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in Psychology

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Special thanks is given to my family and friends for continued support and encouragement.

Sincere appreciation for encouragement, timely suggestions, patience, and careful typing is expressed to my lovely wife Rebecca. With love I dedicate this book to her.

Paul Charles Hatch
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Abstract

Does the "Draw-A-Male-And-A-Female" Test Show Male-Female Relationship?

by

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Department: Psychology

The present study investigated the "Draw-A-Male-And-A-Female" test to find if this variation of the "Draw-A-Person" test was a valid measure of male-female relationship variables, i.e., compatibility, happiness, warmth, and interpersonal anxiety and conflict. Two groups varying with respect to relationship (married group vs divorced group) were tested. A high school group was also tested. Three psychologists rated the drawings into a positive or a negative relationship group. If the male and female figures in the drawing had the appearance of warmth or pleasantness between each other, seemed compatible, and looked free from interpersonal anxiety or conflict, the picture was placed in the positive relationship group. The pictures containing opposite characteristics were placed in the negative group. The average inter-rater agreement was 72.9%. This was a significant departure from chance at the .001 level of confidence.
Introduction

There are many tools used by psychologists and counselors to assess and analyze the personalities and behaviors of people. One set of tools is known as projective techniques. These tests assess personality through indirect methods. Of these projective tests, one of the most frequently used is the "Draw-A-Person" test (Sundberg, 1961 and Buros, 1972, p. 165).

The test is given with use of paper and pencils. The standard instruction to the subject is simply, "draw a person". What the subject draws is interpreted as being a projection of his feelings about himself and significant others (Abt & Bellak, 1959, p. 260).

There have been various modifications of this "Draw-A-Person" test. One is the "Draw-A-Family" test. In this test the subject is asked to "draw a family". By so doing, the person projects his feelings about his family (Hammer, 1958, pp. 391-397). There is also evidence that information as to his relationships with siblings and parents are projected into his drawing (Hammer, 1958, pp. 391-397).

An important type of relationship to be considered by psychologists is the marital one and other close male-female relationships because of the great effect upon participants, their children,
and their close associates. Since a person projects his relationships with parents and siblings in the "Draw-A-Family" test (Hammer, 1958, p. 391), it seemed reasonable to expect that a person would also project his feelings of warmth, desire to be close, anxiety, contentment, and relationship to the opposite sex in general or to a particular significant member of the opposite sex by drawing a male and a female on the same sheet of paper.

As a preliminary test of this hypothesis, the researcher had various persons with whom he was acquainted draw a male and a female on the same sheet of paper. The drawings were reviewed by the researcher and fellow colleagues. Based on previous knowledge of the individuals as well as conversations with them at the time of testing, it was decided that the drawings did reveal some aspects of the subjects' personality and male-female relationship feelings, and was a projection of their real life situation.

A previous application of drawing a male and a female on the same sheet of paper for relationship research purposes had not as yet been used. It was important to find out if the "Draw-A-Male-And-A-Female" test was a valid projective test, both for practical use and extended knowledge of projective drawings. Therefore, the problem was that, although there were many studies pertaining to the "Draw-A-Person" test, there were as yet no studies or data on the "Draw-A-Male-And-A-Female" test.
Review of Literature

Projections Made Through Art

and Projective Drawings

A man of great intellect and creative genius, Leonardo DaVinci, "is credited with the first observation of the process of projection. The person who draws or paints, he recognized, 'is inclined to lend to the figures he renders his own bodily experience, if he is not protected against this by long study'" (Hammer, 1958, pp. 7-8). Similar awareness is revealed "in the words of Tunnelle, 'the artist does not see things as they are but as he is.' Hubard expressed it in much the same way, "When an artist paints a portrait, he paints two, himself and the sitter"" (Hammer, 1958, p. 16).

Although the artist's projections in his works are widely accepted by students of art, one cannot assume that a subject will project himself through the projective drawing tests. To test the notion of self-projection, Craddick (1963b) instructed groups of fifth grade and college students to draw a person. When this task was completed, he had them draw a self-portrait. These drawings were analyzed to see if they were similar to each other. The conclusion of this study was that people do tend to project themselves in the "Draw-A-Person" test.
In another study by Apfeldorf and Smith (1966), raters matched photographs of subjects with figure drawings done by the subjects. The matching was better than chance at the .01 level of confidence. However, the number of matches was low.

Various investigators have studied drawings of physically disabled subjects to see if their handicaps were reflected in figure drawings. One such study (Silverstein & Robinson, 1956) examined the human figure drawings of 22 children with lower extremity disabilities. The subjects portrayed physical disability either directly or indirectly in three-fourths of their drawings.

Fears about physical problems may also be projected in drawings. Meyer and Brown (1955) studied drawings of medical patients before and after surgery. They found that patients would project fears that were concealed from interviewers into drawings. The researchers said "...like the dream, the artistic product is characterized by the stamp of individual signature." The authors found that, unlike the usual high degree of consistency between drawings over time, there were "striking dissimilarities" between pre- and post-operative drawings. This lends credibility to the test's susceptibility to the changing circumstances in a subject's life.

Another important observation was made in this study. The authors found that the surgical site and somatic illness were usually not directly alluded to in the drawings. Instead, they were "expressed
either symbolically or through a graphic equivalent of familiar psychologic defenses."

Studies to test changes in motivation and perception in drawings through "naturally motivating expectancies" were conducted by Craddick (1961, 1963a). In these studies, children were asked to draw a Santa Claus before and after Christmas, and to draw a Christmas tree before and after Christmas. The assumptions were that these symbols of the holiday were important to the children, and that changing motivation toward these symbols would affect their size, that is, greater size before the holiday but smaller after the holiday. The findings of the studies were that the symbols were larger before the holiday.

A similar study (Craddick, 1963c) involved the drawing of Halloween witches before and after Halloween. However, the hypothesis was that the witch would be smaller before the holiday because of the negative aspects associated with witches. The results of the study confirmed the hypothesis.

These findings, however, should be accepted with caution. Roodin, Vaught and Simpson (1971) conducted a similar study involving the drawing of Christmas trees before and after Christmas and found no significant difference.

The foregoing studies may bring to mind a question as to what and how much a person really projects through drawing. Levy (Abt
and Bellak, 1959) maintains that projective drawings such as human figure drawings do project a body image and self-concept. In addition, there may be a:

Projection of attitudes toward someone else in the environment, a projection of ideal self-image, a result of external circumstances, an expression of habit patterns, an expression of emotional tone, a projection of the subject's attitudes toward life and society in general. It is usually a combination of all of these. (Abt & Bellak, 1959, p. 260)

Later in the article, Levy makes a significant statement regarding the value of figure drawing projective test. Figure drawings "may frequently prove to be a fruitful and economical source of insight about the personality of the subject (Abt & Bellack, 1959, p. 288).

A "perception to environment" study was conducted by Larkin (1956) that lends substantiation to Levy's statement concerning what is projected. Larkin examined figure drawings of a group of children (average age 8.7 years) and a group of institutionalized aged persons (average age 78.5 years). (The institution was for aged, not a penal or mental institution.) The results of the study showed significant difference between the two groups. The children's drawings were taller, used greater area, and were better centered than the aged group. Larkin concluded, "The findings seem to give additional evidence of the validity of the assumption that formal aspects of figure drawings are related to the central variables of self conceptualization and body image."
To detect if his earlier findings were indeed a perception of status and environment or just a function of age, Larkin (1960) conducted a similar study of institutionalized aged. Thus, his control group this time was other aged people who were similar in background and socio-economic status, but who were not residents of institutions. This study showed a significant difference between the two groups of aged subjects. Larkin concluded, "The present study thus indicates that change in perception of life status, but not age itself, has a major effect upon alteration in body image as reflected in figure drawings."

Other environmental factors have an effect upon figure drawings. Goldstein (1972) found that the viewing of stressful films caused subjects to draw their same sex first less often. Dmitruk (1972) found that students in an anthropology class drew more unusual pictures (i.e., Indians or cavemen).

Thus, it can be seen that the "Draw-A-Person" test is sensitive to significant changes in a subject's environment. However, for adults and older adolescents the test is rather consistent over time (Faterson & Witkin, 1970).

The "Draw-A-Person" test has been used for many years. Thus, much of the important research work done was reported in the 1940's and 1950's. Over the years, hundreds of articles have been written concerning the uses and limitations of human figure drawings.

**Drawing Techniques More Closely Related to Present Study**

The review of the literature thus far has presented evidence that people do project through the media of art and projective figure drawings, do reveal various attitudes and feelings, and that art and figure drawings can give insights into the subject's personality. However, in regard to the use of drawings to study the subjects' relationships with others, little has been reported. A search of the literature has found but one study in which a drawing technique was used that might show male-female relationship or interaction by
drawing a man and a woman together on the same page (Royal, 1949). However, Royal did not seem to be looking for clues relating to relationship. Instead, he was testing whether or not this "Draw-A-Man-And-A-Woman technique" would differentiate 80 anxiety neurotics from 100 volunteer normals. He examined 28 different factors relating to the drawings. Only five of these factors were related in any way to relationship. These were: distance between figures, relative size of figures, sex of left hand figure, the direction facing of figure, and vertical plane of each figure. None of the 28 factors were found to be significantly different between the two groups. However, eight of the 28 factors showed a slight tendency toward differentiation. Of these 8, three were of the group related to relationship: distance between figures, figures on different vertical planes, and relative size of the figures. By using these eight factors together, a low discrimination was achieved.

Hulse (1952) had subjects (mainly children) draw pictures of their families. This technique is commonly known as the "Draw-A-Family" test. He found that the subject projects his relationships with other members of the family. Also, the subject's attitudes and feelings are projected in such aspects as competition with siblings and sense of belonging.

Hulse also maintained the "Draw-A-Family" test is a responsive and useful tool to assess progress made through therapy.
Hammer (1958, pp. 391-397) discussed the use and value of the "Draw-A-Family" test and agreed with Hulse that the drawing of a family by a subject does give insight to the subject's feelings and relationship toward parents and siblings. He gave as evidence of this some examples: children with extreme sibling rivalry may omit brothers or sisters from their drawing. A person that does not feel a part of the family may draw himself in the corner of the page while other family members are together and interacting. A 42-year-old man who had retreated into a schizoid shell drew family members in separate corners of the page. The individuals showed no family interaction.

Summary

The present literature review is not an exhaustive account of the numerous articles relative to projective drawing, particularly the "Draw-A-Person" and "Draw-A-House, Tree, Person" test, but it is an attempt to show that subjects do project elements of their feelings, attitudes, and personalities into projective drawings. It also shows that drawings which contain more than one person can show relationship between the persons drawn.
Purpose and Objectives

General Statement of Purpose

The purpose of this study was to test the validity of a new variation of the "Draw-A-Person" test, the new variation being the "Draw-A-Male-And-A-Female" test wherein the subjects drew both a male and a female on the same sheet of paper. This study was an attempt to answer the following question: Does the "Draw-A-Male-And-A-Female" test reveal a qualitative difference in interpersonal male-female relationships (i.e., married individuals versus recently divorced individuals)?

Objectives Based on Purpose

The first objective of this study was to find if ratings of interpersonal relationships in drawings by qualified judges are consistent.

The second objective was to see if the married group's drawings showed more warmth and compatibility and less conflict than the divorced group's based on global, qualitative ratings of the judges.

(Married group: persons married and not in the process of obtaining a divorce. Divorced group: persons in the process of obtaining a divorce or who have been divorced for less than one year and have not remarried.)
The importance of touching in interpersonal relationships was noted by Julius Fast in his book *Body Language*. The researcher also felt that touching was a significant interpersonal expression. Thus, the third objective was to find if the married group drew physical contacts between the male and female significantly more often than did the divorced group.

The direction faced by persons interacting was believed to be important by the present author as well as Fast. Therefore, the fourth objective of this study was to see if there was a significant difference between the married group and the divorced group on the basis of the direction the persons in the drawings were facing relative to each other.

The fifth objective of this study was to compare the high school senior group with each adult group using the same variables as used when comparing the two adult groups to each other.

**Hypotheses**

Percent of agreement between sets of raters would be greater than 80%. This was thought to be a realistic and acceptable level of agreement between judges with minimum instruction and training for this specific task.

The married group would have significantly more drawings rated positive than would the divorced group (.05 level of confidence).
The married group would have significantly more physical contacts between persons in their drawings than would the divorced group (.05 level of confidence).

The married group as opposed to the divorced group would have significantly more drawings in which one or both persons drawn would face the other person drawn (.05 level of confidence).

No hypotheses were made concerning the results of the high school group. This group was used in part as a control group. However, the main reason for including them was to generate additional data for this new test. That is, it was felt that high school students would provide a sample different from either the married or divorced groups, and could thus serve as a sort of probe to help clarify and increase understanding of any differences that might be found. It was for this reason no hypotheses were made.
Procedure

Population and Sample

The accessible population for the divorced group consisted of those persons obtaining a divorce or who had been divorced within the year previous to their test date in the Logan, Utah area. The married group's accessible population consisted of persons similar to the divorced group subjects except for marital status. Senior students attending Logan High School were also included.

The Logan area is located in the northern part of Utah. It is a rural area where the people are predominantly conservative and of the Mormon religion. However, Logan is also a college town with people of diverse origins and backgrounds. About half of the adult subjects used in this study were not native to the area.

The experimental group consisted of 30 subjects, 15 male and 15 female, each of whom had filed for divorce or had been divorced less than one year and were not engaged or remarried. Their average age was approximately 33 and they had been married about 12 years. These people were identified from weekly publications of the "News For The Credit Industry" which contains various vital statistics, including legal suit divorce filings from the Logan, Utah, area. These publications provided over 200 names. Although this is a
considerable number of names, nearly all were needed because most of these people had changed their residence since filing for divorce. Thus, the researcher was unable to locate many of these people. Fortunately, however, all but two of the persons contacted in this group agreed to participate in the study.

The control group consisted of 30 subjects, 15 male and 15 female, who were married and rated their marriage above average or better. Their average age was approximately 30 and they had been married about 9 years. They were similar to the experimental group in aspects of age, socio-economic status, and years married. This similarity was achieved by selecting control subjects by approximate age from neighborhoods similar to those the divorced individuals came from.

The Logan High School senior students consisted of a high school psychology class.

Data and Instrumentation

The material used for the "Draw-A-Male-And-A-Female" test was white paper, size 8 1/2" by 11" and number 2 lead pencils.

The adult subjects were contacted and asked to cooperate in a research project for the College of Education. An appointment was made with each for a convenient time and place where the drawing could be obtained. Each subject was asked to draw a male and a female on the sheet of paper provided. After
completion of the drawing, information was collected as to age, occupation, education, years of marriage, etc., of the subject (Appendix A). The subject was assured that the information would not appear on either the drawing or the information sheet. Some of the questions were used to put the subject at ease before asking the more personal questions pertaining to his or her marriage. The questions also aided the researcher in better understanding the subject and his or her drawing. The high school group was tested as a group in their psychology class. Instructions to this group were the same as the adult group's but a different questionnaire was administered (Appendix B).

The ninety drawings were then judged by three psychologists, each of whom had had experience using and analyzing projective tests. Most experienced psychologists use and interpret figure drawings in a way that best suits their techniques and skills. They usually have a well established, but internal set of norms which they use as a basis for making their interpretations. Furthermore, this test, if successful, would be used by most psychologists with little additional training beyond the instructions given and the training they have already received in the use of projective drawings. Thus, very little formal training and few instructions were given the raters so that the conditions involved in the interpretation of the drawings in this research would be as similar as possible to a real life, clinical
situation. The judges worked independently and without knowledge of the subjects' group membership. They were told to examine and then divide the drawings into two groups, using the following criteria:

**Positive relationship group**

1. Drawing, in rater's judgement, has appearance of warmth between male and female.
2. Persons in drawing look happy or pleasant.
4. Drawing does not exhibit interpersonal anxiety or conflict.

**Negative relationship group**

1. Drawing, in rater's judgement, lacks appearance of warmth between male and female.
2. Persons in drawing look unhappy or unpleasant.
4. Drawing exhibits interpersonal anxiety or conflict.

After the drawings were rated by the three judges, each drawing was placed in the positive or negative category grouping. The category groups consisted of drawings rated by either two or three judges as positive or negative. Total agreement was not necessary
for category grouping. These combined ratings were used for statistical calculations.

Percent of agreement between each rater with each other rater was then calculated. In each case there were 90 possible agreements or disagreements. The percent of agreement between raters was calculated by dividing 90 into the number of agreements between raters A and B, then raters A and C, and finally raters B and C. The mean of these three percentages was calculated to determine the overall inter-rater consistancy. A chi-square was also computed to compare the number of observed agreements to what would have been expected by chance.

The researcher then tabulated the frequencies according to directions faced for the male and female in the drawings. Statistical analysis between groups was not executed because of extreme infrequency of drawings where the male and female faced each other as opposed to facing forward. The divorced group had only one frequency, the married group two, and the high school group three where the figures faced each other (see Table 4). A chi-square figured with frequencies this small could be very unreliable.

The frequencies of physical contact were then totaled. These phenomena were also so infrequent that statistical analysis was not appropriate. The frequencies were also once for the divorced group,
twice for the married group, and three times for the high school group (see Table 5).

**Statistical Designs**

The observed frequencies of agreement were compared to the frequencies expected by chance using the following chi-square formula:

\[ \chi^2 = \sum \frac{(O - E)^2}{E} \]  

(1)

The ratings of the judges dichotomized the subjects' drawings into two categories. Divisions already existed between groups and sexes. These dichotomies were then arranged into 2 x 2 tables. The following are examples: married vs divorced with relationship positive vs negative, high school students vs married with relationship positive vs negative, male vs female with relationship positive vs negative, etc. (see Figure 1).

Since the data were nonparametric and the frequencies yielded a fourfold table, the chi-square test was used to see if the groups differed more than would be expected by chance. The chi-square formula was:

\[ \chi^2 = \frac{N(AD - BC)^2}{(A + B)(C + D)(A + C)(B + D)} \]  

(2)

The following formula with Yate's correction for continuity was used where expected frequencies were less than five.

\[ \chi^2 = \frac{N(|AD - BC| - N/2)^2}{(A + B)(C + D)(A + C)(B + D)} \]  

(3)
<table>
<thead>
<tr>
<th></th>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>21</td>
<td>9</td>
</tr>
<tr>
<td>Divorced</td>
<td>9</td>
<td>21</td>
</tr>
</tbody>
</table>

Figure 1. An example of a 2 x 2 table.
The $x^2$ score was converted to a phi coefficient by the following formula to find the degree of relationship between the variables.

$$\phi = \sqrt{\frac{x^2}{N}}$$

(4)
Results

The agreement between raters A and B was 73.3%, raters A and C 77.7%, and raters B and C 67.7%. This was an average of 72.9% (see Table 1). These percentages were less than the expected 80% agreement. This phenomenon will be examined further in the discussion section.

Table 1

Percent of Inter-Rater Agreement

<table>
<thead>
<tr>
<th>Rater A with Rater B</th>
<th>73.3%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rater A with Rater C</td>
<td>77.7%</td>
</tr>
<tr>
<td>Rater B with Rater C</td>
<td>67.7%</td>
</tr>
<tr>
<td>Average inter-rater agreement</td>
<td>72.9%</td>
</tr>
</tbody>
</table>

Of the ninety drawings, all three judges were in full agreement 46 times and partial agreement 44 times. This amount of agreement was a significant departure from chance beyond the .001 level of confidence. The chi-square value was 29.38.

The following table gives chi-square values, their significance, and phi-coefficients of chi-square values for the various groups.
### Table 2

Statistical Analysis of Group Relationship Ratings

<table>
<thead>
<tr>
<th>Group comparisons</th>
<th>Chi-square</th>
<th>Significance level</th>
<th>Phi-coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married vs divorced</td>
<td>9.60</td>
<td>.01</td>
<td>.40</td>
</tr>
<tr>
<td>Married vs high school</td>
<td>1.76</td>
<td>NS</td>
<td>.17</td>
</tr>
<tr>
<td>Divorced vs high school</td>
<td>3.36</td>
<td>.10</td>
<td>.23</td>
</tr>
<tr>
<td>Male vs Female (all)</td>
<td>14.41</td>
<td>.001</td>
<td>.49</td>
</tr>
<tr>
<td>Male vs Female (adults)</td>
<td>9.60</td>
<td>.01</td>
<td>.40</td>
</tr>
<tr>
<td>Male vs Female (div.)</td>
<td>3.97</td>
<td>.05</td>
<td>.36</td>
</tr>
<tr>
<td>Male vs Female (mar.)</td>
<td>7.78</td>
<td>.01</td>
<td>.51</td>
</tr>
<tr>
<td>Male vs Female (h. s.)</td>
<td>4.82</td>
<td>.05</td>
<td>.40</td>
</tr>
</tbody>
</table>

The chi-square scores ranged from 1.76 for the married vs high school group to 14.41 for the total male vs female comparison. The high school group was not significantly different from the married group and was only significant at the .10 level of confidence from the divorced group. All other comparisons were significant at the .05 to .001 level of confidence. The phi-coefficients varied proportionately to the chi-square values.
Group comparisons male vs female (divorced, married, and high school) contained frequency cells less than five; thus, the following scores with Yates' correction for continuity were computed.

Table 3

Statistical Analysis of Group Relationship Ratings
(Male vs Female) with Yates' Correction for Continuity

<table>
<thead>
<tr>
<th>Group comparisons</th>
<th>Chi-square</th>
<th>Significance level</th>
<th>Phi-coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male vs Female (div.)</td>
<td>2.54</td>
<td>NS</td>
<td>.29</td>
</tr>
<tr>
<td>Male vs Female (mar.)</td>
<td>5.71</td>
<td>.02</td>
<td>.44</td>
</tr>
<tr>
<td>Male vs Female (h. s.)</td>
<td>3.35</td>
<td>.10</td>
<td>.37</td>
</tr>
</tbody>
</table>

The use of Yates' correction for continuity caused the chi-square values to decrease. Due to this the divorced male vs divorced female comparison was no longer significant. The married comparison was significant at the .02 level of confidence and the high school group at the .10 level of confidence.

Table 4 shows the frequency of physical contacts in the drawings divided by groups and sex. The total number of drawings
exhibiting physical contact was six. Of these, one was drawn by a divorced male, two by divorced females, one by a high school male, and two by high school females. The table also lists various possibilities for direction faced by the drawn figures and gives their frequencies. Seventy-one of the 90 drawings were of the "both facing front" group. Six were in the "facing each other" group. The other groups contained frequencies of three or less.
Table 4
Direction Faced by Male and Female Figures in Each Drawing with Frequencies Tabulated by Subject's Group and Sex

<table>
<thead>
<tr>
<th>Direction faced by figures</th>
<th>Divorced</th>
<th>Married</th>
<th>High School</th>
<th>Total</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Male Female</td>
<td>Total Male Female</td>
<td>Total Male Female</td>
<td>Male Female</td>
<td></td>
</tr>
<tr>
<td>Both facing front</td>
<td>22</td>
<td>9</td>
<td>13</td>
<td>25</td>
<td>10</td>
</tr>
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<td>2</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Facing each other</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>F front M away</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>M front F away</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>F front M toward F</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>M front F toward M</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</table>
Table 5

Number of Physical Contacts by Male and Female Figures in Each Drawing with Frequencies Tabulated by Subject's Group and Sex

<table>
<thead>
<tr>
<th>Physical contacts by figures</th>
<th>Divorced</th>
<th>Married</th>
<th>High School</th>
<th>Total</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Male Female</td>
<td>Total Male Female</td>
<td>Total Male Female</td>
<td>Male Female</td>
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</tr>
<tr>
<td>Physical contacts</td>
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<td>1</td>
<td>2</td>
<td>2</td>
<td>4</td>
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</table>
Inter-Rater Consistency

What is a respectable level of agreement between raters dividing "Draw-A-Male-And-A-Female" test pictures into positive and negative relationship groups? This is a question worth some consideration. Some of the pictures showed much warmth and involvement between the male and female figures; other pictures expressed obvious hostility and detachment between the figures. Rater agreement with such pictures could be expected to be 90% or greater. However, many pictures were mildly positive or negative. Some pictures had both positive and negative relationship characteristics. Inter-rater agreement on these somewhat neutral or conflicting pictures might be expected to be low, perhaps 50% to 60%. Thus, an overall 80% agreement between raters could be considered rather high consistency.

Another factor affecting inter-rater agreement is the criteria stringance of each rater. One rater, for example, may have a tendency to rate a nearly neutral picture positive while another rater would place it in the negative group. This causes one rater to have a greater proportion of positive ratings and the other more negative. Thus, even if the two raters ranked the pictures from most positive
to most negative with 100% agreement, when they divided them into positive and negative groupings, it would be impossible to have 100% agreement.

The average inter-rater agreement in this study was 72.9%. This was not a high average agreement; however, with this type of study and the inherent conditions just described, experts at Utah State University and University of Colorado felt that it was a respectable degree of consistency.

**Test Differentiation Between Groups**

The second hypothesis of this thesis stated that there would be a significant difference between what the married group and the divorced group drew based on qualitative ratings by judges.

Consider the rational for this hypothesis. Marriage, in most cases, is an intimate one-to-one relationship. *Webster's Seventh New Collegiate Dictionary* defines marriage as "an intimate or close union" (1969, p. 518). Goldenson (1970, p. 735) refers to marriage as the "richest and most rewarding of all human relationships."

These references would not apply equally to all persons in this study. However, it can be stated, perhaps without exception, that marriage for each adult subject was the most or one of the most significant and close male-female relationships in which he or she had been involved. Half of these people reported favorably to this marital relationship and had chosen to continue that relationship. But the other
group had chosen to terminate their marriage relationship. Thus, although there were no doubt exceptions, this most significant male-female relationship was happy and successful for the married group, but not so for the divorced group. Therefore, if the "Draw-A-Male-And-A-Female" test does exhibit male-female relationship feelings of the subject, then a significant difference should be expressed by the judges' ratings for these two groups.

The findings substantiate this hypothesis. The judges rated just over two-thirds of the divorced group's drawings negative, while rating just less than one-third of the married group's drawings negative. This difference was significant at the .01 level of confidence.

This suggests that the test does reveal relationship feeling that can be detected by an examiner. It seems probable and logical that the test could be of value in a counseling situation to help reveal the client's feelings and attitudes toward his marital relationship. There may be cases where the client is withholding or hiding feelings about his mate. It may be that the client does not understand or is not consciously aware of his true relationship feelings. The client's projections on this test could aid both himself and the clinician to understand the dynamics and true feelings of the relationship.

For example, a female client who draws a picture with the female facing the male but the male facing away from the female might be projecting that the male is "turning away" from the relationship and becoming uninvolved. With this information, the counselor
might help the female to see her fears about the relationship and thus help her to deal with her own fears and possible corresponding behaviors. Additionally, the couple, with the aid of the counselor, could work toward greater male involvement in the relationship, whether actual or perceived.

No hypothesis was made concerning the results of the high school group as compared to the adult groups. Their results were nearly neutral—about half of the subjects' pictures were rated positive and half negative. There was, however, a significant difference between the males and females of this group. The faces in some of the boys' drawings looked like jack-o-lantern faces, with block teeth or triangular noses. Some of the bodies were out of proportion with nobby knees or elbows. Because of this the researcher felt that the high school males' drawings were more bizarre, immature, and austere. These findings were consistent with the notion that teenaged males are about two years less mature than their female co-eds. These males were probably less involved and less ready for mature male-female relationships than were the females.

The immaturity of the high school males may have explained much of the difference between the sexes of that group. However, the findings of the adult groups also showed that the males drew significantly more negative relationship pictures. This finding may be explained by the emotional differences between men and
women as well as the difference between their traditional roles in society. The male was to be strong, independent, and less feeling than his counterpart. The woman was to be kind, soft-hearted, more romantic, and more involved and attached to the male in the relationship. If these were the feelings of the subjects, then one could expect to find a significant difference based on the sex of the subjects.

Direction Faced by, and Physical Contacts of Drawn Figures

The researcher felt that touch and sight were important aspects of male-female interaction and relationship. Julius Fast in his book *Body Language* discussed the importance of touching and facing in interpersonal interactions. For example, he maintains that persons who are interested in each other "will arrange their bodies and heads to face one another", and "will lean toward each other and try to block off any third person" (Fast, 1970, p. 97). Additional evidence of this phenomena came from this study's preliminary drawings. Thus, it seemed reasonable that the unsuccessful relationship group would draw fewer pictures wherein the male and female figures would look at or touch each other as compared to the married group. It also seemed likely that high school students with their naturally strong interests in the opposite sex would draw more frequent touch and sight interaction.
The results revealed that two divorced subjects drew figures looking at or touching each other. This was done four times by married subjects and six times by high school subjects. These findings tended to substantiate the last two hypotheses that the married group would draw more figures looking at or touching each other. However, the frequency of this phenomena was too low in each group to make any definite conclusions regarding differences between groups. The infrequency of this phenomena might be explained in part by the fact that it is more difficult to draw figures touching or facing each other. The subject's drawing habits and skills may also inhibit such drawings.

Implications of Findings With Suggested Extensions and Uses of This New Test

Figure drawings, including the "Draw-A-Family" test, are widely used and accepted as useful tools in counseling and personality assessment. The author believes that the present test ("Draw-A-Male-And-A-Female" test) can and should be added to this group of tools to aid the clinician in his search for understanding of male-female interaction.

Logic suggests, and the evidence tends to substantiate, that a new dimension is added to a drawing when two or more persons are drawn. This dimension is the social setting. With an additional
person or persons to draw, the subject must decide if or how much interaction will take place. The subject must also consider placement and ordering of the additional persons. These are important considerations, for the subject is not alone in the world, but is a social, interacting person who in everyday life must decide, "Who should go first? How do I interact? Where is my place in this marriage, group, work force and community?"

The subjects in this study had a great deal of latitude as to what they could draw. They had only to draw a male and a female on the same sheet of paper. A more structured approach would have been to request the subjects to draw a husband and wife. This perhaps would reveal more husband and wife relationship feelings. However, it might also restrict some additional feeling projections about male-female relationships in general. A future study involving the drawing of a husband and wife could be of value. It could also be of value to give greater attention to other variables related to the drawings. For example, further research could investigate both the absolute size of the figures and the relative size of the figures to each other. More data could be generated as to placement of figures and the sex drawn first (see Appendix D).

There are other areas where the basic ideas of this new test could be used. A school counselor might be able to gain insights to student's relationship with and feelings toward the teacher. Feelings
that a child may not understand or have the ability to verbalize could be better understood by the counselor. Additional knowledge could be gained about family relationships by asking subjects to draw a brother and sister, parent and child, father and son, etc. In the area of employment, a worker's attitude might be explored by requesting him to draw a worker and his foreman.

Projective drawings are and can be of considerable value when used correctly. However, the author feels a word of caution is appropriate. The impression of the clinician may be incorrect. Before one makes a strong judgement, one should look for supporting evidence from other tests or behavior of the subject.

An important technique to aid in proper interpretation of drawings as well as gaining additional insights to the subject is the interview. When the subject has finished his drawing, the counselor should discuss it with him. The subject may be asked to tell a story about the picture. One may ask, "Who is this person in the picture? What is he doing? Does he like you or the other person in the picture? Does he like school or the teacher?" etc. If parts of the picture are unclear or unusual the counselor should find out more about the part in question. For example, a subject in the present study drew what looked somewhat like a knife in the female's hand. Upon questioning, the object was found to be a sheet of paper. There is a great difference between the female handing a sheet of paper to the male instead of pointing a knife at him.
In summary, figure drawings, including the new "Draw-A-Male-And-A-Female" test, can be quick, economical, and beneficial tools for use in understanding the personality and behavior of people.
Summary and Conclusions

The purpose of this study was to test the validity of a new variation of the "Draw-A-Person" test. Subjects were to respond to the request "Draw a male and a female on this sheet of paper." The study was interested in finding whether or not subjects responding to this request would project their male-female relationship feelings (i.e., hostility, warmth, compatibility) in their drawing.

To test this question, two groups differing in male-female relationship (divorced group: persons who had filed for or received a divorce within one year; married group: married persons who rated their marriage above average or better) were given this new test. The drawings of these persons were rated independently by three psychologists. The pictures were divided into a positive or a negative relationship group. The basic criteria for the positive group were that the figures in the pictures had the appearance of warmth, pleasantness, and compatibility between male and female, and were free from interpersonal anxiety and conflict. Opposite criteria were established for the negative group. Inter-rater agreement was 72.9%.

The married group drew significantly more positive pictures than did the divorced group. This difference was significant at the .01
level of confidence. Thus, the "Draw-A-Male-And-A-Female" test did differentiate between a happily married group and a recently divorced group. This suggests that the test does project a subject's male-female relationship feelings.

A high school senior group was also included to generate additional data and find how these persons related to the other two groups. The judges' ratings for this group placed it nearly midway between the other two groups with respect to the number of positive and negative relationship drawings.

In both the high school group and the adult groups the males drew significantly more negative pictures.

The divorced group as opposed to the married group and the high school group drew fewer pictures in which the male and female figures looked at or touched each other. However, the frequencies in each group were small; thus, no definite conclusion was considered justifiable.
References


Craddick, R. A. 1963. Height of Christmas tree drawings as a function of time. Perceptual and Motor Skills, 17, 335-339. (a)


Craddick, R. A. 1963. Size of Halloween witch drawings prior to, on, and after Halloween. Perceptual and Motor Skills, 16, 235-238. (c)


Dmitruk, V. M. 1972. Situational variables and performance on Machover's Figure-Drawing test. Perceptual and Motor Skills, 35, 489-490.


Appendix A

Questionnaire Administered to Married and Divorced Subjects
**Adult Groups**

<table>
<thead>
<tr>
<th>SDF</th>
<th>M</th>
<th>F</th>
<th>T</th>
<th>Sex</th>
<th>M</th>
<th>F</th>
<th>Age</th>
</tr>
</thead>
</table>

**Occupation**

<table>
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<th>Education</th>
<th>El.</th>
<th>Jr. H.</th>
<th>H. s.</th>
<th>College</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Grad.</th>
<th>Major</th>
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</table>

**Religious Affiliation**

How important is religion in your life? Greatly imp. ___ Imp. ___ Slightly above average imp. ___
Slightly below average imp. ___ Little imp. ___ No imp. ___

**Marital Status:** Single ____ Married ____ Divorced ____ Separated ____ Other ______________________

Have you ever been separated, divorced, or filed for divorce? Yes ____ No ____

Comment ____________________________________________

How long have you been/were you married? ____________________________

How long have you been divorced? ____________________________

When did you start your divorce proceedings? ____________________________

**Miscellaneous**

Comments: ____________________________

With regard to your spouse, rate the following:

<table>
<thead>
<tr>
<th>__</th>
<th>very m.</th>
<th>much</th>
<th>sl. ab. ave.</th>
<th>sl. be. ave.</th>
<th>little</th>
<th>very little</th>
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</thead>
<tbody>
<tr>
<td>Int. in common</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backg. in common</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate your marriage</td>
<td>very g.</td>
<td>good</td>
<td>sl. ab. ave.</td>
<td>sl. be. ave.</td>
<td>poor</td>
<td>very poor</td>
</tr>
<tr>
<td>in general</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Do you consider yourself a happy person? Very ____ Somewhat ____ Little ____ Not ____

How many of your friends do you confide in? None ____ One or Two ____ Several ____ Almost all ____
Appendix B

Questionnaire Administered to

High School Senior Subjects
For High School Students

Sex:  Male ___  Female ___
Age: ____________________

1. Did you draw the male or the female first in your drawing? _____

2. Do you have a close friend of the opposite sex that you can confide in? yes ___  no ___

3. Do you have a boy friend or a girl friend of the opposite sex?
   yes ___  no ___

4. Can you confide in this boy friend or girl friend?
   yes ___  no ___

5. Rate the marriage of your parents.
   Excellent ___  Good ___  Average ___  Below Average ___
   Poor ___
Appendix C

Representative Drawings by Subjects

with Comments by Author
The following comments about the preceding pictures are subject to the author's bias. However, the author feels that the drawings shown do represent an accurate expression of some of the feelings and projections of the subjects. The comments are not intended to be a full or detailed analysis.

Subject 8 was a 27-year-old female who had been married for four years. She reported that she had a great deal in common with her husband and that they had a very good marriage. The picture resembles a happy, successful couple and tends to substantiate her comments.

Subject 39 was a 17-year-old female high school senior. She reported having a boy friend in whom she could confide. She rated her parents' marriage as good. The picture typifies the "Hey, look at me," boy-girl interaction of high school students. Although the interaction is not mature, it is certainly positive.

Subject 23 also says "Hey, look at me," and adds "But I won't show you the real me, and don't try to get too close." Unlike Subject 39, the persons in the picture are not stating this, but it is the artist putting himself on display to a more distant and safe audience. Subject 23 was an 18-year-old male high school senior. He rated his parents' marriage as good, but said he had neither a girl friend nor a member of the opposite sex in whom he could confide.
Subject 4 was a 33-year-old college teacher and student. He reported that he and his wife had had much in common, but their marriage was slightly below average. He said he was happy and could confide in several friends. He spoke very casually about his divorce and said he was independent and not really a family man. He also stated that he got divorced because he spent too much time and effort at work. He mentioned, however, that he and his wife were still friends. Based upon these comments and his picture, one wonders if he cared for his wife or even people in general. After all, who has time to be interested in faceless objects.

Subject 71, a 52-year-old hotel clerk, was retired from the Air Force. He said his marriage was good the first 15 years, but then deteriorated and ended in divorce. After the divorce he was very unstable and disoriented. He said he did not know what was going on for about three months. Note the disorientation in the picture. The male and female are in different worlds with no chance of interaction. The picture portrays the subjects own bewilderment and confusion.

It is noteworthy to point out that in all three faceless pictures, the male subject drew the female first. Usually a man draws the male figure first. Subjects 71 and 4 drew the first figure on the right side of the paper. The first figure is usually drawn on the left side of the
paper. The next subject also drew the female first and to the right on the paper.

Subject 5, a former fashion designer, was a 31-year-old Ph D student. In response to the question about the degree of communication and understanding he and his former wife had, he said "I communicated, but she did not talk much." He said he would confide in his friends 100% about 90% of his life, but nothing about the rest. As he stated it, "I live two lives." In the picture the male stands aloof, confident and dominant. The female is to the side and back, attractive, but very angry and hostile looking. The subject said his wife did not talk much, but did he listen? Was he remote in a distant world of himself?

Subjects 33 was a 45-year-old housewife. She had been happily married for 25 years. Then her husband was working in another state for several months. While away he became involved with another woman. This led to the divorce of the married couple. The subject was upset and disappointed with her former husband. Note how the male figure is drawn smaller. He looks simple and childlike.

Subject 55 was a 45-year-old owner and operator of a cafe. She divorced after 26 years of marriage. She reported that "The last six months were rotten." The subject seemed like a dominant person,
able to manage a cafe. Indeed, in her drawing she managed to draw the male about one half the size of the female, putting him "in his place."

It is interesting to see the similarities between Subjects 55 and 33. Both were 45 years of age. Both had been married about a quarter of a century. Both were a little disgusted and drew men small and ineffectual. Perhaps they viewed their former husbands like a wayward son, a "naughty little boy."

Subject 34-2 and 2-34 had been married four years, but separated six months. Subject 2-34 was a 24-year-old metal finisher. Subject 34-2 was 23 years old and a part time hair dresser. Each seemed very disappointed about the way their relationship had turned out. The man said that his wife had few friends. He liked to spend time out with the boys, but she wanted him to stay home. She did not approve of his smoking and drinking so he did it behind her back. He said he was living a lie and that as time went on they were living separate lives. The woman did not talk much, but did say her husband spent too much time with the boys. When asked if she was a happy person she stated, "Not now." She rated their marriage as having been good, but he rated it as slightly below average.

Notice in the man's picture (2-34), the male has an outstretched hand looking with a worried, puzzled expression toward the female. The female shows ambivalence. Her feet are pointing away, her torso
turning toward the male and her eyes looking straight ahead. The woman's picture (34-2) tells a similar yet opposite story. The female is leaning slightly away, frightened and unsure, yet reaching out to the male. However, he looks ahead and draws away his hands. It is interesting how each subject's same sex figure reaches out, but for an unyielding partner.
Appendix D

Sex and Position of

First Drawn Figure
The males drew the male first in about two-thirds of their drawings. The females drew the male first in just less than one-half of their drawings. The occurrence of self sex drawn first was most prominent in the high school group. The first drawn figure was on the left side of the sheet of paper in 78 of the 90 drawings.