AN ANALYSIS OF PERSONALITY DIFFERENCES BETWEEN DEBATORS AND NON-DEBATORS

A Thesis

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Albert John Higgins, Jr.
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CHAPTER I

THE ORIGIN OF THE PROBLEM, THE PROBLEM, DEFINITION OF TERMS USED, AND REVIEW OF THE LITERATURE

I. ORIGIN OF THE PROBLEM

Intercellegiate debating, as we know it, started in the early 1890's with a debate between Narvard and Yale. E. R. Nichols in a series of articles appearing in the Quarterly Journal of Speech reports the evolution of the "sport" of debating. Nichols states that debating started as a spectator sport among the colleges and was heralded as a big event, which even included cheering sections. As the popularity of debate spread to other colleges, a need to sustain the quality of debators was realized and the program spread to high school students. Even though high school students were considered unknowledgeable, immature, and without the basic background needed for debating; they were introduced to the program for purposes of "feeding" college teams. The resultant spread of debating in secondary schools was in a somewhat haphazard manner.

There have been relatively few recorded attempts to objectively analyze various facets of the program and the benefits for the participants. This is brought to light in a call for more research by Norton¹ and Sikkink² in articles published by the American Forensic Association.

Lawrence E. Norton, "Research Directions In Debate," The Register, Vol. VIII, No. 2 (Spring Issue, 1960), pp. 8-11.

Ponald E. Sikkink, "The Need for Research on the Value of Debate," The Register, Vol. VIII, No. 4 (Convention Issue, 1960), pp. 12-14.

One of the elements within the program that, until recently, has been overlooked deals with the personality of the debator. Early texts written for debators and coaches omit the personality as a vital force in the function of the debate program. Only in recent texts written by Freeley, McBath, and Ehninger and Brockreide do we have mention of personality as an important factor in the development of the debator, but even with this recognition, an investigation by the author revealed some studies using personality tests for public speakers in various situations, but no personality study dealing specifically with the high school debator.

II. THE PROBLEM

Statement of the problem. It was the purpose of this study to examine possible changes in personality need variables (as reflected by the Edwards Personal Preference Schedule) between debators before and after one year of debate training and individually matched non-debators over the same period of time to determine if debate training significantly affected personality.

To analyze this problem, the following null hypotheses were tested:

- There is no significant difference in the personality characteristics of male debators and non-debators before debators received debate training.
- There is no significant difference in the personality characteristics of male debators and non-debators after debators received debate training.

- 3. There is no significant difference in the personality characteristics of female debators and non-debators before debators received debate training.
- 4. There is no significant difference in the personality characteristics of female debaters and non-debaters after debaters received debate training.

III. DEFINITION OF TERMS USED

<u>Debator</u>. For purposes of this study a debator was defined as a high school student who was actively engaged in debate tournament competition and/or receiving training in the fundamentals of debate.

Non-debator. A non-debator, in this study, was considered to be a high school student who was not actively engaged in debate tournament competition or receiving training in the fundamentals of debate.

Personality variable. The characteristic within each of the fifteen "manifest needs" used in the Edwards Personal Preference Schedule that are named and identified by H. A. Murray.

IV. REVIEW OF THE LITERATURE

Even though debate has been a contest activity for years, very few attempts have been made to objectively analyze and record the effects of the program on those participating.

³H. A. Eurray, et. al. Explorations in Personality (New York, 1938).

J. Edmand Mayer, while coaching debate at Topeka (Kansas) High School contributed an article to the <u>Quarterly Journal of Speech</u> dealing with the personality development of high school debaters. While Mayer's article does not contain a statistical analysis, it does offer some beginnings of a search and insight into the personality development of the student participating in the debate program. Mayer relates:

Debating affords a great opportunity for personality development. If the activities of a debater are analyzed it will be noticed that he is brought face to face with many life situations. In this article, we shall list nine personality traits (the list is not exhausted, by any means) as well as the situations to which these traits apply, and the places where debate work affords a chance or opportunity for personality training. . In the event of difficulty in attaining any one of the nine objectives stressed in this article . .first analyze the situation. . after analysis, the next question is how to get the pupil to make the special or right adjustment.

Mayer lists eight possible areas of analysis for the problem, then lists eight possible means of aiding students to make the adjustment in the development of the nine personality traits of Self-Control, Sportsmanship, Judgement, Co-operation, Initiative, Courage, Tact, Honesty, and Leadership.

One of the first attempts at statistically analyzing the personality characteristics of debators was by William T. D. Ray. 5 Ray's study dealt

water a being

LiJ. Edmind Mayer, "Personality Development Through Debating," The Quarterly Journal of Speech, Vol. XXII (December, 1936), pp. 607-611.

Swilliam T. D. Ray, "Personality Differences Between Debaters and Non Debaters," (unpublished Master's thesis, The University of Alabama, 1939).

principally with college level students in debate and those engaged in college level speech courses. The study was made with a debater and non-debater relationship encompassing the personality comparisons of college freshmen, sophomores, juniors, seniors and law students. The study relied almost entirely on the comparisons of the individuals' objectivity, introversion, and extreversion.

One of the most recent statistical studies to be conducted dealing with the personality characteristics of debators was by Hetlinger and Hildreth. Their study, which serves as a pilot study for this thesis, measured the personality difference in debators as a factor in their success or failure. College male and female debators were the primary subjects of the Hetlinger study, although high school males were also tested. The essence and the results of the study is summarized by the writers:

The average PPS profile of successful debaters and that of a matched group of non-debaters were found to be significantly different by the t-test technique. There are substantial differences which are apparently meaningful on 6 of 15 PPS scales for college males, on 7 of the 15 scales for college women, and on 3 of the 15 scales for high school males. The debaters tended to score higher on the variables of Achievement, Dominance, and Aggression, and lower on Affiliation, Succerance, Abasement, and Nurturance.

Although this study indicates that debaters have unique personality characteristics, no causal relationship was established or attempted. . . ?

Ouane F. Hetlinger and Richard A. Hildreth, "Personality Characteristics of Debaters," The Quarterly Journal Of Speech, Vol. XLVII (December, 1961).

⁷¹bid., pp. 398-hol.

As mentioned earlier, other studies involving personality development of speakers have been made and written, but examination of the literature in the areas of psychology and speech failed to reveal other studies particularly related to debator personality.

The remainder of this paper will be presented as follows: Chapter Two, discussing the procedures followed; Chapter Three, to analyzing the data; and Chapter Four, the summary and conclusions.

CHAPTER II

PROCEDURES

This chapter will be devoted to explaining the procedures followed in selecting the subjects for the study; the test instrument used; the administration of the test; and the scoring of the answer sheets and the methods of data analysis.

Subjects. For the purpose of this study, the debators were matched with non-debators on the basis of age (lh-15), sex, scholastic achievement (grades), mental abilities (as measured by the Differential Aptitude Test⁸), and as close as possible, equal environmental backgrounds. The results of this study are based on the scores of nine matched pairs of males and seven matched pairs of females from Topeka (Kansas) High School.

Test. The Edwards Personal Preference Schedule⁹ (hereafter referred to as the EPPS) was chosen as the test instrument for this study because of its use in the Hetlinger study and because of its acceptance as a validated instrument in psychological research. It measures by means of 225 forced choice selections fifteen personality variables considered by the subject as more representative of himself. The

Aptitude Test (New York: The Psychological Corporation, 1961).

⁹A. L. Edwards, Edwards Personal Preference Schedule (New York: The Psychological Gorporation, 1950).

individual's selections are designed to measure relative strength of the personality need variables identified as Achievement, Deference, Order, Exhibition, Autonomy, Affiliation, Intraception, Succerance, Dominance, Abasement, Nurturance, Change, Endurance, Heterosexuality, and Aggression. 10

The EPPS, which is self-administering and takes less than one hour to complete, was given to the subjects with the understanding the material would be used as confidential data for this study and no names or scores would be revealed except to the subject, and only then through a qualified counselor who could interpret the results for the individual.

Administration. The test was administered to the debators and non-debators at Topeka (Kansas) High School by the Debate coach, the Speech teachers, and selected English instructors. The pre-test was given to both groups during the month of September, 1961. This date was prior to the debator receiving formal debate training.

During September, 1962, the EPPS was again given to the students.

This time lapse allowed a one year period of training for the debator.)

Scoring. Following each of the testing periods, the tests were machine secred by the Bureau of Measuremente in the Department of Psychology at the Kansas State Teachers College, Emporia. The raw

¹⁰See Appendix for explanation of the fifteen personality variables.

t-ratio (t-M1 - M2)11, to test for significant differences.

Chi square values were also calculated X2 N(ad-bc)2 (a+b) (a+c) (b+d) (c+d)

for the purpose of determining if differences between pre- and post-test scores were significant.

Summary. Chapter Two has been devoted to explaining the criteria used for selecting the subjects for the experiment; the explanation of the features of the test instrument; the program used for securing the data; and an explanation of how the data was scored and tabulated.

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¹¹J. P. Guilford, Fundamental Statistics in Psychology and Education (second edition; New York: EcGraw-Hill Book Company, Inc., 1950), p. 214.

^{12&}lt;sub>Ibid., p. 280.</sub>

CHAPTER III

ANALYSIS OF THE DATA

Data obtained from the EPPS is presented and interpreted showing the significance of the changes, if any, that occurred in the personalities of the debators and non-debators.

The purpose of this study was studied through testing of null hypotheses. Each of these hypotheses will be considered separately.

Hypothesis 1. There is no significant difference in the personality characteristics of male debators and non-debators before debators received debate training.

The t-ratios, as shown in Table I, failed to reveal any significant differences in personality characteristics between male debators and non-debators. These findings suggest homogeneity in the group; thus the hypothesis is accepted and it can be concluded the process used to match the male pairs is adequate for the purpose of this study.

Hypothesis 2. There is no significant difference in the personality characteristics of male debators and non-debators after debators received debate training.

Pellowing the one year of debate training, the male debater showed personality changes (Table II) significant at the .01 per cent level in 4 of the 15 personality variables. Changes significant at the .05 per cent level were found on all of the other 15 personality variables. Five

TABLE I
PRE-TEST T-RATIO OF MALE DEBATORS AND NON-DEBATORS

| | D | ebator | Non-De | bator | |
|--------------------------|-------|-----------------------|--------|-------|---------|
| Personality Variables | Mean | Standard Deviation | и | SD | T-Ratio |
| Achievement | 15,22 | 4.00 | 15.11 | 3.60 | .02 |
| Deference | 12.44 | 3.60 | 13.00 | 4.12 | .10 |
| Order | 9.44 | 4.89 | 11.22 | 3.87 | .29 |
| Exhibition | 15.55 | 3.74 | 17.00 | 2.00 | .34 |
| Autonomy | 12.44 | 2.111 | 13.33 | 4.24 | .18 |
| Affiliation | 15.33 | 2.82 | 15.00 | 4.00 | .07 |
| Intraception | 15.77 | 2.64 | 14.22 | 6,32 | .22 |
| Succorance | 10.55 | 4.24 | 11.44 | 4.12 | .15 |
| Dominance | 26.00 | 4.79 | 17.55 | 4.79 | .22 |
| Abasement | 14.77 | 5.65 | 12.77 | 4.24 | .28 |
| Nurturance | 15.44 | 4.89 | 12.77 | 5.19 | .37 |
| Change | 14.55 | 4.35 | 14.11 | 4.24 | .07 |
| Endurance | 14.66 | 6.40 | 13.55 | 5.74 | .13 |
| Heterosexuality | 13.55 | 6.24 | 12.22 | 6.70 | .15 |
| Aggression | 13.77 | 4.24 | 15.55 | 5.29 | .26 |

TABLE II
POST-TEST T-RATIO OF MALE DEBATORS

| | P | re-Test | Post- | Test | (S) |
|--------------------------|-------|-----------------------|--------|------|---|
| Personality Variables | Mean | Standard Deviation | to ogn | SD | T-Ratio |
| Achievement | 15,11 | 3.60 | 16.00 | 3.00 | 4.45* |
| Deference | 13.00 | 4.12 | 10.55 | 2,82 | 5.69# |
| Order | 11.22 | 3.87 | 9.55 | 2.00 | 3.0hm |
| Exhibition | 17.00 | 2.00 | 16.33 | 3.31 | 6.56* |
| Autonomy | 13.33 | 4.24 | 14.11 | 3.16 | 3.00** |
| Affiliation | 15.00 | h.00 | 13.77 | 3-46 | 3.00*** |
| Intraception | 14.22 | 6.32 | 16.88 | 6.92 | 5.50* |
| Succerance | 12.hh | 4.12 | 12.55 | 5.29 | 3.00** |
| Dominance | 17.55 | 4.79 | 27.44 | 5.09 | 3.00** |
| Abasement | 12.77 | 4.24 | 15.66 | 3.87 | 3.08** |
| Hurturance | 12.77 | 5.19 | 10.77 | 5.56 | 3.08** |
| Change | 14,11 | 4.24 | 12,88 | 5.74 | 3.00** |
| Endurance | 13.55 | 5.74 | 10,66 | 3.60 | 3.0100 |
| Heterosexuality | 12.22 | 6.70 | 15.77 | 5.56 | 3.00** |
| Aggression | 15.55 | 5.29 | 16.55 | 6.48 | 2.98mm |

^{*}Significant at the .01 per cent level. **Significant at the .05 per cent level. N=9

changes significant at the .01 per cent level and 2 changes at the .05 per cent level were also found for the non-debators (Table III).

while I² values indicated no instance where the magnitude of change was significant, the two to one difference in number of changes, favoring the debators, cannot be attributed to chance. Also, on those seven variables which revealed significant differences for both groups, only three, Deference, Exhibition, and Succorance were found to be in the same direction.

On the basis of these data, it seems probable that normal developmental patterns can account for these changes. It also seems possible formal debate training does stimulate personality change to some extent even though the null hypothesis is accepted.

Hypothesis 3. There is no significant difference in the personality characteristics of female debators and non-debators before the debators received debate training.

As in the case of the male debators and non-debators, the t-ratios (Table IV) failed to reveal any significant differences in the personality characteristics between the female debators and non-debators. The findings suggest homogeneity of the female groups as well; thus the hypothesis is accepted and it appears that the process used in matching the female pairs for this study is adequate.

TABLE III
POST-TEST T-RATIO OF MALE NON-DEBATORS

| | P | re-Test | Post- | Test | |
|--------------------------|-------|-----------------------|-------|------|---------|
| Personality Variables | Mean | Standard Deviation | M | SD | T-Ratio |
| Achievement | 15.22 | 14.00 | 15.11 | 4.24 | 6.00W |
| Deference | 12.44 | 3.60 | 11.33 | 2,23 | 3.70* |
| Order | 9-44 | 4.89 | 9.44 | 4.79 | -10 |
| Exhibition | 15.55 | 3.74 | 15.44 | 3.46 | 5.60* |
| Autonomy | 12.44 | 2.44 | 15.66 | 2.44 | .00 |
| Affiliation | 15.33 | 2.82 | 13.77 | 3.00 | -35 |
| Intraception | 15.77 | 2.64 | 24.77 | 5.38 | 8,060 |
| Succerance | 10.55 | 4.24 | 10.66 | 3.31 | 2.82** |
| Deminance | 16.00 | 4.79 | 15.88 | 3,60 | 3.33** |
| Abasement | 24.77 | 5.65 | 13.00 | 4.58 | 1.61 |
| Nurturance | 15.44 | 4.89 | 13.55 | 4.79 | .16 |
| Change | 14.55 | 4-35 | 14.66 | 4.00 | 8.75* |
| Endurance | 14.66 | 6.40 | 13.55 | 7.00 | 1.62 |
| Heterosexuality | 13.55 | 6.24 | 15.88 | 4.79 | 1.88 |
| Aggression | 13.77 | 4.24 | 16.77 | 4.89 | .65 |

^{*}Significant at the .01 per cent level. **Significant at the .05 per cent level. N=9

TABLE IV
PRE-TEST T-RATIO OF FEMALE DEBATORS AND NON-DEBATORS

| | no year p | ebator | Non-De | bator | |
|--------------------------|-----------|-----------------------|--------|-------|---------|
| Personality Variables | Mean | Standard Deviation | t the | SD | T-Ratio |
| Achievement | 14.57 | 2.33 | 9.71 | 4.24 | 1.01 |
| Deference | 13.57 | 3.74 | 10.42 | 1,41 | •79 |
| Order | 9.57 | 2.64 | 8.42 | 2.hl | .32 |
| Exhibition | 14.71 | 4.00 | 15.42 | 2.44 | .15 |
| Autonomy | 10.57 | 2.44 | 12,28 | 2,64 | .48 |
| Affiliation | 15.85 | 3.16 | 18,28 | 4.69 | .43 |
| Intraception | 18.57 | 4.35 | 19.1h | 2.82 | .11 |
| Succorance | 24.24 | 5.38 | 15.27 | 5.00 | -15 |
| Dominance | 18,00 | 2.44 | 1h.28 | 2.hh | 1.08 |
| Abasement | 15.71 | 3.60 | 17.57 | 4.47 | .32 |
| Nurturance | 14.86 | 2.23 | 15.00 | 4.00 | .03 |
| Change | 15.43 | 5.65 | 20.00 | 3.16 | .71 |
| Endurance | 12.00 | 5.56 | 10.00 | 4.79 | .27 |
| Heterosemality | 10.00 | 4.79 | 13.00 | 3.00 | •53 |
| Aggression | 13.00 | 2.23 | 11.14 | 2.44 | .56 |

Hypothesis 4. There is no significant difference in the personality characteristics of female debators and non-debators after debators received debate training.

Pollowing one year of debate training, the female debator showed personality changes (Table V) significant at the .01 per cent level in 5 of the 15 personality variables. Changes significant at the .05 per cent level were found on 9 of the 15 personality variables. Eight changes at the .01 per cent level and 3 changes at the .05 per cent level were also found for the non-debators (Table VI).

Even though the X² computations do not show an area of change that was significant thus making it necessary to accept the hypothesis, there are two situations of interest that bear noting. First, unlike the male groups, the non-debators made more changes at significant levels than did the debators and secondly, out of the eight variables on which both groups showed significant changes, seven changes were in the same direction thus indicating a more consistent pattern of change for the female.

According to the data, it must be assumed that the normal developmental pattern of the individual is responsible for the changes in the female groups. Also, it seems reasonable to assume formal debate training does little to influence the personality change of the female.

In summary, the results of this study support the hypotheses there is no difference in the personality of the debater as a result of participation in the debate program, even though it appears that debate might

TABLE V
POST-TEST T-RATIO OF FEMALE DEBATORS

| | P | re-Test | Post- | Test | |
|--------------------------|-------|-----------------------|-------|------|---------|
| Personality Variables | Nean | Standard Deviation | N | SD | T-Ratio |
| Achievement | 14.57 | 2.23 | 15.14 | 2.82 | 3.48mm |
| Deference | 13.57 | 3.74 | 13.71 | 2.23 | .25 |
| Order | 9.57 | 2.64 | 8.42 | 3,60 | 3.1900 |
| Exhibition | 14.71 | 4.00 | 13.42 | 2.64 | 2,53** |
| Autonosy | 10.57 | 2.44 | 11.00 | 3.31 | 1.30*** |
| Affiliation | 15.85 | 3,16 | 14.71 | 5-14 | 4.220 |
| Intraception | 18.57 | 4.35 | 19.85 | 3.31 | 3.28** |
| Succerance | 14.14 | 5.38 | 14-42 | 5-47 | 9+33* |
| Dord.nance | 18.00 | 5*14 | 15.86 | 2.82 | 14.27* |
| Abasement | 15.71 | 3.60 | 19.29 | 4.58 | 9.68* |
| Nurturance | 14.86 | 2,23 | 17.29 | 2.23 | •00 |
| Change | 15.43 | 5.65 | 13.29 | 5.56 | 71.33* |
| Endurance | 12.00 | 5.56 | 11.57 | 4.79 | 1.48 |
| Heterosexuality | 10.00 | 4.79 | 11.71 | 1.73 | 1.47 |
| Aggression | 13.00 | 2.23 | 10.57 | 5.74 | 1.84 |

^{*}Significant at the .01 per cent level. **Significant at the .05 per cent level. N=7

TABLE VI POST-TEST T-RATIO OF FEMALE NON-DEBATORS

| | P | re-Test | Post- | Test | |
|--------------------------|-------|-----------------------|-------|-------|---------|
| Personality Variables | Mean | Standard Deviation | M | SD | T-Ratio |
| Achievement | 9.71 | h-2h | 11.42 | 4.12 | 42.75m |
| Deference | 10.42 | 1.41 | 10.42 | 2,00 | .00 |
| Order | 8.42 | 2.44 | 7.28 | 2.64 | 14.25* |
| Exhibition | 15.42 | 2.14 | 13.00 | 2.42 | h.48n |
| Autonomy | 12.28 | 2.64 | 14.42 | 2.64 | 2.1h |
| Affiliation | 18,28 | 4.69 | 19.42 | 3.46 | 5.//gen |
| Intraception | 19.14 | 2.82 | 21.00 | 4.12 | 3.80m |
| Succerance | 15.27 | 5.00 | 14.14 | 2.82 | 1.38 |
| Dominance | 14.28 | 2.44 | 13.14 | 2.00 | 7.130 |
| Abasement | 17.57 | 4-47 | 18.57 | 1,.00 | 5.56* |
| Nurturance | 15.00 | 4.00 | 17.28 | 2,23 | 3.40mm |
| Change | 20.00 | 3.16 | 19.71 | 3.31 | 4.83* |
| Endurance | 10.00 | 4.79 | 7.71 | 3.60 | 5.09* |
| Heterosexuality | 13.00 | 3.00 | 12.28 | 5.19 | .87 |
| Aggression | 11,14 | 2.lılı | 9-57 | h.00 | 2.66** |

^{*}Significant at the .01 per cent level. **Significant at the .05 per cent level. N=7

influence the personality development of the male more than the female and the four null hypotheses as stated for the purpose of this investigation are accepted.

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CHAPTER IV

SUMMARY AND CONCLUSIONS

I. SUMMARY

The first chapter of this study discussed the problem, defined the major terms used, and reviewed the available literature.

The purpose of this study was to determine if debate training had an effect on the personality development of those students participating in the program in high school. The instrument used to measure this change was the Edwards Personal Preference Schedule which tests, by forced selection, fifteen personality need variables. The hypotheses were stated to test the strength of personality characteristics before and after the debator received debate training.

The literature available in this specific area is limited to a generalized discussion of the personality traits of the debator. Some statistical studies using college level students have been made, but a paucity of literature involving research concerned with high school debators was found.

Chapter II discussed the procedures followed in selecting the students for the experiment, the test instrument, the administration of the test, and the scoring of the test.

Sixteen matched pairs (nine male and seven female) of students were chosen on the basis of age, sex, scholastic achievement, mental abilities, and similar environmental background.

The tests were administered to the subjects before the debator received debate training and after a period of one year of debate training.

Machine scoring provided the raw score data for computation of the t-ratios and chi-square equations. These equations tested validity and significance of the personality changes made by the male and female groups.

Chapter III presented and analysed the data obtained from the experiment.

II. CONCLUSIONS

The following conclusions based on the data obtained from the t-ratio and chi-square computations of the EPPS scores seem justified.

The conclusions are:

- Debate does not significantly influence the personality development of the high school debator.
- Debate tends to aid in the development of a well-rounded personality rather than emphasizing development in certain areas.
- The female groups showed more agreement in personality change than did the male groups.
- 4. Formal debate training probably promotes more personality change in the male than the female.



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APPENDICES

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AN EXPLANATION OF THE FIFTEEN PERSONALITY NEED VARIABLES USED IN THE EPPS

AN EXPLANATION OF THE FIFTEEN PERSONALITY

NEED VARIABLES USED IN THE EPPS

a frame pre-

- l. ach Achievement: To do one's best, to be successful, to accomplish tasks requiring skill and effort, to be a recognized authority, to accomplish something of great significance, to do a difficult job well, to solve difficult problems and puzzles, to be able to do things better than others, to write a great novel or play.
- 2. def Deference: To get suggestions from others, to find out what others think, to follow instructions and do what is expected, to praise others, to tell others that they have done a good job, to accept the leadership of others, to read about great men, to conform to custom and avoid the unconventional, to let others make decisions.
- 3. ord Order: To have written work neat and organized, to make plans before starting on a difficult task, to have things organized, to keep things neat and orderly, to make advance plans when taking a trip, to organize details of work, to keep letters and files according to some system, to have meals organized and a definite time for eating, to have things arranged so that they run smoothly without change.
- h. exh Exhibition: To say witty and clever things, to tell amusing jokes and stories, to talk about personal adventures and experiences, to have others notice and comment upon one's appearance, to say things just to see what effect it will have on others, to talk about personal achievements, to be the center of attention, to use words that others do not know the meaning of, to ask questions others cannot answer.
- 5. aut Autonomy: To be able to come and go as desired, to say what one thinks about things, to be independent of others in making decisions, to feel free to do what one wants, to do things that are unconventional, to avoid situations where one is expected to conform, to do things without regard to what others may think, to criticize those in positions of authority, to avoid responsibilities and obligations.
- 6. aff Affiliation: To be loyal to friends, to participate in friendly groups, to do things for friends, to form new friendships, to make as many friends as possible, to share things with friends, to do things with friends rather than alone, to form strong attachments, to write letters to friends.
- 7. int Intraception: To analyze one's motives and feelings, to observe others, to understand how others feel about problems, to put

one's self in another's place, to judge people by why they do things rather than by what they do, to analyze the behavior of others, to analyze the motives of others, to predict how others will act.

- 8. suc Succorance: To have others provide help when in trouble, to seek encouragement from others, to have others be kindly, to have others be sympathetic and understanding about personal problems, to receive a great deal of affection from others, to have others do favors cheerfully, to be helped by others when depressed, to have others feel sorry when one is sick, to have a fuss made over one when hurt.
- 9. dom Dominance: To argue for one's point of view, to be a leader in groups to which one belongs, to be regarded by others as a leader, to be elected or appointed chairman of committees, to make group decisions, to settle arguments and disputes between others, to persuade and influence others to do what one wants, to supervise and direct the actions of others, and to tell others how to do their jobs.
- 10. abs Abasement: To feel guilty when one does semething wrong, to accept blame when things do not go right, to feel that personal pain and misery suffered does more good than harm, to feel the need for punishment for wrong doing, to feel better when giving in and avoiding a fight than when having one's own way, to feel the need for confession of errors, to feel depressed by inability to handle situations, to feel timid in the presence of superiors, to feel inferior to others in most respects.
- Il. nur Nurturance: To help friends when they are in trouble, to assist others less fortunate, to treat others with kindness and sympathy, to forgive others, to do small favors for others, to be generous with others, to sympathize with others who are hurt or sick, to show a great deal of affection toward others, to have others confide in one about personal problems.
- 12. chg Change: To do now and different things, to travel, to meet new people, to experience nevelty and change in daily routine, to experiment and try new things, to eat in new and different places, to try new and different jobs, to move about the country and live in different places, to participate in new fads and fashions.
- 13. end Endurance: To keep at a jeb until it is finished, to complete any jeb undertaken, to work hard at a task, to keep at a puzzle or problem until it is solved, to work at a single jeb before taking on others, to stay up late working in order to get a jeb done, to put in long hours of work without distraction, to stick at a problem even though it may seem as if no progress is being made, to avoid being interrupted while at work.

lh. het Heterosexuality: To go out with members of the opposite sex, to engage in social activities with the opposite sex, to be in love with someone of the opposite sex, to kiss those of the opposite sex, to be regarded as physically attractive by those of the opposite sex, to participate in discussions about sex, to read books and plays involving sex, to listen to or to tell jokes involving sex, to become sexually excited.

15. agg Aggression: To attack centrary points of view, to tell others what one thinks about them, to criticize others publicly, to make fun of others, to tell others off when disagreeing with them, to get revenge for insults, to become angry, to blame others when things go wrong, to read newspaper accounts of violence.

¹A. L. Edwards, Manual, Edwards Personal Preference Schedule (New York: The Psychological Corporation, 195h), p. 11.

APPENDIX B

Sec. 33.

CHI SQUARE COMPUTATIONS

MALE CHI SQUARE COMPUTATIONS

| | Deb | ator | Non-D | ebator | |
|-------------------------|------------------|-------------------|------------------|-------------------|-------|
| Personality Variable | Pro-Test Mean | Post-Test Mean | Pre-Test Mean | Post-Test Hean | x2 |
| Achievement | 15.11 | 16.00 | 15.22 | 15,11 | .003 |
| Deference | 13.00 | 10.55 | 32.hh | 11.33 | •009 |
| Order | 11.22 | 9-55 | 9.44 | 9.44 | .029 |
| Exhibition | 17.00 | 16.33 | 15.55 | 15.44 | •003 |
| Autonomy | 13.33 | 14.11 | 12.hh | 15.66 | .016 |
| Affiliation | 15.00 | 13.77 | 15.33 | 13.77 | .002 |
| Intraception | 14.22 | 26.88 | 15.77 | 14.77 | *02 |
| Succerance | 11.44 | 12.55 | 10.55 | 10,66 | •000 |
| Dominance | 17.55 | 17.44 | 16,00 | 15.88 | .000 |
| Abasement | 12.77 | 15.66 | 24.77 | 3.3.00 | .055 |
| Nurturance | 12.77 | 10.77 | 15.hh | 13.55 | .00 |
| Change | 14,11 | 12.88 | 14.55 | 14.66 | .00 |
| Endurance | 13.55 | 10.66 | 14.66 | 13.55 | •03.0 |
| Heterosexuality | 12.22 | 15.77 | 13.55 | 15.88 | .002 |
| Aggression | 15.55 | 16.55 | 13.77 | 16.77 | •006 |

FEMALE CHI SQUARE CONFUTATIONS

| | Deb | ator | Non-D | ebator | |
|-------------------------|------------------|-------------------|------------------|-------------------|----------------|
| Personality Variable | Pre-Test Mean | Post-Test Hean | Pre-Test Hean | Post-Test Hean | _X 2 |
| Achievement | 14.57 | 15.1h | 9.72 | 11.42 | •005 |
| Deference | 13.57 | 13.71 | 10.42 | 10.42 | *00l |
| Order | 9.57 | 8.42 | 8.42 | 7.28 | .020 |
| Exhibition | 14.71 | 13.42 | 15.42 | 13,00 | +032 |
| Autonomy | 10.57 | 11.00 | 12.28 | 14.42 | •013 |
| Affiliation | 15.85 | 14.71 | 18.28 | 19.42 | .008 |
| Intraception | 18.57 | 19.85 | 19.14 | 21.00 | +000 |
| Succerance | 24.24 | 14.42 | 15.27 | 14.14 | .00 |
| Dominance | 18.00 | 15.86 | 14.28 | 13.1h | •003 |
| Abasement | 15.71 | 19.29 | 17.57 | 18.57 | •006 |
| Nurturance | 14.86 | 17.29 | 15.00 | 17.28 | .003 |
| Change | 15.43 | 13.29 | 20.00 | 19.71 | .002 |
| Endurance | 12,00 | 11.57 | 10.00 | 7.71 | •031 |
| Heterosexuality | 10.00 | 11.71 | 13.00 | 12,28 | .033 |
| Aggression | 13.00 | 10.57 | 22.34 | 9.57 | •006 |

APPENDIX C

当民類類思言

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THE RES

PRE- AND POST-TEST RAW SCORE DATA

MALE DEBATOR PRE- AND POST-TEST RAW SCORES

| | PE | R S | 0 | N A | A L | I | r r | | V A | R · | IA | | L E | S | |
|-----------|---------------|----------------|----------|-------|-------|-------|-------|-------|----------|----------|--------------------------|----------|--------|----------|---------------------------|
| Student | acn | der | ord | exh | aut | aff | int | suc | dom | aba | nur | eng | end | het | agg |
| Pre-Tes | | Table of | | | | | | | | | | | -1. | 0.46 | - |
| A | 17 | 10 | 8 | 17 | 18 | 16 | 25 | 11 | 17 | 13 | 8 | 16 | 6 | 14 | 18 |
| В | 11 | 10 | | 14 | 12 | 17 | 10 | 13 | | 17 | 14 | 15 | 7 | 24 | 22 |
| C | 14 | 10 | 14 | 19 | 12 | 13 | 13 | 10 | 21 | 10 | 11 | 17 | 21 | 8 | 12 |
| D | 15 9 22 | 12 14 15 | 15 | 20 | 16 | . 8 | 8 | 12 | 2h | 11 | 8 | 17 | 15 | 17 | 12 21 6 18 18 |
| E | 9 | 14 | 8 | 19 | 20 | 15 | 13 | 8 | | 18 | 17 | 13 | 7 | 16 | 21 |
| F | 22 | 15 | 16 | 15 | 8 | 23 | 16 | 15 | 8 | 8 | 25 | 13 | 18 | 2 | 6 |
| G | 15 19 | 13 | 11 14 | 17 | 16 | 17 | _5 | 20 | 22 | 10 | 11 | 17 | 12 | 5 | 18 |
| H | 19 | 22 | 14 | 17 | 7 | 15 | 14 | 6 | 20 | 18 | 9 | - 3 | 22 | 6 | |
| <u> I</u> | 14 | 6 | 12 | 15 | 11 | 11 | 24 | 7 | 18 | 20 | 12 | 16 | $1l_1$ | 17 | 13 |
| Total | 136 | 117 | 101 | 153 | 120 | 135 | 128 | 103 | 158 | 115 | 115 | 127 | 122 | 110 | 140 |
| Mean | 15.11 | 13.00 | 11.22 | 17.00 | 13.33 | 15.00 | 14.22 | 11.44 | 17.55 | 12.77 | 12.77 | 14.11 | 13.55 | 12,22 | 15.55 |
| (Post-Te | st) | | | | | | | | | | | | | | |
| A | 22 | 12 | 8 | 20 | 18 | 12 | 26 | 13 | 12 | 12 15 | 7 | 5 16 | 10 | 14 27 | 1.8 |
| B | 13 | 8 | 10 | 13 | 11 | 12 | 14 | 7 | 19 | 15 | 12 | 16 | 7 | 27 | 11 |
| C | 15 18 | 11 | 9 | 18 | 13 | 17 | 14 | 8 | 19 | 17 | 11 | 19 14 | 5 | 16 | 18 |
| D | 18 | 11 | 9 | 21 | 13 | 11, | 14 | 17 | 25 12 | 9 | 7 12 11 9 17 | 14 | 12 | 11 | 13 20 3 11 23 |
| E | 11 | 11 | 8 | 19 | 19 | 13 | 8 | 8 | 12 | 20 | 17 | 16 | 5 | 23 | 20 |
| F | 15 18 | 14 5 | 9 | 14 | 8 | 21 | 21 | 19 | 9 | 20 | 23 | 5 | 14 | 15 12 | 3 |
| G | 18 | 5 | 13 | 18 | 16 | 11 | 8 | 22 | 23 | 19 | 4 | 18 | 11 | 12 | 11 |
| H | 15 | 15 | 7 | 11 | 14 | 15 | 27 | 7 | 20 | 11 | 7 | 5 | 15 | 16 | 23 |
| 1 | 17 | 8 | 13 | 13 | 15 | 9 | 20 | 12 | 18 | 18 | 7 | 18 | 17 | 8 | 17 |
| Total | 144 | 95 | 86 | 147 | 127 | 124 | 152 | 113 | 157 | 141 | 97 | 116 | 96 | 142 | 149 |
| Mean | 16.00 | 10.55 | 9.55 | 16.33 | 14.11 | 13.77 | 16.88 | 12.55 | 17.44 | 15.66 | 10.77 | 12.88 | 10.66 | 15.77 | 12.11 |

MALE NON-DEBATOR PRE- AND POST-TEST RAW SCORES

| F. 1 4 4 | PE | R S | 0 | N | A L | I | TI | | V A | R | I A | В | L E | S | W. T |
|----------|-------|----------|------|-------|-------|----------------|----------|-------|----------|-----------------------------|-------|-----------------------|-------|----------|----------|
| Student | ach | def | ord | exh | aut | aff | int | suc | dom | aba | mur | chg | end | het | agg |
| Pre-Tes | | | - | | 4.0 | | | | | | | 4 3 | | | |
| A | 15 | 16 | 12 | 11 | 10 | 11 | 19 | 6 | 13 | 2l ₄ 15 21 | 9 | 10 | 22 | 16 | 16 |
| В | 18 | 17 | 8 | 13 | 14 | 17 | 13 | 7 | 17 | 15 | 13 | 10 2l ₁ | 26 | 4 | 18 |
| C | 9 | 15 | 8 | 21 | 10 | 18 | 18 | 14 | 6 | 21 | 24 | 12 | 8 | 9 | 17 |
| D | 9 | 1.0 | 4 | 19 | 12 | 16 | 17 | 13 | 12 | 19 | 17 | 14 | 17 | 17 24 | 14 |
| E | 15 | 8 | - 6 | 16 | 14 | 17 | 16 | 20 | 12 15 | 12 | 21 | 8 | 6 | 24 | 12 |
| F | 20 | 11 | 6 | 16 | 1.6 | 16 | 10 | 9 | 19 | 14 | 10 | 16 | 15 | 16 | 16 |
| G | 13 | 9 | 9 | 9 | 16 | 18 | 16 | 10 | 22 | 4 | 18 | 15 | 11 | 20 | 19 |
| H | 20 | 17 | 20 | 17 | 10 | 10 | 16 | 8 | 20 | 13 | 9 | 15 | 9 | 9 | 15 |
| <u> </u> | 18 | 9 | 12 | 18 | 10 | 15 | 17 | - 8 | 20 | 11 | 18 | 17 | 18 | 7 | 11 |
| Total | 137 | 112 | 85 | 140 | 112 | 138 | 142 | 95 | 144 | 133 | 139 | 131 | 132 | 122 | 124 |
| Hean | 15.22 | 12.44 | 9.44 | 15.55 | 12.14 | 15.33 | 15.77 | 10.55 | 16.00 | 14.77 | 15.44 | 14.55 | 14.66 | 13.55 | 13.77 |
| (Post-Te | | | | | | | | | | | | | 33 | 122 | |
| A | 18 | 11 | 6 | 12 | 19 | 11 | 17 | 7 | 12 | 23 | 12 | 9 | 20 | 15 | 17 |
| В | 13 | 10 | 11 | 12 | 16 | 15 | 23 11 | 6 | 17 | 12 | 11 | 19 | 27 | 12 24 | 8 |
| G | 9 | 11 | 8 | 19 | 14 | 15 15 16 | 1h | 13 | 9 | 17 | 27 | 13 18 | 5 | 24 | 15 19 |
| D | 9 | 9 | 6 | 17 | 18 | 16 | 9 | 14 | 19 | 12 | 1.8 | 18 | 9 | 18 | 19 |
| E | 19 | 11 14 | 7 | 15 | 16 | 12 | 20 | 11 | 13 | 15 | 16 | 9 | 7 | 20 19 | 20 17 |
| F | 17 | 14 | 5 | 21 | 11 | 19 | 21 | 8 | 16 | 10 | 12 | 11 | 7 | 19 | 17 |
| G | 17 | 8 | 7 | 10 | 17 | 13 | 10 | 14 | 21 | 6 | 11 | 19 | 12 | 16 | 27 |
| H | 15 | 14 | 20 | 17 | 17 | 8 | 12 | 8 | 19 | 12 | 7 | 16 | 18 | 12 | 15 |
| I | 22 | 14 | 15 | 16 | 13 | 15 | 7 | 15 | 17 | 10 | 11 | 18 | 17 | 7 | 13 |
| Total | 136 | 102 | 85 | 139 | 141 | 124 | 133 | 96 | 143 | 117 | 122 | 132 | 122 | 143 | 151 |
| Mean | 15.11 | 11.33 | 9-44 | 15.44 | 15.66 | 13.77 | 14.77 | 10.66 | 15.88 | 13.00 | 13.55 | 14.66 | 13.55 | 15.88 | 16.77 |

FEMALE DEBATOR PRE- AND POST-TEST RAW SCORES

| | PE | R S | 0 | N . | A L | I | T Y | | V A | R | IA | В | L E | S | |
|----------|----------|-----------|-------|-------|-------|----------------|------------|-------|----------------|----------------|-------|-------|----------|----------|----------------|
| Student | ach | def | ord | exh | aut | aff | int | suc | dom | aba | nur | chg | end | net | agg |
| (Pre-Tes | t) | THE LOCAL | | | | | O ST TO ST | | AND A SOUTH | | | | | | |
| A | 18 | 9 | 8 | 21 | 11 | 12 | 15 | 14 | 22 | 14 15 | 13 | 22 | 7 | 10 | 14 |
| B | 14 | 9 | 7 | 11 | 9 | 17 | 20 | 23 | 20 | 15 | 19 | 13 | 11 | 8 | 15 |
| C | 13 13 | 18 | 10 | 8 | 12 | 18 13 15 | 17 | 12 | 19 15 15 | 19 16 14 | 16 | 13 | 1h 22 | 11 | 11 13 16 |
| D | 13 | 19 | 10 | 16 | 14 | 13 | 27 | 4 | 15 | 16 | 16 | 11 | 22 | | 13 |
| E | 13 18 | 15 | 10 | 15 | 8 | 15 | 21 | 13 | 15 | 14 | 12 | 18 | 8 | 17 | 16 |
| F | 18 | 12 | 7 | 14 | 8 | 22 | 17 | 18 | 19 | 22 | 15 | 7 | 17 | 8 | 9 |
| G | 13 | 13 | 15 | 18 | 13 | 14 | 13 | 15 | 16 | 10 | 13 | 5/1 | 5 | 15 | 13 |
| Total | 102 | 95 | 67 | 103 | 74 | 111 | 130 | 99 | 126 | 110 | 104 | 108 | 84 | 70 | 91 |
| Mean | 14.57 | 13.57 | 9.57 | 14.71 | 10.57 | 15.85 | 18.57 | 14.14 | 18.00 | 15.71 | 14.86 | 15.43 | 12.00 | 10.00 | 11.28 |
| (Post-Te | st) | | - | | | | | | | | | | | | |
| A | 13 | 11 | 5 | 14 | 14 | 26 | 17 | 14 | 10 | 19 | 17 | 22 | 9 | 11 | 8 |
| B | 11 | 9 | 8 | 20 | 12 | 15 | 23 | 5 | 18 | 20 | 13 | 22 | 13 | 12 | 9 |
| C | 17 | 10 | 12 | 15 | 17 | 20 | 18 | 17 | 13 | 13 | 8 | 16 | 9 | 12 15 | 10 |
| D | 5 | 9 | 8 | 16 | 13 | 15 | 20 | 21 | 14 | 10 | 13 | 26 | 6 | 19 | 10 15 |
| E | 8 | 11 | 7 | 14 | 10 | 22 | 20 | 21 | 14 | 22 | 20 | 18 | 24 | 9 | 10 |
| F | 4 | 13 | 12 | 12 | 8 | 11 | 22 | 14 | 14 | 16 | 20 | 19 | 20 | 12 | 13 |
| G | 10 | 10 | 7 | 17 | 12 | 19 | 14 | 15 | 17 | 23 | 14 | 17 | 9 | 13 | 13 |
| Total | 106 | 96 | 59 | 94 | 77 | 103 | 139 | 101 | 111 | 135 | 121 | 93 | 81 | 82 | 74 |
| Mean | 15.1h | 13.71 | 8.1.2 | 13.42 | 11.00 | 14.71 | 19.85 | 14.42 | 15.86 | 19.29 | 17.29 | 13.29 | 11.57 | 11.71 | 11.89 |

FEMALE NON-DEBATOR PRE- AND POST-TEST RAW SCORES

| | P E | R S | 0 | N | A L | I | T Y | | V A | R | IA | В | L E | S | |
|----------|-------|-------|------|-------|-------|-------------------------|-------|-------|----------------|------------|-----------------|-------|----------------|---------------------------|-----------|
| Student | ach | def | ord | exh | aut | aff | ent | suc | dom | abà | mur | chg | end | het | agg |
| (Pre-Tes | | | | | | | 136 | | | SHIP STATE | - | | - | the state of the state of | ALE DE ST |
| A | 15 | 114 | 7 | 17 | 12 | 13 | 18 | 16 | 15 | 22 | 17 | 18 | 12 | 10 | 5 |
| В | 20 | 13 | 3 | 12 | 9 | 16 | 18 | 22 | 20 | 16 | 22 11, 18 | 6 | 7 | | 15 |
| C | 14 | 18 | 9 | 13 | 13 | 18 | 21 | 14 | 14 | 24 | 11, | 12 | 13 | 10 | 3 |
| D | 18 | 15 | 14 | 10 | 9 | 14 | 28 | 6 | 12 | 17 | 18 | 14 | 20 | 11 | 5 |
| E | 12 | 12 | 9 | 14 | 16 | 11 | 18 | 9 | 18 | 12 26 | 17 | 17 | 11 | 15 | 6 |
| F | 15 | 13 | 5 | 11 | 5 | 13 | 20 | 21 | 12 18 19 | 26 | 17 | 5 | 20 11 11 | 10 11 15 13 | 13 |
| G | 12 | 11 | 12 | 17 | 13 | 18 | 16 | 13 | 13 | 18 | 16 | 21 | 4 | 12 | 14 |
| Total | 68 | 73 | 59 | 108 | 86 | 128 | 134 | 107 | 100 | 123 | 105 | 140 | 70 | 91 | 78 |
| Mean | 9.71 | 10.42 | 8.42 | 15.42 | 12.28 | 18.28 | 19.14 | 15.27 | 14.28 | 17.57 | 15.00 | 20.00 | 10.00 | 13.00 | 11.14 |
| (Post-Te | st | - | | | | No. of Street, or other | - | | | | | | | | |
| A | 15 | 11 | 24 | 12 | 19 | 25 | 13 | 16 | 11 | 19 | 19 | 24 | 6 | 5 | 11 |
| B | 9 | 13 | 10 | 15 | 15 | 17 | 23 | 11 | 16 | 16 | 16 | 22 | 13 | 7 | 7 |
| G | 19 | 7 | 6 | 15 | 16 | 22 | 25 | 13 | 13 | 14 | 14 | 18 | 6 | 18 | j, |
| D | 19 | 9 | 8 | 14 | 14 | 20 | 20 | 18 | 13 | 14 | 19 | 24 | 3 | 18 19 | 9 |
| E | 11 | 9 | 6 | 13 | 11 | 21 | 26 | 18 | 16 | 1h 26 | 20 | 13 | L | 10 | 6 |
| F | 9 | 13 | 12 | 10 | 11 | 14 | 18 | 11 | 11 | 20 | 18 | 16 | 11 | 17 | 15 |
| G | 9 | 11 | 5 | 12 | 15 | 17 | 22 | 12 | 14 | 21 | 15 | 21 | 11 | 10 | 15 |
| Total | 80 | 73 | 51 | 91. | 101 | 136 | 147 | 99 | 92 | 130 | 121 | 138 | 54 | 86 | 67 |
| Mean | 11.42 | 10.42 | 7.28 | 13.00 | 14.42 | 19-42 | 21.00 | 14.14 | 13.14 | 18.57 | 17.28 | 19.71 | 7.71 | 12.28 | 11.71 |