GROUP MODIFICATION OF SEX-ROLE STEREOTYPES

By

LINDA JANE NEAL

Bachelor of Arts

Oklahoma City University

Oklahoma City, Oklahoma

1972

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
MASTER OF SCIENCE
May, 1976

GROUP MODIFICATION OF SEX-ROLE STEREOTYPES

Thesis Approved:

Donald K. Freedheim
Thesis Adviser

Julia L. McHolland

Vicki G. Healey

D. D. Dunlap
Dean of the Graduate College

ACKNOWLEDGMENT

The author wished to express thanks to the members of her committee, Dr. Julia McHale, Dr. Vicki Nealey, and especially to the chariman, Dr. Don Fromme for his valuable assistance and support throughout. Appreciation also goes to Dr. Barbara Stewart for her invaluable help with the statistical procedures and to Brenda Vance for her assistance in the typing of this manuscript. Finally, special thanks are expressed to my husband, Dr. Terry Anderson, for his understanding and encouragement.

TABLE OF CONTENTS

Chapter Page

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

LITERATURE REVIEW

Sex-Role Stereotypes

Many investigators have shown evidence for sex-role stereotypes of highly consensual norms and beliefs about the differing characteristics of men and women (Broverman, Broverman, Clarkson, Rosenkrantz, & Vogel, 1970; Elman, Press, & Rosenkrantz, 1970; Fernberger, 1948; Komarovsky, 1950; McKee & Sheriffs, 1957; Rosenkrantz, Vogel, Bee, Broverman, & Broverman, 1968; Sheriffs & Jarrett, 1953). Sex stereotypes and traditional sex-determined role standards appear to reinforce each other. The stereotypes result in judgments that males and females are "suited" for different roles. Differential social expectations exist for men and women and beginning at birth a person's behavior is shaped and reinforced to conform to what his or her society considers appropriate sex-role behavior.

Society generally regards "masculinity" as including the basic attributes of dominance, assertiveness, rationality, achievement orientation, ego strength, intelligence, creativity and bravery. "Femininity" is thought to include passivity, emotionality, kindness, nurturance, dependence

and selflessness. However, in discussing sex roles it is important to keep in mind that we are born male or female and we are taught to be "masculine" or "feminine." Maleness and femaleness are simple biological facts while masculinity and femininity are complex psychological concepts (Symonds, Moulton, & Badaracco, 1973). This learning to be a "psychological" male or female has been described as the first and most pervasive task imposed upon the individual in the socialization process (Angrist, 1969; Banton, 1965; Parsons, 1942). Therefore it is not surprising that much research and theory has been generated in attempting to understand the developmental process whereby little girls become "feminine" and little boys become "masculine." The three major theories of sex-role development are social learning theory (Mischel, 1970), identification theory (Kagan, 1964) and cognitive-developmental theory (Kohlberg, 1966).

As Bem (1972) points out, the implicit assumption in most of this literature is that sex-typing is a desirable process; these theorists imply that:

> ...it is <u>good</u> for girls to inhibit aggression and for boys to inhibit dependency; that little girls <u>ought</u> to concern themselves with attractiveness and that little boys <u>ought</u> to concern themselves with achievement (p. 3).

Mussen (1969) makes explicit the assumption that children will be "better off" if they conform to the stereotypes of sex-appropriate behavior. He states that parents have two major tasks in promoting their child's sex-typing. The first is teaching the child appropriate sex-typed re-

sponses through punishments and rewards. That is, rewarding and encouraging sex-appropriate behavior and attempts to initiate opposite-sex responses. The second is providing a model of the "proper" general attitudes and personality characteristics for the child to emulate.

Recent Developments

Until recently this advocacy of sex-role stereotyping has rarely been questioned by most investigators. Investigators have now begun to find that the persistence of traditional sex-defined role standards may have undesirable effects. Several investigators have found that differential esteem is accorded the two sexes (McKee & Sheriffs, 1957; McKee & Sheriffs, 1959; Rosenkrantz et al., 1968; Sheriffs & Jarrett, 1953). Elman, Press, & Rosenkrantz (1970) found that sex stereotypes are at variance with people's conceptions of what "ideal" males and females would be like, therefore suggesting that people are dissatisfied with traditional sex-determined role standards. However, others (McKee & Sheriffs, 1959; Steinman, Fox, & Farkas, 1968) found that men and women have mistaken impressions of how the opposite sex would like them to be, thereby retarding the apparently desired change.

There is also a large literature suggesting that traditional sex-determined role standards are not only nonfunctional but perhaps dysfunctional for both sexes. For example, Baruch (1974) found that perceiving one's self as

having traditional feminine traits is not accompanied by high self-esteem, and Connell & Johnson (1970) found that the higher a girl's score on a standard test of femininity, the lower her self-esteem.

In the only large scale study of masculinity ever conducted Mussen (1961) found that high-masculine adolescent boys did seem to be better adjusted, although they were no more "instrumental" and somewhat less "expressive" than the low-masculine boys. However in his twenty year follow-up of these adolescents, the picture changed radically. Twenty years later, the high-masculine group showed more ego control than the low-masculine group, but they also showed less dominance, less capacity for status, less self-acceptance, and more need for abasement. Although the high-masculine group was rated by interviewers as more self-sufficient, more adaptive to stress, and having a better sexual adjustment, they were also rated as less introspective, less self-accepting, less sociable, less self-assured, and less likely to be leaders.

In a later study (Harfond, Willis, & Deabler, 1967) this same picture of the high-masculine adult male was found to exist. High masculinity was positively correlated with anxiety, guilt-proneness, tough poise, neuroticism, and suspectingness; while low masculinity was correlated with warmth, brightness, emotional stability, sensitivity, bohemianism, and sophistication.

In general, many writers have suggested that a high level of sex-appropriate behavior does not necessarily facilitate a person's general psychological or social adjustment, and some go on to suggest that traditional sex-role standards produce unnecessary internal conflicts and are incompatible with both individual and societal interests (Bem, 1974; Broverman, et al., 1970; Cosentino & Heilbrun, 1964; Goode, 1968; Heilbrun, 1968; Komarovsky, 1946; Parsons, 1942).

Some Problems for Psychotherapy

In spite of the above problems associated with traditional sex-determined roles, many in psychology still carry around the same prescriptive stereotypes, and they use them in making professional judgments. An extensive series of studies conducted by Broverman and her colleagues has become standard reference in sex-role research as well as in popular feminist literature. In an early study (Broverman, et al., 1970) seventy-nine clinically trained psychologists, psychiatrists, and social workers, both male and female, showed a double standard of mental health, i.e., general adult standards apply only to men; healthy women were perceived significantly less healthy in comparison to the adult standard. According to these clinicians a woman is to be regarded as healthier and more mature if she is: more submissive, less competitive, more excitable in minor crises, more susceptible to hurt feelings, more emotional,

more antagonistic toward math and science; exactly the same description which these clinicians used to characterize an unhealthy, immature man or an unhealthy, immature adult, sex unspecified. This double standard bears a striking similarity to the sex-role stereotypes prevalent in present society. In a review of their own work Broverman et al. (1972) concluded that stereotypic thinking about sex-role related personality traits is pervasive.

In a later replication of the work done by Broverman et al. (1970; 1972) Fabrikant (1973, 1974) found that the perceptions of male and female sex-role characteristics are still seen the same by psychotherapists, with male role characteristics seen as positive and female characteristics seen as negative. Thus to be considered mentally healthy a woman must show behavior that no male would want to manifest.

For a woman to show "masculine" behavior such as aggression, initiative, competition, self-assertion, is to risk being labeled as abnormal. A woman in therapy is in a double bind: if she acts according to the dictates of society and psychology she may feel foolish, but if she acts differently she runs the risk of being labeled pathological.

Other problems for women involve the limitations involved in viewing the wife-mother role as the only acceptable role for women. Self-esteem problems often become especially severe for family oriented women as their children become less dependent. Birnbaum (1971) compared a group of these women in their mid-thirties to a group of

of career committed women and found that the domestically oriented group felt less attractive as well as less competent, had lower self-esteem, and were less satisfied with their lives.

The male also suffers from the role constrictions placed on him, and in many instances these limits are less flexible than for the woman. Men have typically been more fully able to exercise and experience their creativity in their occupations, but as Miller, Gershman, & Yachnes (1973) note, if men can only use their occupational strivings for self-fulfillment they will continue, as in the past, to invent "Things" with which to express themselves. Psychotherapists see many ostensibly successful men in mid-life crises where they become depressed and caught up in a sense of waste. They may long for a change in career, wife, house, anything that will offer more personal satisfaction (Zinberg, 1973).

However, going into therapy because of intense frustration concerning role conflict or role limitations may merely be asking for trouble. A man or a woman may be confronted for not fulfilling the role of a "normal" man or woman. Labeling role conflict as psychopathological and interpreting it in intrapsychic terms further advocates an adjustment notion of mental health. This notion further fails to take into account the social context of the situation.

A New Perspective on Mental Health

It has been suggested that a careful questioning of role is a healthy, rather than a pathological, process for a woman or for a man. As Rice and Rice (1973) state:

> Such role examination would lead, we hope, to greater ultimate happiness and self-satisfaction and not to a lasting feeling of abnormality. In fact, if there were a healthy societal acceptance of role questioning and the concept of flexible role change, the process would occasion little anxiety and turmoil (pp. 192-193).

A well-adjusted male may enjoy being a responsible businessman, but he may also--or instead--enjoy being nurturant and caring, or possibly enjoy doing the housework or take pride in caring for the children. A well-adjusted female may similarly enjoy working full time, and sharing household duties with her husband or having him take responsibility for them. Restricting assertive, competitive, and independent behavior to men and dependent, passive, and nurturent behavior to women not only restricts human functioning unnecessarily, but reinforces the status quo, and thus the label of pathological when people attempt to change roles.

Bem (1974; 1975) proposes that the breadth or narrowness of an individual's sex-role limits the range of behavior available to that person from situation to situation. She proposes the concept of an androgynous person as one who endorses both masculine and feminine attributes, and thus has an expanded role sphere. In her work with the

Bem Sex Role Inventory (BSRI), which she developed, Bem (1975) found:

> ...that androgynous subjects of both sexes display "masculine" independence when under pressure to conform and "feminine" playfulness when given the opportunity to interact with a tiny kitten. In contrast, all of the non-androgynous subjects were found to display behavioral deficits of one sort or another, with the feminine females showing perhaps the greatest deficit of all (p. 1).

In other words the androgynous subjects had a self-concept which was broad enough to allow them to freely engage in both "masculine" and "feminine" behaviors. This concept of an androgynous person as one having an expanded role sphere corresponds to Hekel's concept of role flexibility as being a major criterion of emotional health (Hekel, 1972). Hekel describes the neurotic individual as one who develops rigid patterns of response and encounters difficulty in shifting between roles even when the situation might not seem to be the sex-typed individual who typifies mental health, but rather it is the person who can develop skills in accordance with his or her abilities, and be flexible in shifting roles as the situation demands.

As Schonbar (1973) has asserted, the healthy person with high self-regard is less likely to be threatened in his or her sense of identity, which includes the valuing of himself as a man or herself as a woman. She states:

> The assertive woman and the tender man with truly high self-esteem need not concern themselves with self-doubt in this area. But the individual whose growth has been hampered and whose sense of self is in doubt will also doubt his or her adequacy as man or woman.

> Under these conditions, she may be a receptive woman and he an aggressive man, and, though they conform to society's norms, they may nevertheless question how they measure up to other members of their own sex, and may express contempt, hate, fear, and/or envy of members of both sexes (p. 542).

However, Schonbar proposes that if, through therapy, self-esteem is increased, then the above difficulties decrease.

Implications for Psychotherapy

At present there are a number of published articles concerned with the implications of feminism for psychotherapy (Brown, 1972; Fabian, 1973; Krause, 1971; Rice & Rice, 1973; Shainess, 1969; Wesley, 1975) as well as several books (Chesler, 1972; Franks & Burtle, 1974; Strouse, 1974). Many of these authors address the feminist issue in psychotherapy in extreme terms. Chesler (1971) summarizes the Broverman work referred to earlier (Broverman et al., 1970), and from her research and clinical work concludes:

> It is difficult for me to make practical suggestions for improving treatment as long as it keeps its present form and structure....How can a woman learn to value being female from a therapist who devalues and misunderstands that sex....She cannot. It therefore seems to me that some far-reaching changes will have to take place both in the attitudes of clinicians and in the nature of the therapy they dispense (p. 98).

There is strong feeling in many feminist circles that psychotherapy may actually be destructive to the human potential of women. Various groups have established lists of accredited, feminist therapists, who are considered to have fewer exploitative biases toward women than traditional

therapists. Mednick and Weissman (1975) cite the many therapy substitutes that have begun to take the place of traditional individual psychotherapy: 1. consciousness-raising groups originally developed by the National Organization for Women, but now burgeoning in other institutions; 2. assertiveness-training groups, generally using behavior modification techniques such as modeling, role-playing, desensitization, etc.; 3. continuing education programs which combine vocational and sensitivity training; 4. encounter and sensitivity training groups focusing on women; and 5. associations of para-professionals stressing supportive, assertive, and confrontational methods.

If traditional psychotherapy is not always appropriate for the working out of sex-role conflicts in women, it also seems questionable as a method for males who may have similar conflicts. Only two articles are found in the literature which deal with the therapeutic implications of changing sex-roles for both men and women. However, we cannot afford to ignore the struggles and conflicts men face regarding the changing sex-role status quo. While it is hoped that a new sex-role flexibility will enable people to make more creative use of their potential, this new flexibility may cause some anxiety and problems in the transition period, as do any major changes in societal norms. In the male, loss of such things as economic dominance, sole authority in family and business matters, and complete responsibility for sexual initiation, are bound to

cause conflict. However, the gains would seem to outweigh the losses. For as the woman matures, the man too, is forced to develop. Role flexibility for men means allowing them to express sensitivity, tenderness and sentiment, just as it means allowing women to express assertiveness, courage and perseverence. Some methods suggested by Rice and Rice (1973) to facilitate these changes include those suggested earlier for women: consciousness raising groups, sensitivity or encounter groups and couple or group therapy with male and female cotherapists.

Implications for Group Therapy

Group therapy seems to be a millieu especially appropriate to the working out of problems related to sex-role stereotypes and role conflict. Yalom (1970) has suggested that a group provides a social microcosm which allows for a corrective emotional experience while trying out new behaviors. He also contends that one is given the opportunity to give help to others in a group setting, which itself can be therapeutic. When men and women meet in a group they may discover that the other sex experiences the same feelings, desires, uncertainties, self-doubts and hates. Group therapy can also provide the opportunity to see that there are many ways of being a man or a woman, just as there are many ways of being a person, and at the same time provide an opportunity for trying out these new behaviors. Bednar and Lawlis (1971) in their review of empirical research in group

psychotherapy found results consistent with the view that group therapy is an effective means toward client improvement.

Operant conditioning principles have been applied to group interaction very successfully. Liberman (1970, 1971) made a direct application in studying the development of intermember cohesiveness. In the experimental group the therapist used social reinforcement techniques to facilitate cohesiveness; while in the comparison group, a therapist matched along several traits with the first therapist used a more conventional approach. The experimental group members showed more signs of cohesiveness, independence from the therapist, quicker symptom remission, and greater personality change than did patients in the control group.

Most of the group studies have used the therapist or group leader to reinforce the responses of the group members. However, Wolf (1961) has suggested that the presence of a therapist may lead to an antitherapeutic dependency on the therapist. Furthermore, Salzberg (1961) found that verbal interaction by group members is inversely related to the frequency of the therapist's verbalizations. Of course it is also difficult to control for therapist differences and biasing effects in research. Therapists differ greatly in theoretical orientation and specific techniques and goals, not to mention personality subtleties. Biasing effects, although unintentional, may occur also when the same therapist participates over several experimental conditions.

As a result there have been attempts to replace the therapist with a mechanical feedback apparatus as the reinforcer.

Hastorf (in Krasner and Ullman, 1968) used sets of lights to manipulate the leadership heirarchy of four person groups that were given the task of "solving problems in human relations." Each subject had a red and a green light in front of him. Subjects were told that their green light would go on when they made a facilitating statement, and that the red light would light up when their statements hindered group process. Actually the experimenters were controlling the lights in such a way that the target person was manipulated into leading the group.

Modification of "Here and Now" Affect, Feedback and Empathy Verbalizations in Leaderless Groups

Truax and Carkhuff (1967) have gathered a great deal of support for the contention that interactions characterized by empathy, non-possessive warmth, and genuineness are the most significant factors related to client improvement in either individual or group psychotherapy. Yalom (1970) has empathized that group members need to express their feelings toward others in the group as they arise (here and now), and to provide feedback for each other as they test the apporpriateness of their behaviors.

With these curative factors in mind, Fromme, Whisenant, Susky, and Tedesco (1974) sought to use the techniques of

verbal conditioning in a group setting to enhance the interpersonal interaction process. Five categories of verbal responses were selected that could be easily and reliably judged. These included "here and now" expression of feeling, giving and asking for feedback about the effects of a person's behavior, and the use of empathic statements. Four-person groups of college students were instructed to engage in interpersonal interaction according to these five categories. These instructions were considerably detailed, and a summary of the response categories was listed on an index card in front of each subject. In the experimental condition a digital counter and red light was in front of each subject, as well as the instructions. Whenever a subject said something that corresponded to one of the reinforceable categories, his counter was advanced one digit. The counter made an audible click so that the other group members could learn vicariously what was expected of them. If three minutes elapsed in which no one in the group got a reinforcement, all four red lights momentarily flashed on. If one group member fell behind the person having the highest number of counts by ten, the light of that person who was behind was turned on until that person caught up. The groups were given the same instructions and observed for the same period of time. A tally of the number of reinforceable responses was made during observation of the control groups and compared with the data from the experimental groups.

Results over one session for each group indicated as predicted that the experimental groups with the feedback apparatus did emit significantly more of the categorizeable responses, an average of 9.75 per person. In fact, the subjects in the control condition emitted scarcely any responses that would have been reinforceable, 0.85 per person. A test of the reliability of the response categories yielded an index of 93% interjudge agreement, suggesting that these categories can be reliably judged.

In a partial replication of this study, Fromme and Close (1974) found similar results adding a warm-up procedure to the instructions. Groups with the feedback apparatus averaged 10.04 responses per person; groups without feedback averaged 2.58. A major finding of the Fromme et al. studies was that detailed instructions and warm-up alone were not sufficient to evoke extensive use of the categories. This result seems closely related to task structure and the amount of information and incentive provided in the experimental condition.

Sources of Information and Incentive

Nearly all of the verbal conditioning studies to date have been designed in such a way that subjects were given no prior knowledge of the response-reinforcement contingencies. Because many subjects have gained some awareness of these contingencies during the course of such studies, a controversy has arisen as to whether awareness is necessary

for verbal conditioning to take place. Considerable evidence has been marshalled in support of the opposing views (see Kanfer, 1968 and Speilberger and DeNike, 1966 for reviews).

However, Fromme et al. (1974) sought to make each subject aware of the desired response categories, and to direct the subject's attention to the content of the categories. In this respect their method differed greatly from the traditional verbal conditioning paradigm. Instructions, application of reinforcement, and modeling effects are the three most important sources of information and incentive found in the Fromme et al. studies and the current one.

Whalen (1969) demonstrated the importance of modeling and detailed instructions in eliciting interpersonal openness from subjects in a group setting. With no reinforcement given during the sessions, 128 subjects were divided into groups under four conditions. Under two conditions the groups were shown a film of four people interacting in an open fashion, with one condition receiving additional detailed instructions. Two groups saw no modeling film, but were given the same detailed and minimal instructions, respectively. Results indicated that only subjects in the group exposed to both film and detailed instructions tended to engage in the desired behavior, according to 14 categories devised to include all types of interaction.

In the Fromme et al. studies the detailed instructions served both an exhortative and descriptive function. They

were designed both to initiate or facilitate intention to perform and to direct the subjects' attention to the content of the response categories, thereby maximizing awareness. Modeling effects are presumed to have been present in the examples (symbolic models) mentioned within the instructions and in the opportunity for the subjects to observe each others' use of the response categories.

And yet, in the absence of the feedback apparatus, groups made scarcely any use of the categories. This lack of effect of detailed instructions alone can perhaps be accounted for by the novelty and complexity of the response categories. It is also possible that subjects were not easily persuaded that expression of "here and now" affect would not bring aversive consequences. Instructions to engage others in an open and personal fashion in the experimental situation was possibly threatening and embarrassing.

Reinforcement of the correct responses in these studies served an important informational function. Skinner, in a personal communication cited in a paper by Matarazzo, Saslow and Paresis (1960) considers the response plus the reinforcement to act as a discriminative stimulus, conveying primarily information to the subjects. Another function of the feedback apparatus was motivational in the more usual sense of "reinforcement." Also the counters and lights, visible to all the subjects, made the situation a competitive one and kept the subjects mindful of the experimenter's earlier exhortations.

Schedules of Reinforcement in Verbal Conditioning

A very important consideration in operant conditioning research is the effect of various schedules of reinforcement on the functions of acquisition and extinction. Complex classes have produced much more varied results than early studies using simple response classes. Salzinger and Pisoni conditioned self-references in an interview with schizophrenics (1968) and normals (1960). The response class consisted of all statements beginning with the pronouns "I" or "We" which were followed by an expression of affect. Reinforcers were verbal agreements; "mhmm," "I see" or "yeah." A continuous schedule was used, and both acquisition and extinction were completed in one session of 60 minutes. Results showed a linear relationship between number of reinforcements and number of responses in extinction.

Williams and Blanton (1968) used the same response class, but found that acquisition was more gradual and occurred over several sessions. Moos (1963) conditioned independence and affection statements in an interview with head nods and "mhmm" as reinforcers. A session without the reinforcement conducted 24 hours later showed no evidence of an extinction effect. Rogers (1960) conditioned positive self-references with head nod and "mhmm," and found that extinction was retarded.

Heckmat (1971), using the same reinforcers as Salzinger and Pisoni (1960), employed intermittent and continuous schedules in an interview situation. Under continuous reinforcement, acquisition and extinction were quite similar to earlier studies. Intermittent schedules, however, showed no significant effect on rate of acquisition, but were found to be significantly more resistant to extinction.

Stommel (1974) used nine sessions in observing acquisition and extinction of the Fromme et al. response classes. The nine sessions were divided into four phases: baseline; acquisition; extinction; and reacquisition. It was found that acquisition in the partial reinforcement group was retarded by the 33% schedule, with response rate dropping off sharply in the extinction phase. The continuous reinforcement group, on the other hand, showed no extinction effect, plus a significantly higher response rate in sessions four (3rd acquisition) through seven (3rd extinction). It was concluded that resistance to extinction did not require use of partial schedules with these particular response classes.

Duvall (1974) using the Fromme et al. method, further demonstrated that conditioning of complex affective verbal responses fostered behavior capable of generalizing to another setting. Additionally, he found that the trained subjects' presence in the new groups acted to raise the untrained subjects' level of responding.

Implications for Modification of Sex-Role Stereotypes in Group Therapy

Sherif and his associates have done a number of studies on the experimental formation of norms. Sherif and Sherif (1969) conclude from these studies that the psychological basis of established social norms, such as sex-role stereotypes, is the formation of common reference points or anchorages as a product of interaction among individuals. Thus, if sex-role stereotypes are formed as a result of interaction, it would seem that changing them should follow the same interactional process.

Kurt Lewin (1947, 1965) and his associates initiated a series of experiments during World War II to contrast the situation in which the person is viewed as a passive target for communication directed at him (by lecture) and that in which he becomes an active participant in interaction focused on the communication.

In the first experiment the objective was to change food habits to include meats not ordinarily included in the diet of American families, such as sweetbreads, beef hearts, and kidneys. Three groups of volunteers heard a lecture exhorting the audience to use the meats, linking their use with the war effort (there was a meat shortage) and providing information on their preparation, as well as their health value and economy. Mimeographed sheets containing

instructions for preparation and recipes were distributed. In another three groups essentially the same information was presented and the same mimeographed sheets were distributed. Also, the women were asked to discuss "whether housewives could be induced to participate in a program of change."

Some time later, all of the women were asked whether they had included the food items in their meals. Only 3 percent of those who heard the lectures had tried any of the food items as compared with 32 percent of the women in the discussion groups. A second study aimed at increasing consumption of milk showed the discussion groups to be clearly superior to the lecture groups. In addition, the change was maintained from two to four weeks.

It would seem that the social desirability of using the foods in the experiments above led to greater use of the foods. In a similar way the social desirability of expressing non-sexist attitudes would be likely to operate with subjects discussing personal feelings about being a male or a female, especially in a mixed sex group. An atmosphere which would encourage liberalization of sex-role attitudes would then be expected to lead to more long-term attitude changes that could be measured.

The Present Study

The purpose of the present study was threefold:

1. To investigate whether use of the Fromme et al. method of verbal conditioning of certain affective

response categories could be applied to the specific area of discussing feelings about being a male or a female;

2. To observe whether sex-role stereotypes would change on pre and post discussion administration of the Bem Sex Role Inventory and the Semantic Differential as a result of the open affect-directed discussion; and

3. To compare the possible effects of continuous and no reinforcement on response levels as well as later sex-role stereotypes.

Because it seems desirable to reduce the goals of group therapy to observable sub-goals, response categories were chosen which seemed therapeutic in nature and of some universality in terms of generally adaptive interpersonal behavior. The original response categories and general method of Fromme et al. (1974) were used, but together with categories modified to incorporate feelings about being a male or a female. Instructions were highly detailed in order to facilitate awareness, and mechanical counters and lights were used to provide reinforcement and discriminative cues to increase response rate.

CHAPTER II

METHODOLOGY

Subjects participated in four phases of data collection. Phase I was the collection of subject responses to the Bem Sex-Role Inventory and the Semantic Differential. Phase II was the group experience, and Phase III was the re-administration of the original tests. Phase IV was the post-experimental interview.

Phase I: Collection of Test Data

Subjects

Sixty-nine male and 103 female students in three different sections of Introductory Psychology and one section of Abnormal Psychology served as subjects.

Instruments

Two different instruments were administered to assess sex-role stereotypes: the Bem Sex-Role Inventory (BSRI) and the Semantic Differential. The BSRI, developed by Bem (1974), composed of 60 items, characterizes a person as masculine, feminine or androgynous as a function of the differences between his or her endorsement of masculine and femi-

nine personality characteristics. Subjects were asked to indicate on a 7-point scale how well each of the 60 masculine, feminine, and neutral personality characteristics described himself or herself. The scale ranges from 1 ("Never or almost never true") to 7 ("Always or almost always true") and is labeled at each point. A copy of the BSRI is found in Appendix A. The BSRI yields four scales: Masculinity, Femininity, Androgyny, and Social Desirability.

The Semantic Differential, used to further assess sex-role stereotypes, (Osgood, Suci, & Tannenbaum, 1957) is composed of 12 different adjective pairs designed to rate the following concepts on a 7-point Likert-type scale: Self, Ideal Woman, Ideal Man (see Appendix B). The subject's attitude on each concept was inferred from (1) the direction (good-bad) and (2) the polarity of the ratings (from 1 to 7). It was assumed that the more extreme the rating in either direction, the more intensely the subject held an attitude in the indicated direction.

The different adjective pairs have been classified into one of three universal features of human semantic systems: Evaluation, Potency, and Activity (Osgood, 1969). So for each of the following an Evaluation, a Potency and an Activity score was obtained: Self, Ideal Woman, Ideal Man, Ideal Man or Woman (depending on sex of subject) minus Self. Thus, for each subject there were 12 scores and each score was the total (from 1 to 7) of all four adjectives under Potency, Evaluation, or Activity for each of the above concepts.

Procedure

The tests were administered to subjects in class by a female experimenter. Testing materials were arranged so that subjects seated side by side took the tests in different order. Also, all possible orders of the three Semantic Differential concepts (Self, Ideal Man, Ideal Woman) were used. Instructions prior to distribution of the testing materials were given requesting that the materials be taken for the purpose of collecting reliability data on the instruments (see Appendix C).

Phase II: Group Experience

Subjects

One week after the administration of the test material in Phase I, the same people were asked by a second female experimenter to participate in an experiment on "getting to know people on a personal basis by participating in a group experiment." Subjects received class credit for participation. From the 45 females and 44 males who agreed to participate in the study, test data was available for 38 females and 39 males. From these 12 females and 12 males were randomly selected to participate in the second phase of the study.

Assignment to either experimental or control condition for the subjects was random with equal numbers of males and females in each condition. The three experimental groups

(CR) received continuous reinforcement. The three control groups (NR) received no reinforcement.

Apparatus

The experimental room was twelve feet by eleven feet with a one-way mirror in one of the twelve-foot walls. Subjects were seated in a semi-circular arrangement around a small table, facing the one-way mirror. The room had curtains at the one window, posters on the walls, and a carpet.

Each session's conversation was video-tape recorded and monitored by the experimenter. Subjects were informed concerning these observations. Reinforcements were given via a four channel relay control panel, with push bottons operating a multiple event recorder and remotely controlled counters placed before each subject. The audible clicks accompanying this feedback were assumed to provide information to other subjects for modeling or vicarious learning. A red light attached to each subjects' counter was used to provide two types of discriminative cues in CR groups where feedback was provided: (a) All four lights were automatically flashed whenever three minutes elapsed with no reinforcement statements being made, and (b) individual lights were turned on whenever any subject fell 10 or more counts behind the subject with the highest total, remaining lit until he caught up.

Procedure

This phase of the experiment was conducted by a second female experimenter in an attempt to separate Phases I and III from Phase II. It was hoped that there would be less awareness by participants that changes in attitudes as a function of group experiences were being measured. So, in an effort to prevent measurement of "demand characteristics" associated with awareness of an attempt to change certain attitudes, the testing (Phases I and III) was separated from the group experience (Phase II).

Each of the six individual groups met for three 60-minute sessions spaced evenly over a period of one week. In all sessions the CR group received 100% reinforcement (dependent upon use of the proper response categories).

For the CR groups, when reinforcement was applied, a digital counter placed in front of each subject was advanced, producing an audible click. For reinforcement a person's digital counter was advanced each time he or she made a statement that fit one of the five categories. A red light attached to each subject's counter provided additional cues (see above).

Instructions

After being seated prior to session one, all subjects were informed of being monitored and observed and that a tape would be made of the sessions, but would be completely

confidential and would be erased after the sessions. Subjects were then given detailed instructions (Appendix D) suggesting the social desirability of sharing one's feelings, being empathetic and providing feedback.

Definitions of each of the response categories were explained with illustrative examples. The general task was explained as "getting to know one another on a personal basis," and participants were requested to express themselves by making use of the response categories. In the CR group, where feedback was provided, an explanation of the meaning and function of the feedback apparatus was given.

Response Categories

The verbal categories which were reinforced during the first session were similar to those used by Fromme, et al. (1974) and are as follows:

1. Expressing current feelings. This expression must be explicit and must be a result of interaction in the group.

2. Asking about others' current feelings. Asking for information from another group member regarding his or her feelings as defined in Category 1.

3. Expressing thoughts about someone's behavior. Giving feedback to another.

4. Asking what others' think of one's own behavior. Asking for feedback about oneself.

5. Helping someone else express their feelings more clearly (as defined in category 1) as a result of interaction

tion in the current situation. In the sequence of interactions, only those statements that added or sought new or additional information about the current situation and accompanying subjective states were defined as reinforceable. Current situation was defined as including only those 60 minutes of interaction per session. Instruction cards (Appendix E) summarizing the five response categories were taped to the discussion table in front of each subject.

For the first session a warm-up procedure similar to that of Fromme and Close (1974) was conducted after the instructions were given. The subjects were paired up and asked to hold hands and look into each others' eyes for a short while, and then to verbalize current affective states. Replies were then evaluated in terms of each of the response categories to provide a brief learning experience whereby the response categories could be more easily recognized. After completing the instructions and warm-up, the experimenter left the experimental room, entered the adjacent observation area and signaled the group to begin.

In session two, subjects were given detailed instructions (Appendix F) suggesting the social desirability of sharing one's feelings, being empathetic and, in addition, providing feedback about their being a male or a female in the group, which was designed to further aid the process of "getting to know one another on a personal basis." Definitions of each of the sex-role response categories was explained, with illustrative examples, and the subjects were

requested to express themselves by making use of these categories. The groups receiving reinforcement were again reminded of the feedback.

Sex-Role Response Categories

In the second and third sessions subjects were given sex-role response categories as a further way to facilitate group interaction. The same response categories were used as before, but this time subjects were asked to express current feelings, giving and asking for feedback on current behavior and the use of empathy statements specifically and only with regard to beliefs and feelings they and others express about being a male or a female in the group. Five categories were used, operationally defined as follows:

1. Expressing current feelings about being a male or a female. This expression must be explicit and must be a result of interaction in the group.

2. Asking about others' current feelings about being a male or a female. Asking for information from another group member regarding his or her feelings as defined in Category 1.

3. Expressing thoughts about someone's own behavior as a male or a female. Giving feedback to another.

4. Asking what others' think of one's own behavior as a male or a female. Asking for feedback about oneself.

5. Helping someone else express their feelings about being a male or a female more clearly (as defined in Category 1).

Again, only those statements that added or sought new or additional information about the current situation and accompanying subjective states were defined as reinforceable (see Response Categories above). Instruction cards (Appendix G) summarizing the five sex-role response categories were taped to the discussion table in front of each participant.

In the final remaining session subjects were given brief instructions reminding them of the task given in session two. At the end of session three the subjects filled out a seven item questionnaire (Appendix H) designed to measure subjective perceptions of their own behavior and feelings during the sessions. The FIRO-B was also administered as an additional measure of personality.

Scorer Reliability

An inter-observer reliability check was made on the response categories by the experimenter and two other individuals familiar with the system. Videotapes of the first session of both categories were used. This material was divided into scoreable units (complete thoughts) of which 328 units were numbered from the response categories and independently judged by each scorer as to whether or not they fit one of the response categories. There were disagreements on 18 of these units yielding a reliability of 95%. From the sex-role response categories 560 units were numbered and judged. There were disagreements on 44 of

these units yielding a reliability of 92%. It should be noted that it was not necessary to determine agreement on individual categories because in the actual experiment this discrimination was not made.

Phase III: Retesting

Subjects

Sixty-seven males and 102 females from the same classes used in Phase I served as subjects. This included the 24 subjects who participated in Phase II of the experiment.

Instruments

The BSRI and the Semantic Differential were administered by the same female experimenter who administered the tests in Phase I.

Procedure

Phase III was a replication of Phase I and was conducted two weeks after the group experience. The testing materials were presented as further reliability gathering on the instruments (Appendix I). Of the 24 subjects who participated in Phase I and II, there were five who were not in class when the tests were readministered. These people were asked to take the tests individually later, which all of them did.

Phase IV: Post-Experimental Interview

Subjects

The 24 people who participated in the group experience were interviewed.

Instruments

The post-experimental interview consisted of 9 questions designed to fulfill the ethical obligation of fully explaining the experiment and the connection between the various phases of the experiment. It was also designed to assess the extent of "demand characteristics" operating and whether the separation of Phases I and III from Phase II was successful (see Appendix J).

Procedure

One week after completion of Phase III, those who participated in Phases I, II, and III were telephoned and given the choice of answering interview questions in person or by telephone. Of these two chose to come in for the interview.

CHAPTER III

RESULTS

Response Categories and Sex-Role Response Categories

The total number of responses made by each individual for all three sessions is summarized in Table X (Appendix K). Figure 1 presents the mean number of responses for the NR and CR groups over sessions.

A 2 x 3 x 2 analysis of variance (AOV) was performed using as a dependent measure the individual response totals in Session 1 where the response categories were used (see Table I). This resulted in significant main effects for the reinforcement factor, F (1, 4) = 10.00, $p < .05$. The CR groups produced significantly more verbal responses which fit the response categories than the NR groups. A significant effect was also found for the group (B) factor, F (1, 4) = 4.06, $p < .05$. Since group was a random factor no further tests were done.

Individual response totals for sessions two and three, using the sex-role response categories, were analyzed by means of a 2 x 3 x 2 x 2 repeated measures AOV with repeated measures on the two sessions (see Table II). This resulted

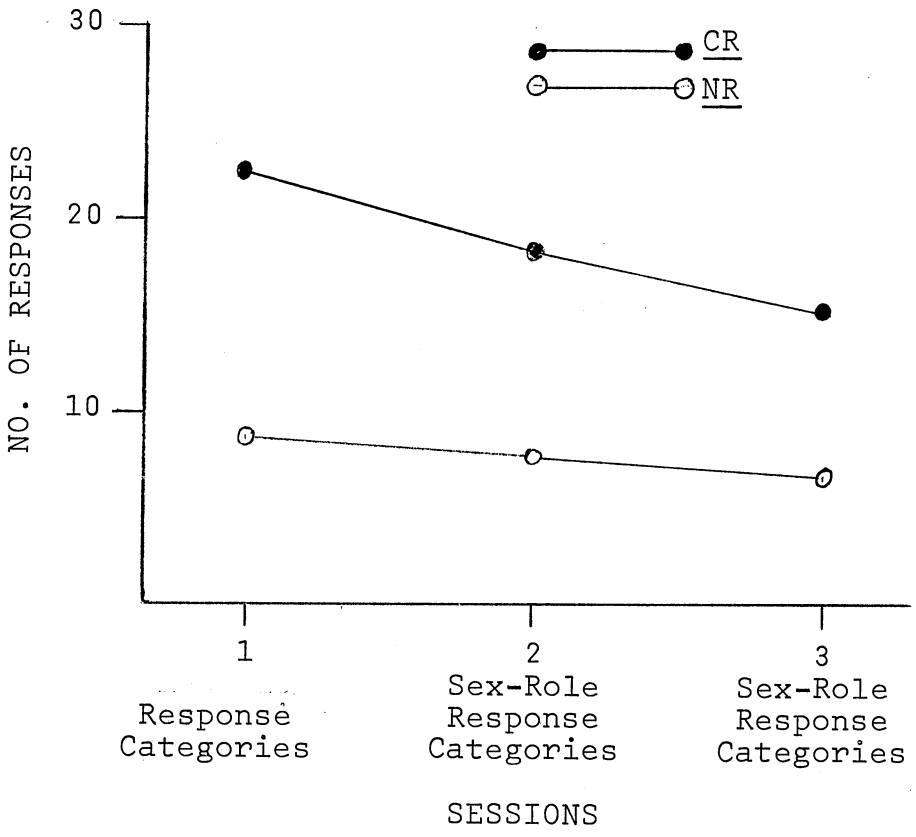

Figure 1. Mean Number of Reinforceable Responses Per Group Session

in significant main effects for the reinforcement factor, F (1, 4) = 14.62, $p < .025$. Again, the CR groups outperformed the NR groups.

TABLE I

ANALYSIS OF VARIANCE: REINFORCED RESPONSES FOR SESSION ONE

Source	df	MS	F
A - reinforcement	1	988.17	10.00*
B - groups (within A)	4	98.83	4.06*
C - sex	1	28.17	.09
AC	1	37.50	1.24
B (within A) x C	4	30.33	1.25
Ss within cell	12	24.33	

* $p < .05$

An additional overall AOV was conducted using as a dependent measure individual response totals for all three sessions combined (see Table III). These were analyzed using a 2 x 3 x 2 x 3 AOV with repeated measures on the three sessions. This yielded significant results for the reinforcement factor, F (1, 4) = 13.64, $p < .025$, and the sessions factor, F (2, 8) = 7.05, $p < .025$. The CR groups outperformed the NR groups in the use of both types of response categories. The Newman-Keuls procedure was used in making

post-hoc comparisons of means to determine differences between sessions in the use of the response and sex-role response categories. Results revealed that use of the response categories was higher in session one than in session three, q (3, 8) = 5.39, $p < .05$, the second session in which sex-role response categories were used, but not for session 2, q (2, 8), the first session in which sex-role response categories were used, although there was a trend in this direction (see Figure 1).

TABLE II

ANALYSIS OF VARIANCE: REINFORCED RESPONSES FOR SESSIONS TWO AND THREE

Source	df	MS	F
A - reinforcement	1	1102.08	14.62**
B - groups (within A)	4	75.40	1.82
C - sex	1	10.08	3.34
AC	1	.83	.03
B (within A) x C	4	3.02	.07
Ss within (ABC)	12	41.50	
D - sessions	1	60.75	3.55
AD	1	14.08	.82
B (within A) x D	1	17.10	1.39
CD	1	.83	.01
ACD	1	2.08	.31
B (within A) CD	4	6.65	.54
Ss D (ABC)	12	12.33	

** $p < .025$

TABLE III

ANALYSIS OF VARIANCE: REINFORCED RESPONSES FOR SESSIONS ONE, TWO, AND THREE

Source	df	MS	F
A - reinforcement	1	2048.00	13.64**
B - (within A)	4	150.11	2.68
C	1	32.00	1.60
AC	1	10.89	.54
B (within A) x C	4	20.03	.36
Ss within (ABC)	12	56.08	
D	2	145.39	7.05**
AD	2	28.17	1.37
B (within A) x D	8	20.61	1.87
CD	2	3.17	.32
ACD	2	14.39	1.44
B (within A) CD	8	9.99	.90
Ss D (ABC)	24	11.04	

** $p < .025$

It should be noted that randomization of the repeated factor (sessions) was not possible. Carry-over effects from session to session were important and desirable. Social influence factors were also operating during the group meetings; one subject's performance tended to influence the output of others in the group.

In each of these AOV's the A factor was reinforcement (CR or NR), the B factor was groups, and the C factor was sex of the subject. In the second and third AOV's the D factor was sessions.

Questionnaire Responses

Responses to each item of the questionnaire were given a numerical value (see Appendix H) and were treated as seven additional dependent variables. These were analyzed in the same manner as the primary response measure in seven 2 x 3 x 2 AOVs. Significant *F* values will be reported at $p < .10$ due to the exploratory nature of this measure.

Group responses to the questionnaire items are found in Table IV.

TABLE IV

ITEM MEANS FOR QUESTIONNAIRE RESPONSES 1 - 7

	Item Number						
Subjects	1	2	3	4	5	6	7
CR groups	4.67	4.42	5.33	5.50	3.83	3.67	4.25
NR groups	4.50	4.92	4.92	4.92	4.83	5.25	5.50

The AOV for item 1 of the questionnaire -- "To what extent did you understand the precise meaning of the original

response categories?" -- yielded a significant sex effect, F (1, 4) = 12.80, $p < .05$ (see Table V). Males thought they understood the original response categories better than the females thought they did (see Table XI, Appendix L, for means). For item 2 -- "To what extent did you understand the precise meaning of the male-female response categories?" -- none of the tests were significant (p's $> .10$).

Item 3 -- "How hard did you try to use the original response categories?" -- resulted in a significant AOV for reinforcement x group x sex interaction, F (4, 12) = 3.30, $p < .05$ (Table V). Since group was a random factor, no further tests were done. See means in Table XI (Appendix L).

For both items 4 and 5 there was a trend toward significance. Item 4 -- "How hard did you try to use the male-female response categories?" -- yielded a main effect for reinforcement, F (1, 4) = 4.90, $p < .10$. The CR groups tried harder to use the male-female response categories than the NR groups did. Item 5 -- "To what extent did you enjoy using the original response categories in interacting with the others?" -- also yielded a main effect for reinforcement, F (1, 4) = 4.97, $p < .10$ (see Table V). Here the NR groups reported to have enjoyed using the original response categories more than did the CR groups.

The AOV for item 6 -- "To what extent did you enjoy using the male-female response categories in interacting with the others?" -- also resulted in a significant main effect for reinforcement, F (1, 4) = 9.76, $p < .05$ (see Table

TABLE V

ANALYSES OF VARIANCE: SUBJECT MEANS FOR QUESTIONNAIRE RESPONSES, QUESTIONS 1 - 7

Source	df	Question 1		Question 2		Question 3		Question 4	
		MS	F ratio	MS	F ratio	MS	F ratio	MS	F ratio
A - reinforcement	1	.17	.08	1.50	.42	1.04	.66	2.04	4.90*
B - groups (w/in A)	4	2.04	1.02	3.58	2.26	1.58	1.65	.42	.34
C - sex	1	2.67	12.80**	.17	.05	2.04	.64	3.38	1.69
AC	1	.00	.00	.00	.00	1.04	.66	.38	.19
B (w/in A) x C	4	.21	.10	3.08	1.95	3.17	3.30**	2.00	1.66
Ss within cell	12	2.00		1.59		.96		1.21	

Source	df	Question 5		Question 6		Question 7	
		MS	F ratio	MS	F ratio	MS	F ratio
A - reinforcement	1	6.00	4.97*	15.04	9.76*	9.38	2.14
B - groups (w/in A)	4	1.21	.97	1.54	.87	4.38	4.56**
C - sex	1	4.17	2.13	1.04	.41	.42	.04
AC	1	1.50	.77	2.04	.80	.41	.04
B (w/in A) x C	4	1.96	1.57	2.54	1.42	1.04	1.09
Ss within cell	12	1.25		1.80		.96	

* $p < .10$

** $p < .05$

*** $p < .025$

V). The NR groups also reported to have enjoyed using these categories more than the CR groups did.

A significant reinforcement x group interaction, F (4, 12) = 4.56, $p < .05$ (Table V), was found for item 7 -- "To what extent were these sessions a worthwhile experience for you?". Again, no further tests were done since groups was a random factor.

Bem Sex Role Inventory

One 3 x 2 x 2 repeated measures AOV was performed with repeated measures on the C factor (pre and post testing). Dependent measures were mean scores on the BSRI. Significant F and t values will be reported at $p < .05$. A significant main effect was found for factor C, F (1, 30) = 4.47, $p < .05$ (see Table VI). Males scored more "masculine" and females scored more "feminine." Differences on the sex factor would be expected due to the inherent nature of the BSRI, which measures a person's endorsement of "masculine" and "feminine" personality traits.

Since visual inspection of the data seemed to indicate consistent changes in subject scores, three matched-pairs t tests were done for pre- and post- experimental scores on the BSRI, one for the Androgynous subjects, one for Near-Masculine and Near-Feminine subjects, and another for Masculine and Feminine subjects (Table VII). A significant pre-post difference was found for both Androgynous subjects, t (11) = 2.28, $p < .05$, and Near-Masculine and Near-Feminine

subjects, t (11) = 2.47, $p < .025$, but not for the Masculine and Feminine subjects, t (11) = 1.24, N. S.

TABLE VI

ANALYSIS OF VARIANCE: SUBJECT RESPONSES ON BEM SEX-ROLE INVENTORY

Source	df	MS	F
A - reinforcement	2	1941.29	.26
B - pre-post	1	20.06	.00
C - sex	1	327240.50	4.47*
AC	2	84186.25	1.15
S (AC)	30	73163.94	
BA	2	1534.25	.26
BC	1	2112.44	.36
BAC	2	3865.97	.66
BS (AC)	30	5843.60	

* $p < .05$

Androgynous subjects significantly changed their post-test scores as did Near-Masculine and Near-Feminine subjects. However, the Masculine and Feminine subjects' pre and post scores were not appreciably different. Of the 12 subjects who described themselves as androgynous on the pre-test only 4 changed to another category on the post-test (Table VII). Of the 12 subjects who described themselves as either Masculine or Feminine, only 2 changed to another category.

TABLE VII

BEM SEX-ROLE INVENTORY: SUBJECT PRE AND POST EXPERIMENTAL SCORES

		Test Scores		BSRI Classification	
Group	Sex	Pre	Post	Pre	Post
Cr	M	-2.67	-2.41	Masculine	Masculine
NR	M	-2.07	-2.31	Masculine	Masculine
NR	M	-2.97	-3.10	Masculine	Masculine
Control	M	-2.77	-2.56	Masculine	Masculine
Control	M	-2.69	- .97	Masculine	Androgynous
Control	F	-2.09	-2.51	Masculine	Masculine
Control	M	-2.99	-3.24	Masculine	Masculine
CR	F	5.89	3.12	Feminine	Feminine
CR	F	2.29	1.20	Feminine	Nr-Feminine
NR	F	2.65	3.92	Feminine	Feminine
Control	F	4.89	4.42	Feminine	Feminine
Control	F	2.62	2.29	Feminine	Feminine
CR	F	- .55	- .71	Androgynous	Androgynous
CR	M	- .52	2.91	Androgynous	Feminine
CR	F	- .10	.66	Androgynous	Androgynous
CR	F	- .67	.50	Androgynous	Androgynous
NR	M	- .49	- .95	Androgynous	Androgynous
NR	F	- .25	- .86	Androgynous	Androgynous
NR	F	.91	1.35	Androgynous	Nr-Feminine
NR	F	.00	.13	Androgynous	Androgynous
NR	M	- .75	-2.02	Androgynous	Nr-Masculine
Control	M	-.96	-1.16	Androgynous	Nr-Masculine
Control	M	.80	.11	Androgynous	Androgynous
Control	F	- .88	- .82	Androgynous	Androgynous
CR	M	-1.24	- .54	Nr-Masculine	Androgynous
NR	M	-1.28	-1.00	Nr-Masculine	Androgynous
CR	M	-1.79	- .71	Nr-Masculine	Androgynous
CR	M	-1.65	- .54	Nr-Masculine	Androgynous
NR	M	-1.38	-2.46	Nr-Masculine	Masculine
NR	F	-1.50	- .72	Nr-Masculine	Androgynous
Control	F	-1.17	- .83	Nr-Masculine	Androgynous
Control	M	-1.86	-1.87	Nr-Masculine	Mr-Masculine

TABLE VII "Continued"

Group	Sex	Test Scores		BSRI Classification	
		Pre	Post	Pre	Post
CR	F	1.74	.89	Nr-Feminine	Androgynous
NR	M	1.14	1.05	Nr-Feminine	Nr-Feminine
NR	F	1.84	1.57	Nr-Feminine	Nr-Feminine
Control	F	1.26	.39	Nr-Feminine	Androgynous

However, of the 12 males and females who described themselves as Near-Masculine or Near-Feminine, 9 changed; 8 to Androgynous and 1 from Near-Masculine to Masculine.

These results are somewhat obscured by the fact that CR, NR, and Control groups are combined. However, t tests were done only when visual inspection of the data suggested that something had happened to change subject scores, but was not reflected in the overall AOV. More extensive analyses would have had to be planned prior to the experiment.

Semantic Differential

Twelve 3 x 2 x 2 repeated measures AOVs were performed using as dependent measures mean evaluation ratings for Self, Ideal Woman, Ideal Man, and Ideal Man or Woman (depending upon sex of subject) minus Self for each of the three semantic differential systems: Evaluation, Potency

and Activity. In each of these AOVs the A factor was reinforcement (CR, NR, and control), the B factor was the testing condition (pre or post group experience), and the C factor was sex of subject. From these AOVs, 84 F tests were performed, 76 of which were non-significant (leaving only 8 significant). Thus, any significant F's will need to be interpreted cautiously.

Of the 8 significant F tests, no distinct pattern could be seen among them. Five involved two-way or higher interactions and post-hoc t tests revealed no significant comparisons which would help in explaining the interactions. These AOV's (Table XII) and means (Table XIII) are summarized in Appendix M.

Of 3 AOV's for Ideal Man (Potency, Evaluation, Activtiy) the only one that contained a significant F was the Evaluation variable. There was a significant main effect for sex, F (1, 30) = 4.30, $p < .025$, and for reinforcement, F (1, 30) = 4.88, $p < .025$ (see Table VIII). Males rated the Ideal Man as "better" than did women on the reinforcement factor. Post-hoc comparisons using the Newman-Keuls procedure revealed no significant differences for all possible pairwise comparisons of means. It was concluded that the observed overall significant differences were some other combination of comparisons than those of interest.

There were 3 significant F's on the Ideal Woman, one on Potency, one on Evaluation and one on Activity. Of these, 2 were complex interactions which were not easily interpre-

table. For Ideal Woman Potency there was a significant reinforcement x sex interaction, F (2, 30) = 4.08, $p < .05$ (see Table XII, Appendix M). However, out of 9 post-hoc tests done using the Newman-Keuls procedure, none of the tested comparisons were significantly different. A significant reinforcement x pre-post interaction was found on Ideal Woman Evaluation, F (1, 30) = 4.23, $p < .025$. Again, post-hoc tests failed to reveal any trend to the data.

TABLE VIII

ANALYSIS OF VARIANCE: SUBJECT RESPONSES FOR IDEAL MAN ON EVALUATION FEATURE

Source	df	MS	F
A - reinforcement	2	1.42	4.87**
C - sex	1	1.25	4.30*
AC	2	.75	2.59
S (AC) Subj. within groups	30	.29	
B - pre-post	1	.87	1.12
AB	2	.14	.18
BC	1	.14	.18
ABC	2	.56	.72
BS (AC)	30	.77	

* $p < .05$

** $p < .025$

There was a significant main effect for pre-post on Ideal Woman Activity, F (1, 30) = 5.27, $p < .025$. Both men and women in all groups rated the Ideal Woman as more active prior to the group experience (see Table IX).

TABLE IX

ANALYSIS OF VARIANCE: SUBJECT RESPONSES FOR IDEAL WOMAN ON ACTIVITY FEATURE

Source	df	MS	F
A - reinforcement	2	.48	.54
C - sex	1	2.26	2.52
AC	2	.82	.92
S (AC) Subj. within groups	30	.90	
B - pre-post	1	1.32	5.27*
AB	2	.42	.17
BC	1	.54	2.17
ABC	2	.66	.26
BS (AC)	30	7.52	

* $p < .05$

There were 3 AOV's on Self. There were no effects on the Potency measure, but there was one significant F each on Evaluation and Activity. For Self/Evaluation there was a reinforcement x sex interaction, F (2, 30) = 3.97, $p < .05$. Post-hoc procedures failed to reveal any significant differ-

ences on the means compared. The same was true of the reinforcement x pre-post x sex interaction on Self/Activity (see Table XII, Appendix M).

Three AOV's were also done on the Ideal minus self discrepancy for Potency, Evaluation, and Activity. Of these, only Ideal minus Self/Activity yielded a significant result. There was a reinforcement x pre-post x sex interaction. Post-hoc procedures failed to reveal any significant differences on the means compared (see Table XIII, Appendix M).

FIRO-B Responses

Responses to the FIRO-B were treated as three more dependent variables, Inclusion, Control, and Affection. Three separate 2 x 3 x 2 x 2 repeated measures AOV's were performed with repeated measures. Factor D was the repeated measure. Factors A, B, and C were the same as in previous analyses discussed. Significant F values will be reported at $p < .05$. See Appendix M for group responses to the FIRO-B (Table XVI) and AOV summary table (Table XV).

The AOV for the Inclusion variable resulted in a significant reinforcement x group x sex effect, F (4, 12) = 3.46, $p < .05$. Since group was a random factor, no further tests were done.

For the Control variable, none of the tests were significant (p's $> .05$), but the AOV for the Affection variable resulted in a significant main effect for the expressed-wanted factor, F (1, 4) = 15.75, $p < .025$.

Post-Experimental Interview

No statistical analyses were done on the data from the post-experimental interview. It is presented for heuristic value only. Questions are presented in Appendix J.

Of the 23 subjects who were interviewed, 20 answered "no", that they had no questions about the experiment that had not been answered. The majority of the participants thought the purpose of the experiment had to do with observing the interaction of people, using a restricted set, who did not know each other beforehand. None guessed anything related to Phases I and III regarding attitude change.

In describing the experiment, many said it was "interesting" (8) or commented on the novelty of it (5). Other descriptions included: "hard" or "difficult" (5), "boring" (2), and "fun" (2). In general, participants liked the experiment and felt that they learned something through the interaction with others. Some comments about difficulty seemed to center on the limitations which use of the categories imposed.

For item 4 comcerning whether subjects might have guessed the purpose of the experiment, 10 answered "no". Eight answered "yes", but had nothing specific in mind. Of the 5 who had specific answers, none had to do with the actual purpose of the experiment. Twenty-one saw no relationship between the experiment and any other. Only one mentioned the questionnaires given in class (Phases I and

III). Upon closer questioning (item 6) most still saw no relationship between phases. Only three specifically related it to tests given in Phases I and III.

The remaining three questions were asked after the experiment had been fully explained. Of the 3 who had related the phases, one questioned it during session two, one after Phase III, and another saw the relationship during our interview. Additionally, three more people said they saw a relationship after answering "no" to number 6.

Most subjects saw the purpose of the experiment as being for research on people's attitudes toward males and females. All subjects rated the scales similarly both times and showed no systematic method for answering the questions. On the final question, asking if there were additional comments, 17 had none. Of the ones remaining one felt that it had changed his attitudes toward women, becoming more egalitarian. Two cited increased self-confidence in interacting with people. One criticized the study and said that people were not willing to get into "questioning each other's sex-role identity in three sessions." The other two comments concerned enjoyment of the experiment and its uniqueness.

CHAPTER IV

DISCUSSION

The present data showed that subjects were able to use the Fromme et al. (1974) method of verbal conditioning (Session 1) and apply this to the more specific area of discussing their feelings about being a male or a female in that situation (Sessions 2 and 3). However, changed sex-role stereotypes due to the discussion and reinforcement occurred only for certain subjects.

The Bem Sex-Role Inventory

Of the two instruments used to assess changes in sex-role stereotypes as a result of the group interaction, the BSRI and the Semantic Differential, only the BSRI showed statistically significant and important results. Other important results were found in subject use of the Response Categories (discussed below). When analyzed by traditional AOV methods the BSRI showed only a significant sex effect which would have been expected due to the inherent nature of the test. Failure to find more significant effects such as pre and post group changes are probably due to a ceiling effect which occurred in subject scores for certain groups. By combining groups of subjects who were likely to change

with groups who were less likely or unlikely to change, differential changes in certain groups were obscured, and this limited overall AOV effects. However, visual inspection of raw scores seemed to show some consistent changes in scores for certain groups (see Table VII). To further test out these changes subjects were divided into five groups as suggested by Bem: Masculine (scores of -2.00 or less); Feminine (scores of 2.00 or greater); Androgynous (scores of -1.00 to 1.00); Near-Masculine (scores of -1.99 to -1.01); and Near-Feminine (scores of 1.99 to 1.01).

The Androgynous subjects changed significantly on pre and post group testing, although not to the degree of the Near-Feminine and Near-Masculine subjects. Of the 12 who described themselves as Androgynous on pre-tests only four changed to another sex-role classification. Most changes occur within the Androgynous range. As would be expected, subject socres close to the mean on the first testing showed dispersion about the mean, in both directions, when retested. Another explanation of these changes in scores would be to attribute them to regression toward the mean phenomenon. This explanation, however, does not fit in with changes which would be expected for the other groups. In regression, the greater expected changes would be in groups farthest from the mean, Masculine and Feminine, and progressively less for the Near-Masculine and Near-Feminine, those closer to the mean. Actually, almost the exact opposite occurred.

Of 12 subjects describing themselves as Masculine or Feminine on the pre-test, only two changed to another category on post-testing. The one who switched to androgynous was in the control group and had not had the group experience. Therefore, it seems possible that the group experience for these people only served to reinforce existing sex-role stereotypes. Since these are more extreme scores, but cannot be explained in terms of regression, a possible explanation would be that these traits are more ingrained, and thus these people are less flexible and open to changes. Looking at flexibility to change we would expect less extreme scores, Near-Masculine and Near-Feminine, to show more changes because these people are closer to androgynous which is equated with greatest flexibility. This is exactly what happened. In fact these people showed the greatest amount of change of all sex-role classifications. Of the 12 subjects who described themselves as Near-Masculine or Near Feminine nine changed to another category. Eight changed in the direction of becoming more androgynous and one in the opposite direction, from Near-Masculine to Masculine.

The present findings are in line with what Bem (1975) would predict. As she has found, it is the androgynous subjects who are most flexible and able to adapt to the situation they are in, without regard for whether a particular behavior is traditionally masculine or feminine. The self-described Masculine and Feminine subjects were least flexible and were not able to switch roles when put in a situa-

tion which necessitated this role flexibility. Bem does not discuss changes in sex-role stereotypes and subsequent differential changes in BSRI scores for the five sex-role classification groups. However, behavioral flexibility and attitude flexibility may be related. If so, it would seem reasonable to assume that those subjects who are in the middle -- those who are Near-Masculine and Near-Feminine -- might show more behavioral flexibility than those who described themselves as Masculine or Feminine, and they might be more likely to change their sex-role stereotypes and sex-role self-descriptions.

These Near-Masculine and Near-Feminine subjects show the most interesting changes. On first testing they did not describe themselves as having the flexibility of the Androgynous subjects nor did they describe themselves as being as sex-typed as the Masculine and Feminine subjects. It is hypothesized that these people may be in the process of questioning a stereotyped sex-role identity for themselves and thus possibly for others. They were the most amenable to changes in the Androgynous, or more flexible direction. In some respects these groups may be similar to people who seek psychotherapy. They are amenable to change and show enough flexibility to be able to achieve their change. They would seem to be likely candidates for therapy which would deal with such issues as sex-role steretoypes.

Masculine and Feminine people would not be likely to seek psychotherapy centering on resolving sex-role issues,

just as very bigoted people would not be expected to participate in groups seeking to improve race relations. They would seem more entrenched in their sex-role and not likely to question it. As studies by Sherif and Sherif (1969) have suggested, these people would seem more likely to begin such questioning which might lead to eventual sex-role changes if placed in a group composed of others who hold views closer to their latitude of acceptance. Since the Near-Masculine and Near-Feminine subjects have already begun this questioning, some modeling would seem possible.

Response Categories and Sex-Role

Response Categories

As shown in Figure 1, the CR subjects made more extensive use of both the Response Categories and the Sex-Role Categories. Both had a higher rate of responding using the Response Categories with response rate dropping off for the Sex-Role Response Categories. This difference was significant in comparing Sessions 1 and 3 for both CR and NR subjects, but the effect was greater for the CR subjects. Thus, both groups had more difficulty with the more specific Sex-Role Response Categories, but they were still able to make use of them in interacting.

The CR subjects reported in the questionnaire (Appendix H) that they tried harder to use the Sex-Role Response Categories than did NR subjects. Although nonsignificant, the same trend was present for effort with the original Response

Categories. The NR subjects reported more enjoyment in using both types of categories than did CR subjects. So, essentially the CR subjects were trying harder, but enjoying it less than NR subjects. This again points to the difficulty involved in using the more specific response categories. Enjoyment in using these categories was likely decreased for CR subjects because they could not just relax, but were of necessity more task oriented as a result of the continuous feedback and more powerful demand characteristics.

CR and NR groups were more different in rate of responding in Session 1, but became more nearly alike in Session 2, and most nearly alike in Session 3. Thus, the difficulty imposed by the more specific response categories contributed to the lowered rate of responding in all subjects, and even reinforcement was not sufficient to prevent this lowering from occurring. This difficulty was evidenced by comments participants made during Sessions 2 and 3. A frequent occurrance during Session 2, which became more frequent in Session 3, was subjects saying that they had "run out" of things to talk about using the categories. This difficulty in using the specific categories appeared to actually strengthen traditional sex-role stereotypes. Statements such as, "Do you think I'm acting like a female should act?" with a response such as, "Yes, you are acting very appropriate for a female" were typical of statements which were made when subjects seemed to have exhausted all "here and now" responses using these categories.

A method for improving on the variety of examples used in explaining the Sex-Role categories would possibly help subjects use the categories more frequently and with less effort and unnecessary anxiety which might have been present. The difficulty of the task of using the categories was reflected also in the difficulty which the experimenter experienced in making up plausible non-contrived sounding examples that would allow discussion of feelings about being a male or a female while still limiting the discussion to the more therapeutic effects present in using "here and now" statements.

Greater variability was seen in performance for the CR groups than for NR groups. One factor which may have contributed to this variability was use of the feedback lights. During the first session one or more persons had their lights turned on because their totals were ten below the person having the highest total. These lights were left on for varying periods of time according to the subjects' response total and seemed to have quite an inspiring effect on the groups' performance. This was observed to be less true where it occurred in later sessions. Since lights were not present for NR groups, the differential effect upon certain groups was not present. A similar finding was reported in early work using the Fromme et al. method by Stömmel (1974).

Use of the red lights may have also produced the group effect seen in Session 1. The red lights accentuated the

group effect when one individual responding at a high rate influenced others to respond more in order to prevent their lights from coming on. Also, one individual responding at a slow rate tended to influence the others to stop responding to allow the slow subject to catch up and thereby turn off his red light. Similar results were reported by Marcy (1975).

Such effects point to the many group variables that must be considered when doing research in the group area. Fromme and Close (in press) have begun to study such variables as group compatibility and its effects on some types of verbalizations. Such studies should help clarify some of the more complex aspects of group research.

Other Findings

Other findings were less important, but these will be discussed briefly. These include: Questionnaire Responses, the Semantic Differential, the FIRO-B, and the post-experimental interview.

In addition to the questionnaire items already discussed above, several others had significant effects. For item 1 involving understanding of the Response Categories, males either did understand them better or thought they did. There is no evidence for the former explanation as they did no better in actual use of the categories than did the females. This effect was likely due to social expectations that males be more knowledgeable and confident, or at least refrain from admitting it, when they may not be.

The complex interaction involving effort in using the Response Categories may have been the result of the same variables that caused the group factor to be significant, such as the effects of the red lights and the tendency of the leader to set the tone for the group discussed earlier. A similar explanation can be given for reinforcement x group interaction concerning worthwhileness of the sessions. Certain groups reacted differently under the two reinforcement conditions to this item. Thus, reinforcement effects were obscured by the group effects as discussed above.

In addition to the BSRI, the Semantic Differential was used to assess changes in sex-role stereotypes. In general, this instrument failed to reveal any significant findings. This may be attributable to several factors. The statistical design may not have been sensitive enough to the kinds of changes in attitudes which were expected. Again, if subjects would have been selected on the basis of pre-test scores, just as in the BSRI, there might have been more changes in particular groups of people, depending on the adaptability to change of these people. In other words, there may have been actual changes in subjects who had the potential or room in which to change, but by combining all people to analyze the data, the results were obscured. Another possibility is that the instrument was not sensitive to any changes that occurred. Since some indications of changes in sex-role self description occurred when looking at specific categories of people on the BSRI, it would be expected

that similar changes may have occurred in the Semantic Differential.

Although this instrument revealed little in the way of changed sex-role stereotypes, there were a few findings of interest. For the ideal man, male subjects seem to be more demanding, and thus perhaps have a stronger stereotype about what constitutes the ideal man. As would be expected they rate themselves as more potent and active than would women, but they also rate men as "better" in terms of goodness, again suggesting more idealism for the male subjects and more acceptance of the male role.

The finding that subjects tend to rate the ideal woman as more active prior to the group experience is difficult to interpret due to the fact that this was more true of the control group who did not participate in the group experience. It can be said that although all groups moved in this direction, it had nothing to do with the group experience.

The FIRO-B was included to reveal any interpersonal differences in the groups which might account for group variability within particular reinforcement conditions. The only significant finding was that in general the subjects were slightly neurotic in the affection area. They wanted more affection than they were willing to express. More complex analyses of group variables such as compatibility were beyond the scope of this paper. See Fromme and Close (in press) for a more extensive look at such variables.

The post-experimental interview indicated that the separation of phases of the experiment was successful and there seemed to have been no adverse effects of the experiment. As discussed above, subjects felt that it was especially difficult to use the sex-role categories. But many felt the group experience as a whole to be a worthwhile and interesting experience.

A Final Comment

The subjects were able to use the general operant method of verbal conditioning and apply this to the more specific area of discussing their feelings about being a male or a female even though these categories were difficult to use and responding dropped off for use of them. It appears that the method may be one which is applicable to helping certain people change traditional sex-role stereotypes. However, as in any form of psychotherapy, the method is more effective for people who are in the process of seeking such changes or have room to change.

REFERENCES

Angrist, S. The study of sex roles. Journal of Social Issues, 1969, 25, 215-232.

Banton, M. P. Roles: An introduction to the study of social relations. New York: Basic Books, 1965.

Baruch, G. The traditional feminine role: Some negative effects. The School Counselor, 1974, 21 (4), 285-289.

Bednar, R. L. & Lawlis, F. G. Empirical research in group psychotherapy. In A. W. Bergin and S. L. Garfield (Eds.), Handbook of psychotherapy and behavior change. New York: Wiley and Sons, 1971.

Bem, S. L. Psychology looks at sex roles: Where have all the androgynous people gone? Paper presented at UCLA Symposium on Women, May, 1972.

Bem, S. L. The measurement of psychological androgyny. Journal of Consulting and Clinical Psychology, 1974, 42, 155-162.

Bem, S. L. Sex-role adaptability: One consequence of psychological androgyny. Journal of Personality and Social Psychology, 1975, 31 (4), 634-643.

Birnbaum, J. Life patterns, personality style and self-esteem in gifted family-oriented and career-committed women. Unpublished doctoral dissertation, University of Michigan, 1971.

Block, J., von der Lippe, A., & Block, J. Sex-role and socialization patterns: Some personality concommitants and environmental antecedents. Journal of Consulting and Clinical Psychology, 1973, 41, 321-341.

Broverman, I. K., Broverman, D. M., Clarkson, F. E., Rosenkrantz, P., & Vogel, S. R. Sex-role stereotypes and clinical judgments of mental health. Journal of Consulting Psychology, 1970, 34, 1-7.

Broverman, I. K., Vogel, S. R., Broverman, D. M., Clarkson, F. E., & Rosenkrantz, P. S. Sex-role stereotypes: A current appraisal. Journal of Social Issues, 1972, 28, 59-78.

Brown, J. Feminism and its implications for therapy. The Radical Therapist, 1970, 1, 5-6.

Chesler, P. Men drive women crazy. Psychology Today, 1971, 5 (2), 18, 22, 26-27, 97-98.

Chesler, P. Women and madness. New York: Doubleday, 1972.

Connell, D. M., & Johnson, H. E. Relationship between sex-role identification and self-esteem in early adolescence. Developmental Psychology, 1970, 3, 268.

Cosentino, F., & Heilbrun, A. B. Anxiety correlates of sex-role identity in college students. Psychological Reports, 1964, 14, 729-730.

Duvall, R. D. Generalization of affective verbalization in operant groups. Unpublished masters thesis, Oklahoma State University, 1974.

Elman, J., Press, A., & Rosenkrantz, P. Sex roles and self-concepts: Real and ideal. Paper presented at the annual meeting of the American Psychological Association, Miami Beach, September, 1970.

Fabian, J. J. The role of the therapist in the process of sexual emancipation. Psychiatric Opinion, 1973, 10, 31-33.

Fabrikant, B. The psychotherapist and the female patient. In V. Franks and V. Burtle (Eds.), Women in therapy. New York: Bruner/ Mazel, 1974.

Fernberger, S. Persistence of stereotypes concerning sex differences. Journal of Abnormal and Social Psychology, 1948, 43, 79-101.

Franks, V., & Burtle, V. (Eds.). Women in therapy. New York: Bruner/ Mazel, 1974.

Fromme, D. K., & Close, S. Group compatibility and modification of affective verbalization. British Journal of Social and Clinical Psychology, 1976, in press.

Fromme, D. K., Whisenant, W., Susky, H., & Tedesco, J. F. Modification of 'here and now' affective, feedback and emapthic verbalizations in led and leaderless groups. Journal of Consulting and Clinical Psychology, 1974, 42, 866-871.

Goode, W. J. The role of the family in industrialization. In R. F. Winch & L. W. Goodman (Eds.), Selected studies in marriage and the family. New York: Holt, Rinehart & Winston, 1965.

Harford, T. C., Willis, C. H., & Deabler, H. L. Personality correlates of masculinity-femininity. Psychological Reports, 1967, 21, 881-884.

Hastorf, A. H. Reinforcement of individual actions in a group situation. In Krasner & Ullman (Eds.), Research in behavior modification. New York: Holt, Rinehart & Winston, 1965.

Hekmat, H. Reinforcing value of interpretations and reflections in a quasi-therapeutic interview. Journal of Abnormal Psychology, 1971, 77 (1), 25-31.

Heilbrun, A. B. Sex role, instrumental-expressive behavior, and psychopathology in females. Journal of Abnormal Psychology, 1968, 73, 131-136.

Hekel, R. V. Predicting role flexibility in group therapy by means of a screening scale. Journal of Clinical Psychology, 1972, 28 (4), 570-573.

Helson, R. Personality characteristics and developmental history of creative college women. Genetic Psychology Monographs, 1967, 76, 205-256.

Kagan, J. Acquisition and significance of sex-typing and sex-role identity. In M. L. Hoffman & L. W. Hoffman (Eds.), Review of child development research. Vol 1. New York: Russell Sage Foundation, 1964.

Kohlberg, L. A cognitive-developmental analysis of children's sex-role concepts and attitudes. In E. E. Maccoby (Ed.), The development of sex differences. Stanford, Ca.: Stanford University Press, 1966.

Komarovsky, M. Cultural contradictions and sex roles. American Journal of Sociology, 1946, 52, 184-189.

Komarovsky, M. Functional analysis of sex roles. American Sociological Review, 1950, 15, 508-516.

Krause, C. The femininity complex and women therapists. Journal of Marriage and the Family, 1971, Aug., 476-482.

Lewin, K. Group decision and social change. In H. Proshansky and B. Seidenberg (Eds.), Basic studies in social psychology. New York: Holt, Rinehart & Winston, 1947, 1965, 423-436.

Liberman, R. P. Behavior approach to group dynamics. Behavior Therapy, 1970, 1, 141-175 & 312-327.

Liberman, R. P. Behavior group therapy: A controlled clinical study. British Journal of Psychiatry, 1971, 119, 535-544.

Marcy, M. Operant conditioning of verbal self-disclosure and its effects on group cohesiveness and subsequent self-disclosure. Unpublished masters' thesis, Oklahoma State University, 1975.

Matarazzo, J. D., Saslow, G., & Pareis, E. N. Verbal conditioning of two response classes: Some methodological considerations. Journal of Abnormal and Social Psychology, 1960, 61, 190-206.

McKee, J. P., & Sheriffs, A. C. The differential evaluation of males and females. Journal of Personality, 1957, 25, 356-371.

McKee, J. P., & Sheriffs, A. C. Men's and women's beliefs, ideals, and self-concepts. American Journal of Sociology, 1959, 64, 356-363.

Mednick, M., & Weissman, H. The psychology of women: Selected topics. Annual Review of Psychology, 1975, 26, 1-18.

Miller, A. G., Gershman, H., & Yachnes, E. The myth of masculinity: A panel. American Journal of Psychoanalysis, 1973, 33 (1), 42-55.

Mischel, W. Sex-typing and socialization. In P. H. Mussen (Ed.), Carmichael's manual of child psychology. Vol. 2. New York: Wiley, 1970.

Moos, R. H. The retention and generalization of operant conditioning effects in a interview situation. Journal of Abnormal and Social Psychology, 1963, 66 (1), 52-58.

Mussen, P. H. Some antecedents and consequences of masculine sex-typing in adolescent boys. Psychological Monographs, 1961, 75, No. 506.

Mussen, P. H. Long-term consequents of masculinity of interests in adolescence. Journal of Consulting Psychology, 1962, 26, 435-440.

Mussen, P. H. Early sex-role development. In D. A. Goslin (Ed.), Handbook of socialization theory and research. Chicago: Rand McNally, 1969.

Osgood, C. E., Suci, G. J., & Tannenbaum, P. H. The measurement of meaning. Urbana: University of Illinois Press, 1957.

Parsons, T. Age and sex in the social structure of the United States. American Sociological Review, 1942, 1, 604-616.

Rice, J. & Rice, D. Implications of the women's liberation movement for psychotherapy. American Journal of Psychiatry, 1973, 130, 191-196.

Rosenkrantz, P. S., Vogel, S. R., Bee, H., Broverman, I. K., & Broverman, D. M. Sex-role stereotypes and self concepts in college students. Journal of Clinical and Consulting Psychology, 1968, 32, 287-295.

Salzberg, H. C. Effects of silence and redirection of verbal responses in group psychotherapy. Psychological Reports, 1962, 11, 455-461.

Salzinger, K., & Pisoni, S. Reinforcement of affect responses of schizophrenics during the clinical interview. Journal of Abnormal Psychology, 1958, 57, 84-90.

Salzinger, K., & Pisoni, S. Reinforcement of verbal affect responses of normal subjects during the interview. Journal of Abnormal and Social Psychology, 1960, 60, 127-130.

Schonbar, R. Group co-therapists & sex-role identification. American Journal of Psychotherapy. 1973, 27 (4), 539-547.

Shainess, N. Images of woman: Past and present, overt and obscured. American Journal of Psychotherapy, 1969, 23 (1).

Sherif, M. & Sherif, C. Social psychology. New York: Harper & Row, 1969.

Sheriffs, A. C., & Jarrett, R. F. Sex differences in attitudes about sex differences. Journal of Psychology, 1953, 35, 161-168.

Spielberger, C. D., & DeNike, D. L. Descriptive behaviorism vs. cognitive theory in verbal operant conditioning. Psychological Review, 1966, 73 (4), 306-326.

Steinman, A., Fox, D. J., & Farkas, R. Male and female perceptions of male sex roles. Paper presented at the annual meeting of the American Psychological Association, San Francisco, September, 1968.

Stommel, J. Acquisition and extinction of affect, feedback and empathy statements in groups. Unpublished masters' thesis, Oklahoma State University, 1971.

Strouse, J. (Ed). Women and analysis. New York: Grossman, 1974.

Symonds, A., Moulton, R., & Badaracco, M. R. The myth of femininity: A panel. American Journal of Psychoanalysis, 1973, 33 (1), 42-55.

Truax, C. B., & Carkhuff, R. R. Toward effective counseling and psychotherapy. Chicago: Aldine Pub. Co., 1967.

Wesley, C. The woman's movement and psychotherapy. Social Work, 1975, 20 (2), 120-124.

Whalen, C. Effects of a model and instructions on group verbal behaviors. Journal of Consulting and Clinical Psychology, 1969, 33 (5), 509-512.

Williams, R. I., & Blanton, R. L. Verbal conditioning in a psychotherapy situation. Behavior Research and Therapy, 1968, 6, 97-103.

Wolf, A. Group psychotherapy with adults: The alternate meeting. Paper read at APGA Conference, New york, Jan. 27, 1961.

Yalom, I. D. The theory and practice of group psychotherapy. New York: Basic Books, 1970.

Zinberg, N. E. Changing stereotyped sex roles: Some problems for women and men. Psychiatric Opinion, 1973, 10, 25-30.

APPENDIX A

BEM SEX-ROLE INVENTORY

Name _____ Sex M _____ F _____

On the following page you will be shown a large number of personality characteristics. We would like you to use those characteristics in order to describe yourself. That is, we would like you to indicate, on a scale from 1 to 7, how true of you these various characteristics are. Please do not leave any characteristic unmarked.

Example: sly

Mark a 1 if it is NEVER OR ALMOST NEVER TRUE that you are sly.

Mark a 2 if it is USUALLY NOT TRUE that you are sly.

Mark a 3 of it is SOMETIMES BUT INFREQUENTLY TRUE that you are sly.

Mark a 4 if it is OCCASIONALLY TRUE that you are sly.

Mark a 5 if it is OFTEN TRUE that you are sly.

Mark a 6 if it is USUALLY TRUE that you are sly.

Mark a 7 if it is ALWAYS OR ALMOST ALWAYS TRUE that you are sly.

Thus, if you feel it is sometimes but infrequently true that you are "sly," never or almost never true that you are "malicious," always or almost always true that you are "irresponsible," and often true that you are "carefree," then you would rate these characteristics as follows:

Sly	3
Malicious	1

Irresponsible	7
Carefree	5

DESCRIBE YOURSELF

1	2	3	4	5	6	7
NEVER OR ALMOST NEVER TRUE	USUALLY NOT TRUE	SOMETIMES BUT INFREQUENTLY TRUE	OCCASIONALLY TRUE	OFTEN TRUE	USUALLY TRUE	ALWAYS OR ALMOST ALWAYS TRUE

Self reliant		Reliable		Warm	
Yielding		Analytical		Solemn	
Helpful		Sympathetic		Willing to take a stand	
Defends own beliefs		Jealous		Tender	
Cheerful		Has leadership abilities		Friendly	
Moody		Sensitive to the needs of others		Aggressive	
Independent		Truthful		Gullible	
Shy		Willing to take risks		Inefficient	
Conscientious		Understanding		Acts as a leader	
Athletic		Secretive		Childlike	
Affectionate		Makes decisions easily		Adaptable	
Theatrical		Compassionate		Individualistic	
Assertive		Sincere		Does not use harsh language	
Flatterable		Self-sufficient		Unsystematic	
Happy		Eager to soothe hurt feelings		Competitive	
Strong personality		Conceited		Loves children	
Loyal		Dominant		Tactful	
Unpredictable		Soft-spoken		Ambitious	
Forceful		Likable		Gentle	
Feminine		Masculine		Conventional	

APPENDIX B

SEMANTIC DIFFERENTIAL

Name _____ Sex M ____ F____

INSTRUCTIONS

Fill out each of the following scales -- please check each one separately. You should rate the following people on the basis of how they seem to you.

Here is how the scales are used:

If you feel that the person is very closely described by the trait at one end of the scale you should put your check-mark as follows:

fair ___X___ : _____ : _____ : _____ : _____ : _____ : _____ unfair

OR

fair _____ : _____ : _____ : _____ : _____ : _____ : ___X___ unfair

If you feel that the person is quite closely described by the trait at one end of the scale (but not extremely), you should place your check-mark as follows:

heavy _____ : ___X___ : _____ : _____ : _____ : _____ : _____ light

OR

heavy _____ : _____ : _____ : _____ : _____ : ___X___ : _____ light

If the person is only slightly described by the trait at one end of the scale (but is not really neutral), then you should check as follows:

fast _____ : _____ : ___X___ : _____ : _____ : _____ : _____ slow

OR

fast _____ : _____ : _____ : _____ : ___X___ : _____ : _____ slow

If you consider the concept to be neutral on the scale, both sides of the scale equally descriptive of the person, or if the scale is completely irrelevant or unrelated to the person, then you should place your check-mark in the middle space.

complex _____ : _____ : _____ : ___X___ : _____ : _____ : _____ simple

REMEMBER:

A. Please place your checks in the middle of the spaces, not on the boundaries.

THIS ___X___ : _____ not this: _____X_____

B. Be sure you check every scale.

C. Never put more than one check mark on a single scale.

IDEAL MAN

Hard	___:___:___:___:___:___:___	Soft
Bad	___:___:___:___:___:___:___	Good
Active	___:___:___:___:___:___:___	Passive
Dishonest	___:___:___:___:___:___:___	Honest
Progressive	___:___:___:___:___:___:___	Regressive
Severe	___:___:___:___:___:___:___	Lenient
Stable	___:___:___:___:___:___:___	Changeable
Weak	___:___:___:___:___:___:___	Strong
Beneficial	___:___:___:___:___:___:___	Harmful
Cautious	___:___:___:___:___:___:___	Rash
Calm	___:___:___:___:___:___:___	Excitable
Kind	___:___:___:___:___:___:___	Cruel

IDEAL WOMAN

Hard	___:___:___:___:___:___:___	Soft
Bad	___:___:___:___:___:___:___	Good
Active	___:___:___:___:___:___:___	Passive
Dishonest	___:___:___:___:___:___:___	Honest
Progressive	___:___:___:___:___:___:___	Regressive
Severe	___:___:___:___:___:___:___	Lenient
Stable	___:___:___:___:___:___:___	Changeable
Weak	___:___:___:___:___:___:___	Strong
Beneficial	___:___:___:___:___:___:___	Harmful
Cautious	___:___:___:___:___:___:___	Rash
Calm	___:___:___:___:___:___:___	Excitable
Kind	___:___:___:___:___:___:___	Cruel

SELF

Hard	___:___:___:___:___:___:___	Soft
Bad	___:___:___:___:___:___:___	Good
Active	___:___:___:___:___:___:___	Passive
Dishonest	___:___:___:___:___:___:___	Honest
Progressive	___:___:___:___:___:___:___	Regressive
Severe	___:___:___:___:___:___:___	Lenient
Stable	___:___:___:___:___:___:___	Changeable
Weak	___:___:___:___:___:___:___	Strong
Beneficial	___:___:___:___:___:___:___	Harmful
Cautious	___:___:___:___:___:___:___	Rash
Calm	___:___:___:___:___:___:___	Excitable
Kind	___:___:___:___:___:___:___	Cruel

APPENDIX C

IN-CLASS INSTRUCTIONS PHASE I

I am collecting reliability data on different instruments used in research in psychology. Please fill out the forms completely, following the instructions given. When you finish, please check over your responses, making sure you answered all the questions. This material will be used only for research purposes and will be kept confidential. All material will be destroyed when this study is completed.

APPENDIX D

BASIC INSTRUCTIONS

In this experiment I will monitor the group through the one-way mirror and the microphone. What you say will be recorded, but will be kept confidential during all the sessions. It will be used only for purposes of analysis in this experiment and will then be erased.

The purpose of the group is for the four of you to get to know each other better in the next hour. I'd like you to use a particular way of doing this. The idea is for you to interact in a way that is a little different than the way you usually interact. It's not quite the same and the differences is what is important. That's what will be different about this group than sitting down and talking in the usual social situation.

These kinds of statements that I want to emphasize are ones that have been shown to be important in establishing close relationships. They are actually the basis of close relationships. So, in a nutshell, what I'm asking you to do is to express your feelings to each other when you can. That is, how you feel; what's going on with you at the time. That's what I want you to be doing in here.

I've got these types of statements which deal with feelings classified into five different categories. These are listed on the cards in front of you so you can refer to them and use them during the hour. I'll try to explain them to you so you'll know exactly what I expect. They are:

1. Expressing feelings (your own current feelings). Current means the result of what takes place between the four of you during this hour. This excludes talking about anything that took place in your life before this hour. By current I don't mean saying something like, "I feel terrible because I just flunked an exam" even though you may feel that way right now. What I do mean is something like, "I feel anxious about being in here" or "That made me angry when you said that." So, when I say expressing feelings, I mean as a result of talking in here.

2. Asking about feeling (others' current feelings). This is the opposite of number one. Instead of saying how you feel, here you will be asking how someone else feels. For instance, "Are you feeling rejected?"

3. Expressing what you think about someone's behavior. This is like giving feedback to someone. For instance, "You're really acting nervous to me."

4. Asking what others' think of your behavior. This is the opposite of number three. Here you're asking someone else what they think about your behavior. For instance, "Do I appear nervous?", "Do I look angry?". The main idea is that in number three you are giving feedback about yourself.

5. Helping someone else express their feelings more clearly. Number five is a little different than the rest. If someone says, "I feel a little unusual" you can say something like, "Do you mean that you feel anxious?". You try to understand what they mean and help them express themselves.

You won't be able to fit every statement that you make into one of these categories. The idea is that while you try to get to know each other you use these as much as you can. Let's practice using these (all participants use one of the categories and all of the categories are used).

Usually when people get to know each other, they ask background information like, "Where are you from?", "What's your major?". Obviously, those things don't fit in here. That's not the way we want you to try to get to know each other. In fact, it's found that when people do get to know each other well they'll just naturally use statements like these five. I'd like you to use these and generally pass over the background information.

These categories may seem awkward to use at first and a little bit hokey, but that's natural. As you use them they'll get easier.

For Feedback Sessions

Let me explain these counters. Every time you use one of these categories, the counter in front of you will make a click to let you know that you are in fact using these

categories in your interaction. Each counter is operated individually for each person. For instance if you get 20 clicks you will see a 20 on the counter and that means that you will have used one of the categories 20 times. The counter registers your total and if anyone falls too far behind, the red light on that person's counter will be turned on. This will be a sign that either this person may need assistance, or that someone is dominating the conversation. If no one gets a click for three minutes, all lights will flash on; and they will do so every three-minute period until a click is registered. So, if you keep getting a flash this will be a sign that the group as a whole is not using the categories and that you should change the nature of your interaction. The idea is to let you know how the discussion is going.

Finally, I realize that the apparatus makes for a somewhat artificial situation, but it's the least distracting way to give you information concerning your interactions while those interactions are taking place. These counters will help facilitate a good group discussion for you.

APPENDIX E

BASIC INSTRUCTION CARDS

I. Expressing feelings (your own current feelings).

II. Asking about feelings (others' curent feelings).

III. Expressing what you think about someone's behavior.

IV. Asking what others think of your behavior.

V. Helping someone else express their feelings more clearly.

HERE & NOW

APPENDIX F

SEX-ROLE INSTRUCTIONS

In the first session some ways were introduced to help you get to know each other on a personal basis. The particular way I asked you to do this was by interacting in a different way than you usually do. That is, instead of getting background information I asked you to express your current feelings to each other when possible, because this is the basis of close relationships. Today I'm going to ask you to further get to know each other by expressing your personal feelings about being a male or a female in <u>this</u> situation.

So, today I want you to continue to express your feelings to one another, but you will be expressing your feelings specifically about being a male or a female <u>in this group</u>.

Again, I've got these types of statements classified into five different categories which are listed on the cards in front of you. That way you can refer to them and use them during the hour. Let me explain them to you:

1. Expressing feelings (your own current feelings) about being a male or a female. Again, current means the result of what takes place between the four of you in this room. By current I don't mean saying something like, "It makes me angry when men say I can't be as good an engineer

as they can," even though it may be making you angry right now. What I do mean is something like, "It makes me angry when you say that you don't think I can be as good an engineer as you can." So, when I say expressing your feelings about being a man or a woman, I mean feelings as a result of talking in here.

2. Asking about feelings (others' current feelings) about being a male or a female. This is the opposite of number one. Instead of saying how you feel about being a male or a female in here, you will be asking how someone else feels about being a male or a female in here. For instance, "Are you feeling up-tight because you're a male and feel like you're supposed to get us to talking?"

3. Expressing what you think about someone's behavior as a male or a female. For instance, "I think you're being quiet in here just because you're a female."

4. Asking what others' think of your behavior as a male or a female. For instance, "Do you think I'm being a dominating male?" So, in number three you are giving feedback to someone else about their behavior as a male or a female and in number four you're asking for feedback about yourself.

5. Helping someone else express their feelings about being a male or a female more closely. If someone says, "I feel uncomfortable around women" that's not specifically about what's going on in here. You can help that person express themselves more clearly and also bring that statement into the here and now by saying something like, "Do you feel uncomfortable around us?".

I know you won't be able to fit every statement into one of these categories either. Again, the idea is to try to use them as much as possible. Let's practice using them (all participants use one of the categories and all categories are used).

It might be easy to use statements like, "Men should be brave and strong," or "Women should be sweet and feminine," but these types of statements don't fit in here. These aren't personal statements about how you feel about being a man or a woman in this situation. So again, I'm asking you to pass over the information about other people, the past or the future, or how you feel about men and women in general and talk more personally about how you feel as a man or a woman in here.

As you used the categories last time you saw that it got easier. This time I'm asking you to use these categories as you talk. These also should get easier to use as you go.

For Feedback Sessions

Let me remind you about the counters. Every time you use one of these categories, the counter in front of you will make a click to let you know that you are in fact using these categories in your interaction. The counter registers your total and if anyone falls too far behind, the red light on that person's counter will be turned on. If no one gets a click for three minutes, all lights will flash on;

and they will do so every three-minute period until someone gets a click. Remember, the idea of the lights and counters is to let you know how the discussion is going.

SESSION III INSTRUCTIONS

In the first session I asked you to interact and get to know each other on a personal basis by expressing your feelings to each other in this situation. Then in the second session I asked you to further get to know each other by expressing your personal feelings about being a male or a female in this situation.

Today, I want you to continue to express your feelings about being a male or a female in this group. Let's go over the categories again:

1. Expressing feelings (your own current feelings) about being a male or a female. Again, current means the result of what takes place between the four of you in this room. For example, "I feel anxious when you say I should be the leader jsut because I'm a male."

2. Asking about feelings (others' current feelings) about being a male or a female. For example, "Does being in here with us females make you feel more at ease?"

3. Expressing what you think about someone's behavior as a male or a female. For instance, "I think that since we began discussing how we feel as males and females you began to talk more."

4. Asking what others' think of your behavior as a male or a female. "Do you think I'm just being a passive female?"

5. Helping someone else express their feelings about being a male or a female more clearly. If someone says, "I feel good about being in here" you might make it fit by saying, "Does that mean you like being here with us guys?"

APPENDIX G

SEX-ROLE INSTRUCTION CARDS

I. Expressing feelings (your own current feelings) about being a male or a female.

II. Asking about feelings (others' current feelings) about being a male or a female.

III. Expressing what you think about someone's behavior as a male or a female.

IV. Asking what others' think of your behavior as a male or a female.

V. Helping someone else express their feelings about being a male or a female more clearly.

APPENDIX H

QUESTIONNAIRE

Rate yourself by making an X at the appropriate point on each scale.

1. To what extent did you understand the precise meaning of the original response categories?

Comp-letely	To a great degree	To a large degree	Moder-ately	Some-what	Very little	Not at all

2. To what extent did you understand the precise meaning of the male-female response categories?

Comp-letely	To a great degree	To a large degree	Moder-ately	Some-what	Very little	Not at all

3. How hard did you try to use the original response categories?

Comp-letely	To a great degree	To a large degree	Moder-ately	Some-what	Very little	Not at all

4. How hard did you try to use the male-female response categories?

Comp-letely	To a great degree	To a large degree	Moder-ately	Some-what	Very little	Not at all

5. To what extent did you enjoy using the original response categories in interacting with the others?

Comp-letely	To a great degree	To a large degree	Moder-ately	Some-what	Very little	Not at all

6. To what extent did you enjoy using the male-female response categories in interacting with the others?

Comp-letely	To a great degree	To a large degree	Moder-ately	Some-what	Very little	Not at all

7. To what extent were these sessions a worthwhile experience for you?

Comp-letely	To a great	To a large	Moder-ately	Some-what	Very little	Not at all

Questionnaire item responses were given a numerical value in the following manner. Values of one through seven were assigned where the response "Completely" was measured as seven and "Not at all" was measured as one. For example, "Moderately" received a numerical value of four.

APPENDIX I

IN-CLASS INSTRUCTIONS PHASE III

Several weeks ago I administered some tests to you to obtain reliability data on these tests used in psychology. Today, as a further part of my research on these tests I would like you to take them again. Don't try to remember how you answered last time, but just try to take each test as if you were taking it for the first time. Please fill out the forms completely, following the instructions given. When you finish, please check over your responses, making sure you answered all the questions.

APPENDIX J

POSTEXPERIMENTAL INTERVIEW

1. Do you have any questions about the experiment that have not been answered?

2. What did you see as the purpose of the experiment?

3. How did the experiment strike you?

4. During the experiment, did you ever have the idea that its purpose might be something other than what I was telling you?

5. Thinking back to the experiment, did you notice at the time any relationship between my experiment and any other?

6. There are a lot of questionnaires and tests being given in classes. Did you feel there was a relationship between this experiment and any class experiments or questionnaires? If so, which one?

   At this point the purpose of the experiment was explained as well as the connection between the various phases. Apologies were given for not being able to reveal this at the beginning of the experiment, and this issue was explored until the experimenter was satisfied that any potential problems had beem discussed.

7. (A) If you noticed some relationship between this experiment and another, is this something you were aware of during the experiment or is it something you thought of while answering these questions?

   (B) Do you remember when it was that you noticed this? (1) right away; (2) 1st session; (3) 2rd session; (4) 3rd session; (5) during the testing in class; (6) other.

8. What did you think was the purpose of the rating scales at the time you were filling them out, if anything?

9. When you were rating the scales how did you decide how to rate them (A) the first time? (B) the second time.

10. Do you have any other comments or questions?

APPENDIX K

TABLE X

INDIVIDUAL RESPONSE TOTALS FOR SESSIONS

Subjects			Sessions		
			1	2	3
CR	Sex	Subject			
Group 1	M	01	12	26	13
	M	02	06	08	07
	F	03	24	24	16
	F	04	19	12	10
Group 2	M	05	25	20	15
	M	06	25	19	20
	F	07	24	17	13
	F	08	35	29	21
Group 3	M	09	21	19	17
	M	10	30	17	15
	F	11	20	09	13
	F	12	25	21	21
NR					
Group 4	M	13	08	04	10
	M	14	16	18	10
	F	15	06	14	07
	F	16	19	13	13
Group 5	M	17	03	01	03
	M	18	09	02	07
	F	19	03	03	06
	F	20	08	06	04
Group 6	M	21	10	08	03
	M	22	11	09	05
	F	23	10	05	07
	F	24	09	10	04

APPENDIX L

TABLE XI

MEANS FOR QUESTIONNAIRE RESPONSES 1 - 7

	CR Groups				NR Groups			
Item	Sex	1	2	3	Sex	1	2	3
1	M	6.00	4.00	5.00	M	5.50	4.50	4.00
	F	5.00	4.00	4.00	F	5.00	4.50	3.50
2	M	5.50	3.00	5.00	M	6.00	5.50	3.50
	F	5.50	4.50	3.00	F	6.00	3.50	5.00
3	M	3.50	5.00	6.00	M	4.00	6.00	4.50
	F	6.50	4.50	6.50	F	6.00	4.50	4.50
4	M	4.50	5.50	5.00	M	4.00	5.00	5.00
	F	6.50	5.00	6.50	F	6.00	4.00	5.50
5	M	4.50	3.00	6.00	M	5.00	5.00	4.50
	F	4.00	3.00	2.50	F	4.50	5.00	4.50
6	M	5.00	2.50	5.00	M	5.50	5.50	4.50
	F	4.00	3.50	2.00	F	6.00	4.50	5.50
7	M	4.50	2.50	5.50	M	6.00	5.50	5.00
	F	3.50	3.50	6.00	F	6.00	4.50	6.00

APPENDIX M

TABLE XII

ANALYSES OF VARIANCE: SUBJECTS RESPONSES FOR SEMANTIC DIFFERENTIAL

		Self Potency		Self Evaluation		Self Activity	
Source	df	MS	F ratio	MS	F ratio	MS	F ratio
A-reinforcement	2	.44	.48	1.04	2.29	1.32	1.70
C-sex	1	2.35	2.54	.22	.49	.68	.88
AC	2	2.52	2.72	1.80	3.97*	.54	.69
S(AC) S w/in gp	30	.92		.45		.77	
B-pre-post	1	.00	.00	.14	.08	.28	.91
AB	2	.40	.65	.16	.10	.55	.18
BC	1	.12	.77	.87	.52	.50	1.63
ABC	2	.55	.34	.27	.16	1.66	5.39***
BS(AC)	30	.16		.17		.31	

TABLE XII (continued)

Source	df	I.M. Potency MS	I.M. Potency F ratio	I.M. Activity MS	I.M. Activity F ratio	I.W. Potency MS	I.W. Potency F ratio	I.W. Evaluation MS	I.W. Evaluation F ratio
A-reinforcement	2	.69	1.55	.20	.30	.32	.65	.35	1.96
C-sex	1	.00	.00	.38	.58	.22	.04	.22	1.25
AC	2	1.04	2.34	.78	1.19	2.01	4.08*	.26	1.47
S(AC) S w/in gp	30	.45		.66		.49		.53	
B-pre-post	1	.35	1.77	.31	1.14	.78	.03	.55	.94
AB	2	.66	.34	.28	1.03	.34	.12	.25	4.22**
BC	1	.50	2.55	.25	.92	.87	.00	.17	2.87
ABC	2	.42	.21	.37	1.35	.11	.40	.18	3.08
BS(AC)	30	.20		.27		.28		.59	

Source	df	Ideal-Self Potency MS	Ideal-Self Potency F ratio	Ideal-Self Evaluation MS	Ideal-Self Evaluation F ratio	Ideal-Self Activity MS	Ideal-Self Activity F ratio
A-reinforcement	2	.53	.08	.66	.22	.19	.34
C-sex	1	.78	.01	.43	.14	.22	.04
AC	2	.44	.70	.68	2.26	.19	.34
S(AC) S w/in gp	30	.64		.30		.55	
B-pre-post	1	.31	.78	.15	1.07	.78	.02
AB	2	.56	.22	.24	.18	.49	.11
BC	1	.38	.95	.70	.51	.78	.02
ABC	2	.28	.71	.42	.30	2.73	6.08***
BS(AC)	30	.40		.14		.45	

* $p < .05$ ** $p < .025$ *** $p < .01$

TABLE XIII

MEANS FOR SEMANTIC DIFFERENTIAL

ANALYSES 1 - 12

		CR Groups		NR Groups		Control Groups	
AOV	Sex	Pre	Post	Pre	Post	Pre	Post
IM/P	M	4.04	4.17	4.58	5.08	4.21	4.50
	F	4.54	4.50	4.42	4.42	4.38	4.33
IM/E	M	6.66	6.79	6.63	6.58	6.63	6.83
	F	6.50	6.46	5.92	6.04	6.79	6.83
IM/A	M	4.75	4.63	4.33	4.75	4.58	5.04
	F	3.96	3.71	3.08	3.25	3.75	3.75
IW/P	M	3.25	3.29	3.79	3.71	3.63	3.63
	F	3.96	3.71	3.08	3.25	3.75	3.75
IW/E	M	6.75	6.88	6.71	6.54	6.46	6.96
	F	6.66	6.42	6.42	6.46	6.79	6.88
IW/A	M	5.16	4.79	4.92	4.38	5.00	4.58
	F	4.50	4.50	4.71	4.71	4.29	4.00
S/P	M	3.58	3.75	4.38	4.46	3.83	3.83
	F	3.58	3.63	3.46	3.16	3.92	3.92
S/E	M	6.29	6.42	6.13	6.08	6.00	6.04
	F	6.04	5.88	5.71	5.58	6.54	6.54
S/A	M	5.04	4.92	5.00	4.54	4.21	4.92
	F	4.71	4.42	4.83	5.00	4.63	3.88
I-S/P	M	.13	.42	.08	.33	.33	.63
	F	.63	.33	.13	.58	.29	.08
I-S/E	M	.42	.38	.50	.50	.66	.79
	F	.50	.58	.50	.79	.25	.33
I-S/A	M	.04	-.25	-.50	.42	.46	-.04
	F	-.13	.13	.46	-.21	-.17	.25

APPENDIX N

FIRO-B RESPONSES

TABLE XIV

VARIABLE MEANS FOR INCLUSION, CONTROL, AFFECTION

Dimensions	Groups	Variables		
		Inclusion	Control	Affection
Expressed	CR	5.58	2.83	5.83
	NR	4.75	2.50	4.00
Wanted	CR	4.58	2.58	4.92
	NR	3.67	2.50	5.25

TABLE XV

ANALYSES OF VARIANCE: SUBJECT MEANS FOR FIRO-B RESPONSES - INCLUSION, CONTROL, AFFECTION

		Inclusion		Control		Affection	
Source	df	MS	F ratio	MS	F ratio	MS	F ratio
A-reinforcement	1	18.75	1.75	.75	.14	1.69	.13
B-gps (w/in A)	4	10.73	1.19	5.25	2.03	13.06	1.62
C-sex	1	1.33	.04	12.00	1.43	31.69	2.06
AC	1	14.08	.45	.00	.00	.52	.03
B (w/in A) x C	4	31.27	3.46*	8.37	3.24	15.35	1.90
Ss w/in (ABC)	12	9.04		2.58		8.06	
D-expressed wanted	1	12.00	5.10	.83	.02	20.02	15.75**
AD	1	2.08	.89	.83	.02	.21	.02
B (w/in A) x D	1	2.35	.52	5.46	.81	1.27	.77
CD	1	.00	.00	1.33	.23	.21	.01
ACD	1	4.08	.91	.91	5.33	6.02	1.91
B (w/in A) CD	4	4.48	.99	5.83	.86	3.15	1.91
Ss D (ABC)	12	4.54		6.75		1.65	

* $p < .05$

** $p < .025$

VITA

Linda Jane Neal

Candidate for the Degree of

Master of Science

Thesis: GROUP MODIFICATION OF SEX-ROLE STEREOTYPES

Major Field: Psychology

Biographical:

Personal Data: Born in Oklahoma City, Oklahoma, August 6, 1950, the daughter of Mr. and Mrs. A. R. Neal.

Education: Graduated from Putnam City High School, Oklahoma City, Oklahoma, May 1968; attended Oklahoma City Southwestern College from June, 1968 until December, 1969, and received Bachelor of Arts degree in Psychology from Oklahoma City University in May, 1972; enrolled in Masters program at Oklahoma State University, 1972-1976; completed requirements for the Master of Science degree at Oklahoma State University in May, 1976.

Professional Experience: Psychological Associate, Psychological Services CEnter, Stillwater, Oklahoma, 1972-1974; Psychological Associate, Payne County Guidance Center, Stillwater, Oklahoma, 1974-1975; Psychology Intern, El Reno Federal Reformatory, El Reno, Oklahoma, 1975; Teaching Assistant, Department of Psychology, Oklahoma State University, 1975-1976.