

SEX ROLE IDENTIFICATION AND THE
DRAW-A-PERSON TEST

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Thesis presented to the School of
Psychology and Education of the
University of Ottawa as partial
fulfillment of the requirements
for the degree of Master of
Arts.



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ACKNOWLEDGEMENTS

This thesis was prepared under the guidance of Gilles Chagnon, M.Ps., of the School of Psychology of the University of Ottawa.

The writer is also indebted to Dr's. Hugh McLeod and Harry Hutchison of the Toronto Psychiatric Hospital for kindly making material from their case files available for this study.

CURRICULUM STUDIORUM

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TABLE OF CONTENTS

Chapter	page
INTRODUCTION	vi
I.-THE CONCEPT OF SEX ROLE IDENTIFICATION	1
1. Development of this Process	1
2. Reactions to Identification in Two Clinical Groups	4
II.-REVIEW OF THE LITERATURE	7
1. Sex Role Identification and Drawing Sequence	7
2. Sex Role Identification and Sexual Differentiation	11
III.-THE PRESENT STUDY	17
1. Statement of the Problem	17
2. The Sample Groups	19
3. Procedure	21
IV.-RESULTS AND DISCUSSION OF DRAWING SEQUENCE	25
1. The First Drawn Figure	25
2. Refusal to Draw the Female Figure	31
V.-RESULTS AND DISCUSSION OF SEXUAL DIFFERENTIATION	34
1. The Data from the Three Sample Groups	34
2. Clinical Application of the Findings	34
3. Interpretation of the Findings	40
SUMMARY AND CONCLUSIONS	53
BIBLIOGRAPHY	57
 Appendix	
1. PROCEDURE FOR SCREENING NORMAL GROUP	64
2. RATING SCALE FOR DRAWINGS OF HEADS ONLY	70
3. RAW DATA FROM THE THREE SAMPLE GROUPS	74
4. ABSTRACT OF <u>Sex Role Identification and the D.A.P. Test</u>	77

LIST OF TABLES

Table	page
I.- Distribution of Three Clinical Groups by Sex of First Figure on the <u>D.A.P. Test</u>	26
II.- Drawing Sequence, Choice of Sexual Partner, Age and Marital Status of Seven Homosexual Subjects	32
III.- Table of Variance for Sexual Differentiation Ratings of Three Clinical Groups by Two Independent Judges	36
IV.- Means, Standard Deviations and Differences Between Means of Sexual Differentiation Ratings for Three Clinical Groups	37
V.- Percentages of Three Clinical Groups Falling At or Below Various Cutting Scores on Swensen's <u>Scale</u>	41
VI.- Percentage Distribution into Three Clinical Groups of the Total Number of Subjects Scoring at Each Level on Swensen's <u>Scale</u>	44
VII.- Sexual Differentiation Scores of Seven Incomplete <u>D.A.P.</u> Tests from the Homosexual Sample	73
VIII.- Sex of First Drawn Figure and Sexual Differentiation Scores on Original Swensen <u>Scale</u> for Each Member of the Homosexual Group	74
IX.- Sex of First Drawn Figure and Sexual Differentiation Scores on the <u>D.A.P. Test</u> for Each Member of the Normal Group	75
X.- Sex of First Drawn Figure and Sexual Differentiation Scores on the <u>D.A.P. Test</u> for Each Member of the Paranoid Group	76

INTRODUCTION

An assumption, widely held among clinicians, is that the graphic productions of an individual reveal the structure and dynamics of his personality. Prominent among the many graphic techniques employed in the study of personality are those which involve the drawing of human figures. Machover¹ was the first author to publish the proposal that the manner in which an adult draws the human figure can be considered as a projection of his psychological make-up and from this proposition the clinical tool known as the Draw-A-Person Test has evolved.

One of the many components of personality believed to be reflected by the D.A.P. Test is sex role identification, that is, the sex role which an individual adopts as his own and in terms of which he patterns his behaviour and values. Two ways in which sex role identification is thought to be manifested on the D.A.P. Test are

1^o through the sex of the first drawn figure, assumed to be indicative of the sex whose role one has adopted, and

¹ Karen Machover, Personality Projection in the Drawing of the Human Figure, Springfield, Illinois, Thomas, 1949, ix-181 p.

2° through the degree to which the sexual characteristics of the male and female figures are clearly differentiated, assumed to be indicative of the clarity with which one has established a sex role identification.

Many theorists have also proposed that disturbances in the direction and clarity of sex role identification are among the major causes of certain pathological conditions of thought and behaviour. Therefore, it should follow that groups manifesting these pathologies would reflect them on the D.A.P. Test. On the basis of this reasoning, a rationale and experimental design will be put forward and an investigation carried out to determine if this is indeed the case.

Chapter I of this report will present a discussion of the manner in which the process of sex role identification is believed to develop normally in members of the male sex, the situations found to disturb this process and the types of pathology which can result. Specific mention will be made of two such pathological groups, viz. male overt homosexuals and male paranoid schizophrenics, both of which are thought to identify with the female role, but to differ in their psychological acceptance of this orientation.

Chapter II will review the investigations concerning the D.A.P. Test as an indicator of sex role

identification reported throughout the literature. These will fall roughly into two main categories.

1^o Studies which compare the first drawn figures of homosexual and heterosexual males on the assumption that the former will draw female figures most frequently and the latter will draw male figures most frequently.

2^o Studies which attempt to find a relationship between the degree of sexual differentiation in the D.A.P. Test figures and the quality and clarity of sex role identification.

The rationale underlying the present investigation and the three hypotheses which evolved from it will appear in Chapter III. Besides this, the method and criteria used to select the sample groups will be described along with the procedure followed in the administration and statistical evaluation of the D.A.P. tests.

Since two independent measures of sex role identification will be investigated in the following study, the results found through the application of these measures will be reported in two separate chapters. Chapter IV will present the results pertaining to the sex of the first drawn figure in the three sample groups, after which the implications of these results not only for the present study but also for any which may be

carried out in future on the same topic will be discussed.

Chapter V will report the results pertaining to measures of sexual differentiation among the three sample groups. The usefulness of these results for the diagnosis of an individual case in the clinical setting will be evaluated. Finally, an attempt will be made to discover the most logical explanation of the meaning of sexual differentiation scores on the D.A.P. Test in terms of the distribution of scores on this measure obtained by the three groups.

CHAPTER I

THE CONCEPT OF SEX ROLE IDENTIFICATION

The sex role with which an individual identifies is believed to affect the formation of self concept, social behaviour and personality. This chapter presents a discussion of sex role identification, how it has been thought to develop and the effects it is believed to have on normals, paranoid schizophrenics and overt homosexuals. Only members of the male sex have been considered in the following discussion and later experimental study.

1.- Development of this Process

Sex role identification can be defined as the process whereby most individuals gradually acquire the patterns of behaviour and values appropriate to the social role of their own sex.

In a male child many contributing factors have been found to promote or undermine the expected acquisition of identification with the masculine role. Prominent among these factors are the relative dominance of the significant male and female figures in the child's early environment, his familiarity with the role of the like-sex parent and

his motivation to simulate this role¹.

When the like-sex parent is a satisfying source of need gratification and the child is rewarded by his environment for imitating the behaviour of this parent, it is likely that normal sex role identification will occur. With developing maturity and adoption of social role, this identification becomes increasingly influential in the child's perception of himself and his consequent adjustment and behaviour in society. His activities and interests, therefore, will tend to comply with the socially approved 'masculine' role.

The possibility that sex role identification will deviate from the normal has been found to increase when, for any number of reasons, the like-sex parent fails to be an adequate source of need gratification or when his role is unclear or distasteful to the child. Such situations are frequently accompanied by increased gratifications from the opposite-sex parent whose patterns of behaviour the child is thus encouraged to follow. It is from these types of situations that confusion or inversion of sex role identification have been frequently observed to arise.

¹ Stuart M. Stoke, "An Inquiry into the Concept of Identification", in the Journal of Genetic Psychology, Vol. 76, First Half, issue of March 1950, p. 168

An unduly strong attachment to the mother and a family constellation in which a female figure was the dominant personality have been found to exist to a greater extent in the backgrounds of individuals whose sex role identification was either inverted or ambivalent². Other factors found to predispose towards deviated identification included father figures who were psychologically ineffective, physically absent, harsh and abusive or in doubt about their own sex role identification³. A less frequent but nevertheless existing cause was parents whose wish for a daughter led them to treat their son as if he were a girl.

Among individuals exposed to these stresses, those who remain confused and ambivalent concerning their sex role identification seem to experience considerable conflict. Their consequent personality integration is considered to remain at a level developmentally inferior to those whose identification, be it normal or inverted, is at least clearly defined⁴.

2 George W. Henry, All the Sexes, A Study of Masculinity and Femininity, New York, Rinehart, 1955, p. 26-51.

3 Daniel G. Brown, "Inversion and Homosexuality", in the American Journal of Orthopsychiatry, Vol. 28, No. 2, issue of April 1958, p. 425.

4 Fred Cutter, "Sexual Deviation in Figure Drawings and Overt Deviation", in the Journal of Clinical Psychology, Vol. 12, No. 4, issue of October 1956, p. 372.

2.- Reactions to Identification in Two Clinical Groups.

As clinical groups, both paranoid schizophrenics and overt homosexuals have been classically assumed to have an underlying identification with the female role.

Zeichner⁵ found that a group of male paranoid schizophrenics reveal more marked tendencies towards feminine identification than either normals or other types of schizophrenics and show greater psychosexual confusion than a normal group.

The empirical impression held by many workers in the field and theorized by the Analytic school is that all types of homosexuality involve an identification with the mother⁶.

As Mowrer states, the essential difference between overt homosexuals and paranoid schizophrenics is "whether the individual has accepted his deviant tendencies with respect to masculinity and femininity or has reacted dissociatively with respect to them"⁷. These two

5 Abraham M. Zeichner, "Psychosexual Identification in Paranoid Schizophrenia", in the Journal of Projective Techniques, Vol. 19, No. 1, issue of March 1955, p. 67-77.

6 A.A. Brill, editor, The Basic Writings of Sigmund Freud, New York, Random House, 1938, footnote p. 560.

7 O. Hobart Mowrer, Psychotherapy, Theory and Research, New York, Ronald, 1953, p. 86.

clinical groups are thought to differ in the subjective acceptance of their basic orientation and the dynamic implications of this lead to completely different patterns of overt behaviour.

The predominantly feminine sex role identification of the paranoid schizophrenics is so unacceptable to their conscious system of personal values that they refuse to recognize its existence within themselves. This identification, which gives rise to a considerable amount of psychic conflict and anxiety, is dealt with by repression and over-identification with the male role at a conscious level. This defense eliminates any possibility of resolving the underlying sex role dilemma, and these feelings of guilt, conflict and anxiety continue to undermine and restrict personality integration.

The mechanism of projection typical of this group arises from this inability to accept personal responsibility for any feminine-like qualities. In an effort to be rid of this intolerable orientation, it is projected onto others in the environment who, in turn, become responsible for all the distress experienced by the paranoids.

Overt homosexuals are considered to be dynamically opposed to paranoid schizophrenics. The homosexuals, having actually chosen male sexual partners, are assumed to have accepted their feminine identification. This overt

manifestation of their basic orientation presumably eliminates the emotional turmoil which characterizes the confused identification of paranoid schizophrenics. Due to this acting out, overt homosexuals are thought to experience little anxiety regarding their femininity other than the fear of social disapproval should this be discovered.

Therefore, even if it is assumed that these two clinical groups are similar in their underlying sexual orientation, the ramifications of their dissimilar dynamic responses to this should result in distinctly different behavioural reactions to situations reflecting sex role identification.

The Draw-A-Person Test has been considered to provide such a reflection of identification⁸. In the following chapter the proposed indicators of this on the D.A.P. Test and the experimental results obtained up to the present time will be reviewed.

⁸ Karen Machover, Personality Projection in the Drawing of the Human Figure, Springfield, Illinois, Thomas, 1949, p. 101.

CHAPTER II

REVIEW OF THE LITERATURE

Two aspects of Human Figure Drawings which have been assumed to reflect the relative direction and clarity of sex role identification within an individual are drawing sequence and sexual differentiation between the figures. The following survey of the literature outlines the hypotheses put forward regarding these two aspects and points out the lack of conclusive evidence reported in subsequent investigations of these hypotheses.

1.- Sex Role Identification and Drawing Sequence

In her discussion of the Draw-A-Person Test, Machover¹ states that the order in which the two figures are drawn is an indicator of sex role identification in the subject.

Such a claim presupposes that the theory of "Body Image" is applicable to the interpretation of behaviour on this test. In terms of this theory it is presumed that the individual draws a picture of himself in response to the instructions to draw a picture of a person².

¹ Karen Machover, Personality Projection in the Drawing of the Human Figure, Springfield, Illinois, Thomas, 1949, p. 101.

² *ibid.*, p. 35.

Swensen³ reviewed all the reported studies which applied the Body Image hypothesis to Human Figure Drawings. The results of five pertinent investigations were examined, none of which reported finding definite results upon which to either accept or reject the hypothesis. In fact, Swensen concluded that there was an outstanding lack of any definitive research on the basic meaning of figure drawings.

Since little clarity regarding the appropriateness of the Body Image hypothesis for interpreting human figure drawings has been arrived at via the literature, Machover's position that "this may be a crude formulation, but serves well as a working hypothesis"⁴ remains tenable.

Applying this hypothesis to the sex of the first drawn figure, Machover claimed that the individual who had identified with the role of his own sex would, therefore, draw his own body image first. Whereas an individual whose role identification was confused or inverted would reflect this by drawing a figure of the opposite sex first⁵.

3 Clifford H. Swensen, Jr., "Empirical Evaluations of Human Figure Drawings", in the Psychological Bulletin, Vol. 54, No. 6, issue of Nov. 1957, p. 435-437.

4 Karen Machover, Personality Projection in the Drawing of the Human Figure, p. 35.

5 *ibid.*, p. 101.

Levy⁶ reported that eighty-seven percent of 5000 adult subjects drew their own sex first, whereas of sixteen homosexuals examined, 13 drew the opposite sex first. He offered no explanation for the drawing sequence of either the false positives or the false negatives and gave no indication of the relative number of male and female subjects in his sample.

Mainord⁷ found that ninety-five percent of 132 male college students as compared to eighty-two percent of 164 male psychiatric patients drew their own sex first. She implied from this that more sexual inverts were present in the psychiatric population but failed to include any substantial evidence to justify this assumption.

Frank⁸, by means of very questionable logic, claimed to have found support for Machover's hypothesis that failure to draw the like sex first reflects a problem in sexual identification. He found that ninety percent of

6 Sidney Levy, "Figure Drawing as a Projective Test", in L.E. Abt and L. Bellak, editors, Projective Psychology: Clinical Approaches to the Total Personality, New York, Knopf, 1950, p. 263.

7 Florence R. Mainord, "A Note on the Use of Figure Drawings in the Diagnosis of Sexual Inversion", in the Journal of Clinical Psychology, Vol. 9, No. 2, 1953, p. 188-189.

8 George H. Frank, "A Test of the Use of a Figure Drawing Test as an Indicator of Sexual Inversion", in Psychological Reports, Vol. 5, No. 3, issue of September 1955, p. 137-138.

18 male and sixty-eight percent of 56 female college students drew their own sex first. From this Frank concluded that, since the majority of subjects with "no observable problems in sexual identification" drew the like sex first, people who draw the opposite sex first are deviating from the norm.

De Martino¹⁰ found that thirty-seven mentally retarded homosexual and thirty-seven retarded non homosexual males did not differ in regard to the sex of the first drawn figure. Most of the subjects in both groups drew their own sex first.

The drawing sequence of a group of homosexual pedophiles did not differ significantly from that of two groups of non homosexual offenders examined by Hammer¹¹ despite the inversion in sex role identification postulated of the homosexuals.

Grams and Rinder¹², comparing two groups of twenty-five boys divided according to presence or absence of

¹⁰ Manfred F. De Martino, "Human Figure Drawings by Mentally Retarded Males", in the Journal of Clinical Psychology, Vol. 10, No. 3, issue of July 1954, p. 241-244.

¹¹ Emanuel F. Hammer, "Relationship Between Diagnosis of Psychosexual Pathology and the Sex of the First Drawn Figure", in the Journal of Clinical Psychology, Vol. 10, No. 2, issue of April 1954, p. 168-170.

¹² Armin Grams and Lawrence Rinder, "Signs of Homosexuality in Human Figure Drawings", in the Journal of Consulting Psychology, Vol. 22, No. 5, 1958, p. 394.

homosexual history, found no significant difference in the frequency with which the female figure was drawn first by either group.

Having reviewed the reported research on the relationship between sexual inversion and the sex of the first drawn figure, Brown and Tolor arrived at the conclusion that

the paucity of available studies and the inadequacy of the few that have been reported make any definite conclusion untenable. [. . .] further research will be required before this problem can be resolved¹³.

2.- Sex Role Identification and Sexual Differentiation.

Machover also claimed that the amount of confusion and scrambling of sexual characteristics in the two drawings of the D.A.P. Test is indicative of, and varies in proportion to, the sexual maladjustment of the subject¹⁴. Hence, confused sex role identification would be reflected in the inability of a subject to clearly depict the two figures.

¹³ Daniel G. Brown and Alexander Tolor, "Human Figure Drawings as Indicators of Sexual Identification and Inversion", in Perceptual and Motor Skills, Monograph Supplement 3, 1957, p. 205.

¹⁴ Karen Machover, Personality Projection in the Drawing of the Human Figure, p. 101.

Using this hypothesis that the amount of differentiation indicated the degree of adequate sexual identification, Swensen¹⁵ postulated that "a drawing in which there was little or no differentiation between the sexes would indicate an individual whose identification was impaired".

To test this postulate Swensen constructed a nine point Scale for Rating Sexual Differentiation on the Draw-A-Person Test¹⁶. The points on the scale were arranged in ascending order with poorest sexual differentiation coming first and best sexual differentiation coming last. Points 1,3,5,7, and 9 were described and three examples of drawings falling on each of these points were presented. Points 2,4,6, and 8 were not contained in the scale per se, but were included as a rating point for those drawings that appeared to fall between two points on the scale.

To provide clarity, a brief description of each point on the Scale is presented below.

Point 1 - Little or no sexual differentiation.

Point 3 - Poor sexual differentiation. Longer hair on female; may be slight difference in body contour and/or clothing.

15 Clifford H. Swensen, "Sexual Differentiation on the Draw-A-Person Test", in the Journal of Clinical Psychology, Vol. 11, No. 1, issue of January 1955, p. 37.

16 ibid., p. 38. Original scale may be obtained from author upon request.

- Point 5 - Fair sexual differentiation. Female has definitely longer hair and different body contour with either rounded hips and/or breasts; may be difference in clothing of pair.
- Point 7 - Good sexual differentiation. Includes all of Point 5 plus angular body for male; clear difference in clothing; some differentiation in minor details such as eyelashes, fullness of lips.
- Point 9 - Excellent sexual differentiation. Female has definitely feminine hair style, both breasts and hips, and minor details clearly appropriate to sex; male is angular, with definitely masculine clothing and details.

Assuming the scale to be valid, the sexual differentiation score was expected to be lowest for persons with confused sex role identification and to become progressively higher as the identification of those tested was more clearly established. Those individuals who had adequately identified themselves with a definite sex were expected to obtain the highest scores.

However, when the sexual adjustment ratings of twenty five psychotherapy patients were compared with their sexual differentiation scores on the Scale, Sipprelle and Swensen¹⁷ found no significant relationship. It is

¹⁷ Carl N. Sipprelle and Clifford H. Swensen, "Relationship of Sexual Adjustment to Certain Sexual Characteristics of Human Figure Drawings", in the Journal of Consulting Psychology, Vol. 20, No. 3, issue of June 1956, p. 197-198.

interesting to note that the relationship between sexual adjustment and the sex of the first drawn figure also proved insignificant. Yet both the first drawn figure and sexual differentiation have been assumed to reflect the degree of adequate sexual adjustment!

Swensen¹⁸ reports that DeKoningh also could not discover any significant relationship between drawing sequence and sexual differentiation, two supposedly valid measures of the same phenomenon.

Cutter¹⁹ used this scale to compare the sexual differentiation scores of overt deviants who had acted out their inverted identification and acknowledged their behaviour; covert deviants who were unable to accept psychological responsibility for their overt behaviour; and controls with no known sexual disturbances. It was found that not only the control group but also the overt deviants were better able to differentiate between the figures and received higher scores than the covert deviants. In fact, the more overt the homosexual deviation, the better was the differentiation between the figures.

18 Clifford H. Swensen, Jr., "Empirical Evaluations of Human Figure Drawings", in the Psychological Bulletin, p. 458.

19 Fred Cutter, "Sexual Differentiation in Figure Drawings and Overt Deviation", p. 369-372.

Cutter explained these results by the fact that overt homosexuals have made a clear identification, albeit an inverted one. This acceptance of their orientation allows them a degree of personality integration sufficient to clearly differentiate their concepts of male and female on the D.A.P. Test. Whereas the covert deviants, whose identification is more confused, have a less clearly defined concept of sexual role and role differences which is manifested in their poorly differentiated drawings.

Cutter's results led him to suggest that sexual differentiation ratings should be considered as a measure of general psychological deficits associated with degree of personality integration and not so much as a measure of sex role orientation per se.

Sherman²⁰ found no significant difference between the sexual differentiation scores of twenty-six male schizophrenic patients and twenty-six male non patients. However, he did find a highly significant relationship between sexual differentiation scores and ratings of the art quality of the drawings. On the basis of these results, he rejects the suggestion of Cutter that the sexual differentiation score measures general psychological

20 Lewis J. Sherman, "Sexual Differentiation or Artistic Ability?", in the Journal of Clinical Psychology, Vol. 14, No. 2, issue of April 1958, p. 170-171.

personality deficits and proposes that artistic ability is the variable measured by Swensen's Scale.

Whether or not the D.A.P. Test can successfully indicate the degree of sex role identification and consequent adjustment of an individual, either by means of drawing sequence or sexual differentiation, is still undetermined. At the present time, research on the validity of either measure has been unable to fully justify the clinical acceptance or rejection of this tool.

The next chapter will consider the implications of the above hypotheses and research findings for groups assumed to differ both in clarity and direction of sex role identification.

CHAPTER III

THE PRESENT STUDY

Three clinical groups assumed to differ in regard to sex role identification were used in an experiment designed to test the validity of certain indicies of identification in human figure drawings. Following is a description of this experiment, the hypotheses proposed, the manner in which sample groups were chosen and the procedure used.

1.- Statement of the Problem

According to Machover, Levy and other clinicians, the sex of the first drawn figure on the D.A.P. Test is a reflection of sex role identification. On the basis of this claim, the test should be able to differentiate between clinical groups which differ in regard to the direction and clarity of their identifications. Hence, the first drawn figure most commonly elicited from such groups should represent the sex with which each is believed to identify. Therefore, paranoid schizophrenic and overt homosexual groups, whose identification is thought to be the same, would be expected to draw the female figure first because they have identified with the feminine role. On the other hand, the first figure most frequently drawn

by a 'normal' control group should be that of a male.

However, since paranoid schizophrenics have been considered to defensively reject their underlying feminine identification, it was hypothesized in the present study that this denial would be manifested in a tendency for the male figure to be the one drawn first by this group. Thus, the D.A.P. Test would be unable, by means of this measure, to successfully differentiate between normal and paranoid groups despite the assumedly opposite directions of their sex role identifications.

Further evidence of this denial in the paranoid group might appear in a greater frequency of refusals by this group to draw the female figure at all.

Furthermore, the D.A.P. Test has been assumed to reflect relative clarity or confusion of sex role identification by means of the quality of sexual differentiation between the male and female figures. As pointed out in Chapter I, the predominant identification of normal males has been presumed to be with the role of their own sex while that of overt homosexuals is with the role of the female sex. On the other hand, paranoid schizophrenics have been thought to experience considerable confusion regarding the sex role with which they identify psychologically. Therefore, if Swensen's Scale is a valid reflection of sex role clarity and disturbance, normal and overt

homosexual groups should receive higher mean scores on this measure than a group of paranoid schizophrenics.

On the basis of the preceding rationale the following hypotheses were proposed.

1°. There is no difference in the frequency with which normal, paranoid schizophrenic and overt homosexual males draw the self sex figure first on the D.A.P. Test.

2°. There is no difference in the frequency with which normal, paranoid schizophrenic and overt homosexual males refuse to draw the female figure on the D.A.P. Test.

3°. There is no difference as measured by Swensen's Scale, in the ability of normal, paranoid schizophrenic and overt homosexual males to clearly differentiate between the sexes on the D.A.P. Test.

2.- The Sample Groups

To test the hypothesis involved in this study, it was necessary to obtain three sample groups of adult males, viz. Acute Paranoid Schizophrenic, Overt homosexual and Control, the latter consisting of individuals who did not belong in either of the other two groups.

The control subjects, hereafter referred to as the Normal Group, were chosen from among the forty-one members of a local Service Club. By means of a questionnaire, presented in Appendix 1, club members who of their own

admission rightfully belonged in either the Homosexual or Paranoid groups were eliminated. Assuming that the questionnaire was answered truthfully, after this screening procedure thirty-two individuals remained who were used in this study as a normal sample.

The Overt Homosexual group consisted of twenty-seven subjects who, since the onset of adolescence, had engaged at least once in sexual activity leading to orgasm with another male¹. Nine of these were from the aforementioned Service Club, the remaining eighteen were individuals who had been apprehended by the law because of homosexual activity and sent for psychological examination to a Forensic Clinic.

To insure maximum similarity of diagnostic criteria, all thirty-two individuals comprising the Paranoid Schizophrenic group were chosen from the same hospital. In order to avoid errors of selectivity in choosing this group, the psychological files of all male patients admitted during a specific three year period and diagnosed as paranoid schizophrenic, acute type, were collected. From among these patients, all those whose psychological files

¹ This criterion of overt homosexuality is held by the law courts of Canada, Britain and the U.S.A. and was the definition used by Kinsey in his study reported in Alfred C. Kinsey *et al.*, Sexual Behavior in the Human Male, Philadelphia, Saunders, 1948, p. 623.

contained human figure drawings were retained to make up the sample group.

The mean age of the Paranoid group was 31.9 years with a range of nineteen to fifty-nine years. The Forensic Homosexual group had a mean age of 27.3 years with a range of sixteen to forty-nine years. Due to the necessary anonymity of the Service Club sample, no exact knowledge of the mean age could be obtained. However, it was known that the age range of this group fell roughly between twenty-four and forty years with an estimated mean age of thirty years.

3.- Procedure

The D.A.P. Test was administered to each of the three sample groups according to the instructions suggested by Machover². In the case of the Paranoid group the test was administered by the same psychologist to each individual shortly after his admission to hospital. Similarly, each individual in the Forensic Homosexual group was given the test shortly after referral from the courts, and although the figure drawings obtained from this group were administered by more than one psychologist the fact that Machover's instructions were used in all cases was assumed

² Karen Machover, Personality Projection in the Drawing of the Human Figure, p. 28-29.

to standardize the testing procedure. A group administration of the test was given to the Service Club, but otherwise the same procedure was followed with these individuals as had been used with the rest of the subjects.

In each of the ninety-one D.A.P. tests collected, the sex of the first drawn figure was noted and the frequency with which this figure was either male or female was tabulated for the three sample groups.

Following this, the number of individuals drawing the male figure first and subsequently refusing to draw a female figure was determined for each group.

Finally, two independent judges rated the drawings of each subject according to Swensen's Scale for Rating Sexual Differentiation. In order to obtain a rating on this scale for an individual at least the head and trunk of both figures must have been drawn. Because of this restriction, nine of the ninety-one subjects could not be included in the rating procedure. Two were eliminated because of failure to draw the second figure and seven due to the presence of the head only in their drawings.

The first hypothesis was tested by means of a 2 by 3 Chi square contingency table in which the two variables hypothesized to be independent were Direction of Sex Role Identification and Sex of the First Drawn Figure. If, as a result of this, there appeared to be statistical

justification to reject the Hypothesis of Independence individual 't' tests of the significance of the differences between each of the three groups were performed to determine exactly where these differences lay. This involved comparing the differences between the proportions of each group drawing the male or the female figure first.

It had been planned to test the second hypothesis by means of 't' tests of the significance of the differences between the proportion of each group refusing to draw the female figure after having drawn a male figure. However, this procedure was not necessary.

In order to test the third hypothesis, it was necessary, as a preliminary step, to show that there was no difference between the ratings of each subject or of each group by the two independent judges. Having determined this, the mean ratings of each of the three groups on Swensen's Scale could be compared to see if there was any difference between the groups in this respect.

Both procedures were combined into a two dimensional analysis of variance, with F_c being the significance of the difference between the judges' ratings and F_r the significance of the difference between the mean ratings of the groups. If F_c was not significant, the ratings of each of the judges could be combined into an average score for each subject. If F_r was significant, the differences

between the mean ratings of all three groups, taken in pairs, were tested by means of 't' tests, to determine exactly which were the significant ones.

Throughout the statistical analysis of the data a level of significance of $p = .01$ was the criterion chosen to reject the possibility that a result might have occurred by chance. This level seemed sufficiently strict to eliminate rejecting a null hypothesis falsely, and is in keeping with McNemar's suggestion that a level more stringent than $p = .05$ seems required if results are to be used in everyday situations³.

The next chapter will present the results of the study carried out according to the above procedure to test the hypotheses which have been proposed.

³ Quinn McNemar, Psychological Statistics, Second Edition, New York, Wiley, 1955, p. 65.

CHAPTER IV

RESULTS AND DISCUSSION OF DRAWING SEQUENCE

The findings related to the first two hypotheses will be reported in this chapter along with the degree to which they support or reject the present tendency to relate drawing sequence to sex role identification. Some of the weaknesses of past investigations into this question will be discussed, such as experimental design and choice of criterion variables, which might explain their repeated failure to achieve conclusive results. Methods for improving future research in this area will also be suggested.

1.- The First Drawn Figure.

The frequencies with which each group drew the like sex or opposite sex figure first were compared by means of chi square. These frequencies, presented in Table 1, yielded an insignificant chi square of .42 ($p = .96$). Since no relationship was found between the sex of the human figure drawn first on the D.A.P. Test and the direction and clarity of sex role identification, the first hypothesis could not be rejected.

Seventy-four percent of all the subjects drew the male figure first. By groups this percentage was seventy-one for the Normal and Homosexual and seventy-eight for the

Table I.- Distribution of Three Clinical Groups
by Sex of First Figure on the D.A.P. Test.

Group	Number	Sex of First Figure			
		Male	Percent	Female	Percent
All Subjects	90	67	74	23	26
Homosexuals	27	20	71	7	29
Normal	31	22	71	9	29
Paranoid	32	25	78	7	22

Paranoid Schizophrenic. These results are consistent with those of other studies reported in the literature¹ nearly all of which found that despite the diagnostic category to which they belong the majority of males draw the like sex figure first.

Added to the findings of previous research, the present results serve to question even more forcefully whether theorists such as Machover had any factual experimental evidence on which to base their claims concerning the meaning of drawing sequence. It would appear that those who attribute confused or inverted sex role identification to individuals who draw the opposite sex figure first do so with little scientific justification.

However, the failure of research to uphold this hypothesis does not mean, necessarily, that it is altogether untrue. There could be two ways of explaining why studies have failed to bring the expected results, firstly, because of the experimental design and secondly, because of the behavioural manifestations used as criteria of inverted sex role identification.

The first explanation would rest on the fact that in past studies of this question research workers have chosen their sample groups according to previously existing

¹ Daniel G. Brown, "Human Figure Drawings as Indicators of Sexual Identification and Inversion", p. 200.

clinical categories and then compared the drawing sequence of these groups in the hopes of discovering diagnostic signs. A more logical method of isolating the variables underlying drawing sequence would be to set up the experimental groups according to the sex of the first figure drawn. In this way a thorough search could be made for the factors which differentiate significantly between two such groups and lead to a more valid explanation of why such differences occur. Etiological factors found by this approach might turn out to be many things besides sex role identification.

This last mentioned possibility should not be overlooked. It appears quite logical that the sex of the first drawn figure could be caused by several variables other than sex role identification. Every previous study of this question reports that, at the least, approximately ten percent of normal males draw a figure of the opposite sex first. This, in itself, is not a high percentage of false negatives, but considering that only about ten to twenty-five percent of any non-normal groups reported, (with the exception of Levy²) drew the opposite sex figure first, the percentage difference between normals and non-normals becomes almost

2 Sidney Levy, "Figure Drawing as a Projective Test", in L.E. Abt and L. Bellak, editors, Projective Psychology: Clinical Approaches to the Total Personality, p. 263.

insignificant. Certainly it is not large enough to warrant its usage as a diagnostic sign in the clinical setting.

The second explanation of the failure of drawing sequence to differentiate individuals with normal sex role identification from those in which it is inverted might arise from the criteria chosen and not the tool itself. The error would lie in the fact that most authors and researchers equate homosexuality and sexual inversion. Almost invariably, studies of sexual inversion, its resultant effects on personality, and the way it is manifested in figure drawings have used a sample group of homosexuals.

However, as Brown³ points out, homosexuality, in the true sense of the word, refers solely to sexual activity between two members of the same sex. As distinct from this, sex role inversion refers to identification with and adoption of the psychological identity of the opposite sex.

There can certainly be a considerable number of determinants of homosexuality per se other than inversion⁴. Thus, while an invert will most likely also be a homosexual it does not follow that a homosexual will necessarily be an invert. Homosexuality is merely the end result of any

³ Daniel G. Brown, "The Development of Sex-Role Inversion and Homosexuality", in the Journal of Pediatrics, Vol. 50, No. 5, issue of May 1957, p. 613-615.

⁴ George W. Henry, All the Sexes, A Study of Masculinity and Femininity, p. 26-51.

number of causes and is only a clinical entity inasmuch as all individuals who choose a male sexual partner are classed together. On the other hand, sexual inversion does seem to stem more or less from one common cause, viz. an early, continuing identification with the mother or mother substitute. Hence, although inverts who are homosexuals can properly be assumed to have an underlying feminine identification, this cannot be assumed of non-inverted homosexuals.

Homosexuality, then, should be restricted to the direction and object choice of an individual's sex drive, while inversion would refer to the composition of the individual's total personality. If these criteria were used in studies of drawing sequence, it might be found that this measure can, in fact, reflect the direction of identification. Unfortunately in the present study the homosexual group was not divided in such a manner. Hence, it was not possible to test this suggestion by means of the available data.

However, another possibility did present itself. It is known that homosexuals differ markedly in their degree of homosexual and heterosexual involvement, quite often regardless of age or marital status. As Paitich points out,

it seems reasonable to suppose that the exclusive homosexual may be different from one who has had varying degrees of contact with females sexually⁵.

Perhaps drawing sequence can differentiate between heterosexual normals and those individuals whose sexual contacts have been exclusively with males regardless of their sex role identification.

On the basis of this reasoning, an examination of drawing sequence was made for the D.A.P. tests of seven members of the homosexual group whose sexual contacts, with one exception, were known to have been exclusively with males. The findings are presented in Table 2.

As can be seen from this table, only one of the seven individuals drew the opposite sex figure first. Despite the small sample from which these results were obtained, it seems safe to infer that, considered by itself, exclusive homosexual involvement has little, if any, relationship with drawing the opposite sex figure first.

2.- Refusal to Draw the Female Figure.

The second hypothesis predicted that there would be no difference in the number of individuals from each group who refused to draw a female figure. Since only two of

⁵ Daniel Paitich, personal correspondence with the author, November 7, 1957.

Table II.- Drawing Sequence, Choice of Sexual Partner, Age and Marital Status of Seven Homosexual Subjects¹.

Subject	First Figure		Number of Sexual Partners			Marital Status	Age
	Male	Female	Females 16 and older	Boys 12-15	Males 16 and older		
1		X			11-20	S	43
2	X				2-5	S	49
3	X			3-5		S	16
4	X				2-5	S	22
5	X			2-5	11-20	S	23
6	X		1		over 100	M	49
7	X			male prostitute		S	17

¹ From Daniel Paitich, Toronto Psychiatric Hospital, Forensic Clinic, November, 1957.

the ninety-one subjects in the sample gave such a refusal it was not possible to compare the three groups on this variable. Therefore, the hypothesis could not be rejected.

Nevertheless, it is interesting to note that the only two subjects refusing to draw the female figure were from the Paranoid group. On the basis of the previously stated theory that a paranoid is unable to tolerate his femininity, it might have been expected that the greatest number of refusals would come from this group. The rationale in such a case would be that the instructions to draw a female constitute a decided threat to paranoids.

However, such meagre results as were obtained lend little support to this theory even though they are in the expected direction. The fact remains that there was almost a complete absence of refusals by any of the groups.

Although the results presented so far have not shown any relationship between sex role identification and either the sex of the first figure or refusal to draw the female, the possibility remains that the quality of sexual differentiation between the D.A.P. Test figures may show a relationship with identification. The further results presented in the next chapter will help to determine whether or not this relationship may, in fact, exist.

CHAPTER V

RESULTS AND DISCUSSION OF SEXUAL DIFFERENTIATION

This chapter will report the findings related to the third hypothesis put forward in the present study and their applications and limitations for the clinical setting. Three of the possible variables measured by Swensen's Scale will be discussed as well as the apparent weakness of his original postulate that sexual deviates would obtain lower sexual differentiation ratings than normals on the D.A.P. Test.

1.- The Data From the Three Sample Groups.

In order to test the third hypothesis it was necessary to rate the D.A.P. tests of each subject for sexual differentiation by means of Swensen's Scale. To avoid bias and increase reliability, these ratings were performed by two independent judges after which a two-dimensional Analysis of Variance was applied to the ratings in order to discover whether there was any difference between

- 1° the mean ratings assigned to each of the three experimental groups by the two judges,
- 2° the ratings assigned to each individual subject by the two judges, and
- 3° the means of the three groups when the ratings of the two judges were combined for each group.

From the Table of Variance shown in Table III it can be seen that the two judges did not differ in their ratings. Consequently, the average of the two independent ratings assigned to any one subject could be considered as his actual sexual differentiation score.

Table III does show, however, that the three groups differed significantly with respect to the means of the combined ratings assigned to them by the two judges. Thus, it was necessary to perform 't' tests on the sexual differentiation ratings of the three groups, taken in pairs, in order to discover whether or not all three of these differences were significant. In addition to this, 'F' ratios were computed for the variabilities of the group scores about their means, but none of them proved to be significant. Table IV gives the mean and variance of the sexual differentiation ratings for each group along with the differences between the mean ratings of the groups. As can be seen, the difference between the means of the Homosexual and Paranoid groups was the only one significant at the $p = .01$ level.

Because the mean rating of the Normal group was not significantly different from those obtained by the other two, the question arose as to whether the difference found between the means of the Homosexual and Paranoid groups could have been due to a sampling error. As

Table III. - Table of Variance for Sexual Differentiation Ratings of Three Clinical Groups by Two Independent Judges.

Source of Variation	Sum of Squares	df	Variance Estimate	F
Columns (judges)	0.03	1	0.03	$F_c = 0.007$
Rows (groups)	80.95	2	40.48	$F_r = 9.9^a$
Interaction (rows x columns)	0.10	3	0.03	
Within Cells	667.69	158	4.09	
Total	748.76	164		

a Significant beyond the .001 level of probability.

Table IV.- Means, Standard Deviations and Differences Between Means of Sexual Differentiation Ratings for Three Clinical Groups.

Group	Number	Mean	S.D.	Diff. between Means	
				Normal	Paranoid
Homosexual	20	6.68	1.53	1.02	1.60 ^a
Normal	32	5.66	2.05		0.58
Paranoid	30	5.08	2.25		

a Significant at the $p = .01$ level.

pointed out in Chapter III, the D.A.P. tests of seven members of the Homosexual group could not be rated for sexual differentiation because one or both drawings in each pair was comprised of less than a head and trunk. This meant that twenty-six percent of the original Homosexual sample had to be excluded. The difference between this percentage and the six percent (2 individuals) of the Paranoid group which did not complete at least the head and trunk in both figures was significant beyond the $p = .001$ level.

The meaning of this difference was not immediately clear. However, it seemed possible that the seven individuals in the Homosexual group who failed to complete both drawings might not have been able to adequately differentiate between the sexes. If this were the case, the twenty remaining members used to test the third hypothesis would no longer be representative of the entire population. Hence, it would be necessary to disregard the fact that these twenty individuals obtained a mean sexual differentiation rating which was significantly higher than that of the Paranoid group.

The answer to this question appeared to rest on whether or not the mean Swensen score of the Homosexual group had been raised by excluding the seven incomplete records. In order to determine this, a Swensen rating was estimated for each of these seven pairs of drawings

by calculating the sexual differentiation scores that could still be assigned to the partially complete figures. A description of the Scale revision used in this procedure and the scores obtained by the seven homosexuals appear in Appendix 2. These results were used to make a rough estimate of whether the sexual differentiation rating of each individual would have been lower than, equal to or above the mean rating of 6.68 obtained by the rest of the Homosexual group.

The mean rating of the seven pairs of drawings was 6.0. This was not significantly different from the original group mean. Combining these means gave a new mean sexual differentiation rating of 6.54 for the entire group of twenty-seven homosexuals. Using this new mean to test the difference between the mean ratings of the Homosexual and Paranoid groups still produced a 't' score which was significant beyond the $p = .01$ level. Thus, it seems justified to infer that Overt Homosexuals and Paranoid Schizophrenics, taken as groups, differ significantly in their abilities to depict a sexual difference in the D.A.P. Test figures as measured by Swensen's Scale. On the basis of this, the third hypothesis was rejected.

2.- Clinical Application of the Findings.

All the comparisons and results of this investigation dealt with group differences. Despite this fact, the distribution of scores could be useful in a clinical setting to determine from an individual's sexual differentiation score the probability of his belonging to any one of the three experimental populations. Table V gives the percentage of each of the three sample groups falling at, or below each sexual differentiation rating from 1 to 8. Since the percentages for the homosexual sample are somewhat different when the seven estimated scores are included, these are given separately.

The choice of a cutting score when Swensen's Scale is applied to the D.A.P. test of an individual will depend on the needs of the situation. If the objective is to rule out the possibility that an individual is an overt homosexual, a minimum cutting score of 3 would be chosen since no one in this group scored at or below this level. However, the chances of falsely ruling out this diagnosis are not greatly increased if a higher cutting score is selected. At 4, only ten percent would be misdiagnosed; at 5, only twenty percent; and even at 6, there is a better than chance expectation (sixty percent) that the individual is not an overt homosexual.

Table V. - Percentages of Three Clinical Groups Falling At or Below Various Cutting Scores on Swensen's Scale

Group	Cutting Score on Sexual Differentiation Scale							
	1	2	3	4	5	6	7	8
Homosexual	0(0) ^a	0(0)	0(0)	10(15)	20(22)	40(44)	60(63)	90(92)
Normal	6	9	13	25	41	56	69	94
Paranoid	7	13	27	33	60	63	83	90

^a Bracketed numbers indicate percentage of Homosexual group including the seven estimated ratings.

If the objective is to determine the probability that an individual is not a paranoid schizophrenic, the Scale will be of little use. Even the lowest score on the Scale does not completely eliminate the possibility of this diagnosis. However, at each successive Scale level the probability that he does belong to this group increases. There is a thirty-three percent probability that a paranoid schizophrenic will score at or below 4 and a sixty percent probability that he will score at or below 5. Any cutting score beyond this level would certainly increase the probability that he is a paranoid schizophrenic but, at the same time, would likely involve so many other diagnostic possibilities that the entire procedure would be pointless.

As illustrated by Table V, the scores of both the Paranoid and Normal groups were widely distributed over the entire Scale. This naturally reduces the reliability of any predictions which might be made regarding the expected performances of their members. However, because of the relatively small variability of the scores in the Homosexual group, the Scale may indeed prove useful in the clinical setting as a method for eliminating this diagnostic possibility.

Another use to which the data might be put would be to indicate, for an individual scoring at any Scale level, the probability that he could belong to any of the

three experimental populations. Table VI shows the percentage distribution into three clinical groups of the total number of individuals scoring at each Scale level. Because the number of subjects in the three sample groups was not equal, the manner in which Table VI was derived will be explained.

Four individuals out of the total sample of 89 obtained a Scale rating of 1. This was made up of two subjects from the Normal sample of 32 individuals, two from the Paranoid sample of 30 individuals and none from the Homosexual sample of 27 individuals. To express the number of individuals from each sample group as a percentage of the total of four individuals scoring at this level would be equal to

$$\left(\frac{2}{32} \times 100\right)\% + \left(\frac{2}{30} \times 100\right)\% + \left(\frac{0}{27} \times 100\right)\% = 100$$

which results in $48.37 + 51.63 = 100$. That is, when the total number of individuals in each clinical group is made equal, 48.37 percent of all subjects scoring a rating of 1 were from the Normal group, 51.63 were from the Paranoid group and none were from the Homosexual group. This procedure was carried out for each of the remaining rating levels on Swensen's Scale.

If there can be any real meaning to probabilities based on such a small number of cases, at a score of 1 there would be an almost equal probability that an

Table VI. - Percentage Distribution into Three Clinical Groups of the Total Number of Subjects Scoring at Each Level on Swensen's Scale.

Score Level	Total Number	Percent of Total at Each Level Falling in Each Group		
		Normal	Paranoid	Homosexual
All levels	89			
1	4	48.4	51.6	0.0
2	3	31.9	68.1	0.0
3	5	19.0	81.0	0.0
4	10	36.8	19.6	43.6
5	17	33.2	47.2	19.6
6	10	36.4	9.7	53.9
7	15	24.5	39.2	36.3
8	18	40.8	10.9	48.3
9	7	26.4	42.2	31.4

individual could be either normal or paranoid, but no chance that he could be an overt homosexual. At a score of 2, the probability would be two to one that he is paranoid rather than normal and again no chance that he could be homosexual. At a score of 3, the chances would be four to one that the individual is paranoid rather than normal with no chance of his being homosexual. Hence, for an individual obtaining the last mentioned score, the probability of making a correct diagnosis of paranoid schizophrenic, from among the three diagnostic possibilities being entertained, is relatively high.

The percentage distribution at each Scale level beyond 3 is so erratic that the validity of the entire table seems highly questionable. Each of the three experimental groups probably contained a sufficient number of individuals to make the data in Table V meaningful since it was based on the cumulative frequency of scores. However, to use data based on such a small number of cases at each Scale level as Table VI contains, either to form a diagnosis or to substantiate one which has been previously formulated, would be, at best, very hazardous.

3.- Interpretation of the Findings.

Any attempt to interpret the results of the sexual differentiation ratings in the three groups must eventually

resolve itself into a discussion of the meaning of the Scale itself. Up to the present time, three different explanations of the meaning of sexual differentiation ratings have been proposed. Swensen¹ originally felt that the Scale reflected the degree to which an individual had made an adequate sexual identification. Cutter² suggested that the variable behind the ratings was more likely the degree of personality integration within an individual. Sherman³ rejected both of these and proposed, instead, that the Scale was merely a measure of artistic ability.

Any one of these could explain the significant difference between the mean sexual differentiation ratings of the Homosexual and Paranoid groups. However, it was felt that not all of them could explain it equally well. Therefore an interpretation and discussion of the present findings in the light of each of these three explanations will be presented.

Swensen's original assumption was that his Scale reflects the degree to which an individual has made an adequate sex role identification. The higher mean rating

1 Clifford H. Swensen, "Sexual Differentiation on the Draw-A-Person Test", p. 37.

2 Fred Cutter, "Sexual Differentiation in Figure Drawings and Overt Deviation", p. 372.

3 Lewis J. Sherman, "Sexual Differentiation or Artistic Ability?", p. 171.

of the homosexuals would then be attributable to the fact that, as a group, they have formed a clearer identification than paranoid schizophrenics.

Such a finding, as has been shown earlier, may be helpful for differentiating overt homosexuals and paranoid schizophrenics by the D.A.P. Test, but it contributes little to a better understanding of the dynamic differences between these two groups in their formation of sex role identification. All that can be inferred is that homosexuals to a greater extent than paranoids, have managed to make some sort of sexual identification. Whether this is with the role of the male or female sex remains unanswered.

If the homosexual sample could have been divided according to inverts and non-inverts, it would have been interesting to see whether the group whose sex role identification is assumed to be inverted would score above or below the group whose identification is thought to remain normal. If there was no difference, it would lead to the assumption that the Scale measures the quantity of sex role identification and not its quality or direction.

If, on the other hand, we return to the Analytic theory that both homosexuals and paranoids have a basic identification with the female role, these results could be interpreted somewhat differently, yet within the

framework of Swensen's original explanation. The superior ability of the Overt Homosexual group to form an identification might be considered to result from the active expression which they have given to their sexual orientation in contrast to the strong repression and denial used by the paranoids. Such a rationale might gain support from Cutter's findings that deviates who acknowledge their sexual behaviour score high on Swensen's Scale. In fact, the more overt the sexual deviation the higher was the sexual differentiation score⁴.

However, it seems quite reasonable that the adequacy of sex role identification may be merely one aspect of the much broader variable of degree of personality integration underlying both Cutter's findings and those of the present study. This introduces the explanation of sexual differentiation ratings suggested by Cutter. Such an explanation might account for the fact that whether sex role identification was assumed to be inverted or normal, it manifested itself similarly in terms of sexual differentiation ratings on the D.A.P. Test.

Although Swensen made no specific mention of it, this explanation seems specially applicable to his findings that hospitalized mental patients score lower on his Scale

⁴ Fred Cutter, "Sexual Differentiation in Figure Drawings and Overt Deviation", p. 372.

than either psychiatric out-patients or normals⁵. It is interesting that the direction of his results closely approximates the direction followed in the present study by very similar types of sample groups. This similarity could well imply that the difference found between the Homosexual and Paranoid groups was due to a fundamental difference in their levels of personality integration.

This assumption could certainly explain the present findings quite logically. By the very nature of their psychotic illness, paranoid schizophrenics would be expected to manifest the lowest level of personality integration among the three groups. This level would be found consistently in most, if not all, sectors of their psychological make-up. In contrast to this, Hooker⁶ and others consider that the maladjustment of overt homosexuals is restricted to the area of sexual behaviour and does not generalize to the rest of personality. She found no difference between the overall adjustment of overt homosexual and normal heterosexual males as measured by the Rorschach. On the basis of this, the degree of personality integration expected of both the Normal and

5 Clifford H. Swensen, "Sexual Differentiation on the Draw-A-Person Test", p. 10

6 Evelyn Hooker, "The Adjustment of the Male Overt Homosexual", in the Journal of Projective Techniques, Vol. 21, No. 1, issue of March 1957, p. 22 and 30.

Homosexual groups would not only be superior to that of the Paranoid but more or less equal to each other.

The fact that the mean sexual differentiation rating of the Normal group, although in the expected direction, was not significantly greater than that of the Paranoid may be due to the negative criterion by which the Normal group was selected. Although this group contained neither homosexuals nor paranoids, it could well have contained individuals with other types of personality disturbances sufficient to undermine the personality integration level of the group as a whole.

Perhaps a better interpretation of the meaning of sexual differentiation ratings would be arrived at if the explanations proposed separately by Swensen and Cutter were combined into one. Ratings of sexual differentiation on the D.A.P. Test would be, first and foremost, a measure of general personality integration, one determinant of which is the adequacy of sex role identification. The variable of integration could be thought of as a continuum ranging from poor, at the one end, through average, in the middle, to excellent at the other end. In contrast, the sub-variable of sex role identification would have its origin at the middle with one end representing masculine the other feminine identification and the degree of adequacy would increase the closer either end is approached from the origin.

If this rationale is accepted, the failure of the Scale to detect homosexual deviates by means of their lower scores, as Swensen had originally predicted, is likely due to the application of two mistaken assumptions. Firstly, that overt homosexuals have not made an adequate sex role identification, and secondly, that their maladjustment in the area of sexual behaviour necessarily undermines their total personality adjustment.

Finally mention must be made of Sherman's explanation that artistic ability is the variable measured by the Scale. The present study was not designed to either prove or reject this proposal. Nevertheless, it seems possible that this too could be another aspect of general personality integration, despite Sherman's rejection of such a possibility. The lower mean rating of the Paranoid group could be a reflection of the effect which the psychotic condition of its members would exert on their ability to express themselves artistically.

However, for the purposes of the present study, Swensen's Scale was administered as a measure of confusion or clarity in the area of sex role identification. The claim being tested was that an inability to differentiate between the sexes on the D.A.P. Test was an indication of confused and ambivalent sex role identification. Chapter III stated that Normal and Overt Homosexual

groups should receive higher mean scores on this measure than a group of paranoid schizophrenics. This was, in part, borne out by the results, and although the mean of the Normal group did not reach the .01 level of probability, it was at least in the expected direction. Therefore, unless more definite proof is put forward that Swensen's Scale does not, among other things, measure sex role identification, this claim for the D.A.P. Test cannot be discredited.

SUMMARY AND CONCLUSIONS

An experiment was performed to determine the validity of the widely held belief that the figure drawn first on the D.A.P. Test by members of the male sex reflects the sex role with which an identification has been made, while the degree of sexual differentiation between the two figures indicates the adequacy of this identification. Three experimental groups believed to differ with respect to direction and clarity of sex role identification were chosen, the theory being that the first two, viz. Overt Homosexual and Paranoid Schizophrenic, have identified with the role of the female sex, while the third, viz. the Normal, has identified with the role of the male sex. Furthermore, the homosexuals and normals, by acting out their identification sexually, are considered to have developed a more adequate sex role identification than the paranoids. The latter are assumed to remain confused and ambivalent with respect to their identification and not only deny any feminine-like characteristics in their make up but also attempt to compensate for this by over-identifying with the male role at a conscious level.

Following the above rationale, the Human Figure drawings of the three groups were compared on the basis

of the sex of the first drawn figure, refusal to draw the female figure and degree of sexual differentiation as measured by Swensen's Scale for Rating Sexual Differentiation on the D.A.P. Test. It was hypothesized that the groups would not differ,

- 1° in the frequency with which they drew the like-sex figure first,
- 2° in the frequency with which they refused to draw a female figure, and
- 3° in their mean sexual differentiation ratings on Swensen's Scale.

For the three populations investigated, it was concluded that

- 1° the assumed direction of sex role identification is not reflected in the sex of the first drawn figure on the D.A.P. Test.
- 2° the compensatory over-identification with the male role assumed to result from denial of feminine identification is not reflected in a refusal to draw a female figure on the D.A.P. Test.
- 3° if Swensen's Scale is a valid measure of the adequacy of sex role identification, overt homosexuals are superior to paranoid schizophrenics in this respect.

The diagnostic use of Swensen's Scale in a clinical setting was discussed and the use to which the

results of the present study could be put in determining from the sexual differentiation rating of an individual the probability that he could be (a) an overt homosexual (b) a paranoid schizophrenic (c) either a homosexual, paranoid or normal.

Some of the suggestions which were made might be worthwhile for future research. It was pointed out 1^o that all homosexuals have not necessarily formed an identification with the female role, and that if homosexuals were divided on the basis of inversion and non-inversion two such groups might differ as to the sex of the figure most frequently drawn first.

2^o that homosexuals differ in the number of male and female sexual partners they have chosen and it might be that homosexuals whose contacts had been exclusively with males would draw a female as their first figure more frequently than other types of homosexuals.

This possibility was tested by examining the drawing sequence of seven homosexuals who, with one exception, had had exclusively male contacts. They did not, however, prove any different from either the other homosexuals or the other types of males used in the main study.

3^o that the variable underlying Swensen's Scale might be the broader one of Degree of Personality Integration

of which adequacy of sex role identification is merely one aspect. Another aspect might be the ability to utilize one's artistic talent fully when drawing the D.A.P. Test figures.

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The need to distinguish between sex-role identification and sex-role preference is stressed and the manner in which these two phenomenon interact to produce either sexual inversion or confusion and ambivalence of sex role is discussed. A theoretical explanation is offered as to why both homosexuality and inversion are possibly more common in males and why many females can have a preference for the male role without becoming inverted or homosexual. Another example of the commendable contributions of this author towards a better understanding of the dynamics of sexual adjustment.

-----, "Inversion and Homosexuality", in the American Journal of Orthopsychiatry, Vol. 28, No. 2, issue of April 1958, p. 424-429.

The author proposes and justifies the necessity to distinguish between sex-role inversion and homosexuality. The etiology of inversion is discussed along with sex differences in its occurrence. The logic of this proposed distinction seems well founded and should prove invaluable for future investigations of homosexuality.

Cambridge Department of Criminal Science, Sexual Offences, London, Macmillan, 1957, xxvii-553 p.

A study of over three thousand cases in Great Britain involving heterosexual and homosexual offences, both indictable and non-indictable, during 1950. Useful as a means of estimating the incidence of homosexual contacts in the male population, the age, occupation, marital status and previous records of such offenders. A four year follow up is reported which attempted to discover the characteristics of those who did or did not repeat similar crimes.

Cutter, Fred, "Sexual Differentiation in Figure Drawings and Overt Deviation", in the Journal of Clinical Psychology, Vol. 12, No. 4, issue of October 1956, p. 369-372.

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De Martino, Manfred F., "Human Figure Drawings by Mentally Retarded Males", in the Journal of Clinical Psychology, Vol. 10, No. 3, issue of July 1954, p. 241-244.

When male figures drawn by matched groups of homosexual and non-homosexual retarded were compared, only two of thirty-nine signs could differentiate between the groups. Eyelashes and high heels appeared more frequently in the drawings of the homosexuals.

Frank, George H., "A Test of the Use of a Figure Drawing Test as an Indicator of Sexual Inversion", in Psychological Reports, Vol. 5, No. 3, issue of September 1955, p. 137-138.

A good example of how experimental results can be distorted by reversing the direction in which they are interpreted. The conclusion of this study was that since the first figure drawn most frequently by normals on the D.A.P. Test is of the like-sex, the drawing of the opposite sex figure first indicates abnormality.

Grams, Armin and Lawrence Rinder, "Signs of Homosexuality in Human-Figure Drawings", in the Journal of Consulting Psychology, Vol. 22, No. 5, issue of October 1958, p. 394.

The merit of this study is difficult to assess because of the vague manner in which it is presented. Twenty-five homosexual and twenty-five non-homosexual boys, matched for age, I.Q. and education, were used to test the validity of fifteen signs of homosexuality on the D.A.P. Test. None of these proved valid nor was there any difference between the two groups on all signs combined.

Granick, Samuel and Leon J. Smith, "Sex Sequence in the Draw-A-Person Test and its Relation to the M.M.P.I. Masculinity-Femininity Scale", in the Journal of Consulting Psychology, Vol. 17, No. 1, issue of February 1953, p. 71-73.

The M.M.P.I. M-F scores of 571 college students were compared with the sex of the first drawn figure on the D.A.P. Test. The M-F scores were in the direction of the physical sex of the subject rather than the sex of the first figure. Insofar as the M-F scale is a valid measure of sexual identification, the results did not uphold the belief that sexual inversion is a cause of drawing the opposite sex figure first on the D.A.P. Test.

Hammer, Emanuel F., "Relationship Between Diagnosis of Psychosexual Pathology and the Sex of the First Drawn Figure", in the Journal of Clinical Psychology, Vol. 10, No. 2, issue of April 1954, p. 168-170.

Three groups of sexual offenders (two heterosexual and one homosexual) were used to test the hypotheses that the sex of the first drawn figure on the D.A.P. Test shows (a) an index of sexual identification (b) sexual conflicts and (c) sexual inversion. None of these hypotheses was upheld by the results.

Henry, George W., All the Sexes, A Study of Masculinity and Femininity, New York, Rinehart, 1955, xxi-599 p.

From his observations of over nine thousand cases of sexual deviates of both sexes, the author presents an informative account of the hereditary and environmental factors which he feels are most important and most prevalent in the development of sexual deviation. Being intended for the lay as well as the professional audience, the book is rather elementary in its presentation and interpretations. However, it does contain many valuable case histories and statistical comparisons of normals and deviates on several variables.

Hooker, Evelyn, "The Adjustment of the Male Overt Homosexual", in the Journal of Projective Techniques, Vol. 21, No. 1, issue of March 1957, p. 18-31.

An investigation of exceptionally high quality and design in which groups of male heterosexuals and homosexuals, matched for age, I.Q. and education were compared by means of three projective techniques. The findings will undoubtedly change many of the empirically founded beliefs which are presently held concerning the adjustment of overt homosexuals.

Machover, Karen, Personality Projection in the Drawing of the Human Figure, Springfield Illinois, Thomas, 1949, ix-181 p.

The original publication on the use of Human Figure drawings as a projective technique for adults. Although most of the interpretations are based solely on empirical evidence, the book is commendable as the pioneering attempt to discover psychological meaning in figure drawings and as a provocative stimulus to further research.

Mainord, Florence R., "A Note on the Use of Figure Drawings in the Diagnosis of Sexual Inversion", in the Journal of Clinical Psychology, Vol. 9, No. 2, issue of April 1953, p. 188-189.

Of 307 college students, 5.3 percent of males and 43.4 percent of females drew the opposite sex first on the D.A.P. Test while of 269 hospitalized psychiatric patients, 17.7 percent of males and 39.1 percent of females drew in this order. Although no further description of the groups is given, Mainord made the rather questionable conclusion that drawing the opposite sex first is a possible sign of sexual inversion in males but does not seem applicable to females.

Sherman, Lewis J., "Sexual Differentiation or Artistic Ability?", in the Journal of Clinical Psychology, Vol. 14, No. 2, issue of April 1958, p. 170-171.

A provocative attempt to show that measures of sexual differentiation on the D.A.P. Test derived by means of Swensen's Scale are, in fact, merely reflections of the artistic ability of the subject and not, as had been previously hypothesized, measures of sexual disturbance or personality deficits.

Sherman, Lewis J., "The Influence of Artistic Quality on Judgements of Patient and Non-patient Status from Human Figure Drawings", in the Journal of Projective Techniques, Vol. 22, No. 3, issue of September 1958, p. 338-340.

Although psychologists were unable to distinguish between the D.A.P. tests of patient and non-patient males, there was a significant relationship between the rated art quality of the drawings and the patient-non-patient status of the subjects. An evaluation of the study is difficult since no description is given of the rating methods used. However it points out the need for further validation of adjustment ratings derived from Human Figure Drawings.

Sipprelle, Carl N. and Clifford H. Swensen, "Relationship of Sexual Adjustment to Certain Sexual Characteristics of Human Figure Drawings", in the Journal of Consulting Psychology, Vol. 20, No. 3, issue of June 1956, p. 197-198.

No relationship was found between the sexual adjustment ratings of fifty psychotherapy patients and either the sex of their first drawn figures or their sexual differentiation ratings on the D.A.P. Test. The authors suggest that the test is either an insensitive or an unreliable instrument, capable of only the most gross indication of psychodynamics.

Smith, Elgie, "A Study of Sex Differentiation in Drawings and Verbalizations of Schizophrenics", in the Journal of Clinical Psychology, Vol. 9, No. 2, issue of April 1953, p. 183-185.

A good experimental example of how an inquiry enhances the clinical value of the D.A.P. Test. Human Figure drawings alone did not discriminate between paranoid schizophrenic and non-schizophrenic males, but when supplemented with the question "How do we tell the difference between men and women?" five items produced significant differences between the groups. With few exceptions, all subjects drew their own sex first.

Starr, S. and F.L. Marcus, "Reliability in the 'Draw a Person' Test", in the Journal of Projective Techniques, Vol. 23, No. 1, issue of March 1959, p. 83-86.

The reliability of seven characteristics of the drawing of a Human Figure by male and female college students was investigated using different time intervals and different examiners between administrations. One result of interest was that the sex of the drawn figure was found to be reliable for the male subjects but not for the females. A useful study which should provoke further research and qualify many of the existing findings in this area.

Stoke, Stuart M., "An Inquiry into the Concept of Identification", in the Journal of Genetic Psychology, Vol. 76, First Half, 1950, p. 163-189.

The author proposes ten factors prominent in the formation of identification which he feels will be found in differing degrees in the lives of all children. The usefulness of this theoretical framework in the clinical setting is illustrated by the results of an experimental application of these factors to explain the behaviour and values of three male children and a group of adult females.

Swensen, Clifford H., "Sexual Differentiation on the Draw-a-Person Test", in the Journal of Clinical Psychology, Vol. 11, No. 1, issue of January 1955, p. 37-40.

An illustrated description of a nine point scale of sexual differentiation between the D.A.P. Test figures based on the hypothesis that differentiation or the lack of it indicates the degree to which sexual identification has been developed in an individual. The method of construction, inter-judge reliability and initial experimental results from the scale are provided.

----- and Carl N. Sippelle, "Some Relationships Among Sexual Characteristics of Human Figure Drawings", in the Journal of Projective Techniques, Vol. 20, No. 2, issue of June 1956, p. 224-226.

The D.A.P. tests of fifty men and women prior to entering psychotherapy were studied to determine if any relationships existed between (a) the sex of the first drawn figure, (b) the sexual differentiation and (c) the masculinity of the male figure and the femininity of the female figure. No interpretation is offered for the results and the reader is left considerably confused regarding the use to which the findings should be put.

Swensen, Clifford H., Jr., "Empirical Evaluations of Human Figure Drawings", in Psychological Bulletin, Vol. 54, No. 6, issue of November 1957, p. 431-466.

A thorough analysis of all research on the D.A.P. Test reported in the literature from January 1949 to December 1956 and an evaluation of the degree to which Machover's interpretations, based on empirical evidence, have been upheld by scientific investigations. An excellent bibliography is provided.

Tolor, Alexander, "A Comparison of Several Measures of Psychosexual Disturbance", in the Journal of Projective Techniques, Vol. 21, No. 3, issue of September 1957, p. 313-317.

A well designed study of the relationship of three measures of psychosexual adjustment. Although each measure proved useful by itself, they were not correlated and hence, should not be used interchangeably since they appear to measure different psychological functions of the same phenomenon.

Zeichner, Abraham M., "Psychosexual Identification in Paranoid Schizophrenia", in the Journal of Projective Techniques, Vol. 19, No. 1, issue of March 1955, p. 67-77.

The Rorschach and T.A.T. tests were used to determine whether male paranoid schizophrenics would differ from non paranoid schizophrenic and normal males with respect to psychosexual identification. The greatest tendency towards feminine identification occurred in the paranoid group and both groups of schizophrenics showed greater psychosexual confusion than the normals. A worthwhile investigation, well designed and logically interpreted.

APPENDIX 1

PROCEDURE FOR SCREENING NORMAL SAMPLE

1.- Preliminary Discussion

After reading this, you will be asked to answer a short questionnaire in which the word 'homosexual' is used several times. Because this word has several different meanings, it is necessary for this study that we all define it in the same way, keeping in mind that we are only considering the male sex.

In this study the word 'homosexual' is used to mean an experience in which an individual, through physical contact with a person of the same sex, reaches a sexual climax, that is, orgasm.

For our definition it does not matter what techniques are involved in the relationship, or whether the participating individuals actually have more sexual relations with women than they do with other men. The important thing in clearly defining this word is the end result, and in order to call a relationship 'homosexual' at least one of the individuals involved must experience a sexual climax as the result of physical contact with his male partner.

In questioning men about their sexual relationships from the onset of adolescence to old age, Kinsey found that four percent, (that is 4 out of every 100) American males restricted their sexual relationships exclusively to male partners throughout their entire adult life.

He also found that sixty-three percent of American males never had overt homosexual experience to the point of orgasm after the onset of adolescence but confined their sexual relations strictly to female partners.

This covers a wide range, from the man who has had only one or two sexual relationships with another male to those who have had many. But in all cases they are men who have also experienced sexual climax with a female.

In the eyes of the law, if they are discovered in this relationship these men are considered homosexual. Under the law the man who is discovered in the one homosexual experience of his life may receive the same penalty as the individual who has all his sexual relationships with other men. Yet, as Kinsey has pointed out, there are 37 chances out of 100 that the policeman who arrests him, the lawyer who prosecutes him and the judge who convicts him have also committed the same offense at least once, if not more often!

By this definition, thirty-seven percent of the American male population could be called homosexuals. Perhaps this definition of the term is too strict. Many think it should be reserved for those individuals who have the majority of their sexual relationships with other men. They feel that to call a happily married man a homosexual simply because he has, at some time in his life, achieved sexual climax with another male seems ridiculous.

Because of these considerations they are, at present in England, attempting to change the law regarding homosexual relations. They feel that if it is an act between two consenting adults it should not be a matter of public concern. It would be placed in the same category as sexual relationships between a man and woman. That is, unless an individual is forced into such a relationship, or a minor is involved, it is up to the individuals concerned as to how they choose to achieve sexual pleasure. This outlook has been practised in the law courts of Sweden and Denmark for over ten years.

Interested scientists have done studies on the adjustment of men who by their own admission were exclusively homosexual. That is their sexual partners were always male. The sexual activities of these men were not known to their community, friends or business associates. It was found that these men were just as

well adjusted and in just as good mental health as men whose sexual relationships were entirely with females. Hence, a homosexual was not found to suffer any greater amount of mental illness or personality maladjustment than a non-homosexual.

Hence, as Kinsey suggests, homosexuality must be considered as a relative thing, varying from persons involved in one single incident to those whose entire sexual experiences are with males. Until Science, Law and Medicine can reach a clearer definition of a 'homosexual' they must bear in mind that they could be talking about one-third of the men in our country.

Nevertheless, because of the rigid legal definition of homosexuality which we are using in this study, we must consider as 'homosexual' any physical contact between two males, beyond the onset of adolescence, which results in either or both individuals achieving orgasm.

2.- Questionnaire

Each member of this group will remain anonymous. Do not state your name, age, or in any way display your handwriting. Simply place an "x" in the appropriate space for your answer after each of the following questions.

The truthfulness with which you answer these questions will determine the scientific success of this study. If any of the following reasons apply to you, simply place this questionnaire unanswered in the envelope provided.

Do not answer:

- (a) If you are over 40 years of age.
- (b) If you have ever been hospitalized or treated for a mental illness.
- (c) If you do not wish to answer.

Questions

1. Kinsey found that 4% of the American male population had all their sexual relationships with other men. Do you feel that the same percentage would hold true for the Canadian male population?
Yes (___) No (___) Don't know (___)
2. Kinsey also found that 37% of the American male population had had at least one homosexual experience since the onset of adolescence. Do you feel that this same percentage would also hold true for the Canadian male population?
Yes (___) No (___) Don't know (___)
3. If you knew that one of your friends was having homosexual relationships, but he never involved you in these, would you continue your friendship with him?
Yes (___) No (___)
4. Have you ever had a homosexual experience?
Yes (___) No (___)

5. Do you agree with Kinsey that only those individuals whose majority of sexual experiences are with males should be called homosexuals?

Yes (___) No (___)

6. Do you agree with those people in England who feel that the law should not be allowed to prosecute two consenting adult males who have homosexual relationships?

Yes (___) No (___)

After answering these questions, please place this sheet in the envelope provided along with the two other drawings and seal the envelope.

APPENDIX 2

RATING SCALE FOR DRAWINGS OF HEADS ONLY

In order to rate the D.A.P. tests of subjects who drew only the head of each human figure, it was decided to retain those scoring criteria from the original Scale for Rating Sexual Differentiation on the Draw-A-Person Test which could still be applied in such cases. The final score which a pair of such drawings obtained on these criteria was taken as an estimate of the rating which two completed figures would have merited.

Those items from each point level on the original Scale which could still be used, either in whole or part, for this modified rating procedure are described below.

Point 1 - Little or no sexual differentiation. This item, which was retained verbatim from the actual Scale is applicable when there is little or no difference between the two drawings and what difference exists between them does not particularly suggest sexual differentiation.

Point 3 - Poor sexual differentiation.

Here again the original Scale criterion can be applied to drawings of the head only since a minimum rating of three points is given for any pair of drawings in which longer hair appears on the female.

Point 5 - Fair sexual differentiation.

The only item at this Scale level which could be partially transposed to apply only to the head was the requirement that the female have a clearly different body contour with either rounded hips and/or breasts. Revising this item, a rating of five was given if the head of the female had finer, more softly rounded features and a narrower neck in contrast to more gross, angular features such as nose, chin, forehead and thicker neck in the male.

Point 7 - Good sexual differentiation.

A rating of seven was given if, as in the original Scale, there was a suggestion of differentiation in minor details such as eyelashes and/or fuller lips on the female provided that all items required at the lower levels were also present.

Point 9 - Excellent sexual differentiation.

It was decided that a rating of nine would be given if the heads were exceptionally well differentiated. This included a distinctly angular treatment of the male, with larger, more heavy set features and details such as

cigarette, pipe or tie in conjunction with a more curvilinear treatment of the female and such details as definitely feminine hairstyling, earrings, eyelashes and fuller lips.

Table VII - Sexual Differentiation Scores of
Seven Incomplete D.A.P. Tests from the Homosexual Sample.

Subject	Rating on Revised Scale
H _a	7
H _b	8
H _c	4
H _d	5
H _e	6
H _f	4
H _g	8

APPENDIX 3

RAW DATA FROM THE THREE SAMPLE GROUPS

The raw data for each of the three sample groups is presented in Tables VIII, IX and X which follow.

Table VIII - Sex of First Drawn Figure and Sexual Differentiation Scores on Original Swensen Scale for Each Member of the Homosexual Group.

Subject	First Figure	Swensen Rating	
		Rater 1	Rater 2
H1	F	8	7
H2	M	6	6
H3	F	9	9
H4	M	7	7
H5	M	7	7
H6	M	4	4
H7	M	7	7
H8	M	8	8
H9	M	7	9
H10	M	4	3
H11	F	8	8
H12	M	8	8
H13	M	7	7
H14	M	4	5
H15	M	9	9
H16	M	6	4
H17	M	7	5
H18	M	7	8
H19	M	6	5
H20	F	6	6
Ha	M		
Hb	F		
Hc	F		
Hd	M		
He	M		
Hf	F		
Hg	F		

Table IX - Sex of First Drawn Figure and Sexual Differentiation Scores on the D.A.P. Test for Each Member of the Normal Group.

Subject	First Figure	Swensen Rating	
		Rater 1	Rater 2
N1	F	7	8
N2	M	7	7
N3	M	3	3
N4	M	7	8
N5	F	8	9
N6	M	5	5
N7	M	5	4
N8	M	8	7
N9	F	4	4
N10	M	6	6
N11	F	4	4
N12	M	4	4
N13	F	5	5
N14	M	2	2
N15	F	7	8
N16	M	8	7
N17	M	5	4
N18	F	7	8
N19	M	5	6
N20	M	4	4
N21	M	7	7
N22	M	5	5
N23	M	7	7
N24	F	6	6
N25	M	8	8
N26	M	7	7
N27	M	5	5
N28	M	8	9
N29	M	6	5
N30	F	1	1
N31	M	8	8
N32	M	1	1

Table X - Sex of First Drawn Figure and Sexual Differentiation Scores on the D.A.P. Test for Each Member of the Paranoid Group.

Subject	First Figure	Swensen Rating	
		Rater 1	Rater 2
P1	M	4	4
P2	F	5	5
P3	F	4	5
P4	F	9	9
P5	F	1	1
P6	F	3	3
P7	M	2	2
P8	M		
P9	M		
P10	M	2	2
P11	M	9	9
P12	M	4	2
P13	F	7	8
P14	F	7	7
P15	M	7	7
P16	M	1	1
P17	M	7	7
P18	M	3	3
P19	M	6	7
P20	M	4	5
P21	M	7	7
P22	M	5	5
P23	M	5	4
P24	M	5	4
P25	M	4	4
P26	M	3	3
P27	M	9	9
P28	M	7	7
P29	M	7	8
P30	M	6	5
P31	M	5	4
P32	M	5	5

APPENDIX 4

ABSTRACT OF

Sex Role Identification and the Draw-A-Person Test¹.

In order to determine the validity of the assumption that the Draw-A-Person Test reflects the direction and clarity of sex role identification, the human figure drawings of Normal, Overt Homosexual and Paranoid Schizophrenic males were compared on the basis of three measures.

1. The sex of the first drawn figure.
2. Refusal to draw a female figure.
3. Degree of sexual differentiation between the figures.

The groups did not differ on the first two measures. The male figure was most frequently drawn first by all subjects and the number of subjects who refused to draw a female figure was negligible. The Overt Homosexual group obtained a significantly higher mean score on the third measure than did the Paranoid Schizophrenic, but the mean score of the Normal group did not differ from those of the other two.

¹ Nancy Anne Elgie, M.A. Thesis, presented to the School of Psychology of the University of Ottawa, Ontario, May 1959, ix-78 p.

Hence, the validity of the first two measures as a reflection of sex role identification was not established. It was suggested that the third measure may be useful as a method of diagnosing overt homosexuals and paranoid schizophrenics on the basis of their D.A.P. Test productions but its validity as a measure of sex role identification remains open to question.