=10.80</td>
</tr>
<tr>
<td>Silly</td>
<td></td>
<td>M=5.05</td>
<td>M=4.82</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SD=7.90</td>
<td>SD=7.35</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td>M=5.46</td>
<td>M=6.73</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SD=8.22</td>
<td>SD=8.64</td>
</tr>
</tbody>
</table>

Table 5
Total Scores in Each Cell in the Analysis of Variance

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exper.</td>
<td></td>
<td>174</td>
<td>24</td>
</tr>
<tr>
<td>Silly</td>
<td></td>
<td>111</td>
<td>106</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td>120</td>
<td>148</td>
</tr>
</tbody>
</table>
In order to verify that the significant interaction effect was indeed occurring in the experimental group, a series of tests for simple main effects was conducted.

Table 6

Analysis of Variance for Simple Main Effects

Summary Table

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>B for A₁ (intervention/exper. group)</td>
<td>511.36</td>
<td>1</td>
<td>511.36</td>
<td>10.43</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>B for A₂ (intervention/silly group)</td>
<td>.57</td>
<td>1</td>
<td>.57</td>
<td>.01</td>
<td>&gt; .05</td>
</tr>
<tr>
<td>B for A₃ (intervention/control group)</td>
<td>17.82</td>
<td>1</td>
<td>17.82</td>
<td>.36</td>
<td>&gt; .05</td>
</tr>
<tr>
<td>A for B₁ (group/pre-intervention)</td>
<td>105.54</td>
<td>2</td>
<td>52.54</td>
<td>.72</td>
<td>&gt; .05</td>
</tr>
<tr>
<td>A for B₂ (group/post-intervention)</td>
<td>361.58</td>
<td>2</td>
<td>180.79</td>
<td>2.47</td>
<td>&gt; .05</td>
</tr>
<tr>
<td>Within Cell</td>
<td>9209.68</td>
<td>114</td>
<td>73.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>10306.45</td>
<td>121</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note, in this context MS w. cell represents an average of heterogenous sources of variance. Thus, the distribution of the F ratio was approximated by an F distribution having degrees of freedom equal to p-1 and f, where f is given by (Winer, 1971). Moreover, to test the simple main
effect of factor B the denominator of this ratio is the same as that used in testing the main effects of factor B (Winer, 1971). In this case, the denominator is the $MS_b \times subj.s.\, groups$ which is represented as $MS_{b, subj.s.\, groups} = 49.03, df=63$.

The results indicate that there are differences in the effects of intervention (Factor B) when all observations are made at the experimental group (Level A_1), $(F(1,63)=10.43, p<0.05)$.

In order to test whether the experimental group's scores on the Maferr differed significantly pre- and post-intervention, an individual comparisons analysis on the means was conducted. The results indicate that the means of the Maferr scores did significantly decrease from pre- to post-intervention testing periods $(F(2,114)=6.70, p<0.05)$.

Thus, as a result of these analyses, we can see that the consciousness-raising intervention with the experimental group significantly contributed to this group's move towards traditional sex role values. This finding is in opposition to the experimenter's original prediction concerning the direction of change for this group.

**Discussion**

The findings supported the prediction that boys would initially possess more traditional, conservative, and stereotypic views regarding sex roles than girls. As aforementioned, this finding is probably caused by the fact that lower class boys "need" to exhibit more stereotypic masculine behavior in order to survive within the contexts of their environments than girls need to exhibit traditionally feminine behaviors. This exhibition of traditional masculine behaviors is usually accompanied
by a rejection of anything that has to do with femininity. Thus, it makes sense that these boys would view women's roles in a more traditional way, if we are simultaneously assuming that the traditional view of the feminine role is also the more negative one.

Due to the fact that there was no significant change in the amount of television watched within the silly condition despite the fact that these children experienced consciousness-raising with a focus on having them lesson their television viewing for silly and illogical reasons, we can be reasonably assured that findings pointing toward change in these sorts of experiments is due to the effects of consciousness-raising as opposed to demand characteristics (subjects' desire to report change to please the experimenter). Thus, as a vehicle for attitude and behavior change, the CR groups appear to be a viable medium.

The experimenter's second prediction regarding the direction of change in the experimental condition was not supported by the experimental data. Although there was change as a result of the consciousness-raising intervention, change was in the reverse direction. There are two possible interpretations for this change in the reverse direction that the experimenter is putting forth: (1) response bias, and (2) reactivity of the instrument and/or intervention.

The first possible interpretation would explain this change in a reverse direction by saying that the children completed the post-intervention inventory towards the completion of their school semester, and as a result, were very restless, uncareful, and haphazard in their responses on this inventory in the final phase of the experiment. Following this line of reasoning, the change in the reverse direction could be considered
to have been due to a chance lowering of their total scores as a result of the subjects' haphazard responding on this final questionnaire. This interpretation, however, is difficult to support considering that it was also nearing the end of the semester for the silly and control groups as well, and neither of these groups demonstrated significant change in either direction on this inventory.

The latter, and more plausible, possible interpretation would suggest that the consciousness-raising intervention did indeed affect these children, but due to external factors within these children's environmental contexts the changes made in the predicted direction were thwarted and changes made in the reverse direction were intensified. This interpretation warrants serious reflection considering that no matter how powerful the effects of the five consciousness-raising groups were, these children continued to exist in their natural environments which supported an adherence to the more traditional view of the feminine role—environments which most probably opposed any of the attitude changes espoused by the consciousness-raising groups. In other words, the consciousness-raising groups sensitized these children to this issue and caused them to start thinking about it; however, when these children left the CR environment and carried these alternative ways of viewing the feminine role with them into their natural environments, they were received with criticism and/or negative reinforcement because their natural environments espouse the traditional outlooks on the feminine role. This interpretation makes even more sense with these children since they reside in the even more traditional sex role oriented environments.
than children who are not financially and socially lower class. This interpretation would be substantiated by the fact that the teachers reported that the children discussed sex role issues with their peers (not exposed to CR groups) during recess and lunch.

Despite the fact that there was a statistically significant interaction effect, the omega-squared value was considerably low ($\omega^2 = 3.1\%$). One possible reason why the omega-squared value was so low is that this value could be reflecting inability to measure the treatment impact due to the various reasons postulated beforehand as opposed to reflecting the fact that the treatment itself has no impact. Thus, the error variance (Error=$1-\omega^2 = 96.9\%$) could very well be a reflection of the instrument's poor reliability and validity.

As previously mentioned, since the entire sample came from one particular community comprised of predominantly three minority groups there are obvious limitations in this study's external validity. One would have to devise a similar study in similar communities to be more assured of the generalizability of the findings.

Additional variables should be included in other studies which were not included in the present study such as family structure. A factor such as single parent households could effect the phenomenon of interest and be a confounding influence in the study.

As previously mentioned in the discussion on the multi-dimensionality of self-concept and self-estem, one's sex-role concept is only one component of his/her general self-concept. It would be interesting to investigate in further research those aspects of the traditional feminine role which contribute to an individual's negative self-estem.
Compared to the strength of the phenomenon of interest, the present intervention was too weak to have any major and long lasting effects. Additional interventions could include changing the children's textbooks to those which portray women in less stereotypic roles, orienting the teachers to the subtle biases embedded within their own traditional attitudes, and involving the parents through discussions and disbursement of literature revolving around the phenomenon of interest in order to reinforce the information the children are receiving via the consciousness-raising groups.

Since the results, however, do suggest that CR groups produce attitude change, more research is needed to explore how CR groups can counterbalance environments, if they can. It appears that one modification which could be effective when working with CR groups in such populations is the increase in the number of CR sessions offered. For example, perhaps an entire semester of CR groups would be able to counterbalance the opposing environmental influences by providing adequate positive feedback, support, and reinforcement for change in the desired direction. Moreover, it was the experimenter's subjective opinion that the size of the CR group greatly influenced the entire CR experience for the children in that smaller groups would probably be able to promote the children's attention and active participation in such groups. Future research could compare the change of groups of different sizes. Moreover, a much more reliable and valid instrument would have to be utilized to ensure meaningful results and interpretations. Thus, the CR group as a medium of effective, positive, and enduring attitude change in a desired direction is in need of further assessment.
APPENDIX A

The following is a description of what topics were presented in each of the five one-hour sessions for both the experimental and silly conditions.

Experimental Condition

SESSION 1

During the experimental group's first session, the children took turns reading paragraphs from "The Story of Baby X" (Gould, 1980). This is a children's story about an experimental child who was born and not labeled as either male or female. The story follows the childhood of this "sexless" child and depicts all of the problems this child encounters because society cannot be comfortable unless it labels every individual as either male or female. The story has a happy ending in that society eventually looks positively upon this individual who exhibits androgenous behaviors and attitudes in every sphere of life. After the group finished reading this story, the group discussed its implications with regards to how gender labels have effected their own lives.

SESSION 2

The group participated in a game in which twenty everyday family chores were listed on the blackboard and the group had to vote whether the brother, sister, or either sibling should be assigned the task. A panel of six (3 males; 3 females), which we labeled "the experts", were asked to vote on the same chores, but were not present for the larger group's vote. Eventually, the decisions of both "the experts" and the larger group were put on the blackboard for comparison. The group then discussed all of the results and why they voted in the direction that they did. The same game was then played with parental tasks.
SESSION 3

Eight, short, unfinished skits were prepared by the experimenter to be acted out in front of the group consisting of two to five participants. The children assigned to each skit had to go in the hall and discuss how to finish each skit and the audience had to decide what each skit was about and what sex they thought each actor/actress was trying to represent. For example, one skit portrayed a subway robbery and the children in the audience had to decide what sex the robbers and rescuers were on the basis of their actions and manner of verbalizations. Afterwards, the entire class discussed why they chose the sex that they did for each actor/actress and alternative ways if thinking.

SESSION 4

A paper bag was passed around the room containing one career choice on a folded piece of paper. Each child was allowed to choose one piece of paper and then go in front of the room and list all of the qualities that he/she thought an individual must possess in order to efficiently fulfill the particular career's requirements. The group then voted whether they thought a male, a female, or an individual of either sex would be better equipped to fulfill each career's requirements. A discussion about these decisions followed including possible alternatives.

SESSION 5

A thorough list of personality characteristics were read off in front of the group for individuals of genderless names (e.g. Frances, Jesse). Upon completion of each individual's description, the children had to decide what sex each individual was. Following this activity, a long discussion was held regarding the children's decisions and alternative
Consciousness-raising

ways of looking at personality characteristics and attitudes. Finally, the group discussed all of the issues that were presented in all of the previous sessions.

Silly Group

SESSION 1

A group discussion was held summarizing all of the possible silly and illogical reasons the group could conjure up with regards to why nobody should view television. Logical reasons (e.g. dangerous for one's eyes) were discarded.

SESSION 2

A discussion was held focusing on the idea that the public's television viewing was detrimental to movie actors' and actresses' careers because it caused fewer people to go to the movies, thus leaving movie actors/actresses unemployed.

SESSION 3

The group participated in planting lima beans in cups. This activity was followed by a discussion about how television viewing caused fewer people to engage in agricultural activities and thus lowered our nation's agricultural outputs.

SESSION 4

The group was asked to list all of the leisure activities they enjoyed participating in. Following this activity, a discussion was held focusing on how television viewing prevented them from doing the things that they really wanted to do.

SESSION 5

A discussion was held summarizing all of the "silly and illogical" reasons previously discussed regarding why they should cease their tel-
revision viewing.
References


