

A METHODOLOGICAL STUDY OF SEX STEREOTYPES

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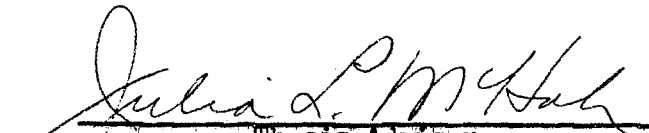
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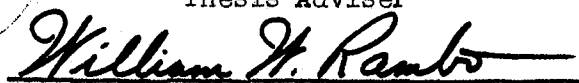
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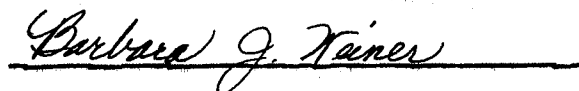
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CHAPTER I

THE LITERATURE REVIEW

The Purpose of the Study

In the complexities of daily living, the vast quantity of input that the sensory system processes gives rise to the probability that some information will be lost in the encoding as well as the mediation of the output. The implication of this for the perception of people and events is that some individuality and uniqueness is lost to the perceiver. To be capable of handling as much of the sensory field as possible, the individual tends to use categories, i.e. to group certain stimuli together. From these categorical processes, the perceiver teases out useful generalizations about the relationship among these grouped stimuli. All people use categories to some extent in their perception of people and events; the extent to which categories are used and the size of the categories vary for different persons.

Bower (1970) in discussing linguistic encoding states that this becomes a preferred encoding because it frees the cognition from immediate sensory impression and concreteness of experience, thereby allowing more abstract groupings to be used in structuring the diversity in direct experience. The course of development may lead to gradual withering away of imaginal processes. Visual impressions are no longer remembered in full, vivid richness, but rather become conventionalized in terms of conceptual stereotypes.

Social stereotyping can be defined as the general inclination to place persons in categories according to some easily and quickly identifiable characteristics and then to attribute certain qualities as typical of members of that group. Vinacke (1956) viewed stereotyping as a conceptual process whose crucial aspect is the involvement of personality traits as well as the physical traits in the formation of the concept. Extending this view, stereotyping becomes an inevitable consequence of social learning whereby individuals are classified on the basis of perceptual properties thus facilitating for the perceiver meaningful responses to these individuals. As a categorical process, stereotyping of persons serves an adaptive, perhaps essential, function for the perceiver.

The purpose of this thesis was to examine more closely a specific area of social stereotyping, that of sex stereotypes. The existence of sex stereotypes has been a consistent and well documented finding in the psychological literature over the past thirty years. Two factors, however, necessitates a reevaluation of work in the area of sex stereotyping research. One is the recent criticisms and suggestions directed toward the methods and procedures used in stereotyping research in general (Brigham, 1971; Ehrlich and Rinehart, 1965). Secondly there has been in the last decade an emphasis on new views, attitudes, and approaches to sex differences and sex roles. This influence needs to be evaluated. These above factors, the history of sex stereotyping research will be discussed largely in terms of methodological problems since it is these problems that this thesis was designed to investigate.

History of Sex Stereotypes

The social scientist has not been hesitant in his study of stereotypes to focus on the negative connotation of the process that has developed. Even the man who introduced the concept of stereotyping, Walter Lippmann, was clear in his criticisms of the process as undesirable because of the incorrect content of the stereotype (Lippmann, 1922). Along this same line, Campbell (1967) discussed the commonly accepted idea that stereotypes of group differences are false and thus implicitly that all groups are identical. He continued to point out, however, that the overall erroneous of stereotypes can be outlined without claiming that all groups are identical. Briefly Campbell mentioned four possible sources of errors found in stereotypes. The first is the phenomenal absoluteness of the ingroup members' imagery of the outgroup or target object. An awareness that one's own preoccupations contribute projectively to the content of the perception and, thus, invalidating the image, is lacking in stereotyping. Another source of error is the exaggeration of the homogeneity with which the ingroup or outgroup possess the attribute in question. There is a tendency to underestimate the amount of overlap between the ingroup and the target object. A third error of stereotyping is an erroneous causal attribution by the perceiver. Race or sex rather than environmental influences are seen as causes for group differences. Finally, Campbell viewed the most important source of error as the relationship of the content of the stereotype and the hostility felt toward the group. The naive observer perceives the outgroup's different characteristics as causing his hostility; if it were not for these

despicable traits, the outgroup would be loved. The social scientist, however, sees the hostility as existing first; then in service of the hostility all the possible differences are seen as despicable. As Campbell notes, "So flexible is our emotional language that a difference in almost any direction can be anathematized" (1967, p. 825).

The social scientist, as previously mentioned, has tended to approach stereotyping as inappropriate because of the inherent errors in the process. Yet as Brigham (1970) pointed out, criteria for assessing the degree to which the stereotype has met these standards of inappropriateness have been for the most part unavailable. Given these possible sources of error in the process of categorical perception and the awareness that the possibility exists, overcoming such enculturation becomes a deeply experienced revelation. In the attempt to communicate such a revelation, it becomes probable that the experimenter becomes somewhat overzealous and vague in his criterion. This raises the same question that Brown (1958) asked:

Is it possible that the social psychologist has used the word stereotype to stigmatize beliefs of which he disapproves but which he does not know to be false? Has he perverted his science to achieve a moral purpose? (p. 366)

Further questions arise when this attitude is carried over into the methodological approaches to stereotyping. Katz and Braly's (1933) paradigm of the adjective checklist has been the most frequently used method in stereotyping research. Criticism has been directed, however, at findings from such studies in that they have created somewhat unrealistic accounts of the distribution, acceptance, and content of racial or ethnic stereotypes (Ehrlich and Rinehart, 1965). These authors attribute two types of errors in using the adjective checklist

in studying intergroup imagery. First, answers or responses so obtained fail to permit the researcher to distinguish between the subject's knowledge of the group's stereotype and his own personal endorsement. Second, it fails to tap the salient and personal aspects of the subject's intergroup imagery. Ehrlich and Rinehart further state:

Verbal expressions of opinions, including those called national stereotypes, may be either spontaneous, that is for some reason thought desirable or appropriate or it may be provoked or elicited for the purpose of research....Purpose of scientific technique is not to create new stereotypes in respondents, it is only to discover the already existent ones. It is not always certain that they succeed in doing so (1965, p. 565).

If the social scientist had a moral purpose in studying ethnic stereotyping, even a greater objectivity and caution is expedient in relation to sex stereotyping research. The imagery of sex stereotypes has implications for a wide range of social structures: family, vocation, and even the health fields. Since attitudes toward sex and sex roles form much of the core of the self-concept, a self-fulfilling prophecy phenomena in the research on sex stereotypes is very probable. Research is necessary to discover the already existing stereotypes, not to create new ones or to measure a subject's knowledge of a pre-existing societal stereotype. It is here that Ehrlich and Rinehart's (1965) criticisms on methodology has much pertinence for sex stereotyping research.

In surveying the research done on sex stereotyping two points should be kept in mind while formulating any conclusions. The first is the comparative scarcity of studies specifically dealing with sex

stereotypes, perhaps less than 20 in the last 30 years. More important is the small number of researchers involved. Ten studies will be reviewed which can be considered as stereotypic research. Six of these were done by only two research teams. In the 1950's, Sherriff and his associates at the University of California produced four studies relating to sex stereotypes (Sherriff and Jarrett, 1953; Sherriff and McKee, 1957; McKee and Sherriff, 1957; McKee and Sherriff, 1959). The other team is Rosenkrantz and his associates whose work first began in 1968. The work of these two teams constitutes the greater percentage of research on sex stereotypes.

A second point is that, with few exceptions, studies on sex stereotypes have been done in a college setting with college students, usually introductory psychology students, who were instructed to describe males, females, and self. Two recent exceptions will be reported in this paper (Jenkin and Vroegh, 1969; Clarkson, Vogel, Broverman, Broverman and Rosenkrantz, 1970). Since college students in general are not a truly random sample of the population generalized to, further doubts must be raised concerning the validity of sex stereotypes formed from responses of such a sample. There are two ideas involved in this comment. The first is that it is well accepted that sex and sex roles and expectations are more salient aspects of the college student's life. Inherent in any study dealing with sex and sex stereotyping are such demand characteristics as "be normal" or at least "do not be abnormal." The second idea is the problem that college students must have formed, derived or adopted stereotypic ideas from some source. To date this component of stereotypes has

escaped study. No longitudinal studies exist which give any indication of the development of change in stereotypes held about sex differences or sex roles. Developmental psychologists provide some information about sex preference and identification but it is not known if stereotyping is a similar process. Much related work in terms of sex roles has been done in the last decade, yet little is directly connected with stereotyping. The recent criticisms of ethnic stereotyping research have not yet been integrated into the methodologies of sex stereotypes (Brigham, 1971; Campbell, 1967; Ehrlich and Rinehart, 1965).

Psychological literature on sex stereotyping began appearing sporadically in the 1940's. (In terms of a total gestalt, the increased numbers of women in jobs previously held by men during the second World War can be considered as a possible reason.) Fernberger's (1948) study on the persistence of stereotypes concerning sex differences set the tone for research findings to follow. These findings appear to be that males have superiority in almost all categories.

Although the theoretical comments in Sherriff and Jarrett (1953) are thought-provoking, their method, as is Diamond's (1955), is somewhat discouraging. These two studies used an instrument which consisted of a series of statements that the subject was to identify as being more characteristic of males or females. A neutral or undecided response was permitted in the Diamond study and scored as a half choice for each sex. The interesting point about the neutral response was that it became necessary to completely discard some of the data for subjects who used the response almost exclusively. Diamond felt the response of neutral was "doubtless in a militant defense of sexual

equality" (1955, p. 385). Furthermore, the criterion used to establish a stereotypic response were not clearly stated.

Sherriff and Jarrett (1953) had prejudged the items in their instruments. Seventeen were found to be male cultural stereotypes and 17 were female stereotypes; the remaining 24 items were judged to be irrelevant to cultural stereotypes. Half of all items were seen as favorable and half as unfavorable. Significant differences were obtained as well as a preference for the male stereotypic items. This study contains more information regarding the formation of stereotypes than does the more recent literature.

Subjects learn that there are a number, perhaps relatively small number, of rather general traits which characterize behavior of men (women). This learning may be by way of direct personal experience with men and women (this is perhaps most important route) though for other attitudes this might be so, or by way of experience with verbalized beliefs and attitudes of their associates. In either case each of the behaviors or attributes on our list is related by association with one or more of these general traits and by way of association also associated with either men or women. It is this pattern of general traits which properly constitutes the stereotype (Sherriff and Jarrett, 1953, p. 161).

The findings from this study on sex differences in attitudes led to further studies by Sherriff and McKee. The first of these is the differential evaluation aspect of stereotyping of sex differences (McKee and Sherriff, 1957) and a second deals with the qualitative aspects (Sherriff and McKee, 1957). Since the methodology of the two are essentially the same, the discussion will treat them as one study.

A rating scale was employed to measure the subject's view of the relative overall general worth, merit, or value of men and women. The question posed was whether a neutral point on the scale made a differ-

ence in the ratings. Indeed, a highly significant difference in the evaluations of a six point as opposed to a seven point was found. With the neutral point, subjects expressed equalitarian feelings or attitudes. Whether this was a more valid indication of the subject's true attitudes or an artifact of the instrument and the opportunity to express a more socially desirable position is left unanswered.

The authors used Sarbin's adjective checklist consisting of 200 items. Two different procedures were adopted for use with the list, "unforced" and the other "forced" choice. The unforced procedure consisted of a card on which the items were printed and passed to the subjects. Subjects were then told to check those items which were in generally true of men (or women). Half of the subjects began with men and half with women. After finishing the first card, a second card was given to the subjects with the same instructions for the opposite sex. A third card was then given to all subjects with the instructions to mark for each item whether it was more characteristic of men or women. This portion of the procedure was referred to as the forced choice. Note that the same subjects underwent both conditions. In the first study dealing with evaluation the correlation between the two procedures (based on preference shown for one sex) was $+0.64$ for men and $+0.70$ for women subjects. This was for the same subjects with no time lapse between testing periods. Generally, the forced choice accentuated preference for assigning items.

Stereotype was defined by Sherriff and McKee (1957) on the basis of difference in frequency with which the adjectives were ascribed to men and women. Again a tendency to believe that some things are more characteristic of one group than of the other did occur. Using the

criterion of Sherriff and McKee two important conclusions emerge: (1) the method eliminates adjectives which are ascribed to each sex equally often, even though the item may be high in frequency, and (2) it leads to the inclusion of items mentioned infrequently but which do show a difference in attribution. More emphasis was placed on the unforced choice responses on the basis that:

...freely ascribed characteristics are probably close to the central core of the stereotype; characteristics which subjects assign to one sex or the other only when forced to do so are presumably less salient and less strongly associated with the label (Sherriff and McKee, 1957, p. 452).

Under the open-ended procedure followed in the two studies, subjects were told to list ten of the behaviors and characteristics of men and ten of women. First, the traits were judged into categories of favorable, neutral, and unfavorable. Raters were instructed to judge the items as to the desirability when applied to men and women. In the second study, these traits obtained under the open-ended procedure were sorted into categories. The only traits that emerged from the open-ended procedure that were not comparable to those found in the adjective checklist were physical attributes, orientation to home and hearth, and talkative.

Sherriff and McKee (1957) extended their study one further step by asking whether the obtained stereotype was valid, i.e. were the items that constituted the stereotypes of men and women equivalent to the items used by the subjects to describe themselves. Again the adjective checklist was used in which the subjects checked items thought to be characteristic of themselves. The most noticeable difference was the marked reduction of the number of items ascribed

significantly more often by one sex or the other. Instructions to describe men or women in general is actually encouraging subjects to dismiss individual differences and uniqueness while describing oneself tends to emphasize such individuality. This is the explanation offered by Sherriff and McKee to explain the reduction in the number of items used. The opposite expectation may be argued. If the individual differences are dismissed, then the core structure of the characteristics of the target group should remain. Then in taking into consideration many subjects describing themselves, there should be a definite increase in the number of items employed to illustrate these individual differences instead of a reduction as reported by Sherriff and McKee. Another alternative explanation is the subjects may not have been describing themselves as they perceived their uniqueness but rather were responding with socially desirable traits, which could result in a reduction of items used.

The conclusion reported is that projection is only part of the story of social stereotypes. To some extent stereotypes are a distillation of cultural beliefs which have arisen from various sources.

Reality, of course, includes behaviors which result from conformity to cultural stereotypes as well as attributes which are naive. Just what characteristics in the stereotype derive primarily from reality, which from projection, and which from other sources is difficult to say (Sherriff and McKee, 1957, p. 462).

Another conclusion drawn from the data was the significantly greater degree to which women described themselves in terms of the stereotypes of their own sex, both favorable and unfavorable. Items used by women centered around what the authors called "women's neuroticism," (e.g. passive-dependence syndrome). What is still un-

resolved is whether the finding implies a real difference between the sexes in personality, or a greater tendency for women to conform to social expectations.

More recently in the literature clinicians have been examining the sex stereotypes, phrased however in terms of masculinity and femininity. Jenkin and Vroegh (1969) proposed that masculinity and femininity are not a single bipolar variable but rather two separate continuums with masculinity having reference to males and femininity to females. An adjective checklist and semantic differential were used as instruments. Endorsement by 66 percent of the respondents was set as criterion for designating an item as stereotypic. Six different stimuli were used, one of which was written at the top of each instrument. The stimuli were: (1) most males, (2) most females, (3) most masculine person you can imagine, (4) most feminine person you can imagine, (5) least masculine person you can imagine, and (6) least feminine person you can imagine. A counterbalanced design was used for the presentation of the first two stimuli and the order of presentation of the instruments. The first two stimuli (males and females) were always presented first with a randomized order of the four remaining stimuli. Two points from this study are of importance to sex stereotyping research. The analysis of the semantic differential was done in terms of three factors; evaluative, potency, and activity. No other research has taken this approach in stereotyping. There were significant differences among the stimuli when each was separated by these three factors. An additional important finding is that masculinity and femininity elicit similar descriptions but distinct personality differences. The similarity in the two descriptions was that

the items common to both sexes are items basically high in social desirability, i.e. the social acceptability that both men and women enjoy.

The point of social desirability appears in Lunneborg (1970). The question she asked was how do we know when a masculinity-femininity scale assesses a person's own psychological masculinity-femininity and not his or her awareness of the correct stereotypic responses. Fourteen scales of the Edwards Personality Inventory (EPI) were given to two different groups, one of which received the standard instructions for the EPI thus serving as a normative self-description group. The other group received the following introduction: "Many EPI items are answered in opposite directions by men and women. In order to refine the test, additional evidence of the sex stereotype of items is needed" (p. 13). Subjects were further instructed not to describe themselves but rather predict the answers most women (men) would give in describing themselves. An important methodological question is whether another control group if asked to predict answers of men (women) would give similar responses if they did not receive the introduction set of stereotypic responses. Sex differences appeared on all but one scale as a result of the stereotypic instructions. The stereotypic responding exaggerated existing sex differences as shown by the normative data as well as created differences which were not acknowledged by the control group. Over half of the stereotypic items were in three scales: (1) conforms, (2) is a leader, (3) worries about making a good impression. Those scales truly discriminating the sexes in normative group were: (1) intellectually oriented, (2) has cultural interests, (3) is a leader.

Lunneborg concluded that knowing the degree and kind of a person's

stereotypic thinking about masculinity-femininity is possibly the best correction for defensiveness in self-description. Of social desirability, Lunneborg stated that if a dimension which is generally recognized as differing between the sexes does not discriminate on a paper-pencil task, the probable explanation is that the dimension is socially desirable; thus both males and females claim trait possession. By the same reasoning, if an item is again a discriminator between males and females but does not do so, it may be that the item is undesirable. Given the unforced situation, both groups may choose to ignore the item in their descriptions.

Social desirability plays a large role in the recent studies specifically dealing with sex stereotyping by Rosenkrantz, Vogel, Bee, Broverman, and Broverman (1968) and by Broverman, Broverman, Clarkson, Rosenkrantz, and Vogel (1970). This team began with the assumption of existing sex stereotypes based on the past literature including that of Sherriff and McKee. The purpose of the former paper was to examine the relation of self-concept to the differentially valued sex stereotypes. Broverman et al. (1970) extended this finding to clinical judgments on mental health and Clarkson et al. (1970) related sex role stereotypes to family size.

Beginning in 1968 the instrument used in research was the Stereotype Questionnaire developed by Rosenkrantz et al. (1968). The Questionnaire consisted of 122 items arranged in bipolar form with the poles separated by 60 points. Social desirability ratings were obtained from independent samples who were told to indicate which pole of the item represented the more socially desired behavior for the population in general, not for one sex or the other. All subjects were given the

Questionnaire in group sessions with the instructions "to imagine you are going to meet someone for the first time and the only thing you know in advance is that person is an adult male" (p. 288). Subjects marked each item as they thought it would characterize an adult male. After having finished, subjects were asked to do the same thing for an adult female. The third time subjects marked items as they thought characterized themselves.

Sex stereotyping implies extensive agreement among people as to characteristic differences between men and women. Seventy-five percent agreement was set by Rosenkrantz et al. (1968) as the criterion to indicate the presence of a stereotype for any given item. They found 41 of the 122 items to be stereotypic. As found in previous research, stereotypic masculine traits were perceived as socially desirable significantly more often than feminine traits. Despite the large significant differences between the means of the masculine and feminine responses, variations in both responses were a function of social desirability. Variations in responses, then, are sensitive to social desirability while differences in means reflect stereotypic notions of sex differences. The self-concepts of both men and women subjects were less extreme than the stereotypes for their sex, and as found in the stereotypes for men and women, the self-concepts scores were affected by social desirability.

The last two studies to be discussed are included for the applied purposes they illustrate rather than the methodological reasons. Broverman et al. (1970) and Clarkson et al. (1970) reveal the vast implication stereotypes hold for people not only in perceptual processes but also in judgments and basic life decisions. In the study

dealing with clinical judgments, clinicians were given the Stereotype Questionnaire under three stimulus conditions: female, male, and adult. Instructions were:

Think of a normal adult man (woman) and then indicate on each item the pole to which a mature healthy socially competent adult man (woman) would be closer (Broverman et. al., 1970, p. 2).

For the adult condition sex was not mentioned. Only the 41 stereotypic items that Rosenkrantz et al. (1968) found as stereotypic were analyzed. The general findings were of a double health standard, i.e. general adult standards apply only to men; healthy women were perceived significantly less healthy in comparison to the adult standard. Further, these differences were found for both male and female clinicians, and paralleled the sex role stereotypes prevalent in present society. Thus what this study concluded was for a woman to be considered healthy from an adjustment viewpoint she must adjust to and accept the behavioral norms of her sex even though these behaviors are generally less socially desirable and considered to be less healthy for a competent adult.

The general hypothesis of Clarkson et al. (1970) was that a critical psychological factor affecting the number of children a woman desires and achieves is her acceptance or rejection of the feminine stereotypic social roles prevalent in our society (p. 390). The Questionnaire was given to 96 mothers of college age men. Two self concept scores were obtained; responses to the male valued stereotypic items and those to the female items. The male-valued pole described a rational competent mature individual which the authors labeled as the competency cluster; the female as the warmth and expressiveness cluster.

By dividing the group of women into a high and low competency groups, no differences were found in the level of education or the number of years worked. The high competency group, however, had significantly fewer children than the low group. In general it was shown that incorporation by women of the male-valued stereotypic characteristics implies an enhancement of the self-concept along a dimension of mental health, maturity, and self-actualization.

Similar findings were reported by Rand (1968) in a study dealing with college freshmen women. A group of 848 freshmen were divided into two conditions on the basis of their reply to questions of what they hoped to obtain from attending college. The American College Survey was the only instrument given to the women. The two groups were composed of one section who stated that finding a husband was their greatest expectation and the second, whose expectation was a higher degree e.g. M.D., LLB, DDS, or PhD). The findings showed that those women who deviated from the traditional sex role expectations did possess more masculine traits and characteristics; thereby, redefining their sex role to include those characteristics and behaviors appropriate to both sexes in our culture.

Conclusions Drawn from Literature

The most frequent problems in stereotyping research center around the subjects' reactions to the instruments and the experimental setting. Sex of the subject serves as an experimental variable in itself. Sequence or order in which the subject describes male or female can be a problem. However, by counterbalancing the order for half the sample this problem is reduced. The problem of the instrument however, is

not so easily solved. In a forced choice form, what the subject has to choose from will determine what responses are probable, even what responses are possible. The question of saliency and personal endorsement rather than mere acknowledgment of stereotypic items remain questions to be answered. There remains also the question of inherent dem and characteristics of requesting a subject to describe male and female adults. College students for the most part are sophisticated enough to hypothesize in such experiments that what the experimenter is looking for is a difference between males and females; whether he will be a "good subject" and give that difference is perhaps the question most stereotyping research is really measuring (Rosenthal, 1961; Orne, 1961).

Recent applied work in sex stereotyping shows the vast implication that sex roles and expectations do have in functioning in the society. Social psychologists and clinicians have an important role to perform in the study of stereotypes in relation to interacting with those people who come seeking help in this area of their social functioning. However, there still remain unanswered questions about the why and hows of stereotypes and techniques still undeveloped or at least not in use to answer these questions. It is the purpose of this research to examine more closely some of the methodological problems in sex stereotyping in the hope that what will be learned can help in relating to people about sex differences and sex role expectations.

Statement of Hypotheses

From conclusions drawn from the literature, it is hypothesized that:

- (1) there will be a difference in trait attribution to males and females,
- (2) the set of stereotypic items for each instrument will differ in content. In addition, the image projected by each instrument description will elicit different responses from subjects in the validation procedure,
- (3) when responding, subjects are in fact describing someone specific and not some generalized conceptualization of male/female.

CHAPTER II

METHODOLOGY

There were essentially two phases of data collection. Phase I was the collection of stereotypic items for the different instruments. Phase II was the validation of those items. Since different subject samples and different procedures were used in the two phases, the methodology of each phase will be presented separately.

Phase I: Collection of Stereotypic Items

Subjects

Two hundred sixty-four undergraduate students in four different sections of Introductory Psychology at Oklahoma State University served as subjects (Ss). All Ss were randomly assigned to one of twelve cell conditions giving 22 Ss per cell. These 12 conditions are described in the following section.

Design

The dependent variable was the Ss' responses to the following stimulus which was the same for male and female stimuli except for the pronoun gender.

Imagine you are going to meet someone for the first time and the only thing you know in advance is that he [She] is an adult.

More specifically, the variable was the proportion of Ss responding to

items of the instruments under the 12 conditions. There were three independent variables manipulated; sex of S, sequence of stimulus presentation, and the instrument used. The instrument was the variable of primary interest. Sex of S and sequence effects were examined separately for each instrument. An arbitrary criterion of less than five percent of the total items for an instrument showing sex of S or sequence effects was used as defining no sequence or sex of S effects for that instrument. If less than criterion showed effects, the cells for sex of S and sequence were collapsed yielding 88 Ss per instrument. The design consisted of two sequence combinations (male 1st - female 2nd and female 1st - male 2nd), two sex of Ss, and three instruments.

Instruments

Three different instruments were used in the collection of sex stereotypes; the Adjective Checklist, Stereotype Questionnaire, and Open-Ended form. Different response styles were required by each instrument. The Adjective Checklist developed by Gough and Heiburn (1965) consists of 300 items. A copy of the Checklist is found in Appendix A. Subjects were instructed to circle those items on the Checklist which the S chose in describing the stimulus person. In filling out the Checklist, if a trait were present in the description of the stimulus, the S circled it; if not, no response was made to the item on the form.

The second instrument used was the Stereotype Questionnaire devised by Rosenkrantz et al. (1968) in its short form which contains 82 items (See Appendix B). The Questionnaire is more of a forced choice form than the other instruments used. Subjects are "forced" into re-

sponding quantitatively to each item along a scale of 10 to 70.

For the third instrument, a simple open-ended format was used in which the S was asked to describe the stimulus person. Nothing else appeared on the page except the request for the description. This was the most unstructured form and it was assumed any description given by a S would be salient for that S.

Following the completion of one of the above instruments each S responded to a set of questions dealing with visual imagery experienced while the S was describing the stimulus person (See Appendix D). These questions were included to obtain some information as to whether Ss were responding in terms of a generalized conceptualization of male-female or if some specific person was being described.

Any one S received only one instrument which was in response booklet containing a statement concerning the sex of the stimulus person. A response booklet was compiled for each S in each condition. The response booklet consisted of: (1) first set of instructions or first stimulus, (2) first copy of the instrument of that condition, (3) first copy of imagery questionnaire, (4) second set of instructions or second stimulus, (5) second copy of the same instrument, and (6) second copy of the imagery questionnaire. An example of the response booklet used in the open-ended procedure can be found in Appendix E.

The subtle stimuli of the pronouns he and she and the two copies of the instruments were used in order to reduce the demand characteristics of a direct contrast of male and female. By responding on a second form the S is not confronted overtly with his first set of responses and thus experiencing the greater contrast if there were only one form for response of both male and female descriptions.

Procedure

The collection of stereotypic items was conducted in the classroom of the specific section of Introductory Psychology being tested. Response booklets had been arranged so that no two identical forms were given to Ss seated side by side. All data were collected the same day by the same female experimenter. Subjects were given the following information before the booklets were distributed:

We are collecting reliability data on different instruments used in research on impression formation. To make it easier and quicker to sort the data for machine scoring, we have color-coded the forms according to sex. Men, please take the white forms and women the green. Please fill out the forms completely, following the instructions given in the booklet. There are different instruments so some of you will finish before others. When you do finish check over your responses, making sure you answered all questions you intended to answer. You may leave when you finish.

Nothing else was said to the Ss. Booklets were collected as the S turned them in.

Data Analysis

To test for sequence and sex of S effects, item analyses using the Lawshe-Baker Nomograph were carried out for the Checklist and the Stereotype Questionnaire (Downie and Heath, 1965). The responses on the Open-Ended form were content analyzed and categorized into three dimensions: physical traits, personality-social traits, and work. If no sequence or sex of S effects were obtained, the data were combined for the instrument. A criterion of 40 percent consensus among the combined total Ss for an instrument had to be reached before an item

was included in the second phase.

Phase II: Validation of the Stereotypic Items

Subjects

Three different sections of Introductory Psychology not used in the collection phase provided the 180 Ss for the validation of the stereotypes. There were 45 Ss per condition in the four conditions. (As no sex differences were found in the collection phase, no attempt was made in the validation to consider sex of S as a factor.)

Instruments

Only the Adjective Checklist and the Stereotype Questionnaire were used in this phase. As will be discussed in Chapter III, no item reached criterion on the Open-Ended form. The Questionnaire was marked with the mean scores for each item, i.e. the scale for each item was marked with a slash on the mean number for that item for that stimulus. Two sets of forms were marked, one for male stimulus description and one for female stimulus description.

Two sets of the Checklist were marked; one for male and one for female stimulus description. All items which had been used by at least 40 percent of the collection sample in describing both male and female were circled on both the male and female forms. Then those items which differentiated male and female stimulus at the .01 level were marked on the appropriate sex form (See Appendix A, B, and F).

There were, however, an exception to this criterion on the validation forms. On the Checklist, the adjectives masculine and feminine

were not marked although they did definitely reached criterion. The items "very masculine" and "very feminine" on the Stereotype Questionnaire were omitted altogether from the validation form so that the form had only 80 items. It was felt by the experimenter that these items would be cues enough to elicit a response of male or female and it was the other stereotypes that were of interest in the validation phase.

A set of 11 questions in a multiple-choice format were used to obtain the validation information (See Appendix F for Validation Questionnaire). Of specific interest was question #6 asking for the sex of the stimulus person. If the stereotypic items can be considered as valid reflection of pieces of information used to categorize people into male-female, then there should be high percentage of correct responses for that form. Other questions served as filler questions and incidental information.

Procedure

There was no specific information given to the Ss before receiving the questionnaire and the computer card on which the answers were directly recorded. Subjects responded only to one stimulus description. The group was informed that they had an opportunity in which to participate in a psychological experiment for extra credit if they so desired. The vast majority of the classes did participate. The instructions on the questionnaire were as follows:

This is a second part of a study on impression formation. We had previously asked a group of subjects to describe various people by filling out a response form. We would like you to study the responses on this attached form which were

used to describe these different people. Then on the basis of these responses and your impression, please answer the following questions by marking the appropriate circle on the IBM card.

There were four different forms; Stereotype Questionnaire with response marked for male stimulus, one marked for female, and the Checklist marked for male and one for female.

Data Analysis

Responses were scored by computer giving the number of Ss choosing the various alternative answers for the 11 questions. Tests for differences in proportions were done by the use of Lawshe-Baker Nomograph and Pearson Chi-Square.

CHAPTER III

RESULTS

Collection of Stereotypic Items

The hypothesis of difference in trait attribution to male and female stimuli was supported for the instruments, Adjective Checklist and Stereotype Questionnaire. Differences in traits for male and female stimuli were not obtained in the open-ended procedure.

Adjective Checklist

A test for correlated proportions (Downie and Heath, 1965, p. 151) was used to determine differentiation in items attributed to male and female stimuli. The test revealed 11 items that were attributed to males significantly more often than to females; 11 items were also used more often in describing females than in describing males. Table I contains those items which differentiate male and female stimuli at the .01 level of significance and which are also endorsed by at least 40 percent of the subjects for either male or female stimuli. Also found in the table are the 42 items used by a minimum of 40 percent of the subjects in their description of both male and female.

Although fewer items than would be expected by chance were found to exhibit sequence or sex of subject effects at the .01 level, of the 12 items which did so, seven are stereotypic items. Tables II and III show these items with the frequency of the S's responses.

The item analysis for the Checklist is found in Appendix G. It should be noted in looking at the z-scores that there are items which differentiate males and females at the .01 level of significance which are not included in Table I. These items failed to reach the criterion of use by 40 percent of the sample.

TABLE I
ADJECTIVES ON THE CHECKLIST REACHING CRITERION

MALE AND FEMALE STIMULI		MALE	FEMALE
Active	Honest	Adventurous	Affectionate
Alert	Humorous	Aggressive	Attractive
Appreciative	Independent	Ambitious	Cheerful
Calm	Intelligent	Confident	Emotional
Capable	Interests Wide	Determined	Feminine
Charming	Mature	Frank	Gentle
Clear-thinking	Natural	Handsome	Kind
Clever	Outgoing	Imaginative	Pleasant
Considerate	Patient	Masculine	Soft-hearted
Dependable	Reasonable	Practical	Warm
Easy Going	Relaxed	Strong	Understanding
Efficient	Reliable		
Energetic	Responsible		
Enthusiastic	Self-confident		
Fair-minded	Sensitive		
Forgiving	Sincere		
Friendly	Sociable		
Generous	Talkative		
Good-looking	Thoughtful		
Good-natured	Witty		
Healthy			
Helpful			

TABLE II
 FREQUENCY OF SUBJECTS' RESPONSES FOR CHECKLIST
 ITEMS EXHIBITING SEQUENCE EFFECTS

ITEM	MALE Ss				FEMALE Ss			
	Male		Female		Male		Female	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
Dependent	4	1	1	9	2	2	3	3
Gentle*	5	9	13	13	9	7	5	14
Understanding*	8	6	11	3	15	10	14	10
Wise	10	7	17	7	7	9	9	6

* female stereotypic item
 n = 22

TABLE III
 FREQUENCY OF SUBJECTS' RESPONSES FOR CHECKLIST
 ITEMS EXHIBITING SEX OF SUBJECT EFFECTS

ITEM	Stimulus	MALE Ss		FEMALE Ss	
		Male	Female	Male	Female
Affectionate*		9	24	14	12
Artistic		8	18	4	5
Attractive*		13	37	26	30
Cheerful*		15	27	27	28
Good-looking		21	30	29	17
Sexy		5	28	17	5
Strong+		15	6	29	8
Understanding		14	14	25	24

* female stereotypic items
 + male stereotypic items
 n = 44

Stereotype Questionnaire

Data analysis was by the statistical procedure used by Rosenkrantz et al. (1968). For an item to be defined as stereotypic, the criterion z-score was set at the .01 level rather than the .001 as used by Rosenkrantz et al. Using this lower criterion, only ten items were found to differentiate male and female stimuli. Six more items were stereotypic if the .05 level was used as criterion. Table IV presents these 16 items reaching significance as differentiators. This number of stereotypic items is considerably lower than the 53 items that are reported as significant differentiators at the .001 level (Rosenkrantz et al., 1968; Broverman et al., 1970; Clarkson et al., 1970).

There were only two items that were affected by sequence of stimulus presentation, items #21 and #64 (excitable in minor crisis and very ambitious, respectively). Both items were rated toward the desirable pole when female Ss rated female stimulus second rather than toward the undesirable pole as when the female stimulus was described first. No sex of subject effects were found.

The item analysis data in Appendix H shows the mean responses for both male and female stimuli, the number of M>F and F>M responses with the z-scores for the items.

Open-Ended Instrument

For an item to be considered as stereotypic, it has to be used by at least 40 percent of the sample in the descriptions. As can be seen in Tables V and VI no adjective in the open-ended procedure reached

TABLE IV
DIFFERENTIATING ITEMS ON THE
STEREOTYPE QUESTIONNAIRE

ITEM	DIRECTION
Not at all independent...Very dependent	F>M **
Very emotional...Not at all emotional	M>F ***
Does not hide emotions...Almost always hides emotions	M>F ***
Not at all excitable in major crisis...Very excitable in major crisis	F>M **
Not at all skilled in business...Very skilled in business	M>F ***
Never cries...Cries very easily	F>M ***
Does not enjoy art and literature at all...Enjoys art and literature very much	F>M ***
Thinks men are superior...Does not think men are superior	F>M **
Very masculine...Not at all masculine	F>M ***
Very feminine...Not at all feminine	M>F ***
Always thinks before acting...Never thinks before acting	F>M *
Dislikes math and science very much...Likes math and science very much	M>F *
Not at all excitable in minor crisis...Very excitable in minor crisis	F>M *
Very gentle...Very rough	M>F *
Very logical...Very illogical	F>M *
Not at all restless...Very restless	F>M *

*** p<.001

** p<.01

* p<.05

this criterion. There are small differences in the items used to describe male and female. The main difference in this open-ended condition is the difference in the percent of responses using the adjectives attractive, tall, and easy to talk to for male and female stimulus. In terms of the total adjectives used in the descriptions as can be seen in Table VII there was only a difference of four items. It was concluded from the results of the Open-Ended form that there were no stereotypic items elicited by the instructions.

From examining the Tables II through VII, it appears that the different instruments do produce different stereotypic items, the Open-Ended form producing no marked stereotypic items.

TABLE V
PERCENT OF SUBJECTS INCLUDING MOST FREQUENTLY
USED ADJECTIVES IN OPEN-ENDED DESCRIPTIONS:
PHYSICAL TRAITS

MALE STIMULUS		FEMALE STIMULUS	
Attractive	5.6	Attractive	22.7
Well-dressed	17.0	Well-dressed	11.0
Hair	10.0	Hair	14.7
Tall	22.7	Tall	8.0
Average Build	6.8	Average Build	11.0
		Average Height	11.0

TABLE VI
 PERCENT OF SUBJECTS INCLUDING THE MOST FREQUENTLY
 USED ADJECTIVES IN OPEN-ENDED DESCRIPTIONS:
 PERSONALITY-SOCIAL TRAITS

MALE STIMULUS		FEMALE STIMULUS	
Intelligent	19.3	Intelligent	19.3
Easy to talk to	13.6	Easy to talk to	19.3
Friendly	11.0	Friendly	10.2
Easy to get along	8.0	Easy to get along	5.6
Athletic	8.0	Polite	9.0
Polite	6.8	Outgoing	9.0
Mature	6.8	Has good time	9.0
Likable	6.8	Personality	8.0
Educated	6.8	Knowledgeable	6.8
Considerate	5.6	Pleasant	6.8
Nice	5.6	Mature	5.6
Quiet	5.6	Helpful	5.6
		Kind	5.6

TABLE VII
 TOTAL NUMBER OF DIFFERENT ADJECTIVES USED
 IN OPEN-ENDED DESCRIPTIONS

Dimension	Male	Female
Physical Traits	12	12
Personality-Social	86	82
Work	9	9
Total	107	103

Imagery Questionnaire

The data from the imagery questionnaire supports the hypothesis that Ss describe specific persons when responding to the male and female stimuli. Using Perason's Chi-Square to test for the difference between expected and observed frequency of reported imagery, a significant Chi-Square was found beyond the .01 level ($X^2 = 41.4$, $df = 1$). As the Chi-Square indicates, significantly more Ss were thinking or visualizing specific persons while responding to the male and female stimuli than would be expected by chance alone. Table VIII below contains the number of "No imagery" responses by sex of S and sex of stimuli. The only subject difference was in the imagery dealing with the male stimulus. A significantly larger number of male Ss than female Ss indicated that they did not visualize a specific person when describing the male stimulus. There were no differences in stimulus conditions.

TABLE VIII

FREQUENCY OF NO IMAGERY BY SEX OF SUBJECT,
STIMULUS, AND INSTRUMENT

INSTRUMENT	MALE S		FEMALE S	
	Male Stimulus	Female Stimulus	Male Stimulus	Female Stimulus
Open-Ended	20	15	18	16
Checklist	20	15	13	15
Questionnaire	23	16	8	11
Total	63**	46	39**	42

**p<.01 testing difference in proportion of no imagery for male and female S describing male stimulus on the Lawshe-Baker Nomograph

Table IX reports the frequency of the persons being described by the Ss in all instrument conditions for male and female stimuli.

TABLE IX
PERCENT OF SUBJECTS' RESPONSES REGARDING THE
RELATIONSHIP OF THE IMAGERY PERSON

RELATION	CHECKLIST		QUESTIONNAIRE		OPEN-ENDED	
	Male Stimulus	Female Stimulus	Male Stimulus	Female Stimulus	Male Stimulus	Female Stimulus
Authority	5.8	6.1	13.1	4.6	21.6	9.6
Parental	20.2	13.6	14.7	13.8	16.6	12.9
Family	8.4	6.1	6.5	6.1	13.3	14.5
Spouse	2.9	3.1	11.4	1.5	5.0	1.6
Boyfriend	23.2	0.0	24.6	0.0	8.3	0.0
Girlfriend	2.9*	30.0	0.0	16.9	1.6*	16.1
Peer	20.2	25.8	19.6	40.0	16.6	29.0
Mass Media	7.2	4.5	1.6	3.0	3.2	1.6
Other	8.4	10.6	8.1	13.8	13.3	14.5
No Imagery	37.5	34.0	35.2	31.0	43.0	35.0

*It is possible that these Ss missed the stimulus cue, He.

Validation of the Stereotypic Items

The degree to which the stereotypic items on the Adjective Checklist and the Stereotype Questionnaire conveyed the information regarding the sex of the stimulus description was indicated in the responses of the Ss to questions #6 and #7 on the Validation Questionnaire.

Table X presents the percentage of "correct," "incorrect," and "not enough information" responses to the question of the sex of stimulus de-

description. In addition, the percentage of Ss who reported that they were fairly confident (60-100 percent confidence) of their responses are reported in the same table. In comparing observed frequency of "correct," "incorrect," and "not enough information" responses with the expected frequency using Pearson's Chi-Square, all description forms except the Adjective Checklist for female description significantly departed from what would be expected by chance ($p < .01$).

TABLE X
 PERCENT OF RESPONSES FOR QUESTION OF SEX OF
 STIMULUS DESCRIPTION WITH CONFIDENCE
 RATINGS OF 60% TO 100 %

INSTRUMENT	CORRECT	Conf.	Incorrect	Conf.	Not Inf.	Conf.	X ²
Male Questionnaire	62.2	64	22.2	45	15.5	100	17.2***
Female Questionnaire	57.7	58	26.6	75	15.5	71	12.9**
Male Checklist	68.8	60	6.6	33	22.2	83	27.7***
Female Checklist	51.1	65	28.8	46	20.2	77	6.9

** $p < .01$, $X^2 = 9.21$, $df = 2$
 *** $p < .001$, $X^2 = 13.8$, $df = 2$

The validation data were further examined through the use of an index of predictive association, lambda. This index shows the proportional reduction in the probability of error afforded by specifying values of variable "A." A lambda value (range 0 to 1.0) is found by subtracting the probability of error with "A" values known from the

probability of error with "A" unknown and then dividing by the probability of "A" unknown. As Hays (1963) points out, it is possible for a statistical association to exist even though lambda is zero. In such a case, the variables are not independent, but the relationship is such that giving values of one variable does not cause a change in estimate of the other variable.

There was no reduction in error in predicting the Ss' responses to question #6 when information was given as to what instrument was used; there was only a 4 percent reduction in error of prediction when the S's response was used to predict which instrument was employed in the description. Thus, it was concluded that there was little association between the instruments used, the Adjective Checklist and the Stereotype Questionnaire, and the Ss' responses of "correct," "incorrect," and "not enough information" in the attribution of the sex of the stimulus description. However, in predicting the sex of the stimulus the S rated, information concerning the S's responses reduces error in prediction by 14 percent.

Also to be noted in Table X is the Ss who incorrectly answered the question of sex of the stimulus report lower confidence in their answers (the female description on the Stereotype Questionnaire is an exception). Those Ss responding "not enough information" report higher confidence than the other two response categories. Responses to the other questions on the validation form can be found in Table XI.

TABLE XI
 PERCENTAGE OF SUBJECTS RESPONDING TO EACH
 ALTERNATIVE FOR VALIDATION QUESTIONNAIRE

QUESTION	QUESTIONNAIRE		CHECKLIST	
	Male	Female	Male	Female
	Stimulus	Stimulus	Stimulus	Stimulus
Question #2: Age				
15-19	28.8	42.2	17.7	8.8
20-24	42.2	37.7	59.9	66.6
25-30	17.7	13.3	17.7	8.8
30-40	6.6	6.6	4.4	8.8
40-	4.4	0.0	0.0	2.2
Question #3: Confidence				
0-20	4.4	2.2	8.8	6.6
20-40	8.8	11.1	4.4	8.8
40-60	35.5	37.7	31.1	42.2
60-80	42.2	33.3	37.7	35.5
80-100	8.8	13.3	17.7	6.6
Question #4: Occupation				
Not working	2.2	0.0	0.0	4.4
Student	48.8	48.8	46.6	31.1
Blue Collar	0.0	6.6	2.2	11.1
White Collar	26.6	13.3	13.3	19.9
Not Information	17.7	28.8	37.7	33.3
Question #5: Confidence				
0-20	0.0	6.6	4.4	6.6
20-40	17.7	15.5	2.2	17.7
40-60	33.3	24.4	26.6	28.8
60-80	22.2	28.8	37.7	17.7
80-100	26.6	24.4	28.8	26.6
Question #6: Sex				
Male	62.2	26.6	68.8	28.8
Female	22.2	57.7	6.6	51.1
Not Information	15.5	15.5	22.2	20.0
Question #7: Confidence				
0-20	2.2	2.2	6.6	4.4
20-40	8.8	13.3	6.6	6.6
40-60	24.4	19.9	19.9	26.6
60-80	24.4	28.8	31.1	28.8
80-100	39.9	35.5	35.5	33.3

XI (Continued)

QUESTION	QUESTIONNAIRE		CHECKLIST	
	Male Stimulus	Female Stimulus	Male Stimulus	Female Stimulus
Question #8: Desirability				
Desirable	82.2	55.57	84.4	93.37**
Neither	11.1	37.7	8.8	6.6
Undesirable	4.4	6.6	6.6	0.0
Question #9: Adjustment				
Well-adjusted	37.7	33.37	75.5	84.47**
Adequately	57.7	55.5	20.0	8.8
Poorly	2.2	8.8	0.0	0.0
Not Information	0.0	2.2	4.4	6.6
Question #10: Imagery				
Yes Imagery	62.2	53.3	55.5	55.5
No Imagery	37.7	46.6	44.4	44.4
Question #11: Relation				
Family	11.9	7.1	17.5	13.9
Boy/Girl Friend	19.0	7.1	12.5	19.4
Peer	16.6	19.0	12.5	19.4
Other	16.6	21.4	17.5	19.4
Not Applicable	35.7	45.2	40.0	27.7

**p<.01 testing for differences in proportions by Lawshe-Baker Nomograph

Responses for the four forms should be noted on questions eight and nine concerning desirability and adjustment, respectively. The female description on the Stereotype Questionnaire is significantly less desirable than the three other descriptions (test for difference in proportions by Lawshe-Baker Nomograph $n = 45$). On the adjustment dimension, both male and female descriptions of the Adjective Checklist are rated higher than the descriptions on the Stereotype Questionnaire. Again the test was by Lawshe-Baker Nomograph for differ-

ences in proportions ($n = 90$). Of special interest is the difference on these two dimensions for the female descriptions on the different instruments, the Checklist and the Stereotype Questionnaire. Again it appears that the instruments do elicit different images, especially in relation to female adult.

Imagery

It was hypothesized that in the validation procedure the different instrument descriptions would elicit different images and thus different responses to the validation questions. A Chi-Square comparing the frequency of reported imagery and no imagery by instrument description showed no significant differences in imagery reported than would be expected by chance ($X^2 = 4.0$, $df = 3$). However, knowing whether Ss reported imagery was found to reduce error in predicting which instrument description the S responded to by 14 percent as indicated by lambda.

In testing the reported frequency of imagery on the validation questionnaire for all descriptions combined, there was not a significantly larger number of S using imagery than would be expected by chance alone ($X^2 = 3.2$, $df = 1$). However, when examining the frequency of reported imagery in conjunction with the Ss' response to the sex of the stimulus description, there emerge two relationships. Imagery was found to be related to: (1) correct attribution of sex of stimuli, and (2) greater confidence in that response. In regard to this first relationship, it can be seen in Table XII that significantly more correct responses are paired with visual imagery than correct response paired with no imagery ($p < .01$ on Lawshe-Baker Nomograph for tests of

difference between proportions, $n = 117$).

TABLE XII
PERCENT OF IMAGERY REPORTED BY RESPONSE ON
ATtribution OF SEX OF THE
STIMULUS DESCRIPTION

INSTRUMENT	CORRECT		Incorrect		Not Enough Info.	
	Imagery	No	Imagery	No	Imagery	No
Male Questionnaire	42.2	19.9	15.5	8.8	4.4	8.8
Female Questionnaire	37.7	19.9	11.1	15.5	4.4	11.1
Male Checklist	31.1	35.5	8.8	0.0	17.7	6.6
Female Checklist	31.1	19.9	15.5	13.3	8.8	11.1
Total	**50.0	40.07	56.0	44.0	47.0	53.0

** $p < .01$ on Lawsge-Baker Nomograph for testing differences between proportions. The total percentages are based on the number of S responding in that category not on $n = 45$ as the instrument form percentages are.

With respect to the second relationship, Table XIII has information of imagery and response of sex of stimuli broken down into levels of confidence in the Ss' attribution of sex of stimuli. Across all instrument descriptions and all responses on question #6, looking only at 60 percent to 100 percent confidence ratings, a Chi-Square test for frequency of reported imagery versus no imagery revealed no significant differences ($X^2 = 4.6$, $df = 1$). However, for those Ss who answered question #6 correctly and who had confidence ratings of 60 percent to 100 percent, there was significantly more imagery than would be ex-

TABLE XIII

CONTINGENCY TABLE FOR RESPONSE, IMAGERY, AND
CONFIDENCE OF RESPONSE FOR SEX OF
STIMULUS DESCRIPTION

	CORRECT								INCORRECT								NOT ENOUGH INFORMATION							
	Imagery				No				Imagery				No				Imagery				No			
	0-40%	40-60%	60-80%	80-100%	0-40%	40-60%	60-80%	80-100%	0-40%	40-60%	60-80%	80-100%	0-40%	40-60%	60-80%	80-100%	0-40%	40-60%	60-80%	80-100%	0-40%	40-60%	60-80%	80-100%
Male Questionnaire	0	5	5	9	2	3	1	3	2	2	3	0	1	1	0	2	0	0	1	1	0	0	1	3
Male Checklist	2	1	7	4	3	6	5	2	1	1	0	1	0	0	0	0	0	2	0	6	0	0	1	3
Female Questionnaire	1	5	5	6	2	3	3	1	2	0	0	3	0	1	4	2	0	0	0	1	2	0	1	3
Female Checklist	1	4	3	6	1	2	4	2	1	2	2	2	2	2	1	1	0	0	1	3	0	2	2	1
Total	4	15	20	25	8	14	13	8	6	5	5	6	3	4	5	5	0	2	2	11	0	2	5	10
60% - 100% Confidence	**/15				2/7				11				10				13				15			

**p<.01, $X^2 = 8.7$, df = 1

pected by chance ($X^2 = 8.7$, $df = 1$). On the other hand, for Ss who answered correctly but reported low confidence (less than 60 percent), there was not a significantly larger number using imagery than would be expected by chance alone ($X^2 = 2.1$, $df = 1$).

In summary, from the data collected, it can be concluded that there are differences in trait attribution for female and male stimuli on the Adjective Checklist and the Stereotype Questionnaire, but no differences in the Open-Ended form. There is a difference in the content of stereotypic items that emerged from the Adjective Checklist and Stereotype Questionnaire instruments. This difference also can be seen from the responses on the validation questionnaire concerning percentage of correct attribution of sex of stimulus description, ratings of confidence, and ratings of adjustment and desirability. This difference of items will be discussed further in Chapter IV.

Imagery data in both the collection of stereotypic items and in the validation phase indicate that Ss when asked to adscribe an adult male and/or female, picture or visually imagine specific persons. This imagery appears to play some role in correct attribution of sex of stimulus and in greater confidence in that attribution.

It is thus concluded that the hypotheses of this research were supported. There are different traits attributed to males and females, different instruments elicit different stereotypic items, and visual imagery does play a role in sex stereotypes.

CHAPTER IV

DISCUSSION AND CONCLUSIONS

This research was designed to study methodological problems involved in sex stereotyping research. It was not intended solely to gather information as to present sex stereotypes. Rather it was intended to examine the question of whether sex stereotypes can be measured by paper and pencil tasks. The main thrust of this research was to determine whether sex stereotypes are an artifact of the procedure and instrument used in collecting the stereotypic items, i.e. do different instruments and different procedures elicit different stereotypic items.

Collection of Stereotypic Items

Before this question of artifactness could be carefully examined there were other problems central to the procedure which had to be controlled. These were the stimuli used to elicit the responses and the manner in which the responses were collected. In previous literature these have been the greatest source of demand characteristics. The subtle stimulus cues of he and she may elicit very different stereotypic items than stimuli such as "adult men" or "most women." Using two forms or copies of an instrument for each S responses may greatly reduce the contrast of the two stimuli. These problems were arbitrarily controlled rather than manipulated as variables. However,

the subtle stimuli and the two forms provide what appears to be a less obtrusive attempt of asking college students how they expect men and women to differ. This less obtrusive approach may allow the Ss more of an opportunity to respond with items that are more salient for him as an individual.

It may be these differences in procedure which resulted in the discrepancy between the findings of this research and that of some previously cited studies. For an example, the Stereotype Questionnaire revealed only ten items as significant differentiators as compared with Rosenkrantz's 53 items. For the most part, there is an absence of negative items assigned to male and female, especially the female, which is inconsistent with other literature.

While it first appeared that differences in trait attribution to males and females on the Open-Ended form would be more salient for the S than on the other more structured forms, no significant differences emerged for male and female stimuli, and very little consensus was reached among the Ss. In the situation where the cognitive process of stereotyping should be most evident it was not. The less obtrusive cues discussed above may be the reason for the absence of stereotypic items. However, examining the z-scores for the items masculine and feminine on the Checklist and Stereotype Questionnaire (items #86, #147 in Appendix G and items #79 and #80 in Appendix H), it is clear that Ss in the overall sample responded appropriately to the cues he and she. Thus it did not appear to be a problem of missing the cues of sex of stimuli but an actual difference in perception.

Sherif and Sherif (1969) stated 12 basis propositions or principles in the study of social behavior, two of which are directly

applicable to what is being discussed. The first is that the more unstructured the stimulus situation, the greater the contribution of internal factors. In this research the internal factors would be the S's own stereotypes. The second proposition is that the more unstructured the stimulus situation, the greater the effectiveness of external social influences that offer alternatives to the psychological patterning. It is proposed that the structure and content of an instrument provides this external influence in the collection of stereotypes.

Validation of the Stereotypic Items

In the validation data there are three important points that provide further support of the view of stereotypes as artifacts of the instruments used. First, the differences in response to the question as to the sex of the stimulus description showed that more Ss felt the Checklist provided less information concerning the sex of the stimulus than the Stereotype Questionnaire. There does appear to be a greater influence or difference in responses to the question by the sex of the stimulus description than by instrument. Even so, the Stereotype Questionnaire exhibits less difference between male and female description across all responses than does the Adjective Checklist.

Second, is the information received by the Ss from the instruments in response to questions #8 and #9 on desirability and adjustment. Clearly, the two instruments reflect differential information as to these two dimensions especially in regard to the female stimulus which was seen more desirable and better adjusted on the Adjective Checklist than the Stereotype Questionnaire.

Third is the use of imagery. As stated in Chapter III, there is

a reduction in the amount of error made in predicting which instrument a S used if it is known whether the S reported imagery. It thus appears that the different instruments elicit a different amount of imagery by Ss.

From the validation data, it can be further concluded that stereotypic descriptions and Ss' responses to those descriptions are very much related to how those descriptions were initially measured, i.e. stereotypes are artifacts of instruments and procedure used to obtain the items. This is not to deny the existence of sex stereotypes. It is to suggest, however, that the most important aspects of stereotypes have gone unnoticed because social scientists have been too closely tied to their instruments and procedure. Questions of development and function of stereotypes are still unanswered. By limiting the study of stereotypes to paper and pencil tasks it is possible that these questions will remain unanswered.

Visual Imagery

The findings of this research relating to visual imagery offer a beginning point for more profitable avenues of exploration in the process and function of sex stereotypes. The role of imagery in stereotyping has not been examined before now. What this research has shown is that imagery is present while Ss are responding to the stimulus; is significantly less when males are describing males; is significantly more likely in Ss who attribute correctly the sex of the stimulus description; and is related to greater confidence in correct attribution of sex of stimulus.

As stated early in the paper, stereotypes are considered as cate-

gorical process in which groups of people are placed and associated with certain physical traits and personality characteristics. Some of the associated traits may be valid or true reflection of existing group differences or they may be unjustified generalizations. In either case, cognitively the stereotype serves the function of storage of patterns of general traits associated with that group (Sherriff and Jarrett, 1953). It may be that the role visual imagery plays is a releasing of this information from storage for the perceiver or S to once again process the information or review it in order to make a judgment or response to the stimulus object. If this is the case, it would be expected that Ss who report visual imagery would have more correct responses with greater confidence.

The literature of visual imagery indicates that people who report visual imagery are more accurate in recall of a task as long as the image persists and that people who visualize are more confident in their recall of a picture they have seen (Neisser, 1967). These findings support the possible role that imagery performed in this validation of the sex stereotypes.

Implications of the Research

There are two major implications resulting from the findings of this research. First, it has been established that sex stereotypes are an artifact of the experimental situation, i.e. the instrument and procedure. In order to study sex stereotypes realistically, it may be necessary to go to more naturalistic observations. Individual testing with detailed debriefing may provide much needed information concerning the process of sex stereotyping for the individual and its function.

What needs to be done is a reevaluation of sex stereotyping research and its techniques. It is suggested that a move away from collection of stereotypes of the population is called for with a move toward the study of process and function for the individual.

The second implication has to do with visual imagery. As viewed in a clinical setting, it is suggested that imagery may serve an important function for the individual in the processing and incorporating of therapeutic material. If the confidence in responding, previously noted, is found for those who experience imagery in the therapeutic setting, it may well have much implication for future developments in therapeutic techniques.

CHAPTER V

SUMMARY

This research was designed to examine methodological problems of sex stereotyping research. Three instruments used in past research served as instruments: Gough and Heiburn (1965) Adjective Checklist, Stereotype Questionnaire (Rosenkrantz et al., 1968) and an open-ended form. Sequence of stimulus presentation and sex of subject were included as variables. When item analysis by Lawshe-Baker Nomograph revealed no significant sex or sequence effects, the data was combined for instruments producing 88 subjects per instrument. There were a total of 132 male and 132 female undergraduates who served as subjects in the collection phase.

In the validation phase, those items which had been found to differentiate males and females on the Adjective Checklist and those items used by 40 percent of the sample to describe either or both sexes were included on the validation questionnaire. Mean scores for the Stereotype Questionnaire for males and females were marked on the validation form for the Stereotype Questionnaire. A sample of 180 subjects were tested in this phase.

Three major hypotheses were tested and supported at the .01 level. First, there was a difference in trait attribution to male and females on the Adjective Checklist, and the Stereotype Questionnaire but not on the Open-Ended form. Second, there was a difference in the descrip-

tion of the stimulus depending upon which of the two instruments was used. This was supported by the items which emerged as stereotypic and from the responses on the validation questionnaire for the different instruments. Third, when asked to describe a male or female adult, subjects did picture specific persons while they were responding to the stimulus. This was found both in the collection and the validation phases. Visual imagery was found to be related to accuracy in attribution of sex of stimulus description and to confidence in the response.

It was concluded that paper and pencil test will yield stereotypic items which are, to some extent, artifacts of the instrument used. Further investigation is called for on the role of visual imagery in stereotyping.

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APPENDICES

APPENDIX A

ADJECTIVE CHECKLIST

PLEASE CIRCLE EACH ITEM THAT YOU FEEL DESCRIBES THE STIMULUS PERSON.

- | | | |
|--------------------|-------------------|-----------------------|
| 1. absent-minded | 51. cowardly | 101. gloomy |
| 2. active | 52. cruel | 102. good-looking |
| 3. adaptable | 53. curious | 103. good-natured |
| 4. adventurous | 54. cynical | 104. greedy |
| 5. affected | 55. daring | 105. handsome |
| 6. affectionate | 56. deceitful | 106. hard-headed |
| 7. aggressive | 57. defensive | 107. hard-hearted |
| 8. alert | 58. deliberate | 108. hasty |
| 9. aloof | 59. demanding | 109. headstrong |
| 10. ambitious | 60. dependable | 110. healthy |
| 11. anxious | 61. dependent | 111. helpful |
| 12. apathetic | 62. despondent | 112. high-strung |
| 13. appreciative | 63. determined | 113. honest |
| 14. argumentative | 64. dignified | 114. hostile |
| 15. arrogant | 65. discreet | 115. humorous |
| 16. artistic | 66. disorderly | 116. hurried |
| 17. assertive | 67. dissatisfied | 117. idealistic |
| 18. attractive | 68. distractible | 118. imaginative |
| 19. autocratic | 69. distrustful | 119. immature |
| 20. awkward | 70. dominant | 120. impatient |
| 21. bitter | 71. dreamy | 121. impulsive |
| 22. blustery | 72. dull | 122. independent |
| 23. boastful | 73. easy going | 123. indifferent |
| 24. bossy | 74. effeminate | 124. individualistic |
| 25. calm | 75. efficient | 125. industrious |
| 26. capable | 76. egotistical | 126. infantile |
| 27. careless | 77. emotional | 127. informal |
| 28. cautious | 78. energetic | 128. ingenious |
| 29. changeable | 79. enterprising | 129. inhibited |
| 30. charming | 80. enthusiastic | 130. initiative |
| 31. cheerful | 81. evasive | 131. insightful |
| 32. civilized | 82. excitable | 132. intelligent |
| 33. clear-thinking | 83. fair-minded | 133. interests narrow |
| 34. clever | 84. fault-finding | 134. interests wide |
| 35. coarse | 85. fearful | 135. intolerant |
| 36. cold | 86. feminine | 136. inventive |
| 37. commonplace | 87. fickle | 137. irresponsible |
| 38. complicated | 88. flirtatious | 138. irritable |
| 39. complaining | 89. foolish | 139. jolly |
| 40. conceited | 90. forceful | 140. kind |
| 41. confident | 91. foresighted | 141. lazy |
| 42. confused | 92. forgetful | 142. leisurely |
| 43. conscientious | 93. forgiving | 143. logical |
| 44. conservative | 94. formal | 144. loud |
| 45. considerate | 95. frank | 145. loyal |
| 46. contented | 96. friendly | 146. mannerly |
| 47. conventional | 97. frivolous | 147. masculine |
| 48. cool | 98. fussy | 148. mature |
| 49. cooperative | 99. generous | 149. meek |
| 50. courageous | 100. gentle | 150. methodical |

- | | | |
|-----------------------|----------------------|---------------------|
| 151. mild | 201. reliable | 251. strong |
| 152. mischievous | 202. resentful | 252. stubborn |
| 153. moderate | 203. reserved | 253. submissive |
| 154. modest | 204. resourceful | 254. suggestible |
| 155. moody | 205. responsible | 255. sulky |
| 156. nagging | 206. restless | 256. superstitious |
| 157. natural | 207. retiring | 257. suspicious |
| 158. nervous | 208. rigid | 258. sympathetic |
| 159. noisy | 209. robust | 259. tactful |
| 160. obliging | 210. rude | 260. tactless |
| 161. obnoxious | 211. sarcastic | 261. talkative |
| 162. opinionated | 212. self-centered | 262. temperamental |
| 163. opportunistic | 213. self-confident | 263. tense |
| 164. optimistic | 214. self-controlled | 264. thankless |
| 165. organized | 215. self-denying | 265. thorough |
| 166. original | 216. self-pitying | 266. thoughtful |
| 167. outgoing | 217. self-punishing | 267. thrifty |
| 168. outspoken | 218. self-seeking | 268. timid |
| 169. painstaking | 219. selfish | 269. tolerant |
| 170. patient | 220. sensitive | 270. touchy |
| 171. peaceable | 221. sentimental | 271. tough |
| 172. peculiar | 222. serious | 272. trusting |
| 173. persevering | 223. severe | 273. unaffected |
| 174. persistent | 224. sexy | 274. unambitious |
| 175. pessimistic | 225. shallow | 275. unassuming |
| 176. planful | 226. sharp-witted | 276. unconventional |
| 177. pleasant | 227. shiftless | 277. undependable |
| 178. pleasure-seeking | 228. show-off | 278. understanding |
| 179. poised | 229. shrewd | 279. unemotional |
| 180. polished | 230. shy | 280. unexcitable |
| 181. practical | 231. silent | 281. unfriendly |
| 182. praising | 232. simple | 282. uninhibited |
| 183. precise | 233. sincere | 283. unintelligent |
| 184. prejudiced | 234. slipshod | 284. unkind |
| 185. preoccupied | 235. slow | 285. unrealistic |
| 186. progressive | 236. sly | 286. unscrupulous |
| 187. prudish | 237. smug | 287. unselfish |
| 188. quarrelsome | 238. snobbish | 288. unstable |
| 189. queer | 239. sociable | 289. vindictive |
| 190. quick | 240. soft-hearted | 290. versatile |
| 191. quiet | 241. sophisticated | 291. warm |
| 192. quitting | 242. spendthrift | 292. wary |
| 193. rational | 243. spineless | 293. weak |
| 194. rattlebrained | 244. spontaneous | 294. whiny |
| 195. realistic | 245. spunky | 295. wholesome |
| 196. reasonable | 246. stable | 296. wise |
| 197. rebellious | 247. steady | 297. withdrawn |
| 198. reckless | 248. stern | 298. witty |
| 199. reflective | 249. stingy | 299. worrying |
| 200. relaxed | 250. stolid | 300. zany |

APPENDIX B

STEREOTYPE QUESTIONNAIRE

ON EACH SCALE, PLEASE PUT A SLASH (/) ACCORDING TO WHAT YOU THINK THE STIMULUS PERSON IS LIKE.

For example:

strong dislike for color red 1.....2.....3.../....4.....5.....6.....7 strong liking for color red

ON THE FOLLOWING PAGES ARE A NUMBER OF SCALES LIKE THE ONE ABOVE. YOU MAY PUT YOUR SLASH ANYWHERE ON THE SCALE, NOT JUST AT THE NUMBERS. PLEASE BE SURE TO MARK EVERY ITEM.

1. Not at all aggressive 1.....2.....3.....4.....5.....6.....7 Very aggressive*
2. Very irrational 1.....2.....3.....4.....5.....6.....7 Very rational
3. Very practical 1.....2.....3.....4.....5.....6.....7 Very impractical
4. Not at all independent 1.....2.....3.....4.....5.....6.....7 Very independent
5. Not at all consistent 1.....2.....3.....4.....5.....6.....7 Very consistent
6. Very emotional 1.....2.....3.....4.....5.....6.....7 Not at all emotional
7. Very realistic 1.....2.....3.....4.....5.....6.....7 Not at all realistic
8. Not at all idealistic 1.....2.....3.....4.....5.....6.....7 Very idealistic
9. Does not hide emotions at all 1.....2.....3.....4.....5.....6.....7 Almost always hides emotions
10. Very subjective 1.....2.....3.....4.....5.....6.....7 Very objective

- | | | |
|---|---------------------------------------|---|
| 11. Mainly interested in details | 1.....2.....3.....4.....5.....6.....7 | Mainly interested in generalities |
| 12. Always thinks before acting | 1.....2.....3.....4.....5.....6.....7 | Never thinks before acting |
| 13. Not at all easily influenced | 1.....2.....3.....4.....5.....6.....7 | Very easily influenced |
| 14. Not at all talkative | 1.....2.....3.....4.....5.....6.....7 | Very talkative |
| 15. Very grateful | 1.....2.....3.....4.....5.....6.....7 | Very ungrateful |
| 16. Doesn't mind at all when things are not clear | 1.....2.....3.....4.....5.....6.....7 | Minds very much when things are not clear |
| 17. Very dominant | 1.....2.....3.....4.....5.....6.....7 | Very submissive |
| 18. Dislikes math and science very much | 1.....2.....3.....4.....5.....6.....7 | Likes math and science very much |
| 19. Not at all reckless | 1.....2.....3.....4.....5.....6.....7 | Very reckless |
| 20. Not at all excitable in a major crisis | 1.....2.....3.....4.....5.....6.....7 | Very excitable in a major crisis |
| 21. Not at all excitable in a minor crisis | 1.....2.....3.....4.....5.....6.....7 | Very excitable in a minor crisis |
| 22. Not at all strict | 1.....2.....3.....4.....5.....6.....7 | Very strict |
| 23. Very weak personality | 1.....2.....3.....4.....5.....6.....7 | Very strong personality |
| 24. Very active | 1.....2.....3.....4.....5.....6.....7 | Very passive |

25. Not at all able to devote self completely to others 1.....2.....3.....4.....5.....6.....7 Able to devote self completely to others
26. Very blunt 1.....2.....3.....4.....5.....6.....7 Very tactful
27. Very gentle 1.....2.....3.....4.....5.....6.....7 Very rough
28. Very helpful to others 1.....2.....3.....4.....5.....6.....7 Not at all helpful to others
29. Not at all competitive 1.....2.....3.....4.....5.....6.....7 Very competitive
30. Very logical 1.....2.....3.....4.....5.....6.....7 Very illogical
31. Not at all competent 1.....2.....3.....4.....5.....6.....7 Very competent
32. Very worldly 1.....2.....3.....4.....5.....6.....7 Very home oriented
33. Not at all skilled in business 1.....2.....3.....4.....5.....6.....7 Very skilled in business
34. Very direct 1.....2.....3.....4.....5.....6.....7 Very sneaky
35. Known the ways of the world 1.....2.....3.....4.....5.....6.....7 Does not know the ways of the world
36. Not at all kind 1.....2.....3.....4.....5.....6.....7 Very kind
37. Not at all willing to accept change 1.....2.....3.....4.....5.....6.....7 Very willing to accept change
38. Feelings not easily hurt 1.....2.....3.....4.....5.....6.....7 Feelings easily hurt
39. Not at all adventurous 1.....2.....3.....4.....5.....6.....7 Very adventurous

- | | | | |
|-----|--|---------------------------------------|---|
| 40. | Very aware of the feelings
of others | 1.....2.....3.....4.....5.....6.....7 | Not at all aware of the
feelings of others |
| 41. | Not at all religious | 1.....2.....3.....4.....5.....6.....7 | Very religious |
| 42. | Not at all intelligent | 1.....2.....3.....4.....5.....6.....7 | Very intelligent |
| 43. | Not at all interested in
own appearance | 1.....2.....3.....4.....5.....6.....7 | Very interested in own
appearance |
| 44. | Can make decisions
easily | 1.....2.....3.....4.....5.....6.....7 | Has difficulty making
decisions |
| 45. | Gives up very easily | 1.....2.....3.....4.....5.....6.....7 | Never gives up easily |
| 46. | Very shy | 1.....2.....3.....4.....5.....6.....7 | Very outgoing |
| 47. | Always does things without
being told | 1.....2.....3.....4.....5.....6.....7 | Never does things without
being told |
| 48. | Never cries | 1.....2.....3.....4.....5.....6.....7 | Cries very easily |
| 49. | Almost never acts as a
leader | 1.....2.....3.....4.....5.....6.....7 | Almost always acts as a
leader |
| 50. | Never worried | 1.....2.....3.....4.....5.....6.....7 | Always worried |
| 51. | Very neat in habits | 1.....2.....3.....4.....5.....6.....7 | Very sloppy in habits |
| 52. | Very quiet | 1.....2.....3.....4.....5.....6.....7 | Very loud |
| 53. | Not at all intellectual | 1.....2.....3.....4.....5.....6.....7 | Very intellectual |
| 54. | Very careful | 1.....2.....3.....4.....5.....6.....7 | Very careless |

55. Not at all self-confident 1.....2.....3.....4.....5.....6.....7 Very self-confident
56. Feels very superior 1.....2.....3.....4.....5.....6.....7 Feels very inferior
57. Always sees self as running the show 1.....2.....3.....4.....5.....6.....7 Never sees self as running the show
58. Not at all uncomfortable about being aggressive 1.....2.....3.....4.....5.....6.....7 Very uncomfortable about being aggressive
59. Very good sense of humor 1.....2.....3.....4.....5.....6.....7 Very poor sense of humor
60. Not at all understanding of others 1.....2.....3.....4.....5.....6.....7 Very understanding of others
61. Very warm in relations with others 1.....2.....3.....4.....5.....6.....7 Very cold in relations with others
62. Doesn't care about being in a group 1.....2.....3.....4.....5.....6.....7 Greatly prefers being in a group
63. Very little need for security 1.....2.....3.....4.....5.....6.....7 Very strong need for security
64. Not at all ambitious 1.....2.....3.....4.....5.....6.....7 Very ambitious
65. Very rarely takes extreme positions 1.....2.....3.....4.....5.....6.....7 Very frequently takes extreme positions
66. Able to separate feelings from ideas 1.....2.....3.....4.....5.....6.....7 Unable to separate feelings from ideas

- | | | | |
|-----|---|---------------------------------------|---|
| 67. | Not at all dependent | 1.....2.....3.....4.....5.....6.....7 | Very dependent |
| 68. | Does not enjoy art and literature at all | 1.....2.....3.....4.....5.....6.....7 | Enjoys art and literature very much |
| 69. | Seeks out new experiences | 1.....2.....3.....4.....5.....6.....7 | Avoids new experiences |
| 70. | Not at all restless | 1.....2.....3.....4.....5.....6.....7 | Very restless |
| 71. | Very uncomfortable when people express emotions | 1.....2.....3.....4.....5.....6.....7 | Not at all uncomfortable when people express emotions |
| 72. | Easily expresses tender feelings | 1.....2.....3.....4.....5.....6.....7 | Does not express tender feelings easily |
| 73. | Very conceited about appearance | 1.....2.....3.....4.....5.....6.....7 | Never conceited about appearance |
| 74. | Retiring | 1.....2.....3.....4.....5.....6.....7 | Forward |
| 75. | Thinks men are superior to women | 1.....2.....3.....4.....5.....6.....7 | Does not think men are superior to women |
| 76. | Very sociable | 1.....2.....3.....4.....5.....6.....7 | Not at all sociable |
| 77. | Very affectionate | 1.....2.....3.....4.....5.....6.....7 | Not at all affectionate |
| 78. | Very conventional | 1.....2.....3.....4.....5.....6.....7 | Not at all conventional |
| 79. | Very masculine | 1.....2.....3.....4.....5.....6.....7 | Not at all masculine |
| 80. | Very feminine | 1.....2.....3.....4.....5.....6.....7 | Not at all feminine |

81. Very assertive 1.....2.....3.....4.....5.....6.....7 Not at all assertive
82. Very impulsive 1.....2.....3.....4.....5.....6.....7 Not at all impulsive
-

*(Note: the space between each digit on the item scale represents ten units of measure,
e.g. 1.....2.....3.....4.....5.....6.....7)

APPENDIX C

OPEN-ENDED FORM

BELOW DESCRIBE THE PERSON UNDER CONSIDERATION AS YOU WOULD EXPECT THAT
PERSON TO BE LIKE

APPENDIX D

IMAGERY QUESTIONNAIRE

WHILE YOU WERE DESCRIBING THE STIMULUS PERSON DID YOU IN YOUR MIND'S EYE PICTURE ANYONE PERSON(S) AS YOU WERE RESPONDING?

YES

NO

IF YOU ANSWERED YES TO THE QUESTION ABOVE, PLEASE INDICATE THE RELATION THAT PERSON IS TO YOU.

Authority Figure _____

Parental Figure _____

Family Relation _____

Spouse _____

Boyfriend _____

Girlfriend _____

Peer _____

Mass Media Figure _____

Other _____

PLEASE INDICATE THE AGE AND OCCUPATION OF THE RELATIONS YOU CHECKED ABOVE.

APPENDIX E

RESPONSE BOOKLET FOR OPEN-ENDED PROCEDURE

WE WOULD LIKE TO KNOW SOMETHING ABOUT PEOPLES' FIRST IMPRESSIONS. IMAGINE YOU ARE GOING TO MEET SOMEONE FOR THE FIRST TIME AND THE ONLY THING YOU KNOW IN ADVANCE IS THAT SHE IS AN ADULT. WHAT WOULD YOU EXPECT THIS PERSON TO BE LIKE?

NOW TURN THE PAGE AND FOLLOW THE INSTRUCTIONS GIVEN AT THE TOP OF THE PAGE. TAKE YOUR TIME IN RESPONDING WORKING THROUGH THE BOOKLET. WE REALIZE THIS MAY SEEM TO BE A DIFFICULT TASK BUT PLEASE TRY TO RESPOND AS YOU THINK THE PERSON UNDER CONSIDERATION WOULD BE LIKE.

BELOW DESCRIBE THE PERSON UNDER CONSIDERATION AS YOU WOULD EXPECT THAT
PERSON TO BE LIKE

WHILE YOU WERE DESCRIBING THE STIMULUS PERSON DID YOU IN YOUR MINE'S EYE PICTURE ANYONE PERSON(S) AS YOU WERE RESPONDING?

YES

NO

IF YOU ANSWERED YES TO THE QUESTION ABOVE, PLEASE INDICATE THE RELATION THAT PERSON IS TO YOU.

Authority Figure _____

Parental Figure _____

Family Relation _____

Spouse _____

Boyfriend _____

Girlfriend _____

Peer _____

Mass Media Figure _____

Other _____

PLEASE INDICATE THE AGE AND OCCUPATION OF THE RELATIONS YOU CHECKED ABOVE.

NOW WE WOULD LIKE FOR YOU TO GO THROUGH THESE SAME ITEMS A SECOND TIME. AGAIN IMAGINE YOU ARE GOING TO MEET SOMEONE FOR THE FIRST TIME AND THE ONLY THING YOU KNOW IN ADVANCE IS THAT HE IS AN ADULT. WHAT WOULD YOU EXPECT THIS PERSON TO BE LIKE?

NOW TURN THE PAGE AND FOLLOW THE SAME INSTRUCTIONS AS BEFORE.

BELOW DESCRIBE THE PERSON UNDER CONSIDERATION AS YOU WOULD EXPECT THAT
PERSON TO BE LIKE

WHILE YOU WERE DESCRIBING THE STIMULUS PERSON DID YOU IN YOUR MIND'S EYE PICTURE ANYONE PERSON(S) AS YOU WERE RESPONDING?

YES

NO

IF YOU ANSWERED YES TO THE QUESTION ABOVE, PLEASE INDICATE THE RELATION THAT PERSON IS TO YOU.

Authority Figure _____

Parental Figure _____

Family Relation _____

Spouse _____

Boyfriend _____

Girlfriend _____

Peer _____

Mass Media Figure _____

Other _____

PLEASE INDICATE THE AGE AND OCCUPATION OF THE RELATIONS YOU CHECKED ABOVE.

APPENDIX F

VALIDATION QUESTIONNAIRE

THIS IS A SECOND PART OF A STUDY ON IMPRESSION FORMATION. WE HAD PREVIOUSLY ASKED A GROUP OF SUBJECTS TO DESCRIBE VARIOUS PEOPLE BY FILLING OUT A RESPONSE FORM. WE WOULD LIKE YOU TO STUDY THE RESPONSES ON THIS ATTACHED FORM WHICH WERE USED TO DESCRIBE THESE DIFFERENT PEOPLE. THEN ON THE BASIS OF THESE RESPONSES AND YOUR IMPRESSION, PLEASE ANSWER THE FOLLOWING QUESTIONS BY MARKING THE APPROPRIATE CIRCLE ON THE IBM CARD.

1. The letter in the upper corner of this page is:
 (a) (b) (c) (d)
2. The person described in this form is of what age?
 a) 15-19 years b) 20-24 c) 25-30 d) 30-40 e) 40-
3. How confident are you of your above answer?
 a) 0-20% b) 20-40% c) 40-60% d) 60-80% e) 80-100%
4. The person's occupation is:
 a) not working b) a student c) blue collar d) white collar
 e) not enough information
5. How confident are you of your above answer?
 a) 0-20% b) 20-40% c) 40-60% d) 60-80% e) 80-100%
6. The person is a:
 a) male b) female c) not enough information
7. How confident are you of your above answer?
 a) 0-20% b) 20-40% c) 40-60% d) 60-80% e) 80-100%
8. This description is:
 a) desirable b) neither desirable nor undesirable
 c) undesirable
9. Do you consider this described person as:
 a) very well-adjusted b) adequately adjusted c) poorly adjusted
 d) not enough information

10. While you were studying this description did you in your mind's eye picture any one person?
- a) yes b) no
11. If you answered yes to the question above which of the following is that person in relation to you:
- a) family relation b) boyfriend or girlfriend c) peer
d) other e) does not apply

APPENDIX G

ITEM ANALYSIS FOR ADJECTIVE CHECKLIST

Item #	Frequency			Z-Scores	Item #	Frequency			Z-Scores
	Male	Female	Male & Female			Male	Female	Male & Female	
1	0	6	2	2.45	50	13	2	8	2.84+
2	20	13	35	1.02	51	0	0	0	0.00
3	6	10	17	1.00	52	2	0	1	1.41
4	26	6	25	3.53*M	53	10	15	9	1.00
5	2	4	1	.82	54	3	0	0	1.73
6	8	22	14	2.58*F	55	17	9	5	1.57
7	21	5	7	3.13*M	56	5	1	0	1.63
8	18	16	24	.33	57	9	5	4	1.07
9	3	4	2	.37	58	8	1	4	2.33
10	24	9	32	2.60*M	59	10	5	4	1.29
11	11	8	3	.68	60	17	12	36	.93
12	3	5	0	.71	61	6	13	3	1.61
13	21	15	19	1.00	62	0	1	0	1.00
14	9	4	4	1.33	63	18	4	17	2.98*M
15	8	4	3	1.15	64	16	9	12	1.40
16	5	16	7	2.40	65	3	3	5	0.00
17	5	2	2	1.13	66	3	2	1	.45
18	10	38	28	4.04*F	67	6	4	1	.63
19	5	1	1	1.63	68	1	1	0	0.00
20	1	8	0	2.33	69	3	2	1	.45
21	3	1	0	1.00	70	21	4	6	3.40+
22	0	0	0	0.00	71	1	8	2	2.33
23	12	1	2	3.05+	72	4	1	1	1.34
24	8	7	0	.25	73	13	10	27	.63
25	19	15	18	.68	74	0	9	0	3.00+
26	11	9	44	.45	75	14	10	21	.82
27	3	4	0	.38	76	9	1	1	2.53
28	15	18	8	.52	77	3	30	14	4.70*F
29	16	11	13	.96	78	14	13	27	.19
30	8	33	15	3.90*F	79	13	5	9	2.82+
31	11	24	31	2.19	80	18	11	18	1.61
32	10	9	21	.23	81	0	2	3	1.41
33	12	10	36	.43	82	13	17	11	.73
34	18	11	17	1.30	83	11	16	19	.96
35	5	0	1	2.23	84	55	6	0	1.80
36	4	3	3	.38	85	0	4	0	2.00
37	3	3	2	0.00	86	0	46	4	6.78*F
38	6	8	4	.53	87	4	5	0	.33
39	1	3	0	1.00	88	2	16	2	3.30+
40	8	4	0	1.15	89	1	8	0	2.33
41	27	13	26	2.21	90	16	1	2	3.64+
42	4	6	1	.63	91	12	2	7	2.67+
43	10	13	14	.63	92	1	7	1	2.12
44	12	15	4	.58	93	15	14	22	.18
45	17	18	24	.17	94	3	3	1	0.00
46	6	13	1	1.60	95	24	7	15	3.05*M
47	7	4	5	.90	96	15	16	45	.18
48	14	11	16	.60	97	2	6	1	1.41
49	12	11	15	.21	98	0	6	2	2.45

Item #	Frequency			Z-Scores	Item #	Frequency			Z-Scores
	Male	Female	Male & Female			Male	Female	Male & Female	
99	10	15	21	1.00	118	20	10	34	1.82
100	7	22	23	2.78*F	119	1	5	1	1.63
101	0	2	1	1.41	150	3	2	1	.45
102	16	12	34	.76	151	6	12	4	1.41
103	16	12	30	.34	152	10	8	4	.47
104	2	1	1	.58	153	8	6	1	.53
105	33	0	2	5.74*M	154	3	17	7	3.13+
106	9	4	1	1.38	155	4	8	1	1.15
107	1	2	1	.58	156	2	2	4	.82
108	2	2	1	0.00	157	9	14	28	1.04
109	11	8	3	1.43	158	4	5	2	.33
110	15	15	34	0.00	159	5	1	0	1.63
111	12	14	24	.39	160	6	5	6	.30
112	6	6	2	0.00	161	4	2	0	.82
113	10	10	39	0.00	162	12	8	8	.89
114	0	0	1	1.41	163	13	0	4	3.60+
115	16	14	27	.36	164	12	11	18	.21
116	4	8	1	1.15	165	13	15	18	.38
117	10	11	6	.22	166	12	8	14	.89
118	18	5	18	2.71*M	167	17	9	24	1.57
119	1	7	1	2.12	168	12	5	7	1.69
120	5	6	2	.30	169	3	0	2	1.73
121	4	9	3	1.39	170	13	14	23	.19
122	17	11	19	1.13	171	6	15	16	1.96
123	2	0	1	1.41	172	1	3	1	1.00
124	15	9	16	1.22	173	5	6	3	.30
125	15	4	11	2.52	174	15	5	6	2.24
126	0	1	1	1.00	175	5	1	0	1.63
127	7	12	5	1.15	176	12	4	3	2.00
128	9	5	2	1.07	177	12	28	22	2.53
129	2	1	1	.58	178	15	14	15	.23
130	9	2	5	2.11	179	8	22	9	2.56
131	7	2	1	1.67	180	9	5	2	1.07
132	11	13	39	.41	181	20	6	17	2.75*M
133	4	6	2	.63	182	8	5	4	.83
134	16	10	35	1.18	183	7	6	3	.28
135	4	0	1	2.00	184	7	3	2	1.26
136	13	5	10	1.89	185	2	6	2	1.41
137	0	2	1	1.41	186	14	4	10	2.36
138	4	1	1	1.34	187	0	7	0	2.64+
139	9	7	15	.50	188	7	0	0	2.64
140	9	20	31	2.04	189	0	0	0	0.00
141	2	2	1	0.00	190	15	4	10	2.52
142	5	12	6	1.69	191	3	9	4	1.73
143	13	6	17	1.61	192	0	0	0	0.00
144	5	1	2	1.63	193	13	4	13	2.18
145	12	12	15	0.00	194	2	4	1	.82
146	13	14	17	.19	195	16	11	15	.96
147	56	0	1	7.48*M	196	11	9	26	.45

Item #	Frequency				Item #	Frequency			
	Male	Female	Male & Female	Z-Scores		Male	Female	Male & Female	Z-Scores
197	5	3	2	.71	246	10	6	9	1.00
198	2	2	1	0.00	247	19	8	11	2.12
199	6	2	2	1.41	248	8	2	3	1.89
200	17	12	22	.93	249	3	1	0	1.00
201	12	10	41	.43	250	3	2	0	.45
202	2	5	0	1.13	251	35	5	9	4.74*M
203	9	10	2	.23	252	7	4	2	.90
204	12	10	15	.43	253	1	7	2	2.12
205	12	12	31	0.00	254	7	4	6	.90
206	4	7	1	.90	255	0	3	0	1.73
207	0	1	0	1.00	256	3	2	0	.45
208	3	1	1	1.00	257	3	3	4	0.00
209	10	4	3	1.60	258	11	22	11	1.46
210	5	2	0	1.13	259	15	8	18	1.46
211	6	1	3	1.89	260	3	1	1	1.00
212	11	4	2	1.81	261	11	20	20	1.62
213	21	12	27	1.57	262	4	11	2	1.81
214	15	12	17	.58	263	4	7	2	.90
215	2	6	3	1.41	264	0	1	1	1.00
216	0	3	1	1.73	265	9	11	5	.45
217	2	1	2	.58	266	14	13	30	.19
218	8	4	4	1.15	267	6	13	6	1.61
219	4	3	1	.38	268	2	8	0	1.89
220	8	14	25	1.28	269	16	10	14	1.18
221	8	21	13	2.41	270	5	5	4	0.00
222	15	7	15	1.71	271	10	2	4	2.31
223	1	1	0	0.00	272	14	13	20	.19
224	14	25	8	1.76	273	3	1	0	1.00
225	3	2	0	.45	274	1	0	0	1.00
226	15	7	8	1.71	275	2	4	1	.82
227	0	1	0	1.00	276	2	5	0	1.13
228	5	4	3	.33	277	1	1	0	0.00
229	9	2	3	2.11	278	8	17	31	2.20
230	1	14	1	3.36+	279	5	1	1	1.63
231	5	9	1	1.07	280	3	2	0	.45
232	4	11	7	1.81	281	3	0	0	1.73
233	12	16	26	.76	282	5	5	6	0.00
234	1	0	0	1.00	283	0	0	1	0.00
235	0	1	1	1.00	284	4	0	0	2.00
236	2	0	2	1.41	285	1	4	2	1.34
237	1	2	1	.58	286	1	1	1	1.00
238	4	3	3	.38	287	11	12	15	.21
239	10	14	26	.82	288	1	2	1	.58
240	6	25	10	3.41*F	289	1	0	0	1.00
241	9	9	9	0.00	290	17	13	14	.73
242	6	2	2	1.41	291	5	25	34	3.65*F
243	1	2	0	.58	292	3	1	2	1.00
244	4	6	8	.63	293	1	2	0	.58
245	7	10	3	.73	294	0	2	0	1.41

Item #	Frequency			Z-Scores
	Male	Female	Male & Female	
295	7	16	13	1.88
296	16	12	17	.76
297	1	1	0	0.00
298	18	9	20	1.73
299	3	9	0	1.73
300	2	5	2	1.13

*M = Male stereotype, $p < .01$ as well as reaching criterion of 40 percent use by sample

*F = Female stereotype, $p < .01$ as well as reaching criterion of 40 percent use by sample

+ = $p < .01$, but item did not reach criterion of 40 percent use by sample

APPENDIX H

ITEM ANALYSIS FOR STEREOTYPE QUESTIONNAIRE

Item #	Male \bar{X}	Female \bar{X}	M>F	F>M	Z-Score
1	43	41	40	41	-.73
2	48	44	51	34	1.38
3	36	37	34	43	-.106
4	51	46	59	24	3.09**
5	48	44	51	34	1.38
6	43	31	69	18	5.23***
7	32	37	34	51	-1.38
8	42	45	33	45	+.106
9	45	35	62	22	3.73***
10	46	41	45	34	+.106
11	41	38	41	38	-.53
12	30	35	28	55	2.23*
13	36	41	31	48	.74
14	45	50	29	46	.32
15	33	31	51	31	1.38
16	49	47	42	39	.32
17	33	39	28	52	1.59
18	44	37	55	29	2.23*
19	35	36	38	45	-.106
20	35	45	22	57	2.66**
21	31	38	23	55	2.23*
22	39	39	41	39	-.73
23	51	49	44	34	0.00
24	29	34	31	52	1.59
25	46	47	35	51	1.38
26	42	43	41	40	-.73
27	36	30	54	24	2.02*
28	28	28	36	37	-1.38
29	52	46	52	28	1.59
30	28	34	28	55	2.23*
31	52	50	45	33	.106
32	39	44	30	49	.95
33	50	42	59	24	3.94***
34	29	33	29	48	.74
35	31	36	27	50	1.17
36	52	55	29	51	1.59
37	47	46	38	39	-.95
38	39	44	28	53	1.81
39	43	48	53	28	1.81
40	31	29	42	36	-.31
41	43	46	31	48	.74
42	50	51	38	40	-.95
43	52	52	28	49	+.95
44	31	37	36	43	-.106
45	53	48	49	28	.95
46	48	45	47	31	.53
47	34	35	33	48	.74
48	34	44	13	68	5.01***
49	49	44	53	26	1.81
50	39	42	35	47	.53
51	32	28	49	39	.95

Item #	Male \bar{X}	Female \bar{X}	M>F	F>M	Z-Score
52	41	41	45	34	.106
53	49	48	38	34	1.17
54	33	31	41	38	-.73
55	51	46	41	32	-.73
56	37	38	36	37	1.39
57	40	41	31	44	0.00
58	38	39	34	46	.31
59	25	30	28	50	1.17
60	51	50	42	36	-.53
61	27	27	46	43	.31
62	41	39	41	36	-.73
63	43	49	25	52	1.59
64	52	49	44	30	0.00
65	41	40	46	35	.31
66	34	39	27	51	1.38
67	39	42	32	51	1.38
68	41	48	20	59	3.94***
69	27	33	25	48	.74
70	43	40	44	54	2.02*
71	42	44	33	43	-.106
72	34	30	45	36	+.106
73	44	43	45	35	+.106
74	47	44	43	31	-.106
75	44	43	27	58	2.87**
76	29	30	37	37	0.00
77	32	28	48	33	.74
78	35	37	27	48	.74
79	26	58	7	75	6.50***
80	57	24	78	9	7.14***
81	34	39	30	44	1.59
82	37	37	37	39	-.95

* $p < .05$, $Z = 1.90$

** $p < .01$, $Z = 2.58$

*** $p < .001$, $Z = 3.33$

VITA

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Master of Science

Thesis: A METHODOLOGICAL STUDY OF SEX STEREOTYPES

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