INFORMATION TO USERS

This dissertation was produced from a microfilm copy of the original document. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the original submitted.

The following explanation of techniques is provided to help you understand markings or patterns which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting thru an image and duplicating adjacent pages to insure you complete continuity.

2. When an image on the film is obliterated with a large round black mark, it is an indication that the photographer suspected that the copy may have moved during exposure and thus cause a blurred image. You will find a good image of the page in the adjacent frame.

3. When a map, drawing or chart, etc., was part of the material being photographed the photographer followed a definite method in "sectioning" the material. It is customary to begin photoing at the upper left hand corner of a large sheet and to continue photoing from left to right in equal sections with a small overlap. If necessary, sectioning is continued again — beginning below the first row and continuing on until complete.

4. The majority of users indicate that the textual content is of greatest value, however, a somewhat higher quality reproduction could be made from "photographs" if essential to the understanding of the dissertation. Silver prints of "photographs" may be ordered at additional charge by writing the Order Department, giving the catalog number, title, author and specific pages you wish reproduced.

University Microfilms

300 North Zeeb Road
Ann Arbor, Michigan 48106

A Xerox Education Company

72-24,146

RAPPAPORT, Joan C., 1940-

SEX DIFFERENCES IN AGGRESSION; WITH SPECIAL REFERENCE TO SEX-ROLE IDENTIFICATION AND MODE OF HANDLING AGGRESSION.

The City University of New York, Ph.D., 1972
Psychology, clinical

SEX DIFFERENCES IN AGGRESSION; WITH SPECIAL REFERENCE TO SEX-ROLE IDENTIFICATION AND MODE OF HANDLING AGGRESSION

by

JOAN RAPPAPORT

A dissertation submitted to the Graduate Faculty in Psychology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York

1972

This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

4/25/72
Date

Chairman of Examining Committee

5/4/72
Date

Executive Officer

Supervisory Committee

The City University of New York

Table of Contents

List of Tables

Chapter I

HISTORY OF RELEVANT LITERATURE

During the past two decades, the phenomenon of aggression has served as a major area for psychological research. One aspect of the problem which has received insufficient attention is that of sex differences in adult aggression. While sex differences have been reported with frequency in the experimental literature (Berkowitz, 1962; Buss, 1961, 1963; Feshbach, 1955), there has been little direct research on the subject involving any attempt to evaluate the meaning or theoretical implications of such differences. When said differences occur, they tend to be explained, so to speak, after the fact. Often the whole issue is avoided by using an entirely male subject population. Consequently, while a good deal is now known about aggression in men, female aggressiveness remains a relatively unexplored area.

The purpose of the present study is to investigate the relationship between sex, sex-role identification and aggression, particularly in women. The hypotheses to be

tested are derived from the theoretical position of Kagan and Moss (1962).

Aggression

Two distinct theoretical positions have been advanced to explain the nature of aggression. The first, and earlier, of these isthe Freudian view of aggression as one of the basic instincts of the human organism. For Freud, the aggressive instinct and aggressive behavior are not equivalent. The former is an instinctual impulse, while the latter is seen as a mobilization of this drive by field conditions (Rapaport, 1944). This has been called a drainage theory in that aggressive behavior is seen as directed toward frive reduction, the drive existing omnipresent within the individual.

In a more recent monograph, Anna Freud (1949) delineated three psychoanalytic theories of aggression: namely, aggression as (1) a quality of the pregenital sex manifestations: (2) a function of the ego; and (3) as the expression of the destructive instinct. Classification of aggression as an "ego-instinct" implies that such impulses are at the disposal of the ego for its purposes of preserving life and safeguarding the gaining of intellectual satisfaction. The psychoanalytic orientation

has given rise to a whole body of experimentation on aggression within a drive- or tension-reduction model, with the emphasis placed upon the fate of aggressive energy. A typical example of this work is Feshbach's (1955) now famous study on the cathartic value of a fantasy activity following arousal upon residual aggressive drive level.

In contradistinction to this is the conceptualization of aggression as a response. As one researcher put it,

> Aggression is an instrumental response that administers punishment .... All aggressive responses share two characteristics: (1) the delivery of noxious stimuli and (2) an interpersonal context.
> (Buss, 1961, 1)

This second theoretical orientation has given rise to considerable research on the antecedents of such responses. The emphasis here is on what elicits aggressive behavior rather than what happens once it has been elicited. Probably the most famous example of this orientation is the frustration - aggression hypothesis of Dollard et. al. (1939), which assumes that aggression is nearly if not always a consequence of frustration. While later investigators have tended to reject the unique role given to frustration, they continue to be in aggreement on the response, or reactive, nature of the phenomenon. This is exemplified by the work of Buss (1961), and of

Berkowitz (1962). Buss, for instance, views aggression as a habit system. He delineates four determinants of aggressive habit strength: antecedents of aggression; reinforcement history; social facilitation; and temperment (1961, 198).

With adults, proponents of both theoretical positions would agree that aggression is an organismic variable. Once a person has reached adulthood, whether by virtue of innate drive or acquired habit system, humans possess aggression. And, how much aggression an individual possesses and manifests would appear to depend upon that individual's life experience.

The present author conceptualizes aggression as an innate drive which, when aroused, tends to press for discharge behaviorally. For the purpose of the present study, aggression is being defined as the verbal expression of the impulse to attack, fight, revenge (Lindzey and Goldberg, 1953). Any behavior or response which involves retaliatory counteraggression would be subsumed under this definition. This would include aggression directed both interpersonally and intrapersonally. This investigation will deal with verbal aggression studied within a context designed to arouse anger.

Modes of Handling Aggression

That people employ various modes of handling aggression has long been recognized. For ease of conceptualization, these can be categorized into direct and indirect modes. This particular categorization can be reaced back to the original work by Dollard et. al. (1939) at Yale. Dollard and his coworkers defined direct aggression as that which was aimed at the source of the frustration. Under the rubric of indirect aggression was subsumed all aggression which, as a consequence of inhibition, was directed elsewhere. Included in this category were instances of displacement and of turning aggression inward against the self.

These two indirect modes have also received attention in psychoanalytic theory, where they are treated in a more generalized way as two common mechanisms of defense. Here, too, they are viewed as becoming operant as a consequence of conflict or inhibition, although the impulse invloved is not always seen tobe an aggressive one.

Displacement is a fairly common phenomenon; to wit, the familiar tale of the man who, insulted by his boss, goes home and kicks his dog. The general idea seems to be that aggression is likely to be displaced when its

direct expression is inhibited through such factors as fear of anticipated punishment from within or without. This notion receives experimental support from the findings reported by Dinwiddie (1955) and by Murney (1955).

For example, in Dinwiddie's study separate measures of the strengths of instigation to aggression (Moldawsky Hostility Index) and instigation to inhibition of aggression (Taylor Anxiety Scale and a measure of 'social anxiety') were obtained. A continuum of response dissimilarity was constructed. This was accomplished by using the Rosenzweig P-F Test and offering a choice of responses of varying degrees of aggression to the situation portrayed. Analysis of the data thus obtained supported the hypothesized relationships concerning displacement. When instigation to aggression was held constant, a positive correlation of .394 was found between 'social anxiety' and amount of displacement. And, with the inhibition factor held constant, a negative correlation of .626 between instigation to aggression and amount of displacement was obtained. The role of displaced aggression in the origin and maintenance of ethnic prejudice has also received considerable attention (Berkowitz, 1959; Weatherley, 1963).

According to the Yale group (Dollard et al., 1939), self-aggression is a relatively non-preferred type of

expression which should not occur unless other forms of expression are even more strongly inhibited. While its non-preferred status remains hypothetical, there has been considerable evidence reported supporting the notion that inhibited aggression may be turned inward against the self (Bornston & Coleman, 1956; Fry, 1952). Much of the work in this area has been concerned with investigating what conditions in the life history of the individual facilitate the development of this mode of handling aggression (Moulton et. al., 1966).

In the present investigation, two indices of the mechanism of turning aggression inward against the self are being employed. The first is those responses which involve self-blame, and the second is a depressed mood state (Lewin, 1961).

Sex Differences in Aggression: Children

Sex differences have received a good deal of attention in comparison with other aspects of childhood aggression. From, but not before, two years of age boys exhibit more aggressive behavior than do girls (Bandura, Ross & Ross, 1963; Buss, 1961; Maccoby, 1966; Moore, 1964). This has held true in observations of spontaneous play as

well as under laboratory conditions. In addition to gross differences in amount of aggressive behavior, boys and girls appear to differ in: (a) type of aggression exhibited; (b) effect of the sex of a model in facilitating subsequent aggression by the child; (c) response from parents; and (d) developmental trends.

The magnitude of sex difference observed appears to vary with variations in type of aggression being focussed upon. Boys exhibit significantly more physical aggression and more imitative aggression (Bandura, Ross & Ross, 1963; Buss, 1961). Differences between boys and girls in verbal aggression seem to be less marked and are often nonsignificant. Thus, the type of aggressive behavior being studied affects the magnitude of sex difference one would expect to find, and there appear to be sex-linked preferences regarding the form in which aggression is expressed.

In keeping with their general theoretical approach, Bandura's group has focused on experimental paradigms studying the transmission of aggression through imitation of aggressive models. The models employed differ with respect to sex, in degree of aggressiveness, and in whether they are seen by the subjects live or on film.

Typical of this work was a study by Bandura, Ross

and Ross (1961). Their experimental sample consisted of 72 boys and girls of nursery school age. Subjects were assigned to one of three conditions: (1) group one observed aggressive adult models; (2) group two observed nonaggressive models; and (3) a third group served as controls and had no prior exposure to the models. Half of the subjects in each group observed a same-sex model, while the remainder observed an opposite-sex model. Following exposure to the model, subjects were tested for the amount of imitative as well as nonimitative aggression performed in a new situation in the absence of the models. The effect of exposure to the models was found to vary with the sex of the model, sex of the child, and reality cues of the model.

Some interesting information emerges from the data obtained by the Bandura group. It seems that boys and girls were reacting to different aspects of this experimental setting. The male subjects' responses appeared to be primarily a function of the sex of the model being observed. In contrast, the girls seemed to be reacting more in terms of the aggressiveness or nonaggressiveness of the model than of its sex.

The information available on parental response to their children's aggressive behavior is essentially what

one would expect. Parental treatment of boys and girls differs both in magnitude and form. In general, young girls are subjected to more severe socialization of aggression than are boys (Kagan and Moss, 1962; Sears et al., 1953).

> The belief that aggressive behavior is more appropriate for males than for females is apparently acquired early in development and no doubt contributes to the girls' suppression of overt aggressive responses. (Kagan & Moss, 1962, 269)

The following information on consistency and change in aggressive behavior comes from Kagan and Moss' report (1962) on a longitudinal study conducted at the Fels Research Institute. The personality development of 89 individuals was investigated from birth to early adulthood, with aggression being one of the major behavioral areas evaluated. Kagan and Moss have presented a rather detailed description of the pattern of stability for different aggressive behaviors. The variables studied included: aggression to mother; physical and indirect aggression to peers; behavioral disorganization; conformity to adults; dominance of peers; and competitiveness.

Some of the more significant findings reported are as follows. In general, while various aspects of aggression proved to be quite stable for the male subjects, these showed great change in the developmental history of the

females studied. It was difficult to predict adult aggressive behavior or anger arousal for women from their childhood behavior. Even those females who had exhibited aggressive behavior in childhood did not continue to be aggressive in adulthood. For example, girls who were physically assaultive with peers during their first six years of life were found to be least likely to be retaliatory as adults. And, a tendency toward rage reactions in young girls predicted intellectual competitiveness, masculine interests, and dependency conflict in adult women, but not the direct expression of aggression.

Kagan and Moss view these developmental trends as a function of the female's increasing inhibition in directly expressing aggression as she grows older. And, it does seem likely that cultural prohibitions re female aggressiveness do become internalized with increasing age.

Sex Differences in Aggression: Adults

Striking sex differences have been reported with great frequency in studies of adult aggression. This has held true for a wide variety of perceptual and cognitive activities, thus representing a finding of some

generality. Significant differences have been found in: (1) aggression arousal and reduction (Buss, 1961; Feshbach, 1955; Pytkowicz, Wagner & Sarason, 1967); (2) directness and form of expression (Lindzey & Goldberg, 1953; Yates, 1965); (3) direction of expression (Moore, 1964; Weatherley, 1962); (4) perception, learning and recall (Buss, 1961; Kagan & Moss, 1962; Moore, 1966; Rosenstock, 1951; Zuckerman, 1955); and (5) humor preferences (O'Connell, 1960, 1962).

The major generalization to be drawn from studies of adults is that men are more overtly aggressive than women. It has proven both more difficult to experimentally arouse aggression in women and to elicit its expression.

Regarding the antecedents of aggression, Gillespie (1961) has provided some evidence that frustration may be a more potent stimulus for eliciting aggression in men than in women. In this study, subjects were assigned to one of three experimental arousal conditions: frustration, attack, and control. Subsequently, all groups were administered three measures designed to assess aggression. These were a word association test, a scrambled sentences task, and an attitude questionnaire. The results thus obtained were analyzed in terms of whether the two experimental groups were significantly more aggressive

than the control group, with the data from male and female subjects kept separate. For all subjects, verbal attack was found to be a more potent antecedent of aggression than frustration. Further, frustration led to somewhat more aggression than did the control condition for men but not for women.

In his now famous study of the drive-reducing function of fantasy behavior, Feshbach (1955) observed that all female subjects displayed less aggression than did the male group in both insult-fantasy and insult-control groups. Similar findings re the effect of cathartic activity are described by Buss and Foliart (1958) in their study of the effect of role-playing upon subsequent aggression. These investigators had college students engage in role-playing and then respond to selected TAT cards. The responses were then scored for violence. Buss and Foliart note finding that the effect of role-playing catharsis was to decrease the aggression scores of men and to leave unaffected the aggression scores of their female subjects.

One would expect the aggression inhibition characteristic of women to be reflected in some kind of performance decrement on tasks involving aggressive material. This is exactly what has been reported in

studies of the perception of aggressive stimuli.

For example, Zuckerman (1955) studied the effects of a frustration induced aggressive need upon the perception of neutral and aggressive words. The stimulus words were presented tachistoscopically. The female subjects had significantly higher recognition thresholds for aggressive as opposed to neutral words than did the males. Similar results have been reported by Rosenstock (1951).

Tachistoscopic presentation was also the technique used in a more recent study by Kagan and Moss (1962). In this study, ease of recognition of aggressive scenes was found to be related to the sex of the subject. For 75% of the scenes presented, women had significantly higher recognition thresholds than did the men, as well as greater delay of recall when subsequently retested. Comparable differences did not occur, for instance, in recognition thresholds for sexual scenes. If women were simply less aggressive than men, there would be no reason for this kind of performance decrement in the form of higher recognition threshold to occur.

Differences in performance have also been reported in research in the area of learning. In summarizing the experimental literature on the learning of hostile materials, Buss (1961) notes that hostile material tends

to retard learning, the retardation appearing to be greater for the more aggressive subjects. Within the framework privided by these general results, it is interesting to observe the patterns characteristic of men and women.

Buss and Durkee (1958), employing a college population, attempted to study the operant conditioning of aggressive material. A sentence construction task was utilized. Subjects were required to select one from a trio of verbs (neutral, mildly hostile, intensely hostile) for their sentence constructions. When these sentences were analyzed, significant sex differences were observed. During the initial free operant period, the female subjects emitted significantly fewer intensely hostile responses than did the men. Further, during the operant conditioning proper, women conditioned faster than did the men. On the basis of this data, men would appear to have a higher operant rate of verbal aggression than women. Being a woman evidently inhibits initial level of responding to hostile material while at the same time facilitating its rate of conditioning. Thus here as with the investigations of children, females appear to be more reactive to and affected by the aggressive connotations of the stimuli.

Rothaus and Worchel (1964) investigated the effects of various forms of catharsis conditions on the expression of aggression following experimentally induced arousal. College students served as subjects. They reported finding that male subject were more hostile to the experimenter (insulter) than female subjects. Bennett and Cohen (1963), using self-description data obtained from a large adult sample, found that women felt greater covert hostility but less overt aggressiveness.

Finally, investigation of an area such as humor preferences suggests that women's aggression inhibition is a rather extensive phenomenon. In one study by O'Connell (1962), sex differences were found to occur depending upon the background of aggression present in the joke. Men tended to favor the type of humor containing the more direct expressions of aggression, while the opposite was found to be true for women.

Sex and Mode of Handling Aggression

Since following arousal, direct overt aggressive responses tend to be inhibited in women, the question then becomes what alternative modes of handling aggression do women employ. The relationship between the sex of the

subject and their mode of handling aggressive impulses is an insufficiently explored area. However, the data that is available tends to suggest that there is a higher incidence of aggression displacement among females in both childhood and adulthood.

In an investigation by Thorne (1961), the TAT responses of college students following a frustration condition were scored for various modes of expressing aggression. A significantly higher percentage of aggression displaced to objects was found among the females studied. Similar results were reported by Moore (1964) in her rather ingenious study of children. Following the frustration condition of losing a card game, subjects were allowed to shoot a toy gun at figures bearing varying degrees of resemblance to the game winner. Analysis of the data thus obtained indicated the operation of significant sex differences. Boys tended to favor more like figures, while girls favored less like figures. Thus, it would seem that boys' aggressive responses are directed at the frustrating agent, and that girls have a greater tendency to displace aggression.

Sex-Role Identification

Sexual identification in the adult can be defined

as the tendency to view oneself as possessing patterns of attitudes and actions appropriate to, or commonly associated with, one's adult sex role (Bronfenbrenner, 1958). Biologically given sex is not synonymous with sexual identification; a wide range of sexual identifications have been found among members of each biological grouping (Mead, 1949; Stoller, 1968).

Biological factors aside, it is the strength of identification with one or the other of the parents which seems to be a key determinant of masculinity and femininity (Heilbrun, 1965; Lazowicz, 1955). When dealing with an adult population in which sex-role identification has been firmly established, one can discuss how closely a given individual's identification parallels the cultural stereotype of masculinity and femininity.

While writers on the subject employ different terminology in their descriptions, there is a common thread apparent in the definitions of masculinity and femininity. Males are described in terms of being more need achieving, enduring, autonomous, dominant, active, other directed. In contrast, females are spoken of in such terms as passive, affiliative, nurturant, emotional, inner directed.

Heilbrun has observed that,

> The boy is expected to assume more dominant, assertive, and independent roles, whereas the girl is more likely to be rewarded for more deferent, passive, dependent, and nurturant modes of behavior. (1963, 483)

Parsons and Bales (cited in Winch, 1962, 95) conceptualize the male paternal role as being 'instrumental' and the female maternal role as 'expressive'. The former involves the manipulation of the environment outside the family, while the latter calls for the management of interpersonal tensions within the family.

Sex-Role Identification and Aggression

There are strong indications that it is the individual's sex-role identification, rather than sex per se, which is the significant factor in relation to the handling of aggression (Miller and Swanson, 1960). Lansky (1960), working with male college students, reported finding a significant relationship between the two. In that study, subjects were exposed to an arousal condition and then required to finish incomplete stories about conflicts involving aggressive wishes. Those male subjects having a masculine sex-role identification tended to use realistic problem-solving in their attempts

to resolve the story conflicts. In contrast, male subjects with feminine sex-role identifications tended to favor the mechanisms of denial and withdrawal in their attempts to resolve the story conflicts.

No comparable studies have been reported for females, nor has this variable been systematically studied in past research in sex differences in aggression. However, the importance of sex-role identification has been emphasized by Kagan and Moss (1962). They hold that the sex differences typically found reflect the greater conflict over aggression for women, and indeed suggest that the need to maintain a feminine sex-role identification is the major factor underlying such conflict. The Kagan-Moss premise has received some experimental support, with aggression anxiety as the index of conflict. Cosentino and Heilbrun (1964), using a college population, report a significant relationship between the two factors. They found that greater femininity was associated with greater aggression anxiety for both males and females. In an earlier study among twelve year olds, Sears (1961) also reported finding a relationship between feminine identification and aggression anxiety.

The present investigation will focus on aggression in women. Male subjects will essentially serve as a

comparison group. Its purpose is to study the relationship between sex, sex-role identification, and aggression. The hypotheses to be tested are derived from the theoretical position of Kagan and Moss, which has already been described.

Chapter II.

HYPOTHESES AND TREATMENT OF DATA

Hypotheses

The first set of predictions concerns the relationship between the subject's sex, sex-role identification, and the reaction to aggressive material. Individuals with greater conflict over aggression would be expected to make more non-use responses when dealing with material containing aggressive content. Such non-use can be viewed as an indication of aggression inhibition.

Hypothesis 1: Women make significantly more non-use responses to aggressive material than do men.

Hypothesis 2: Within the female sample, those subjects with more highly feminine sex-role identifications make significantly more non-use responses to aggressive material than do women with less highly feminine sex-role identifications.

The second set of predictions concerns the

relationship between sex, sex-role identification, and the mode of handling aggressive impulses. Conflict over aggression should be greater for women than men, and greatest among those women with a High-Feminine sex-role identification. It should once again be reflected in some inhibition or suppression of total aggression expressed. It should also be manifested in preference for indirect modes of handling aggression, such as displacement and turning inward against the self. The greater the conflict, the less total aggression expressed, the less direct aggression expressed and the greater the occurrence of displacement and/or turning inward against the self to be expected following experimental arousal.

Hypothesis 3a: The incidence of total aggression expressed following experimental arousal is greater for men than women.

Hypothesis 3b: The occurrence of direct aggression expressed following experimental arousal is greater for men than women.

Hypothesis 3c: The occurrence of indirect aggression expressed following experimental arousal is greater for women than men.

Hypothesis 4a: Within the female sample, the

incidence of total aggression and of direct aggression expressed following experimental arousal is least for those women with more highly feminine sex-role identifications.

Hypothesis 4b: Within the female sample, the incidence of indirect aggression is greater among those women with more highly feminine sex-role identifications.

Method

In the present investigation there were three independent variables, namely: (1) sex of the subject (male and female); (2) sex-role identification (as measured by the Gough Fe Test); and (3) aggression arousal. The two dependent variables were: (1) response to aggressive material (approach-avoidance responses on the Scrambled Sentences Test); and (2) direct vs. indirect expression of aggression (as measured by the Mood Checklist and Attitude Questionnaire). The two forms of indirect expression which were being considered here were: (1) displacement (items on the Attitude Questionnaire); and (2) turning inward against the self (depression items on the Mood Checklist and self-blame

items on the Attitude Questionnaire).

Subjects

The experimental sample consisted of two hundred twenty college students, who were attending summer session at one of the city colleges of City University of New York. The students were selected from classes which were either in required subjects or in those fields which were equally likely to be chosen by males and females (i.e., Introductory English, Psychology I, Sociology I).

Subjects were assigned to one of two groups. Group I, which was composed of eighty females and thirty males, were administered the insult condition. Group 2, which was composed of the remaining eighty females and thirty males, were administered the non-insult control condition. Male and female experimental and male and female control groups were matched for age, educational background and sex-role identification.

Materials

Gough Fe Test. This was the measure employed to assess sex-role identification. Scores on this test are presumed to reflect 'conscious' femininity, or the degree

of overt acceptance of the preferences, attitudes and interests which are culturally defined as appropriate for females.

In its current form, the Fe Test is composed of thirty-eight true-false items. It discriminates significantly between men and women, and has split-half reliabilities of .88 for females and .86 for males. The scale is also capable of differentiating within same-sex samples. Data obtained in extensive cross-cultural research provides further evidence of its applicability and validity (Gough, 1966).

Scrambled Sentences Test. Scrambled sentence and sentence construction techniques have been employed with considerable effectiveness in past experiments on aggression (Buss and Durkee, 1958; Gillespie, 1961; Wahler, 1959; Watson et. al., 1955).

In the form employed in the present experiment, the test consists of twenty-seven items of four words each. The twenty-seven sentence groups were selected from an initial pool of fifty-eight items. For each item the subject is asked to drop one word and then rearrange the remaining three into a sentence. For example, " call I'll you tell" can be arranged to read either "I'll call

you" or "I'll tell you."

Fifteen of the items can be arranged to form either an aggressive or a neutral sentence. Three of the groups can only be arranged to form an aggressive sentence, varying in intensity. An illustration of this is the group, "I'll pinch punch you." The remaining nine items can only be arranged to form neutral sentences. These latter have been included in order to obscure the actual nature of the task.

The fifteen aggressive sentences vary in the intensity of the act described and in the target (human, animal, inanimate); i.e., in who is doing what to whom. Hence, an individual subject is provided with a wide spectrum of aggressive content. Two of the sentence groups contained the additional feature of involving what can be termed 'justified' aggression, or aggression toward more socially acceptable targets (i.e., "shoot the scene spy"). Since women's expression of aggression is generally less socially sanctioned, it was decided to include these items. Subjects' handling of aggression toward these more socially acceptable human targets could then be compared to their aggression involving other human targets.

Subjects' sentence constructions were analyzed in

terms of five categories of response. These were as follows:

(1) total number of aggressive sentences (with a possible range of 0 to 15).

(2) human aggression (with a possible range of 0 to 10).

(3) nonhuman aggression - i.e., aggression involving animals or inanimate objects (with a possible range of 0 to 5).

(4) justified aggression (with a possible range of 0 to 2).

(5) intense aggression - derived from the three sentences described previously, in which a subject can choose to select an aggressive sentence varying in intensity. For this group of sentences only the more intense aggressive sentence received a score, so that the possible range went from 0 to 3.

An intensity category was included for the following reason. During pretesting of the instrument, an interesting phenomena became apparent. There appeared to be a tendency for those women who gave fewest number of aggressive sentences to, when placed in a situation where an aggressive sentence construction could not be avoided,

give the more intensely aggressive response. To obtain further information on this quite interesting pattern of responding, the three intensity items were included in the Scrambled Sentences Test.

Attitude Questionnaire. This is a commonly used method of assessing aggressiveness following experimental arousal which has frequently been employed since its initial use by Feshbach (1955). The form being utilized in the present investigation is patterned after the questionnaires which were developed by Ford and Herson (1967) and Kaufman and Feshbach (1963), and contains items from both these sources.

The test is composed of nine statements. These statements are phrased both positively and negatively, in an effort to avoid any yea-saying set on the part of the subject. The subject is asked to rate each one on a six-point scale, from "strongly agree" to "strongly disagree". Consequently, on any item subjects can receive a score ranging from 0 to 3. Individual items deal with the subject's attitude toward: (1) the experimenter; (2) the subject himself; (3) his co-subjects; (4) the experiment; and (5) the test materials.

The test is so constructed as to allow for responses

of direct aggression and indirect aggression (displaced aggression and aggression turned inward against the self). There was 100% agreement among the present author and two psychologists who served as independent judges as to the kind of aggression represented by each of the nine items.

Only the presence of one of the three forms of aggression received a score, with the absence of said form of aggression being given a zero rating. Thus, while it appears as though any given item can be scored from 0 to 6, in actuality only scores from 0 to 3 are obtained. The exact scores assigned to each item are included in the copy of the Attitude Questionnaire which can be found in the Appendix.

Direct aggression was operationally defined as any aggression expressed toward the experimenter (insulter). There were three items designed to tap this area, for example the statement, "I think the experimenter's attitude was uncalled for". On any one item, a subject's score could range from 0 to 3. As previously noted, zero represents the absence of direct aggression.

As previously noted, the total indirect aggression score, which could range from 0 to 18, was composed of two factors. The first of these dealt with displacement, there being three items designed to tap this area. There

were two ways in which a displacement response was credited. They were operationally defined as follows:

(1) in the absence of direct aggression, any aggression directed at other than the experimenter.

(2) when aggression directed at other than the experimenter is greater than the aggression expressed directly, then the difference is taken as an index of displacement.

Hence, on any given item a subject's score could range from 0 to 3, and the total displacement score obtainable could range from 0 to 9.

The second component of the indirect score involved aggression turned inward against the self. The remaining three test items were designed to tap this area, with a possible score of from 0 to 3 on each item, and a total possible score of 0 to 9 for this component. An illustration of the items included in this category is the statement, "I cant blame the experimenter for his attitude in view of how slowly I was working". With this method of scoring, one can obtain both separate scores for the two indirect components as well as a composite indirect aggression score.

In addition, a total aggression score was computed.

This score is the sum of a given subject's scores on the three aggression subscales (direct, displaced, turning inward against the self). Consequently, a total aggression score obtained by a given subject could vary from 0 to 27.

Mood Checklist. A modified form of the Nowlis-Green Mood Adjective Check List (Nowlis, 1965) was utilized to assess the subject's affective state. Previous research has provided evidence that such checklists are quite sensitive to variations in induced mood states.

In its present form, the test consists of nine words concerning mood. Each item is rated on a five-point scale, with a possible range in scores of from 0 to 4 on each item. The depression subscale is composed of three adjectives (items two, six and nine). The tension subscale is also composed of three adjectives (items one, four and seven). The remaining three adjectives are neutral items.

The scores on the three depression items were combined into a total depression score for each of the two administrations of the Mood Checklist. Hence, for each administration a subject could obtain a total depression score ranging from 0 to 12. The final depression score that was obtained represents a difference or shift score,

which was calculated in the following manner. Each subject served as their own control. For each subject:

Depression Score = depression score for 2nd administration minus depression score for 1st administration.

In order to control for initial differences in depression level and to, it was hoped, increase the meaningfulness of the data obtained, depression scores thus calculated were then compressed into a three-point scale. On this scale, a score of "1" means that the subject shows a decrease in depression from first to second administration, a score of "2" indicates no change, and a score of "3" indicates an increase in depression from first to second administration. Hence, it was the direction of the change, if any, rather than the absolute quantitative size of the change which was tabulated.

Exactly the same procedure was employed in scoring the three-item tension subscale. Although no hypotheses specifically related to this scale, it was included because it was felt that it might provide interesting information on residual tension levels in relation to the expression of aggression.

Insult Condition. This is one of the standard methods employed in the experimental arousal of aggression.

This technique has been used with great success by Feshbach (1955), Gellerman (1956) and, more recently, Kaufman and Feshbach (1963).

Immediately following the administration of the Scrambled Sentences Test, subjects in Group I were sharply criticized for their scrambled sentence creations vis a vis the generally low level of work produced, unimaginativeness, and the subjects' own immaturity and slowness in completing the task. In other words, they were subjected to a very unfair attack. It was felt that unfairly criticizing the subjects' own productions and themselves personally should prove more ego-involving (and hence more arousing) than, for instance, Feshbach's original procedure in which arousal was produced solely by insulting subjects' test performance on a mathematics test.

The exact words employed in the insult can be found on page 38. The insulter was introduced as a graduate student, and hence not very different in status from the subjects themselves. The insult was extremely arbitrary in nature and content, and was reported by the subjects as being experienced as such by them. Extensive pretest administration indicated that this form of arousal proved to be quite successful with a college population.

Subjects in general became visibly angered, showed some unwillingness to complete the experiment, etc. Their introspective reports, which were obtained at the end of the experiment, also clearly suggested the effectiveness of the experimental induction.

Interview. The brief, clinical interview which was administered to a small subsample of female subjects was relatively unstructured in form. Its purpose was to add to the data obtained by the more traditional paper-and-pencil techniques being employed with the entire experimental sample. Not surprisingly, the two areas which served as the focus for the interview were sex-role identification and the handling of aggression.

Information on sex-role identification was elicited in a variety of ways. These included direct requests for definitions of masculinity and femininity, and questions dealing with self- and ideal-image. The subject's view of, and identification with, parents was also elicited. Subjects were asked to describe their parents. They were asked which parent they liked best, resembled most, and would most like to be like. Information on other significant childhood identification figures was also obtained.

In order to gain a more complete picture of how

subjects viewed themselves, they were asked what they expected to be doing in five and ten years. The remaining items dealing with sex-role identification were directed at how subjects conceptualized the roles of husband and wife. Such aspects as earning money, making major decisions, childrearing and housekeeping served as the focus of enquiry. Subjects responses to these questions could then be compared to the traditional roles assigned to husband and wife in our society.

The second area of interest concerned the handling of aggression. Enquiry into this area was begun with a discussion of the most recent occasion on which the subject could remember feeling aggressive. Information on the cause and on how aggressive impulses were then handled was elicited. Next, the usual mode of handling aggression in a variety of situations was covered. These included incidents with parents, peers, siblings, authority figures. The occurrence of both physical aggression in childhood and depression in adulthood was also discussed. A final series of questions dealt with the subject's response to the present experiment.

Procedure

The following procedure was employed. The experiment was administered to subjects in groups of approximately twenty, within their regular classrooms. The experimenter was introduced as a graduate student engaged in research. Subjects were asked to cooperate by taking a series of tasks which would require approximately thirty minutes of their time. It was suggested that all questions not directly concerning how to complete the various tasks be held until the end of the session.

The plan of administration was as follows. The Mood Checklist and the Gough Fe Test were administered to all subjects. Next, the Scrambled Sentences Test was given to all subjects who were instructed to return it to the experimenter as soon as it had been completed. The results were visibly examined by the experimenter.

Subjects in the insult condition were then told the following:

"I'm really surprised at you people. It took you almost twice as long as any other group to complete this. And, the sentences you made up were really lousy - so dull and unimaginative.

A high school class could have done better." Subjects in the control group were merely told that the work they had done was satisfactory. Following this, all subjects were instructed to complete the remaining material which had been given to them. This consisted of the Attitude Questionnaire followed by a second administration of the Mood Checklist. This completed the plan of administration of the experiment proper. Subjects were then told about the experiment and the real reason for the insult condition was fully explained. Subjects were then asked if they wished to volunteer for an additional interview session. From those who agreed to volunteer, five high-feminine and five low-feminine female subjects who underwent the insult condition were interviewed individually.

Chapter III.

RESULTS

General Considerations

In Table 1 are presented the means and standard deviations of the scores obtained by the present sample on the Gough Fe Test, the measure of sex-role identification. In addition, Gough's norms (1966, 137) for the Fe Test are presented for comparison.

Insert Table 1 about here

It can be seen that the scores obtained for the present experimental and control groups do not differ significantly either from each other or from the norms obtained by Gough.

Findings

Scrambled Sentences

The first analysis conducted concerned the hypothesized relationship between sex of the subject and non-use responses to aggressive material. The latter was

Table 1

Gough Fe Test Scores

Group	Mean	s.d.
Experimental Female	23.68	2.80
Control Female	23.49	3.22
Experimental Male	16.77	3.44
Control Male	16.27	3.96
Gough Female Sample	23.36	3.39
Gough Male Sample	16.26	3.63

measured in terms of the total number of aggressive sentence constructions on the Scrambled Sentences Test. It will be remembered that there were fifteen sentences which could be arranged into either an aggressive or a neutral alternative. All two hundred twenty experimental subjects entered into the comparison and analysis. The significance of the differences in mean number of aggressive sentences for men and women was evaluated by means of the t test. The relevant experimental findings are presented in Table 2.

- -

Insert Table 2 about here

- -

The statistical comparison presented in Table 2 supports the hypothesized relationship between a given subject's sex and their use or non-use of aggressive material. Women were found to make more non-use responses to aggressive material than were men. The difference between the two groups achieved statistical significance at beyond the .01 level.

Fifteen sentences could be constructed into an aggressive or non-aggressive alternative. Hence, on a chance basis, one might expect subjects to obtain mean scores of approximately 7.5 aggressive sentences. A

Table 2

Relationship Between

Sex and Number of Aggressive Sentences

Group	Aggressive Sentences		
	mean	s.d.	t-value
Females	3.56	2.43	4.48*
Males	5.25	2.62	

statistical analysis of these means (chance expectation and actual mean obtained) reveals the following. While the female sample differs significantly from what one would expect on the basis of chance ($p < .05$), the male sample does not ($p > .05$).

Information concerning the proportions of the various kinds of aggressive sentences constructed by male and female subjects is presented in Table 3.

- -

Insert Table 3 about here

- -

Examination of the comparison presented in Table 3 reveals that the male and female groups fail to differ significantly in the kinds of aggressive sentences constructed. Hence, the sex difference appears to occur in relation to the absolute number of aggressive sentences constructed but not in the kind of aggressive sentences constructed.

Comparison of male and female group's incidence of 'justified' aggression sentence constructions also failed to reveal significant differences. For example, females had a mean score of .69, or 19% of their total human aggression scores. Males achieved a mean score of .85, or 16% of their total human aggression scores.

Comparison of male and female groups' constructions

Table 3

Sex of Subject and

Proportion of Kinds of Aggressive Sentences

Group	Aggressive Sentences		z-value
	human/ total	other/ total	
Females	.598	.402	.27*
Males	.616	.384	

*p>.05

in the intensity category failed to reveal significant differences between the two groups. Females achieved a mean score of 1.08, as compared with a mean score of 1.73 for males.

Information on the relationship between sex-role identification and the non-use of aggressive material is presented in Table 4. It had been hypothesized that those female subjects with more highly feminine sex-role identifications would evidence greater non-use of aggressive material. This was measured in terms of the correlation between femininity and number of aggressive sentence constructions, with all two hundred twenty subjects entering into the analysis. Although the relevant hypothesis only dealt with femininity and non-use of aggressive material among women, a similar analysis was conducted for males and is presented as well.

- -

Insert Table 4 about here

- -

For female subjects, there was a small but statistically significant negative correlation between femininity scores and number of aggressive sentences. A slightly greater negative correlation between femininity scores and number of aggressive sentences was obtained

Table 4

Relationship Between Sex-Role Identification and Number of Aggressive Sentences

Group	#subjects	r-value
Females	160	_.257*
Males	60	_.368**

*p<.01

**p<.01

for male subjects. Although the correlations obtained were small, they were in the direction predicted and achieved statistical significance at beyond the .01 level of probability. Hence, the hypothesized relationship between sex-role identification and the non-use of aggressive material is supported.

In light of the low correlations obtained, an additional statistical evaluation of the second hypothesis was conducted, employing an analysis of covariance technique. Information from that analysis is presented in Table 5. This analysis of covariance was set up in a rather unusual form, owing to the nature of the variables involved. The ideal would have been to extract or control for the variable of sex. However, this was patently impossible. The only alternative was to control for the variable of sex-role identification, which is precisely the operation that was performed.

- -

Insert Table 5 about here

- -

The result thus obtained can be stated as follows. When the variable of femininity is controlled for, there then fail to be significant differences between male and female subjects in their total number of aggressive

Table 5

Analysis of Covariance:

Sex, Sex-Role Identification and Aggressive Sentences

Source	SS YY	Sum-Square (due regression)	Sum-Square (about regression)	df	Mean-Square
Treatment (between)	125.18				
Error (within)	1344.74	115.22	1229.52	217	5.66
Treatment + Error (total)	1469.93	240.22	1229.71	218	
Difference for testing Adjusted Treatment Means			.191	1	.191

Null Hypothesis: no difference among treatments after adjusting with covariates.

$F \frac{1df}{217df} = .034$ n.s.

sentences. Hence, despite the rather convoluted form in which the analysis of covariance was constructed, the findings obtained provide additional support for the hypothesized relationship between feminine sex-role identification and the non-use of aggressive material.

Attitude Questionnaire

The remaining findings all deal with the subjects' handling of aggression following exposure to a condition of experimental arousal. It was the data obtained from the responses on the Attitude Questionnaire which entered into the statistical tests conducted.

The first hypothesis to be evaluated concerned the amount of total aggression expressed following arousal. This was posited to be greater for men than for women. An analysis of variance design for cells with unequal n's was employed, with both experimental and control group subjects entering into the comparison. The relevant information is presented in Tables 6a and 6b.

- -

Insert Table 6a about here

- -

- -

Insert Table 6b about here

- -

Table 6a

Relationship Between

Sex of Subject and Total Post-Arousal Aggression

Group	Females			Males		
	Total Aggression			Total Aggression		
	#sub.	mean	s.d.	#sub.	mean	s.d.
Experimental	80	5.863	3.884	30	8.333	3.263
Control	80	1.738	2.139	30	1.467	2.193

Table 6b

Analysis of Variance:

Sex and Total Aggression

Source	F	df
A (arousal)	142.265*	1/216
B (sex)	5.699**	1/216
C (interaction)	8.851***	1/216

*p<.01 **p<.05 ***p<.01

For 1 and 216 degrees of freedom, F values of 3.89 and 6.76 are needed to achieve statistical significance at the .05 and .01 levels respectively.

The analysis of variance presented in Table 6b reveals some highly significant findings. Examination of the data obtained clearly reveals that the arousal condition employed in the present experiment proved highly effective. The experimental (arousal) group exhibited more aggression than did a comparable control group. The differences between experimental and control conditions achieved significance at well beyond the .01 level.

The sex of the subject also proved to be a highly significant factor. Male subjects exhibited more total aggression on the Attitude Questionnaire than did female subjects. The difference between the two groups achieved significance at beyond the .05 level. Finally, there was a notable interaction effect between sex of subject and arousal. Male subjects showed a greater increase in total aggression expressed following arousal than did female subjects. This interaction effect was statistically significant at beyond the .01 level. Consequently, the hypothesis that total aggression scores would be greater for men than for women following experimental arousal

received support from the findings obtained.

The next analysis concerned the relationship between sex of the subject and the incidence of direct aggression expressed on the Attitude Questionnaire. It was hypothesized that, following a condition of experimental arousal, male subjects would exhibit significantly more direct aggression than would female subjects. The relevant data was evaluated by means of a 2x2 analysis of variance design for cells with unequal n's. Both experimental and control group subjects entered into the comparison. The relevant findings are presented in Tables 7a and 7b.

Insert Table 7a about here

Insert Table 7b about here

The statistical analysis presented in Tables 7a and 7b indicate highly significant results concerning all aspects under consideration. The experimental findings clearly support the hypothesis that direct aggression would be significantly greater among men than women.

Examination of the data obtained once again reveals

Table 7a

Relationship Between

Sex of Subject and Direct Aggression

Group	Females			Males		
	Direct Aggression			Direct Aggression		
	#sub.	mean	s.d.	#sub.	mean	s.d.
Experimental	80	3.275	2.783	30	5.233	2.344
Control	80	.413	1.133	30	.433	.971

Table 7b

Analysis of Variance:

Sex of Subject and Direct Aggression

Source	F	df
A (arousal)	153.712*	1/216
B (sex)	10.255**	1/216
C (interaction)	9.828***	1/216

*$p < .01$
**$p < .01$
***$p < .01$

that the arousal condition proved highly effective. The experimental (arousal) group expressed considerably more direct aggression than did a comparable control group. The difference achieved significance at far beyond the .01 level.

In addition, the sex of the subject was found to be a highly significant factor. Male subjects expressed more direct aggression on the Attitude Questionnaire than did female subjects. The difference between the two groups was found to be significant at beyond the .01 level. Here, too, there was a significant interaction effect between the sex of the subject and the effect of arousal. There was a greater increase in direct aggression following arousal among male subjects than female subjects.

The third hypothesis to be evaluated involved the relationship between sex of the subject and incidence of indirect aggression. It was hypothesized that, following arousal, females would exhibit significantly more indirect aggression than would men.

The measure of indirect aggression was derived from scores on two separate instruments; namely, items on the Attitude Questionnaire and pre-post-arousal shifts on the depression items of the Mood Checklist. Data from these two sources will be presented separately, beginning with

the Attitude Questionnaire scores. The data was analyzed using a 2x2 analysis of variance design for cells with unequal n's. All two hundred twenty subjects entered into the analysis performed. The relevant findings are presented in Tables 8a and 8b.

- -

Insert Table 8a about here

- -

- -

Insert Table 8b about here

- -

The statistical comparison presented in Table 8b indicates significant differences only vis a vis the arousal condition. Subjects who underwent the arousal condition expressed more indirect aggression than did those in a comparable control group. The differences achieved statistical significance at beyond the .01 level.

Both the variable of sex and the interaction effect failed to achieve statistical significance. Consequently, the findings obtained fail to support the hypothesis that women would exhibit more indirect aggression following arousal than would men. In fact, when one examines the mean scores for men and women, it is the former who expressed slightly (although not significantly) more indirect aggression.

Table 8a

Relationship Between

Sex of Subject and Indirect Aggression

Group	Females			Males		
	Indirect Aggression			Indirect Aggression		
	#sub.	mean	s.d.	#sub.	mean	s.d.
Experimental	80	2.588	2.232	30	3.100	2.249
Control	80	1.350	1.707	30	1.133	1.613

Table 8b

Analysis of Variance:

Sex of Subject and Indirect Aggression

Source	F	df
A (arousal)	28.604*	1/216
B (sex)	.244**	1/216
C (interaction)	1.481***	1/216

*$p < .01$ **$p \geq .05$ ***$p > .05$

Additional analyses were conducted for the two components of indirect aggression; namely, displaced aggression and aggression turned inward. The relevant data was analyzed by means of a 2x2 analysis of variance design for cells with unequal n's. All two hundred twenty subjects entered into the analysis performed. The relevant findings are presented in Tables 9a, 9b, 10a, and 10b.

- -

Insert Tables 9a and 9b about here

- -

- -

Insert Tables 10a and 10b about here

- -

The statistical comparisons presented in Tables 9b and 10b indicate significant differences only vis a vis the arousal condition. Subjects who underwent the arousal condition expressed both more displaced aggression and more aggression turned inward than did those in a comparable control group. The differences achieved statistical significance at beyond the .01 level. Both the variable of sex and the interaction effect failed to achieve statistical significance. This, then, mirrors exactly the pattern found to hold true for the composite indirect aggression category.

Table 9a

Relationship Between

Sex of Subject and Displaced Aggression

Group	Females			Males		
	Displaced Aggression			Displaced Aggression		
	#sub.	mean	s.d.	#sub.	mean	s.d.
Experimental	80	1.200	1.174	30	1.633	1.352
Control	80	.725	.981	30	.633	1.189

Table 9b

Analysis of Variance:

Sex of Subject and Displaced Aggression

Source	F	df
A (arousal)	18.396*	1/216
B (sex)	.987**	1/216
C (interaction)	2.331	1/216

*p< .01 **p> .05 ***p> .05

Table 10a

Relationship Between

Sex of Subject and Aggression Turned Inward

Group	Females			Males		
	Inward Aggression			Inward Aggression		
	#sub.	mean	s.d.	#sub.	mean	s.d.
Experimental	80	1.388	1.845	30	1.467	1.776
Control	80	.625	1.205	30	.500	1.137

Table 10b

Analysis of Variance:

Sex of Subject and Aggression Turned Inward

Source	F	df
A (arousal)	13.742*	1/216
B (sex)	.010**	1/216
C (interaction)	.192***	1/216

*p< .01 **p> .05 ***p> .05

Up to this point, the absolute incidence of direct and indirect aggression has been considered. However, it should be kept in mind that the Attitude Questionnaire was so constructed that it was weighted in favor of indirect aggression. The latter scores had a range of 0 to 18, as opposed to a range of 0 to 9 for the direct aggression scores. As a result, it was also necessary to consider the proportion of total aggression expressed in direct and indirect form. To evaluate this, a chi square test of the difference between two proportions was performed. The relevant data from this analysis are given in Table 11.

Insert Table 11 about here

Examination of the findings presented in Table 11 reveal the following. While there is a slight trend in the expected direction, this does not even come close to approaching statistical significance.

Mood Checklist

Data provided by the depression difference scores on the Mood Checklist was evaluated by means of a 2x2

Table 11

Chi Square Test of Significance

Group		Direct Aggression	Indirect Aggression
Female Experimental	$\bar{X}$	3.28	2.59
	%	56%	44%
Male Experimental	$\bar{X}$	5.23	3.10
	%	60%	40%

$x^2 = .144$ $p > .05$

analysis of variance design used previously. All two hundred twenty subjects entered into the analysis. The results are presented in Table 12.

Insert Table 12 about here

Examination of the findings presented in Table 12 indicate that the depression scale failed to yield any significant results, or even trends in that direction. In contrast to the analyses presented previously, not even the arousal condition produced any change in depression scores. Both differences between males and females and interaction effects also failed to be observed to any significant degree.

Data derived from the three tension items on the Mood Checklist was also evaluated by means of a 2x2 analysis of variance design, with all two hundred twenty subjects entering into the comparison. The findings are presented in Table 13.

Insert Table 13 about here

Examination of the comparison presented in Table 13 reveals significant differences only with respect to the

Table 12

Analysis of Variance:

Sex of Subject and Depression

Source	F	df
A (arousal)	.145*	1/216
B (sex)	.491**	1/216
C (interaction)	1.490***	1/216

*P>.05 **p>.05 ***p>.05

Table 13

Analysis of Variance:

Sex of Subject and Tension

Source	F	df
A (arousal)	2.438*	1/216
B (sex)	9.099 **	1/216
C (interaction	.020***	1/216

*p>.05 **p< .01 ***p> .05

factor of sex. Male subjects exhibited significantly greater tension than did female subjects. The difference between the two groups achieves statistical significance at beyond the .01 level. In contrast to must of the other analyses which had been conducted, the arousal condition failed to show a significant effect.

Attitude Questionnaire: Sex-role Identification

The information which follows involves the findings on the relationship between sex-role identification, or more specifically femininity, and the mode of handling aggression following experimental arousal.

For the purpose of the analyses involving the variable of femininity, the female sample was divided into three groups. The breakdown used was approximately 30% high-feminine, 40% average-feminine, and 30% low-feminine. Subjects were assigned to these three groups on the basis of their score on the Gough Fe Test, which was the measure used to assess sex-role identification. Hence, female subjects with scores of 26 and above were assigned to the high-feminine category, those scoring 23 to 25 were placed in the average-feminine category, while the remaining subject scoring 22 and below were

assigned to the low-feminine category.

The first analysis concerned the hypothesized relationship between sex-role identification and total aggression expressed following experimental arousal. It was hypothesized that total aggression scores would be lowest for the high-feminine group. In order to evaluate the data obtained, a 3x2x2 analysis of variance design for cells with unequal n's was employed. All one hundred sixty female subjects entered into the analysis.

Comparison of the mean scores obtained by the three female groups indicates a trend in the predicted direction. However, a rather different picture emerges from the actual statistical analysis. The findings are presented in Tables 14a and 14b.

- -

Insert Table 14a about here

- -

- -

Insert Table 14b about here

- -

Examination of the findings presented in Table 14b show that there were significant differences only vis a vis the arousal condition. All female subjects who underwent the arousal condition exhibited more total

Table 14a

Relationship Between

Sex-role Identification and Total Aggression in Women

Sex-Role Identification	Experimental Group			Control Group		
	Total Aggression			Total Aggression		
	#sub.	mean	s.d.	#sub.	mean	s.d.
High-Feminine	22	5.364	4.44	24	1.500	2.00
Average-Feminine	31	5.742	3.32	28	1.571	1.97
Low-Feminine	27	6.407	4.09	28	2.107	2.42

Table 14b

Analysis of Variance:

Sex-role Identification and Total Aggression for Women

Source	F	df
A (arousal)	65.161*	1/152
B (femininity)	1.112**	2/152
C (interaction)	2.812***	2/152

*p < .01

**p > .05

***p > .05

aggression than did a comparable control group. These differences achieved statistical significance at beyond the .01 level. Both the variable of sex-role identification and the possible interaction effects failed to achieve significance at even the .05 level.

The apparent trend evident in the examination of the mean scores obtained by the three female groups was not borne out by the statistical analysis. Consequently, the hypothesized relationship between high-feminine sex-role identification in women and the expression of low total aggression following arousal failed to receive support.

It had also been hypothesized that, within the female sample, the incidence of direct aggression expressed following arousal would be least for those women with more highly feminine sex-role identifications. Data pertinent to the relationship between direct aggression and feminine sex-role identification was evaluated by means of a 3x2x2 analysis of variance design for cells with unequal n's. All one hundred sixty female subjects entered into the analysis. The pertinent information is presented in Tables 15a and 15b.

- -

Insert Table 15a about here

- -

Table 15a

Relationship Between Sex-role Identification and Direct Aggression for Women

Sex-Role Identification	Experimental Group			Control Group		
	Direct Aggression			Direct Aggression		
	#sub.	mean	s.d.	#sub.	mean	s.d.
High-Feminine	22	2.818	2.91	24	.250	.67
Average-Feminine	31	3.065	2.66	28	.357	1.06
Low-Feminine	27	3.889	2.82	28	.607	1.47

Insert Table 15b about here

The statistical comparison presented in Table 15b once again indicates significant findings only in relation to the arousal condition. Female subjects who underwent the arousal condition exhibited more direct aggression than did a comparable control group. The difference achieved statistical significance at beyond the .01 level.

While the mean scores obtained by the three female groups appear to be in the predicted direction, the statistical analysis reveals that these differences are not significant. Consequently, the hypothesized relationship between low incidence of direct aggression and high-feminine sex-role identification among women fails to receive support from the analysis of the experimental findings.

The next analysis conducted concerned the relationship between sex-role identification among women and indirect aggression. It was posited that the incidence of indirect modes of handling aggression would be greater among those women with more highly feminine sex-role identifications. Once again, a 3x2x2 analysis

Table 15b

Analysis of Variance: Sex-Role Identification and Direct Aggression for Women

Source	F	df
A (arousal)	68.451*	1/152
B (femininity)	1.678**	2/152
C (interaction)	.540***	2/152

*p < .01

**p > .05

***p > .05

of variance design for cells with unequal n's was employed. The relevant findings are presented in Tables 16a and 16b.

Insert Table 16a about here

Insert Table 16b about here

The analysis of variance presented in Table 16b provides a rather mexed picture. The arousal condition proved to be highly effective in producing aggression. Experimental subjects who underwent the arousal condition exhibited significantly more indirect aggression than did a comparable control group. The difference achieved statistical significance at beyond the .01 level.

As with the analyses involving total and direct aggression scores, sex-role identification did not prove to be a significant factor. Women with highly feminine sex-role identifications did not exhibit significantly more indirect aggression than did women with average- or low-feminine sex-role identifications. Consequently, the hypothesized relationship between sex-role identification and incidence of indirect aggression fails to receive

Table 16a

Relationship Between Sex-Role Identification and Indirect Aggression for Women

Sex-Role Identification	Experimental Group			Control Group		
	Indirect Aggression			Indirect Aggression		
	#sub.	mean	s.d.	#sub.	mean	s.d.
High-Feminine	22	2.546	2.69	24	1.333	1.71
Average-Feminine	31	2.677	2.088	28	1.214	1.42
Low-Feminine	27	2.519	2.06	28	1.500	1.90

Table 16b

Analysis of Variance: Sex-Role

Identification and Indirect Aggression for Women

Source	F	df
A (arousal)	13.923*	1/152
B (femininity)	.074**	2/152
C (interaction)	3.788***	2/152

*p< .01

**p > .05

***p< .05

support from the data analysis. Finally, there was a significant interaction effect, one which is rather difficult to interpret. It is that women with average-feminine sex-role identifications showed a greater incidence of indirect aggression under the arousal condition than did the remaining two groups of female subjects.

The relationship between sex-role identification and direct and indirect aggression scores on the Attitude Questionnaire for male subjects was evaluated by means of a correlational analysis. All thirty subjects in the experimental group entered into the analysis. The results are presented in Table 17.

- -

Insert Table 17 about here

- -

Examination of the information presented in Table 17 reveals the following. Following arousal, among male subjects the correlations between sex-role identification and the various forms of aggression responses on the Attitude Questionnaire failed to achieve significance at the .05 level. This is essentially the same as the pattern found for females.

Table 17

Relationship Between

Males' Sex-Role Identification and Aggression Scores

Type of Aggression	r-value
Direct	+.191*
Indirect	−.015**
Displaced	+.063***
Turned Inward	−.066****

*p> .05

**p> .05

***p> .05

****p> .05

Mood Checklist: Sex-role Identification

It will be remembered that a second measure of indirect aggression was employed, namely, the shift in depression scores on the Mood Checklist. Data obtained from this measure had failed to reveal any differences between men and women. Because of this it was not anticipated that it would reveal differences between female subjects who varied along the dimension of sex-role identification. This proved to be the case.

To evaluate the data obtained, a correlational analysis was conducted. The correlation between femininity and depression shift scores for the experimental female group was +.138, which fails to attain statistical significance at the .05 level. For the comparable male group, a positive correlation of .146 was obtained, which also fails to attain statistical significance at the .05 level. Hence, it too provides no support for the hypothesized relationship between high-feminine sex-role identification and incidence of indirect aggression following arousal.

The correlations between femininity and tension shift scores for the two experimental groups also failed to achieve statistical significance at the .05 level.

For the females, a positive correlation of .068 was obtained. For the males, a positive correlation of .181 was obtained.

Additional Findings

Due to the practical exigencies of the situation (the voluntary nature of the task, the fact that subjects were attending summer session, etc.), it proved possible to obtain only five high-feminine and five low-feminine female subjects who had undergone the experimental arousal condition for the interview. Because of the small sample obtained, the analysis of interview data could only be done in qualitative rather than quantitative terms. The first area which the interview dealt with involved various aspects of sex-role identification. This material is presented below.

Subjects in both high- and low-feminine groups spoke of femininity and masculinity in essentially similar terms. Femininity was defined in such terms as soft, emotional, submissive, receptive. Masculinity, on the other hand, was defined in terms of strength, endurance, self-control.

When asked to describe their parents, there was

some divergence between the two groups. The high-feminine women tended to describe their parents as occupying somewhat more traditional roles. Mothers were spoken of as more sociable, passive-receptive, emotional; fathers as more emotionally self-controlled, stronger, intellectual. In contradistinction, for the low-feminine group there was a noticeable tendency for these roles to be reversed. Consequently, for this group it is possible that a female's identification with her mother is in actuality an identification with a masculine model.

When asked to describe themselves, the high-feminine subjects tended to speak of themselves as emotional, friendly. Their ideal tended to involve being calmer, steadier, more relaxed. The low-feminine subjects, in contrast, described themselves as shyer and calmer, and wished to be more outgoing. They also expressed more concern over being a better, more understanding person.

Differences between the two groups were also apparent when it came to questions concerning the roles assigned to husband and wife. The high-feminine group once again tended to take a more traditional stance when it came to such things as assigning primary responsibility for childrearing, earning money, decision-making and housekeeping.

The handling of aggression was the second area dealt with in the interview. The results of this enquiry are rather interesting. Both groups described similar kinds of things as arousing aggression. However, their mode of handling it differed. High-feminine subjects described themselves as tending to withdraw, grit their teeth, hold it in. In contradistinction, low-feminine subjects tended to behave in a more overtly aggressive manner, to yell, fight, argue. This held true for aggression aroused in general and in relation to parents and peers. When it came to siblings, both groups of subjects appeared to feel equally free about fighting. Finally, when asked about the incidence of depression, subjects in both groups described themselves as occasionally becoming depressed.

A final question which was posed to subjects was that of whether they felt that being aggressive was unfeminine. There was a notable tendency for subjects in the high-feminine group to respond in the affirmative, with the opposite being true for those in the low-feminine group.

Summary of Findings

Hypothesis 1 stated that women make significantly more non-use responses to aggressive material than do men. The difference between the two groups was evaluated by means of a t test, the results of which supported the postulated relationship between sex of subject and non-use of aggressive material.

The experimental findings also provided support for the second hypothesis. Both the correlational analysis and the analysis of covariance indicated that women with more highly feminine sex-role identifications show greater non-use of aggressive material than do women with less highly feminine sex-role identifications.

Hypothesis 3a stated that the total aggression expressed following experimental arousal would be greater for men than women. The relevant data was evaluated by means of an analysis of variance design. The findings thus obtained provide support for the hypothesized relationship between sex of subject and total aggression expressed following experimental arousal.

Hypothesis 3b dealt with the direct aggression expressed following experimental arousal. This was also posited to be greater for men than women. The observed

differences between the scores obtained by the two groups was evaluated by means of an analysis of variance design. The results of this analysis provide support for the hypothesized relationship between sex of subject and occurrence of direct aggression.

The final section of the third hypothesis concerned the occurrence of indirect aggression expressed following experimental arousal. This was expected to be greater for women than men, the differences between the two groups once again being subjected to an analysis of variance. The experimental findings fail to support the hypothesized relationship between sex of subject and occurrence of indirect aggression.

Hypothesis 4a stated that, within the female sample, women with more highly feminine sex-role identifications would exhibit the least total aggression and the least direct aggression following experimental arousal. An analysis of variance design was employed to evaluate the relevant data. The findings thus obtained fail to support the hypothesized relationship between sex-role identification and occurrence of either total aggression or direct aggression expressed following experimental arousal.

The final hypothesis dealt with the occurrence of indirect aggression, which was postulated as being greater

among those women with more highly feminine sex-role identifications. An analysis of variance design was once again employed. The results thus obtained fail to support the hypothesized relationship between sex-role identification and occurrence of indirect aggression expressed following experimental arousal.

Chapter IV.

DISCUSSION

Sex differences in aggression have proved to be the rule rather than the exception in studies of human aggression. Such is essentially the case in the present investigation.

The first area explored in this study involved the occurrence of sex differences in the non-use of aggressive material. It was hypothesized that women would show more non-use of aggressive material than would men, and this is precisely what was found. The male sample had a mean number of 5.25 aggressive sentences, as compared with 3.56 for female subjects. The apparent differences between the two groups proved to be statistically significant. Similar findings have been reported by Sarason et. al. (1965).

One is then faced with the question of understanding the nature of these differences. The non-use exhibited by women could be interpreted in several ways. It could be taken as reflecting the inhibition of aggression arising from the fact that women experience more conflict over aggression than do men. It could also be interpreted

as reflecting the fact that in our society it is not, even at this date, considered proper for women to express as much aggression as men, i.e., that by not constructing aggressive sentences women were merely giving the socially approved response. In other words, this could simply be a case of conscious suppression. In addition, the aggressive cues contained in the sentences may not have had the same cue properties for women than men, based upon past reinforcement history. The fact that the specific words employed generally dealt with physical aggression, which should be even more verboten for women than men, may have contributed to this effect. Had the Scrambled Sentences Test included more items involving verbal aggression, a different pattern of sex differences might have been found.

Several things mitigate against the second interpretation. To begin with, there is the nature of the task itself. Included in the test were two sentences involving what might be termed 'justified' aggression, that is, aggressive themes having more socially approved content. Examination of the data reveal that the incidence of occurrence of these sentences was not very different for women than for men (19% for the former as opposed to 16% for the latter). But by far the most

potent support for the conflict and aggression inhibition interpretation is provided by the findings on the role of sex-role identification, particularly in men.

For both women and men, those subjects having a more feminine sex-role identification constructed fewer aggressive sentences. Although the correlations obtained were on the low side, their significance receives further support from the analysis of covariance which was performed. To restate the findings from this analysis, when the factor of femininity is controlled for or extracted the hitherto significant sex differences no longer achieve significance.

It thus appears that femininity is a constant factor, and a significant one, in the non-use of aggressive material. Consequently, at least with regard to the handling of aggressive material, it is not biological gender per se but rather the internal psychological phenomenon of sex-role identification which must be given consideration in any investigation of this area.

It is also important to note that greater femininity in men as well as women is associated with greater conflict over aggression as seen in the non-use of aggressive material. Apparently, sex-role identification - once it is established - plays a major role in the response to aggressive material whether or not this response is consonant or dissonant with the socially approved role

assigned to one's gender.

These findings on sex-role identification and the handling of aggressive material concommitantly lend support to the theory from which the present investigator's hypotheses were derived. It will be remembered that Kagan and Moss (1962) had postulated that women experience greater conflict over aggression, with the major factor underlying that conflict being the need to maintain a feminine sex-role identification. It follows that those women with more highly feminine sex-role identifications would experience more conflict over aggression. As a consequence, they would show greater non-use of aggressive material, and this is precisely what has been found. It is also important to note that the between-sexes and within-sexes difference occur only with respect to the total number of aggressive sentence constructions and not to the type of aggressive sentence constructed (i.e., human vs. other).

The picture is fairly clear regarding the relationship between sex, sex-role identification, and the handling of aggressive material. As will shortly be seen, it is not so clear when one comes to the relationship between sex, sex-role identification and the mode of handling aggression following experimental arousal.

The insult procedure used for the arousal condition appeared to be highly effective. This is apparent from the

highly signigicant results obtained in all statistical comparisons between experimental and control groups. Subjects introspective reports, obtained at the end of the experiment, also attested to the fact that both considerable anger and counteraggressive impulses had been aroused. The experimenter's own observations of subjects behavior and facial expressions following the insult also suggested that considerable affect had been aroused. Some groups of subjects had to be strongly encouraged to even complete the experiment. There were also more subtle signs that the arousal condition had proved arousing. The test materials had been handed out in two sections which were attached by a paper clip. Almost without exception, subjects undergoing the control condition returned their paper clips while subjects undergoing the insult condition did not.

These findings are consonant with those reported by Gillespie (1961). In that experiment as well, an insult condition proved effective in arousing aggressive responses in both male and female subjects, when compared to comparable control groups.

The second series of hypotheses in the present study concerned the relationship between sex and mode of handling aggression following experimental arousal. The sex

differences predicted to occur were as follows. Men were expected to exhibit more total aggression and more direct aggression than were women. These hypotheses received support from the experimental findings obtained. Such findings are very much what one would expect on the basis of previous studies in the area (cf. Buss, 1961). What makes this even more striking is the following. It will be remembered that the Attitude Questionnaire was composed of three items assessing direct aggression and six items assessing indirect aggression. It was, then, wighted in favor of subjects exhibiting indirect aggression receiving higher total aggression scores. Despite this, men still achieved higher total aggression scores.

It was also posited that women would exhibit more indirect aggression than men. While there was some tendency for a greater proportion of thewomen's total aggression to be expressed in indirect form, in absolute terms the sex differences did not prove significant. The hypothesized relationship between sex of subject and occurrence of indirect aggression failed to be proven.

The final set of hypotheses dealt with the relationship between sex-role identification and mode of handling aggression. Within the female sample, women

with more highly feminine sex-role identifications were expected to exhibit the least total aggression, the least direct aggression, and the most indirect aggression. Analyses of the results obtained proved quite disappointing. None of the hypothesized relationships between sex-role identification and mode of handling aggression received experimental support.

This lack of significant findings raises two issues. The first of these concerns why sex-role identification did not appear to be an important factor in relation to the handling of aggression following arousal, when it had proved to be so in relation to the non-use of aggressive material. It may in fact be that sex-role identification plays a role in only some but not all aspects of aggression. However, there is a second possibility. In the present experiment the sample size was limited, necessitating using approximately the top thirty percent of the women in the high-feminine group. Given a larger population, it would be possible to use a more extreme group for the high-feminine sample, such as the top ten percent.

The second issue of interest is the question of why no results were obtained vis a vis indirect aggression. Certainly, information derived from the interview data,

although sparse, would tend to suggest that at least some high-feminine women do in their lives handle aggression more indirectly.

One possibility is that the types of indirect aggression included in the present study were either not the appropriate ones or were insufficient to tap this area. For example, some of the aggression aroused may have simply been suppressed or repressed. Using instruments which would allow for a wider range of indirect modes might facilitate exploration in this area.

It would also have been advisable to administer the Mood Checklist to one portion of the experimental sample prior to the Attitude Questionnaire, since this is one instrument which tends to be strongly affected by the factor of order of administration. According to one investigator (Singer, 1969), when it is given after a Feshbach-type Attitude Questionnaire, it tends to pick up only residual effects if any. Hence, if it had been given immediately following the experimental induction, it might have yielded more significant results.

There is a second possibility. What we may be seeing is the operation of a kind of threshold effect. While women express less direct aggression than do men, they may be expressing a sufficient amount so that the

remainder does not need to be handled by indirect modes. Hence, it may be that only where there is more extensive inhibition of direct aggression than was the case in the present experiment that one observes a significant utilization of indirect modes of handling aggression. This would be consonant with the Yale group's thesis that self-aggression is a relatively nonpreferred type of expression which should not occur unless other forms of expression are more strongly inhibited (Dollard et. al., 1939).

Implications

Probably the most important implication of the present experimental findings is as follows. In any future research on aggression, the variable of sex-role identification and not just biological gender deserves to be included.

The hypotheses in this experiment were derived from the Kagan-Moss thesis regarding the role of sex-role identification in the sex differences in aggression. Their theoretical position received only partial support from the findings obtained. Because of the limitations inherent in the present study, it cannot be determined if this is a function of the present study's limits or in

fact reflects the need for some modification of their theory. Certainly, a more rigorous test of the theory appears warranted.

There are also interesting questions raised by the fact that the arousal condition proved to be so consistently effective. As previously noted, this was also reported to be the case in the experiment conducted by Gillespie (1961). It is, however, in marked contrast to the findings reported by several other investigators (Feshbach, 1955; Pytkowicz et. al., 1967) who apparently did not arouse aggression in their female subjects despite their employing essentially similar arousal techniques. The differences may result from the fact that the latter two employed a design involving an interposed activity, while the present researcher and Gillespie did not. It may be that the aggression aroused in women is in some way more transitory and therefore must be measured immediately. At the same time, it may be that women are expressing more aggression than was previously the case.

One final issue which has not been dealt with concerns the effect of the sex of the experimenter. In the present investigation, the experimenter was female and essentially no attempt was made to control for this

variable. There has been little research conducted vis a vis the effect of the sex of the experimenter on sex differences in adult aggression. Buss (1963), for example, reported finding that men aggressed more against men than against women, whereas women aggressed less against victims of either sex. Unfortunately, this study dealt with physical aggression. Therefore, its applicability to verbal aggression is debatable. Nevertheless, it is also an area which warrants further research.

APPENDIX

MOOD CHECKLIST

Each of the following words describes feelings or mood. Please use the list to describe your feelings at the moment you read each word. Place a check mark after each adjective so as to describe how you feel at the present time. Work rapidly. Give your first reaction.

	Very	Quite	Some-what	Very Little	Not At All
tense	___	___	___	___	___
sad	___	___	___	___	___
affectionate	___	___	___	___	___
anxious	___	___	___	___	___
thirsty	___	___	___	___	___
lonely	___	___	___	___	___
clutched-up	___	___	___	___	___
playful	___	___	___	___	___
discouraged	___	___	___	___	___

Gough Test

Directions: here is a list of statements. Read each one, decide how you feel about it, and then mark your answer. If you agree with a statement, or feel that it is true about you, circle TRUE. If you disagree with a statement, or feel that it is not true about you, circle FALSE. Try to answer all of the questions. If you find a few questions which you cannot or prefer not to answer, they may be omitted.

CIRCLE ONE

T F 1. I want to be an important person in the community.

T F 2. I like mechanics magazines.

T F 3. I think I would like the work of a librarian.

T F 4. I'm pretty sure I know how we can settle the international problems we face today.

T F 5. I must admit I feel sort of scared when I move to a strange place.

T F 6. I like to go to parties and other affairs where there is lots of loud fun.

T F 7. If I were a reporter I would like very much to report news of the theatre.

T F 8. I would like to be a nurse.

T F 9. If I get too much change in a store I always give it back.

T F 10. I very much like hunting.

T F 11. I would like to be a soldier.

T F 12. I think I could do better than most of the present politicians if I were in office.

T F 13. I like to be with a crowd who play jokes on one another.

CIRCLE ONE

T F 14. It is hard for me to start a conversation with strangers.

T F 15. In school I was sometimes sent to the principle for cutting up.

T F 16. I think that I would like the work of a building contractor.

T F 17. I think that I am stricter about right and wrong than most people.

T F 18. I am somewhat afraid of the dark.

T F 19. I am very slow in making up my mind.

T F 20. I like to boast about my achievements every now and then.

T F 21. I think I would like to drive a racing car.

T F 22. I must admit that I enjoy playing practical jokes.

T F 23. I always tried to make the best school grades that I could.

T F 24. I am inclined to take things hard.

T F 25. The thought of being in an automobile accident is very frightening to me.

T F 26. The average person is not able to appreciate art and music very well.

T F 27. I like adventure stories better than romantic stories.

T F 28. I think I would like the work of a garage mechanic.

T F 29. A windstorm terrifies me.

T F 30. I become quite irritated when I see someone spit on the sidewalk.

T F 31. Sometimes I have the same dream over and over.

CIRCLE ONE

T F 32. I get excited very easily.

T F 33. Sometimes I feel that I am about to go to pieces.

T F 34. I think I would like the work of a dress designer.

T F 35. At times I feel like picking a fist fight with someone.

T F 36. I prefer a shower to a bath tub.

T F 37. I think I would like the work of a clerk in a large department store.

T F 38. I get very tense and anxious when I think other people are disapproving of me.

SCRAMBLED SENTENCES TASK

DIRECTIONS: Construct one sentence for each of the groups of words below by dropping one word and arranging the remaining three.

For example: "call I'll you tell" can be arranged to read either "I'll call you" or "I'll tell you."

After reading the group of words, write the first sentence you think of in the space provided. Remember, one sentence for each group.

1.	her	shake	break	hand
2.	mow	hay	the	hit
3.	busy	he	stupid	is
4.	the	throw	bomb	ball
5.	the	drum	eggs	beat
6.	nails	your	fist	use
7.	grapes	buy	grow	some
8.	scene	spy	the	shoot
9.	the	man	clothes	hang
10.	bring	child	mind	the
11.	out	let	knock	him
12.	foolish	she	working	is
13.	man	the	problem	attack
14.	pinch	punch	I'll	him
15.	her	give	help	time
16.	fix	smash	lock	the
17.	watch	the	bounce	ball

18.	the	see	slap	mosquito
19.	boy	the	brain	train
20.	window	the	wash	break
21.	the	find	kill	traitor
22.	break	kick	habit	the
23.	seek	find	treasure	the
24.	alive	burn	find	them
25.	some	wood	gather	chop
26.	dress	rip	sew	the
27.	kill	kick	her	we'll

Evaluation Inventory

The Psychology Department is running a number of studies and is keenly aware of its responsibilities toward its students. Your frank answers will help us in evaluating our methods.

DIRECTIONS:

On the following page are a number of questions regarding your reactions to the experiment you have just participated in. For each question, check the response which most closely approximates your attitude or feeling. Please answer all items.

	Strongly Agree	Moderately Agree	Slightly Agree	Slightly Disagree	Moderately Disagree	Strongly Disagree
1. The experimenter did his job well.	0	0	0	1	2	3
2. Apart from his professional competence, the experimenter was unpleasant to work with.	3	2	1	0	0	0
3. I dont do well on this type of test.	3	2	1	0	0	0
4. I found my fellow subjects' company pleasant.	0	0	0	1	2	3
5. I imagine my fellow subjects found the experimenter pleasant to work with.	0	0	0	1	2	3
6. I think the experimenter's attitude was uncalled for.	3	2	1	0	0	0
7. The materials used were dull and uninteresting.	3	2	1	0	0	0
8. I didn't do as well as the other students in the group.	3	2	1	0	0	0
9. I cant blame the experimenter for his attitude in view of how slowly I was working.	3	2	1	0	0	0

REFERENCES

Bandura, A., Ross, D., & Ross, S.A. Imitation of film-mediated aggressive models. J. abnorm. soc. Psychol., 1963, 66, 3-11.

Bennett, E.M., & Cohen, L.R. Men and women: personality patterns and contrasts. Genet. Psychol. Monogr., 1959, 59, 101-155.

Berkowitz, L. Aggression: a social psychological analysis. New York: McGraw-Hill, 1962.

_____. Anti-semitism and the displacement of aggression. J. abnorm. soc. Psychol., 1959, 59, 182-187.

Bieliauskas, V.J. Recent advances in the psychology of masculinity and femininity. J. psychol., 1965, 60, 255-263.

Bieliaskas, V.J., Miranda, S.B., and Lansky, L.M. Obviousness of two masculinity-femininity tests. J. consult. clin. Psychol., 1968, 32, 314-318.

Bornston, F.L. & Coleman, J.C. The relationship between certain parents' attitudes toward child rearing and the direction of aggression of their young adult offspring. J. clin. Psychol., 1956, 12, 41-44.

Breger, L. Conformity as a function of ability to express hostility. J. pers., 1963, 31, 245-255.

Bronfenbrenner, U. The study of identification through interpersonal perception. In R. Tagiuri & L. Petrullo (eds.). Person perception and interpersonal behavior. Stanford: Stanford University Press, 1958, 110-130.

Buss, A.H. Instrumentality of aggression, feedback, and frustration as determinants of physical aggression. J. pers. soc. Psychol., 1966, 3, 153-162.

_____. Physical aggression in relation to different frustrations. J. abnorm. soc. Psychol., 1963, 67, 1-7.

_____. The psychology of aggression. New York: Wiley, 1961.

Buss, A. & Durkee, A. An inventory for assessing different kinds of hostility. J. consult. Psychol., 1957, 21, 343-348.

Caine, T.M. The expression of hostility and guilt in melancholic and paranoid women. J. consult. Psychol., 1960, 24, 18-22.

Chorost, S.B. Parental child-rearing attitudes and their correlates in adolescent hostility. Genet. Psychol. Monogr., 1962, 66, 49-90.

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

Deutsch, H. The psychology of women: a psychoanalytic interpretation. New York: Grune & Stratton, 1944, vol. I.

Dicken, C.F. Convergent and discriminant validity of the California Psychological Inventory. Educ. Psychol. Measmt., 1963, 23, 449-459.

Dinwiddie, F.M. An application of the principle of response generalization to the prediction of displacement of aggressive responses. Washington: Catholic University Press, 1955.

Dollard, J., Miller, N.E., Doob, L.W., Mowrer, O.H. & Sears, R.R. Frustration and aggression. New Haven: Yale University Press, 1939.

Engel, I. A factor-analytic study of items from five masculinity-femininity tests. J. consult. Psychol., 1966, 30, 565.

Ferguson, D.C. & Buss, A.H. Operant conditioning of hostile verbs in relation to experimenter and subject characteristics. J. consult. Psychol., 1960, 24, 324-327.

Feshbach, S. The drive-reducing function of fantasy behavior. J. abnorm. soc. Psychol., 1955, 50, 3-11.

_____. The function of aggression and the regulation of the aggressive drive. Psychol. Rev., 1964, 71, 257-272.

Ford Jr., L.H. & Herson, M. Need approval, defensive denial, and direction of aggression in a failure-frustration situation. J. pers. soc. Psychol., 1967, 6, 228-232.

Freud, A. Notes on aggression. Bull. Menninger Clin., 1949, 13, 143-151.

Fry, F.D. A normative study of the reactions manifested by college students and by state prison inmates in response to the Minnesota Multiphasic Personality Inventory, the Rosenzweig Picture-Frustration study, and the Thematic Apperception Test. J. Psychol., 1952, 34, 27-30.

Ganzer, V.J. & Sarason, I.G. Interrelationships among hostility, experimental conditions, and verbal behavior. J. abnorm. soc. Psychol., 1964, 68, 79-84.

Gellerman, S. The effects of experimentally induced aggression and inhibition on word-association response sequences. Unpublished doctor's dissertation, University of Pennsylvania, 1956.

Gillespie, J. Aggression in relation to frustration, attack and inhibition. Unpublished doctor's dissertation, University of Pittsburgh, 1961.

Gough, H.G. A cross-cultural analysis of the CPI Femininity Scale. J. consult. Psychol., 1966, 30, 136-140.

_____. Identifying psychological femininity. Educ. Psychol. Measmt., 1952, 12, 427-439.

_____. Manual for the California Psychological Inventory. Palo Alto: Consulting Psychologists Press, 1957.

Heilbrun, A.B. Conformity to masculinity-femininity stereotypes and ego identity in adolescents. Psychol. Rep., 1964, 14, 351-357.

_____. The measurement of identification. Child Developmt., 1965, 36, 111-127.

_____. Sex-role identity and achievement motivation. Psychol. Rep., 1963, 12, 483-490.

_____. Sex-role, instrumental-expressive behavior, and psychopathology in females. J. abnorm. soc. Psychol., 1968, 73, 131-136.

Hokanson, J.E. & Burgess, M. The effects of status, type of frustration and aggression on vascular processes. J. abnorm. soc. Psychol., 1962, 65, 232-237.

Hokanson, J.E. & Edelman, R. Effects of three social responses on vascular processes. J. pers. soc. Psychol., 1966, 3, 442-447.

Kagan, J. & Moss, M.A. Birth to maturity. New York: Wiley, 1962.

Kahn, M. The physiology of catharsis. J. pers. soc. Psychol., 1966, 3, 278-286.

Kaufman, H. Definitions and methodology in the study of aggression. Psychol. Bull., 1965, 64, 351-364.

Kaufman, H. & Feshbach, S. Displaced aggression and its modification through exposure to anti-aggressive communication. J. abnorm. soc. Psychol., 1963, 67, 79-83.

Lansky, L.M. Mechanisms of defense: Sex identity and defenses against aggression. In D.R. Miller & E.G. Swanson (eds.). Inner conflict and defense. New York: Holt, 1960, 272-288.

Lazowicz, L.M. On the nature of identification. J. abnorm. soc. Psychol., 1955, 51, 175-182.

Lewin, B.D. Reflections on depression. Psychoanal. St. Chld., 1961, 16, 321-331.

Lindzey, G. & Goldberg, M. Motivational differences between male and female as measured by the TAT. J. pers., 1953, 22, 101-117.

Lipsitt, P.D. & Strodtbeck, F.L. Defensiveness in decision making as a function of sex-role identification. J. pers. soc. Psychol., 1967, 6, 10-15.

Maccoby, E. (ed.). The development of sex differences. Stanford: Stanford University Press, 1966.

Mallick, S. & McCandless, E. A study of catharsis of aggression. J. pers. soc. Psychol., 1966, 4, 591-596.

Mead, M. Male and female. New York: Morrow, 1949.

Moore, M. Aggression themes in a binocular rivalry situation. J. pers. soc. Psychol., 1966, 3, 685-688.

Moore, S.G. Displaced aggression in young children. J. abnorm. soc. Psychol., 1964, 68, 200-204.

Moulton, R.W., Burnstein, E., Liberty Jr., P.G. & Altucher, N. Patterning of parental affection and disciplinary dominance as a determinant of guilt and sex typing. J. pers. soc. Psychol., 1966, 4, 356-363.

Mueller, W.J. & Grater, H.A. Aggression conflict, anxiety, and ego strength. J. consult. Psychol., 1965, 29, 130-134.

Murney, R.G. An application of the principle of stimulus generalization to the prediction of object displacement. Washington: Catholic University Press, 1955.

Murray, E.J. & Berkun, H.M. Displacement as a function of conflict. J. abnorm. soc. Psychol., 1955, 51, 47-56.

Nelson, J.T. & Epstein, S. Relationships among three measures of conflict over hostility. J. consult. Psychol., 1962, 26, 345-350.

Nowlis, V. Research with the mood adjective check list. In S. Tomkins and C. Izard (eds.). Affect, cognition, and personality. New York: Springer, 1965, 352-389.

O'Connell, W.E. An item analysis of the wit and humor appreciation test. J. soc. Psychol., 1962, 56, 271-276.

_____. The adaptive functions of wit and humor. J. abnorm. soc. Psychol., 1960, 61, 263-272.

Okel, E. & Mosher, D.L. Changes in affective states as a function of guilt over aggressive behavior. J. consult. clin. Psychol., 1968, 32, 265-270.

Otis, N.B. & McCandless, B. Responses to repeated frustrations of young children differentiated according to need area. J. abnorm. soc. Psychol., 1955, 50, 349-353.

Pytkowicz, A.R., Wagner, N.N. & Sarason, I.G. An experimental study of the reduction of hostility through fantasy. J. pers. soc. Psychol., 1967, 5, 295-303.

Rosenbaum, M.E. & DeCharms, R. Direct and vicarious reduction of hostility. J. abnorm. soc. Psychol., 1960, 60, 105-111.

Rosenkrantz, P., Vogel, Sl, Beo, H., Broverman, I. & Broverman, D.M. Sex-role stereotypes and self-concepts in college students. J. consult. clin. Psychol., 1968, 32, 287-295.

Rosenstock, I.M. Perceptual aspects of repression. J. abnorm. soc. Psychol., 1951, 46, 304-315.

Rothaus, P. & Worchel, P. Ego-support, communication, catharsis, and hostility. J. pers., 1964,32,296-312.

Sanford, N. The dynamics of identification. Psychol. Rev., 1955, 62, 106-118.

Sarason, I.G., Ganzer, V.J. & Granger, J.W. Self-description of hostility and its correlates. J. pers. soc. Psychol., 1965, 1, 361-365.

Sears, P.S. Doll-play aggression in normal young children: Influence of sex, age, sibling status, father's absence. Psychol. Monogr., 1951, 65, 6 (Whole No. 323).

Sears, R.R. Relation of early socialization experience to aggression in middle childhood. J. abnorm. soc. Psychol., 1961, 63, 466-492.

Stoller, R.J. Sex and gender. New York: Science House, 1968.

Thorne, E. The use of sentence construction to study frustration and the displacement of aggression. Unpublished master's dissertation, City College of New York, 1961.

Veldman, D.J. & Worchel, P. Defensiveness and self-acceptance in the management of hostility. J. abnorm. soc. Psychol., 1961, 63, 319-325.

Wahler, H.J. Hostility and aversion for expressing hostility in neurotics and controls. J. abnorm. soc. Psychol., 1959, 59, 193-198.

Watson, R.E., Pritzker, L. & Madison, P. Hostility in neurotics and normals. J. abnorm. soc. Psychol., 1955, 50, 36-40.

Weatherley, D. Maternal permissiveness toward aggression and subsequent TAT aggression. J. abnorm. soc. Psychol., 1962, 65, 1-5.

_____. Maternal response to childhood aggression and subsequent anti-Semitism. J. abnorm. soc. Psychol., 1962, 66, 183-185.

Winch, R.F. Identification and its familial determinants. New York: Bobbs-Merrill, 1962.

Worchel, P. Catharsis and the relief of hostility. J. abnorm. soc. Psychol., 1957, 55, 238-243.

Yates, A.J. (ed.). Frustration and conflict. New York: Van Nostrand, 1965.

Zuckerman, M. The effect of frustration on the perception of neutral and aggressive words. J. pers., 1955, 23, 407-422.