SOCIAL DESIRABILITY AND THE MULTIPLE AFFECT ADJECTIVE CHECK LIST - TODAY FORM

By

WALTER WILLIS BEAM, JR.

Bachelor of Science

Abilene Christian College

Abilene, Texas

1969

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
MASTER OF SCIENCE
May, 1975

SOCIAL DESIRABILITY AND THE MULTIPLE AFFECT ADJECTIVE CHECK LIST - TODAY FORM

Thesis Approved:

Thesis Adviser

Dean of the Graduate College

ACKNOWLEDGEMENT

I would like to thank my chairman Dr. Elliot Weiner for his continued support and suggestions throughout the duration of this study. Thanks also go to Dr. Kenneth Sandvold for his assistance and to Dr. Barbara Weiner for her patience and encouragement with the statistical analysis. A special word of appreciation goes to my wife Donna for her continued support.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION AND LITERATURE REVIEW

The Multiple Affect Adjective Check List - Today Form (MAACL-T) (Zuckerman and Lubin, 1965) has been used extensively to ascertain the level of anxiety, depression, and hostility in many experimental settings often in a pre-post testing situation. Several studies (Herron, Bernstein, and Rosen, 1967; Herron, 1969) have raised questions about the susceptibility of the MAACL-T to certain response sets. The purpose of the present study was to investigate the effects of the induced socially desirable or undesirable responding set on all three of the MAACL-T scales both for the keyed checked and unchecked adjectives.

The Multiple Affect Adjective Check List was developed in stages. Its early counterpart was the Affect Adjective Check List (AACL) for the measurement of anxiety (Zuckerman, 1960). The AACL was developed to measure the affective state of anxiety at any point in time by instructionally giving a time reference. Therefore the time frame used by the Subjects (Ss) would not be in question either to the Ss or the Examiner. Its purpose was to measure changes in the anxiety state over short periods of time. The keyed items

were determined by an item analysis of checked and unchecked adjectives that significantly differentiated ($p<.05$) normals from psychiatric patients rated high in anxiety. Reliability for the Today form was established with the Kuder-Richardson Formula 20. As expected the internal reliability was high ($r=.85$ $p<.001$) and the retest reliability was low ($r=.31$ $p<.05$). Validity was established by administering the AACL-Today to 35 elementary psychology college students. It was administered several times prior to an examination day and then again on an examination day. The AACL score was significantly ($p<.05$) higher on the exam day than on the non-exam days.

The MAACL was devised to measure time to time changes in the affects of anxiety, depression, and hostility. The keyed anxiety adjectives, both the eleven checked and the ten unchecked items are identical on the AACL and the MAACL. The selection of the depression and hostility adjectives followed the same criteria as for selection of the anxiety items -- a significant difference ($p<.05$) in checking frequency between a control group and an experimental group with adjectives not above an 8th grade reading level. Additionally the depression or hostility adjectives could not be contained in the anxiety scale nor duplicated in the other scale (Zuckerman, Lubin, Vogel, and Valerius, 1964).

Reliability was established for all three scales of the MAACL-Today by the split half method ($p<.01$). Since the Today form was designed to be sensitive to day to day

changes no significant correlation was expected from the test-retest method. Expectations were met except for the depression scale where a significant correlation ($p<.05$) between scores of the second and third testing day was found. This might possibly indicate that depression as measured by the MAACL-T Form is not as variable from day to day as are anxiety and hostility. It therefore could be viewed as a personality trait rather than a state.

Validity was determined for the depression scale by noting the significant increases ($p<.05$) in the depression score after watching a film that had content judged depressing. Validity of the hostility scale was determined by inducing a hypnotic state into Ss and comparing hostility scores before a hostile suggestion and after. There was a significant increase ($p<.05$) in the hostility score. More reliability and validity information for all three scales given at the same time can be found elsewhere (Zuckerman and Lubin, 1965a). Normative data can also be found for different populations (Zuckerman and Lubin, 1965a; Zuckerman and Lubin, 1965b).

The score of the MAACL was the sum of the keyed adjectives that were checked plus a group of adjectives that were scored if left unchecked. This procedure was repeated for each scale with none of the adjectives keyed on more than one scale (Zuckerman and Lubin, 1965a). Bush (1973) used 264 adjectives found in previous research to denote feeling and identified three bipolar dimensions of feeling.

He found that the MAACL anxiety checked items were high on dimension two, activation, but the anxiety checked adjectives differed from the anxiety unchecked items principally on dimension one, pleasantness-unpleasantness. He suggested that the anxiety adjectives in the context of the MAACL probably were some combination of pleasantness-unpleasantness and activation. Bush also found that the hostility checked and the hostility unchecked adjectives were appropriately found on the high or low end of dimension three, level of aggression, with the exception of the MAACL checked adjectives, discontented and disgusted. The MAACL depression scale was in most agreement with the pleasantness-unpleasantness dimension.

Bush's results indicated that the checked adjectives were obviously associated with the state being measured while the unchecked adjectives are associated with some unnamed state approximately opposite to the one stated. In this sense the unchecked adjectives are more subtly associated with the measured state. The concept of a subtle-obvious dimension in scoring personality traits and states was not new with the MAACL. Wiener (1948) had developed subtle and obvious keys for five scales of the MMPI and had suggested that the scoring of subtle responses was more appropriate for normal populations and that scoring obvious responses was more appropriate for psychiatric populations.

Regarding the general issue of response sets, the Standards for Educational and Psychological Tests (APA, 1974)

> suggested that . . . evidence should be presented of the extent to which scores are susceptible to an attempt by the examinee to present a socially desirable, conforming, or false picture of himself, or to which the scores may reflect other response sets or styles. (p. 47-48).

This consideration was listed as "very desirable". Zuckerman and Lubin (1965a) recognized the difficulties of response sets and have attempted to deal with them. However Herron (1969) has raised some serious questions about the susceptibility of the MAACL to response sets. He suggested that more inquiry was needed into the relationship between MAACL scores and response sets. Zuckerman (1969) suggested that the individual user should be aware of the possibility of response set influence and interpret his data accordingly.

Social desirability or the tendency to respond to items in terms of their social desirability value rather than their content was the primary identified response set. Siller and Chipman (1963) reported significant ($p<.01$) correlations between several social desirability scales and the MAACL-Anxiety scale (General Form). Zuckerman and Lubin (1965a) suggested that because of the small magnitude of the correlations little of the variance could be explained by a socially desirable response. This conclusion was based upon correlations between the MMPI L, F, and K scales and the MAACL-T anxiety, depression and hostility scales for psychiatric patients. No support for this position was offered based on normal populations. The

relatively weak arguments against response sets by Zuckerman and Lubin (1965a) and the critical review by Herron (1969) suggested that more research was needed with the MAACL-T with respect to its susceptibility to response sets.

If response patterns did influence MAACL scores it seemed reasonable to expect to find differences with respect to the checked score rather than the unchecked score in experimental procedures designed to induce false or elicit socially desirable responses. The present study was designed to investigate the effects of experimentally inducing response sets on the unchecked and checked scores of the anxiety, depression, and hostility scales of the MAACL-T Form in a normal population. If there are significant differences in unchecked or checked scores of the different scales of the MAACL-T with respect to faking anxiety, depression, or hostility or social desirability with respect to these same states, then there is reason to reevaluate the use of the MAACL in situations where the Ss can ascertain or guess what response is requested from them.

Based on the previous discussion the following four hypotheses have been made:

1. The checked scores of the faking anxiety, depression, and hostility groups will be larger than the checked scores of the normal group.

2. The checked scores of the normal group will be larger than the checked scores of the group responding in a socially desirable way to anxiety, depression, and hostility.

3. There will be no significant difference between the unchecked scores of the normal group and the unchecked scores of the groups faking anxiety, depression, or hostility.

4. There will be no significant difference between the unchecked scores of the normal group and the unchecked scores of the groups responding in a socially desirable way with respect to anxiety, depression, or hostility.

CHAPTER II

METHOD

Subjects

Seventy male and seventy female volunteer undergraduate students at Oklahoma State University served as Ss. Twenty Ss were randomly assigned to the normal control group while twenty Ss were randomly assigned to each of the six experimental response set conditions of faking anxious, faking depressed, faking hostility, faking not anxious, faking not depressed, and faking not hostile. All Ss participated for minimal extra course credit. Each condition had an equal number of male and female Ss.

Materials

Multiple Affect Adjective Check List (Appendix A). The MAACL is a 132 item checklist that requires Ss to check every adjective that describes how he feels. The S's score is determined by adding the keyed checked and unchecked adjectives for each of the three scales of anxiety, depression, and hostility.

Instructional Set Stimuli (Appendix B). The instructional set requested the Ss to respond to one of six experimental response sets of faking anxious, depressed or hostile or of faking not anxious, not depressed or not hostile or in

the normal manner for the control group.

Procedure

After previously obtaining permission the Examiner arrived at the classroom prior to beginning the first class session of the third week of the Fall term. After an introductory verbal statement (Appendix C) the MAACL-T and instructional set were passed out to the volunteering Ss in each of three class sessions in a random order until the desired number of Ss had responded to the MAACL. After each session the completed checklists were collected. More than enough Ss were obtained in this manner to fill each cell. Consequently the final number of Ss was determined by randomly selecting ten male and ten female Ss from the pool of Ss completing each experimental condition. This was done before the checklists were scored.

Experimental Design

The MAACL test data were analyzed using nine 3x2 analyses of variance with repeated measures on the unchecked and checked keyed adjectives of each scale. The independent variables were the three levels of response set, (1) faking anxious (FA), depressed (FD), or hostile (FH); (2) faking a socially desirable not anxious (FNA), depressed (FND), or hostile (FNH) and (3) a control normal group (CN); and the two levels of response visibility, (1) checked (O) or (2) unchecked (S). The dependent variable was the proportion of keyed adjectives responded to. Specifically for each S, a proportional score was obtained for each of the two levels

of response visibility, checked and unchecked. These two proportions were obtained by calculating the ratio of keyed checked adjectives to total possible keyed checked adjectives and the ratio of the keyed unchecked adjectives to the total possible keyed unchecked adjectives for each scale (Appendix D, Table IV).

A priori predictions dealt only with the relationship between the similar faking affect state and scale, i.e. FA, FNA and anxiety scale; FD, FND and depression scale; and FH, FNH and hostility scale. No predictions were made concerning the six remaining combinations of faking affect states and scales. Consequently the initial probability level was established at .25 to allow for investigation of these relationships. Tukey's HSD test (Kirk, 1968) was used for both post hoc and simple main effects test. A probability level of .05 was used for the latter test. Significance levels used are reported in Appendix E.

CHAPTER III

RESULTS

Introduction

Because of the volume of information generated by this study the results section has been limited to a verbal description of the findings. Statistical data are provided elsewhere (summary of statistical tests, Appendix F; analysis of variance table, Appendix G; correlation matrix, Appendix H). This section has been organized so that overall results have been presented followed by more indepth reporting of the results of each scale. It was hoped that this format would assist the reader in his comprehension of the results.

Overall Results

As can be seen from the summary of statistical tests (Appendix F) the overall comparisons among all faking groups (Factor A) for all three scales were statistically significant ($p<.10$). The summary of statistical findings (Table I) verbalizes the individual statistically significant relationships between the different faking groups for each of the three MAACL scales. Of the nine pairwise comparisons between the faking groups for the anxiety scale only the difference between the FH and CN groups failed to reach the

TABLE I

VERBAL SUMMARY OF SIGNIFICANT FINDINGS

Faking Group	Dependent Variable	Main Effect: A Difference between 3 Faking Groups	Main Effect: B Difference between keyed checked and unchecked items	Interaction Effect: AxB Note: % reflects average % of keyed items endorsed
FA, FNA, CN	Anxiety	FA more anxious than CN. FA more anxious than FNA. CN more anxious than FNA.	The unchecked items were more frequently left blank than the checked items were checked.	FA more anxious than FNA on: checked (39.5% vs. 4.95%) unchecked (81% vs. 40%) checked vs. unchecked: FA (39.5% vs. 81%) FNA (4.95% vs. 40%) CN (24.1% vs. 60%)
FD, FND, CN	Anxiety	FD more anxious than CN. FD more anxious than FND. CN more anxious than FND.	The unchecked items were more frequently left blank than the checked items were checked.	FD more anxious than CN on: checked (47.5% vs. 24.1%) unchecked (95% vs. 60%) FD more anxious than FND on: checked (47.75% vs. 1.35%) unchecked (95% vs. 17.5%)

TABLE I (Continued)

Faking Group	Dependent Variable	Main Effect: A Difference between 3 Faking Groups	Main Effect: B Difference between keyed checked and unchecked items	Interaction Effect: AxB Note: % reflects average % of keyed items endorsed
				CN more anxious than FND on: checked (24.1% vs. 1.35%) unchecked (60% vs. 17.5%) checked vs. unchecked: FD (47.75% vs. 95%) FND (1.35% vs. 17.5%) CN (24.1% vs. 60%)
FH, FNH, CN	Anxiety	FH more anxious than FNH. CN more anxious than FNH.	The unchecked items were more frequently left blank than the checked items were checked.	FH more anxious than CN on: unchecked (89% vs. 60%) FH more anxious than FNH on: checked (29.5% vs. 6.8%) unchecked (89% vs. 39%) checked vs. unchecked FH (29.5% vs. 89%) FNH (6.8% vs. 39%) CN (24.1% vs. 60%)

TABLE I (Continued)

Faking Group	Dependent Variable	Main Effect: A Difference between 3 Faking Groups	Main Effect: B Difference between keyed checked and unchecked items	Interaction Effect: AxB Note: % reflects average % of keyed items endorsed
FA, FNA, CN	Depression		The unchecked items were more frequently left blank than the checked items were checked.	FA more depressed than FNA on unchecked (71.75% vs. 50%) checked vs. unchecked: FA (18% vs. 71.75%) FNA (11.25% vs. 50%) CN (25.25% vs. 64.5%)
FD, FND, CN	Depression	FD more depressed than CN. FD more depressed than FND. CN more depressed than FND.	The unchecked items were more frequently left blank than the checked items were checked.	FD more depressed than CN on: checked (69.25% vs. 25.25%) unchecked (94.5% vs. 64.5%) FD more depressed than FND on: checked (69.25% vs. 2.5%) unchecked (94.5% vs. 18.75%) CN more depressed than FND on: checked (25.25% vs. 2.5%)

TABLE I (Continued)

Faking Group	Dependent Variable	Main Effect: A Difference between 3 Faking Groups	Main Effect: B Difference between keyed checked and unchecked items	Interaction Effect: AxB Note: % reflects average % of keyed items endorsed
				unchecked (64.5% vs. 18.75%) checked vs. unchecked: FD (69.25% vs. 94.5%) FND (2.5% vs. 18.75%) CN (25.25% vs. 64.5%)
FH, FNH, CN	Depression	FH more depressed than CN. FH more depressed than FNH. CN more depressed than FNH.	The unchecked items were more frequently left blank than the checked items were checked.	FH more depressed than CN on: unchecked (90% vs. 64.5%) FH more depressed than FNH on: checked (33.25% vs. 3.25%) unchecked (90% vs. 44.25%) CN more depressed than FNH on: checked (25.25% vs. 3.25%) unchecked (64.5% vs. 44.25%) checked vs. unchecked: FH (33.25% vs. 90%)

TABLE I (Continued)

Faking Group	Dependent Variable	Main Effect: A Difference between 3 Faking Groups	Main Effect: B Difference between keyed checked and unchecked items	Interaction Effect: AxB Note: % reflects average % of keyed items endorsed
				FNH (3.25% vs. 44.25%) CN (25.25% vs. 64.5%)
FA, FNA, CN	Hostility	FA more hostile than FNA	The unchecked items were more frequently left blank than the checked items were checked.	FA more hostile than FNA on: unchecked (74.6% vs. 42.85%) FA more hostile than CN on: unchecked (74.6% vs. 57.1%) checked vs. unchecked: FA (19.05% vs. 74.6%) FNA (2.5% vs. 42.85%) CN (10.05% vs. 57.1%)
FD, FND, CN	Hostility	FD more hostile than CN. FD more hostile than FND. CN more hostile than FND.	The unchecked items were more frequently left blank than the checked items were checked.	FD more hostile than CN on: checked (40% vs. 10.05%) unchecked (96.3% vs. 57.1%) FD more hostile than FND on: checked (40% vs. 0.6%)

TABLE I (Continued)

Faking Group	Dependent Variable	Main Effect: A Difference between 3 Faking Groups	Main Effect: B Difference between keyed checked and unchecked items	Interaction Effect: AxB Note: % reflects average % of keyed items endorsed
				unchecked (96.3% vs. 30.5%) CN more hostile than FND on: unchecked (57.1% vs. 30.5%) checked vs. unchecked: FD (40% vs. 96.3%) FND (0.6% vs. 30.5%) CN (10.05% vs. 57.1%)
FH, FNH, CN	Hostility	FH more hostile than CN. FH more hostile than FNH. CN more hostile than FNH.	The unchecked items were more frequently left blank than the checked items were checked.	FH more hostile than CN on: checked (75.05% vs. 10.05%) unchecked (97.55% vs. 57.1%) FH more hostile than FNH on: checked (75.05% vs. 1.55%) unchecked (;7.55% vs. 42.25%)

TABLE I (Continued)

Faking Group	Dependent Variable	Main Effect: A Difference between 3 Faking Groups	Main Effect: B Difference between keyed checked and unchecked items	Interaction Effect: AxB Note: % reflects average % of keyed items endorsed
				CN more hostile than FNH on: unchecked (57.1% vs. 42.25%) checked vs. unchecked: FH (75.05% vs. 97.55%) FNH (1.55% vs. 42.25%) CN (10.05% vs. 57.1%)

predetermined .05 statistical significance level. On the depression scale none of the three comparisons involving the FA, FNA, and CN groups reached statistical significance while the other six were statistically significant. Of the nine comparisons on the hostility scale the FA vs. CN and CN vs. FNA comparisons were not statistically significant while all others were.

Viewed differently, the groups faking the socially undesirable affect state scored statistically significantly higher than the CN group in six out of nine cases ($p<.05$). There was no significant difference between the FA and CN groups on the depression and hostility scales and no significant difference between the FH and CN groups on the anxiety scale. Of the nine comparisons between the CN group and the groups faking the socially desirable affect state only CN vs. FNA comparisons on the depression and hostility scales failed to reach statistical significance ($p<.05$). The only nonsignificant test of the nine comparisons between the groups faking the affect and the groups not faking the affect was the difference between the FA and FNA groups on the depression scale. For all three scales the faking group consistently scored higher than the CN group, indicating higher levels of anxiety, depression or hostility. The CN group in turn consistently scored higher than the groups not faking the affect state.

When the means and standard deviations (Table II) were visually inspected the question was raised concerning the

TABLE II

MEANS AND STANDARD DEVIATIONS

	checked		unchecked	
	$\bar{X}$	SD	$\bar{X}$	SD
Anxiety Scores				
Fake Anxious	39.50	36.37	81.00	19.44
Fake Not Anxious	4.95	10.31	40.00	31.12
Fake Depressed	47.75	31.88	95.00	17.92
Fake Not Depressed	1.35	3.30	17.50	14.46
Fake Hostile	29.50	28.67	89.00	30.76
Fake Not Hostile	6.80	18.42	39.00	31.94
Control Normal	24.10	27.01	60.00	33.25
Depression Scores				
Fake Anxious	18.00	30.97	71.75	24.46
Fake Not Anxious	11.25	16.45	50.00	24.76
Fake Depressed	69.25	25.92	94.50	17.91
Fake Not Depressed	2.50	7.86	18.75	11.68
Fake Hostile	33.25	20.02	90.00	9.46
Fake Not Hostile	3.25	6.54	44.25	34.27
Control Normal	25.25	24.09	64.50	28.92
Hostility Scores				
Fake Anxious	19.05	26.22	74.60	26.68
Fake Not Anxious	2.50	5.20	42.85	27.60
Fake Depressed	40.00	23.30	96.30	11.28
Fake Not Depressed	0.60	1.85	30.50	14.88
Fake Hostile	75.05	22.78	97.55	6.06
Fake Not Hostile	1.55	3.47	42.25	25.15
Control Normal	10.05	11.11	57.10	28.19

possibility of violation of the normality and homogeneity of variance assumptions that must have been met to analyze the data by means of the analysis of variance. Winer (1971) suggests that the normality assumption can be violated with no adverse consequences if sufficiently large sample size is used and that the homogeneity of variance assumption can be violated with no adverse consequences if there has been an equal number of observations per cell. Both of these conditions were met within this study to alleviate possible problems in this area.

Examination of the analyses of factor B revealed that the keyed unchecked adjectives were more frequently endorsed by being left blank than the keyed checked adjectives were endorsed by being checked. This relationship was consistent and significant on all three of the MAACL scales among all affect faking group comparisons.

The overall interaction effect was statistically significant in eight of the nine analyses (5 at $p<.05$; one each at $p<.10$, $<.20$, $<.25$). Only the comparison of the FA, FNA, and CN groups on the anxiety scale failed to reach the initial criterion significance level. Consequently Tukey's HSD test (Kirk, 1968) was used to determine significance of the simple main effects (Appendix F). This procedure revealed that for all three MAACL scales the keyed unchecked adjectives were left blank significantly more often than the keyed checked adjectives were endorsed by being checked in every affect faking condition as well as for the CN group.

The difference between faking groups within the checked or unchecked categories was not as consistently significant. Out of 54 possible simple main effects comparing differences between affect faking conditions across keyed checked or unchecked adjectives 35 (64.8%) were statistically significant ($p<.05$). In the checked category 51.9% (14 of 27) of the simple main effects tests were statistically signicant while in the unchecked category 77.8% (21 of 27) were statistically significant.

Viewed in another manner the statistically significant simple main effects were distributed consistently across affect scales (11 on anxiety, 12 on depression, 12 on hostility). However when the results were considered by affect faking group rather than by scale, the results are not as evenly distributed. The FA, FNA, and CN group comparisons produced only 14.3% (5 of 35) of the total statistically significant simple main effects results which was 27.8% (5 of 18) of the possible statistically significant results within this affect faking group comparison. The FD, FND, and CN group comparisons produced 48.6% (17 of 35) of the total statistically significant simple main effect results which was 94.4% (17 of 18) of the possible statistically significant results within this affect faking group comparison. The FH, FNH, and CN group comparisons produced 38.1% (13 of 35) of the total statistically significant simple main effect results which was 72.2% (13 of 18) of the possible statistically significant results within this

affect faking group comparison.

Anxiety Scale

Closer examination of the anxiety scale of the MAACL revealed that the FA group scored more anxious than the FNA group on both the keyed checked and unchecked adjectives (Figure 1). All comparisons involving the FD, FND, and CN groups in both the checked and unchecked categories were statistically significant for the anxiety scale (Figure 1). The comparison involving the FH, FNH, and CN groups revealed that both for the keyed checked and unchecked adjectives the FH group scored more anxious that the FNH groups and scored more anxious than the CN on the keyed unchecked adjectives (Figure 1). The major consistent finding across all affect faking groups for the anxiety scale was that the groups faking the affective state scored significantly more anxious than the comparable group not faking the affective state for both the keyed checked and unchecked adjectives.

Depression Scale

Closer examination of the depression scale of the MAACL revealed that the FA group scored significantly more depressed than the FNA group on the keyed unchecked adjectives (Figure 2). As on the anxiety scale all comparisons involving the FD, FND, and CN groups both for the keyed checked and unchecked adjectives of the depression scale were significant (Figure 2). The comparisons between the FH, FNH, and CN groups on the depression scale revealed that the FH group scored significantly more depressed than the FNH group

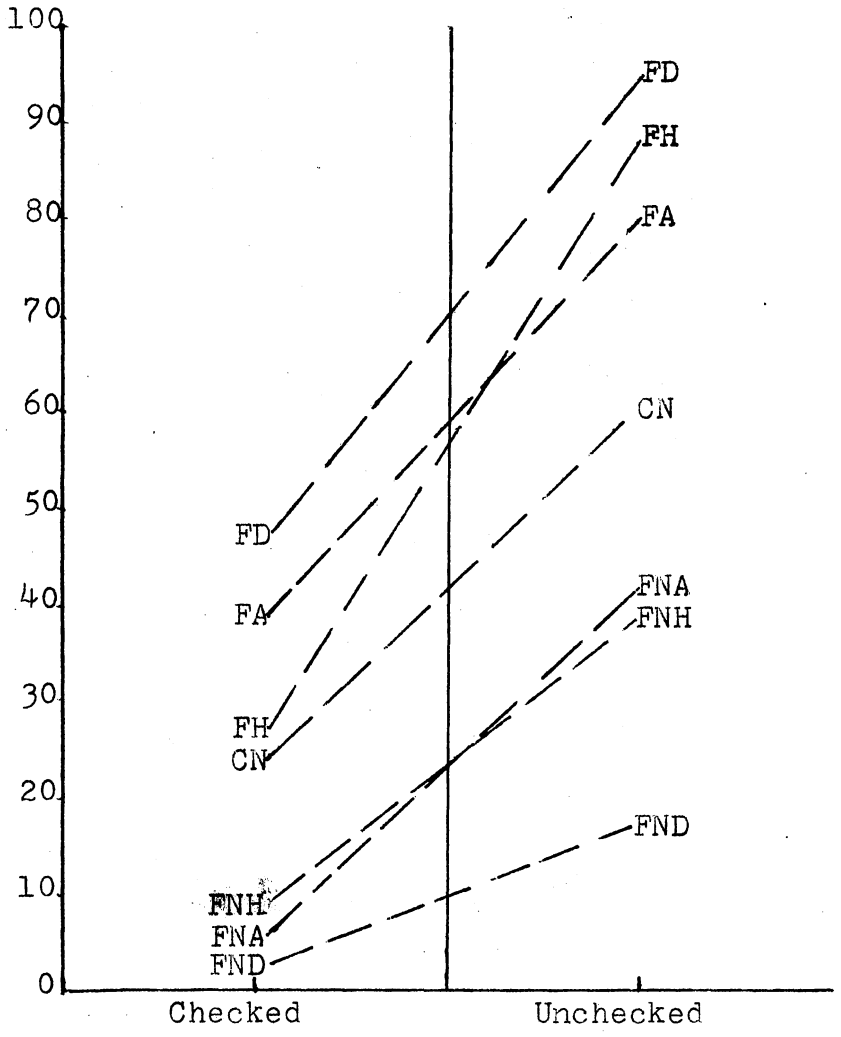


Figure 1. Means of Group Performance in Percent on the Anxiety Scale

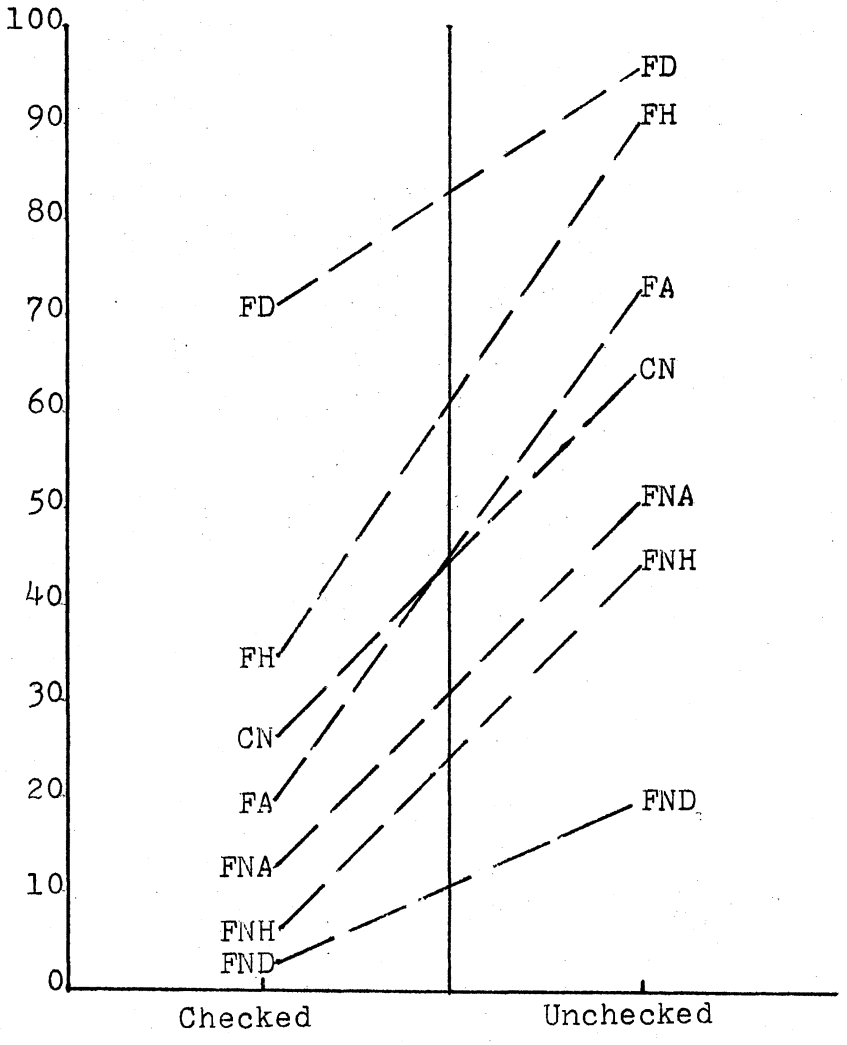


Figure 2. Means of Group Performance in Percent on the Depression Scale

on both the keyed checked and unchecked adjectives and scored more depressed than the CN group on the keyed unchecked adjectives (Figure 2). The CN group scored significantly more depressed than the FNH group on both the keyed checked and unchecked sections of the depression scale. The major consistent finding across all faking groups for the depression scale was that the groups faking the affect state scored significantly more depressed than the comparable group not faking the affect state on the keyed unchecked adjectives.

Hostility Scale

Closer examination of the hostility scale of the MAACL revealed that the FA group scored significantly more hostile than both the FNA and CN groups on the keyed unchecked adjectives (Figure 3). As on the anxiety and depression scales the comparison of the FD, FND, and CN groups both for the keyed checked and unchecked adjectives were significant with the exception that the CN group did not score significantly more hostile than the FND group on the keyed checked adjectives (Figure 3). The comparison between the FH, FNH, and CN groups on the hostility scale revealed that the FH group scored significantly more hostile than both the CN and FNH groups on both the keyed checked and unchecked adjectives. Also the CN group scored significantly more hostile than the FNH group on the keyed unchecked adjectives (Figure 3). Across all faking groups for the hostility scale, the groups faking the affect state scored significantly more

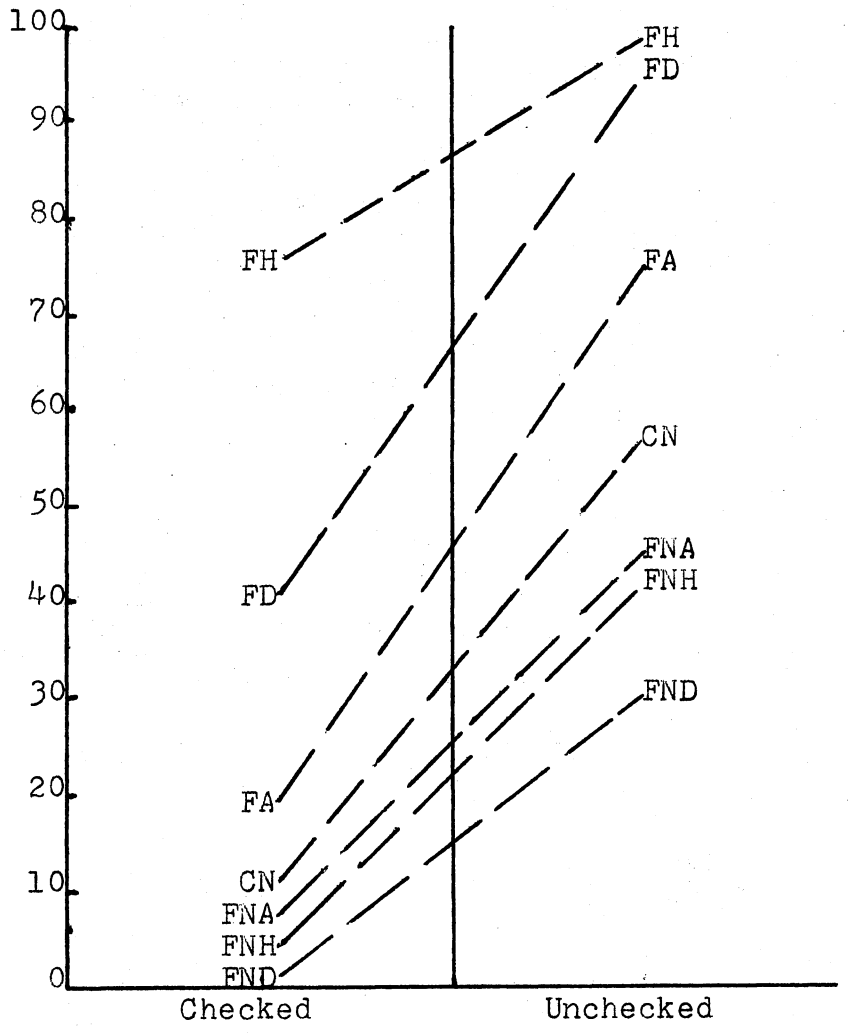


Figure 3. Means of Group Performance in Percent on the Hostility Scale

hostile than both the comparable group not faking the affect state and the CN group on the keyed unchecked adjectives.

Summary of Results

In general the faking groups scored more anxious, depressed, or hostile than the CN group who in turn scored more anxious, depressed or hostile than the groups not faking the affect states. The keyed unchecked adjectives were more frequently endorsed than the keyed checked adjectives. If only one predictor of differences between groups were to be used the keyed unchecked adjectives would be the most reliable.

CHAPTER IV

DISCUSSION

Generally the results of the comparisons where predictions were made appeared similar to the results of the comparisons where predictions were not made both within faking groups across scales and then within scales across faking groups. An attempt to fake a socially desirable or undesirable position on one scale affects the other scales (Table III).

Two of the four predictions concerning the anxiety faking condition on the anxiety scale were statistically supported by the data. As expected the CN group did not differ significantly on anxiety from the FA group (Hypothesis 3) nor the FNA group (Hypothesis 4) on the keyed unchecked adjectives. However the CN group did not differ significantly on anxiety from the FA group (Hypothesis 1) or from the FNA group (Hypothesis 2) on the keyed checked adjectives. Similiarly the CN group did not appear more or less depressed or hostile than the FNA or FA groups on either the keyed checked or unchecked adjectives except where the FA group appeared more hostile on the keyed unchecked adjectives than the CN group. Generalizing to clinical settings, one might conclude that from a similar

TABLE III

SUMMARY TABLE OF HYPOTHESES

Hypothesis:			
Anxiety faking condition on anxiety scale			
1.	FA>CN	checked	statistically not supported
2.	CN>FNA	checked	statistically not supported
3.	CN=FA	unchecked	statistically supported
4.	CN=FNA	unchecked	statistically supported
Depression faking condition on depression scale			
1.	FD>CN	checked	statistically supported
2.	CN>FND	checked	statistically supported
3.	CN=FD	unchecked	statistically not supported
4.	CN=FND	unchecked	statistically not supported
Hostility faking condition on hostility scale			
1.	FH>CN	checked	statistically supported
2.	CN>FNH	checked	statistically not supported
3.	CN=FH	unchecked	statistically not supported
4.	CN=FNH	unchecked	statistically not supported

population the individual who was anxious would have difficulty depressing his score to appear less anxious on either the keyed checked or unchecked adjectives of any of the three scales. Similarly in situations where the subject might anticipate a desired anxious response and attempt to produce such a response it seems likely that the subject would have difficulty elevating his score above the normal subject of the same population on any of the three scales under either scoring condition. The clinician or the researcher dealing with the individual who may be attempting to produce a socially or situationally desirable response with regard to anxiety could be somewhat confident about the anxiety scale of the MAACL-T in these situations.

Two of four predictions associated with the depression faking condition on the depression scale were statistically supported by the data. As expected the CN group appeared significantly less depressed than the FD group (Hypothesis 1) and significantly more depressed than the FND group (Hypothesis 2) on the keyed checked adjectives. However the CN group appeared significantly less depressed than the FD group (Hypothesis 3) and significantly more depressed than the FND group (Hypothesis 4) on the keyed unchecked adjectives. Likewise the CN group did appear more or less anxious or hostile than the FND or FD groups on each of the keyed checked and unchecked adjectives with the exception that the CN group did not appear more hostile than the FND group on the keyed checked adjectives. In a clinical or

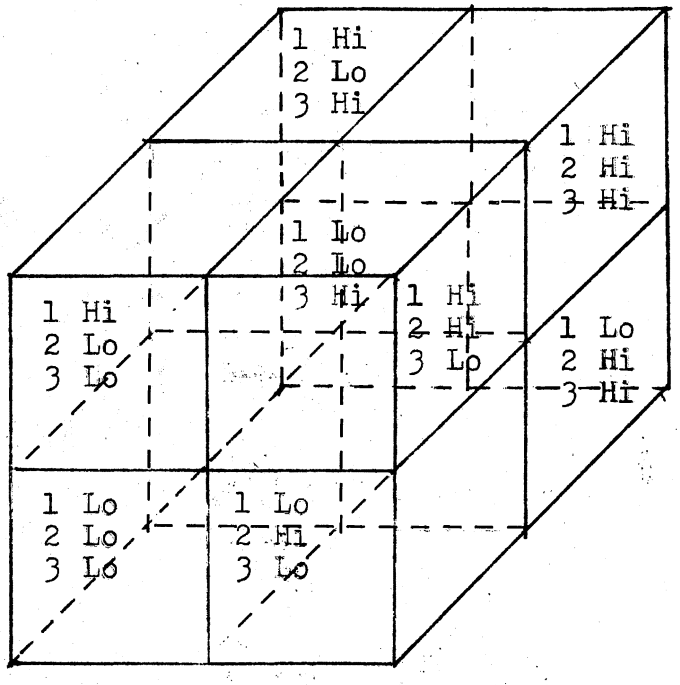
experimental setting drawing from a population similar to that of the present study one might conclude that the individual attempting to present a socially desirable or undesirable response with respect to depression could elevate or depress his scores successfully for either of the scoring procedures on any of the three MAACL-T scales. The clinician or researcher using the MAACL-T should be aware of this possibility.

One of the four predictions concerning the hostility faking condition on the hostility scale was statistically supported by the data. As expected the CN group appeared significantly less hostile than the FH group (Hypothesis 1) but not significantly more hostile than the FNH group (Hypothesis 2) on the keyed checked adjectives. The CN group appeared significantly less hostile than the FH group (Hypothesis 3) and significantly more hostile than the FNH group (Hypothesis 4) on the keyed unchecked adjectives contrary to expectations. The keyed checked adjectives on the anxiety and depression scales were more difficult to fake since on the checked adjectives only the CN group appeared more depressed but not more anxious than the FNH group. It is relatively more difficult to make generalizations from the present data to other clinical or research settings because of the less consistent statistical significance. However the clinician or researcher should be aware of the fact that under certain experimental conditions subjects encouraged to fake or not fake hostility

were able to elevate or depress either their checked or unchecked score on at least two of the MAACL-T scales.

Nunnally (1970) argues that the dominant factor in self-report inventories is social desirability. He suggests at least three major components in this factor. They are "(1) the individaul's actual adjustment, (2) the knowledge he has about his own traits, and (3) his frankness in stating what he knows" (p. 368). Since these characteristics are relatively continuous a subject's expressed social desirability is some combination of all three. If the extreme ends of these three bipolar components are considered, the characteristics of different subject classes can be more easily portrayed. By looking at the extremes (Figure 4) eight subject classifications can be determined. The present study attempted to control for adjustment by suggesting a particular high or low affect adjustment the subject should assume. Similarly, knowledge about that affect state should have been high because the affect state was given and the adjectives to be matched to that state were at most the eighth grade level. Anonymity, volunteer Ss, low threat, and low experimenter profile were used to ensure frankness.

Previously the interpretations and discussion of the results dealt with situations where the clinician or researcher had formed hypotheses about or had evidence to indicate that the subject might fake in a particular favorable or unfavorable direction. In the situation where the



1. Actual Adjustment
2. Knowledge about own Traits
3. Frankness in Stating What is Known

Figure 4. Three Dimensional Model of Social Desirability

clinician or researcher has no evidence to indicate the subject might fake in a particular favorable or unfavorable direction another type of information would be more beneficial. In this situation it would be more important to know how faking in general affected each scale. This would be the case if Nunnally's (1970) dimension three was unknown or predictions concerning that dimension were untenable.

When the scales were considered regardless of the faking affect state, it was most difficult to fake an undesirable position on the keyed checked anxiety and depression items (one statistically significant comparison out of three on each). It was easiest to fake a hostile position on the keyed unchecked hostile adjectives (all three comparisons statistically significant). It was more difficult to fake a more socially desirable position on the anxiety scale for either set of keyed adjectives (one out of three statistically significant comparison on each) and the hostility scale for the keyed checked adjectives (no statistically significant comparisons). It was easier to fake a more socially desirable position on the depression scale for either set of keyed adjectives and to fake a more socially desirable position on the hostility scale keyed unchecked items (two of three comparisons were statistically significant).

Several explanations of the results could be presented. Herron (1969) suggested that the scale scores and their interrcorrelation were a result of the response set of

checking or not checking rather than the measurement of affect states and the interdependency among them. If this were true, one would expect the results of this study to indicate that if a group successfully or unsuccessfully faked a particular response set on one scale they would have done so on all scales. Generally this occurred.

Another possible explanation for these data resulted from the methodology employed. No determination was made concerning the S's understanding of the terms anxiety, depression, and hostility. It is possible that the group faking one of these affect states had a better understanding of the affect than the other faking groups had for their affect state. For example individuals might be able to relate to one of the three affect states either cognitively or viscerally because of previous experience. Several variables such as area of the country or psychological sophistication may influence the S's level of understanding of the scaled affects. This could have produced the differential results by faking affect groups. A future study might attempt to assess the S's understanding of the affect being measured.

Consistently the keyed unchecked adjectives were endorsed more frequently than keyed checked adjectives. This seems to agree with Wiener's (1948) findings concerning subtle and obvious responses on the MMPI. He found that psychologically sophisticated individuals have higher subtle scores than obvious. He also found that MMPI obvious

responses were more adequate to distinguish abnormal from normal groups while subtle responses had greater validity to distinguish personality characteristics of normal groups. From the present study support was found for this position from the number of significant comparisons on the checked and unchecked adjectives (7 of 18 checked were significant while 12 of 18 unchecked were significant). This suggests possibly that the groups were not as successful in attempting to produce abnormal and socially desirable responses for the checked adjectives as for the unchecked adjectives.

Nunnally (1970) suggests three questions that need to be answered about faking and self-report measures that can be applied to the MAACL. First can be MAACL-T be faked? It is apparent from the present study that for certain parts of the MAACL the answer to this question is yes. Secondly, do individuals actually fake responses in either clinical or research settings? The social desirability literature seems to suggest this is true in certain settings. Other possible areas of support for this position come from the subject acquiescence and experimenter effect literature as well as from the fact that well known tests such as the MMPI have built in checks such as the lie score (L). There is little reason to expect individuals to fake one scale and not another. The most conservative statement one could make would be people can and do fake the MAACL-T in real settings. The final question concerns the effect of faking on the validity of self-report measures. The guidelines

suggested by Zuckerman and his associates (Zuckerman, Lubin, Vogel, and Valerius, 1964; Zuckerman, Persky, Eckman, and Hopkins, 1967) to correct for response sets in general seems inadequate as Herron (1969) suggested and particularly inadequate for the control of social desirability. This leads to the conclusion that in situations where no hypothesis has been made or no external evidence is available about the S's frankness the validity of the MAACL-T is highly suspect. With the present scoring system it is extremely difficult to differentiate between extreme pathology and the fake bad response. The MAACL-T tends to exaggerate the intended pathology to the extent that one cannot appear a little sick but only a lot sick. An example of this appears in Weiner and Pliner (1973) where scale scores were elevated across all scales as the experiment progressed. Observation and extensive interview indicated that depression was the main factor the subjects were trying to relate on the MAACL-T; however, anxiety and hostility were also elevated.

This study has led to several ideas for future research. There appears to be more information available in the MAACL-T than is presently being used. More appropriate use of the scales both for normal and abnormal populations might be made if profiles were available demonstrating combinations of different affect levels for different faking situations. Demonstration of when to expect elevation or depression scores on either scoring procedure of

the different scales would also be helpful. By providing profiles of normal, faking, and pathologic groups the interpretation and usefulness of the MAACL would be improved.

CHAPTER V

SUMMARY

The Multiple Affect Adjective Check List - Today Form (MAACL-T) is a 132 adjective check list extensively used to measure an individual's affect states of anxiety, depression, and hostility at the time the check list is administered. Two separate scoring procedures are combined to produce a total score for each affect. Certain adjectives are keyed if they are checked while others are keyed if Ss endorse them by leaving them blank. Several studies have suggested that the MAACL-T is susceptible to response sets. This study attempted to determine the effects of socially desirable or undesirable responding (faking) on the scores of the MAACL-T. Differential results were predicted for the keyed checked and keyed unchecked adjectives. In addition to the 20 Ss requested to respond in a normal manner, separate groups of 20 Ss were asked to fake each of the following conditions: (1) anxious, (2) not anxious, (3) depressed, (4) not depressed, (5) hostile, and (6) not hostile.

The results indicated that the anxiety scale was the most difficult to fake followed by the hostility scale and then the depression scale. Generally if a group was

successful or unsuccessful at elevating or depressing their scores on a scale they were likewise successful or unsuccessful at elevating or depressing their scores on other scales. Differential results were found with reference to the keyed checked and unchecked adjectives.

Generalizations were made both to other research and clinical settings where hypotheses had been formed about the S's responses and additional evidence was available concerning the S's possible social responding and where this information was not available. Suggestions for further research concerned the development of profiles of different response patterns associated with different faking, normal and pathological groups.

BIBLIOGRAPHY

American Psychological Association. Standards for Educational and Psychological Tests. Washington, D.C.; American Psychological Association, Inc., 1974.

Bush, L.E. Individual differences-multidimensional scaling of adjectives denoting feeling. Journal of Personality and Social Psychology, 1973, 25, 50-57.

Herron, E.W. The MAACL: a critical analysis. Journal of Clinical Psychology, 1969, 25, 46-53.

Herron, E.W., Bernstein, L., and Rosen, H. Psychometric analysis of the Multiple Affect Adjective Check List: MAACL-Today. American Psychologist, 1967, 22, 591 (abst.).

Kirk, R.E. Experimental Design: Procedures for the behavioral sciences. Belmont: Brooks/Cole Publishing Co., 1968.

Nunnally, J.C. Introduction to Psychological Measurement. New York: McGraw-Hill Book Co., 1970.

Siller, J. and Chipman, A. Response set paralysis: implications for measurement and control. Journal of Consulting Psychology, 1963, 27, 432-438.

Weiner, E.A. and Pliner, A. Effects of small group isolation on levels of depression, anxiety, and hostility. Journal of Community Psychology, 1973, 1(4), 439-440.

Wiener, D.N. Subtle and Obvious keys for the MMPI. Journal of Consulting Psychology, 1948, 12, 164-170.

Winer, B.J. Statistical Principles in Experimental Design. (2nd ed.). New York: McGraw-Hill Book Co., 1971.

Zuckerman, M. The development of the Affect Adjective Check List for the measurement of anxiety. Journal of Consulting Psychology, 1960, 24, 457-462.

Zuckerman, M. Response set in a checklist test: A sometimes thing. Psychological Reports, 1969, 25, 773-774.

Zuckerman, M. and Lubin, B. Manual for the Multiple Affect Adjective Check List. San Diego: Educational and Industrial Testing Service, 1965.

Zuckerman, M. and Lubin, B. Normative data for the MAACL. Psychological Reports, 1965, 16, 438.

Zuckerman, M., Lubin, B., Vogel, L., and Valerius, D. Measurement of experimentally induced affects. Journal of Consulting Psychology, 1964, 28, 418-425.

Zuckerman, M., Persky, H., Eckman, K., and Hopkins, T.R. A multi-trait multi-method approach to the traits (or states) of anxiety, depression and hostility. Journal of Projective Techniques and Personality Assessment, 1967, 31(2), 39-48.

APPENDIX A

MULTIPLE AFFECT ADJECTIVE CHECK LIST

1.__active
2.__adventurous
3.__affectionate
4.__afraid
5.__agitated
6.__agreeable
7.__aggressive
8.__alive
9.__alone
10.__amiable
11.__amused
12.__angry
13.__annoyed
14.__awful
15.__bashful
16.__bitter
17.__blue
18.__bored
19.__calm
20.__cautious
21.__cheerful
22.__clean
23.__complaining
24.__contented
25.__contrary
26.__cool
27.__cooperative
28.__critical
29.__cross
30.__cruel
31.__daring
32.__desperate
33.__destroyed
34.__devoted
35.__disagreeable
36.__discontented
37.__discouraged
38.__disgusted
39.__displeased
40.__energetic
41.__enraged
42.__enthusiastic
43.__fearful
44.__fine
45.__fit
46.__forlorn
47.__frank
48.__free
49.__friendly
50.__frightened
51.__furious
52.__gay
53.__gentle
54.__glad
55.__gloomy
56.__good
57.__good-natured
58.__grim
59.__happy
60.__healthy
61.__hopeless
62.__hostile
63.__impatient

64.__incensed
65.__indignant
66.__inspired
67.__interested
68.__irritated
69.__jealous
70.__joyful
71.__kindly
72.__lonely
73.__lost
74.__loving
75.__low
76.__lucky
77.__mad
78.__mean
79.__meek
80.__merry
81.__mild
82.__miserable
83.__nervous
84.__obliging
85.__offended
86.__outraged
87.__panicky
88.__patient
89.__peaceful
90.__pleased
91.__pleasant
92.__polite
93.__powerful
94.__quiet
95.__reckless
96.__rejected
97.__rough
98.__sad
99.__safe
100.__satisfied
101.__secure
102.__shaky
103.__shy
104.__soothed
105.__steady
106.__stubborn
107.__stormy
108.__strong
109.__suffering
110.__sullen
111.__sunk
112.__sympathetic
113.__tame
114.__tender
115.__tense
116.__terrible
117.__terrified
118.__thoughtful
119.__timid
120.__tormented
121.__understanding
122.__unhappy
123.__unsociable
124.__upset
125.__vexed
126.__warm
127.__whole
128.__wild
129.__willful
130.__wilted
131.__worrying
132.__young

APPENDIX B

INSTRUCTIONAL SET STIMULI

Today Form

By Marvin Zuckerman
and
Bernard Lubin

Age _____ Sex _____

Date _____ Current Year at O.S.U. _____

DIRECTIONS: On this sheet you will find words which describe different kinds of moods and feelings. You are to imagine that you feel very anxious at the present time and you are to respond as if you were very anxious. Mark an X in the space beside the words which describe how you feel now--today. Some of the words may sound alike, but we want you to check all the words that describe your feelings.

Remember, imagine that you feel very anxious at the present time and you are to respond as if you were very anxious.

Today Form

By Marvin Zuckerman
and
Bernard Lubin

Age _____ Sex _____

Date _____ Current Year at O.S.U. _____

DIRECTIONS: On this sheet you will find words which describe different kinds of moods and feelings. You are to imagine that you do not feel anxious at the present time and you are to respond as you would expect to feel if you were not anxious. Mark an X in the space beside the words which describe how you feel now--today. Some of the words may sound alike, but we want you to check all the words that describe your feelings. Work rapidly.

Remember, imagine that you do not feel anxious at the present time and you are to respond as you would expect to feel if you were not anxious.

Today Form

By Marvin Zuckerman
and
Bernard Lubin

Age _____ Sex _____

Date _____ Current Year at O.S.U. _____

DIRECTIONS: On this sheet you will find words which describe different kinds of moods and feelings. You are to imagine that you feel very depressed at the present time and you are to respond as if you were very depressed. Mark an X in the space beside the words which describe how you feel now--today. Some of the words may sound alike, but we want you to check all the words that describe your feelings. Work rapidly.

Remember, imagine that you feel very depressed at the present time and you are to respond as if you were very depressed.

Today Form

By Marvin Zuckerman
and
Bernard Lubin

Age _____ Sex _____

Date _____ Current Yeat at O.S.U. _____

DIRECTIONS: On this sheet you will find words which describe different kinds of moods and feelings. You are to imagine that you do not feel depressed at the present time and you are to respond as you would expect to feel if you were not depressed. Mark an X in the space beside the words which describe how you feel now--today. Some of the words may sound alike, but we want you to check all the words that describe your feelings. Work rapidly.

Remember, imagine that you do not feel depressed at the present time and you are to respond as you would expect to feel if you were not depressed.

Today Form

By Marvin Zuckerman
and
Bernard Lubin

Age _____ Sex _____

Date _____ Current Year at O.S.U. _____

DIRECTIONS: On this sheet you will find words which describe different kinds of moods and feelings. You are to imagine that you feel very hostile at the present time and you are to respond as if you were very hostile. Mark an X in the space beside the words which describe how you feel now--today. Some of the words may sound alike, but we want you to check all the words that describe your feelings. Work rapidly.

Remember, imagine that you feel very hostile at the present time and you are to respond as if you were very hostile.

Today Form

By Marvin Zuckerman
and
Bernard Lubin

Age _____ Sex _____

Date _____ Current Year at O.S.U. _____

DIRECTIONS: On this sheet you will find words which describe different kinds of moods and feelings. You are to imagine that you do not feel hostile at the present time and you are to respond as you would expect to feel if you were not hostile. Mark an X in the space beside the words which describe how you feel now--today. Some of the words may sound alike, but we want you to check all the words that describe your feelings. Work rapidly.

Remember, imagine that you do not feel hostile at the present time and you are to respond as you would expect to feel if you were not hostile.

Today Form

By Marvin Zuckerman
and
Bernard Lubin

Age _____ Sex _____

Date _____ Current Year at O.S.U. _____

DIRECTIONS: On this sheet you will find words which describe different kinds of moods and feelings. Mark an X in the space beside the words which describe how you feel now--today. Some of the words may sound alike, but we want you to check all the words that describe your feelings. Work rapidly.

APPENDIX C

PRETEST INTRODUCTORY STATEMENT

My name is Walter Beam. I am a graduate student in Psychology. I am working with Dr. Elliot Weiner in a research project that deals with an adjective checklist for measuring certain emotional states. We are particularly interested in the susceptibility of the check list to faking certain emotional states.

We feel this research is important because this checklist could be used to make decisions about an individual either in other research or in a clinical setting. Consequently, this information about faking is very important.

Your instructor has agreed to let me come to your class period and request your assistance at this time. Any participation on your part will be for extra credit. Not participating will not adversely effect your grade. If you are willing to assist us in this research take one of the checklists as it is passed down your row. Please respond as the instructions direct. If you do not wish to participate please pass the checklist to the person behind you. Do not put your name on the checklist. To receive your extra credit please sign this sheet as it is passed down your row.

Are there any questions?

For further information about this study contact Dr. Elliot Weiner in the Psychology Department.

APPENDIX D

EXPERIMENTAL DESIGN

I. Independent variables:

A. Emotional state response set q levels = 3
   1. FA, FD, FH
   2. FNA, FND, FNH
   3. CN

B. Response visibility p levels = 2
   1. checked (obvious)
   2. unchecked (subtle)

II. Dependent variables:

A. Ratio of keyed checked adjectives endorsed to the total possible keyed checked adjectives:
   1. Anxiety (u = keyed checked anxiety adjectives endorsed) u/11
   2. Depression (v = keyed checked depression adjectives endorsed) v/20
   3. Hostility (w = keyed checked hostility adjectives endorsed) w/16

B. Ratio of the keyed unchecked adjectives endorsed to the total possible keyed unchecked adjectives:
   1. Anxiety (x = keyed unchecked anxiety adjectives endorsed) x/10
   2. Depression (y = keyed unchecked depression adjectives endorsed) y/20
   3. Hostility (z = keyed unchecked hostility adjectives endorsed) z/12

III. Design: See Table IV

TABLE IV

EXPERIMENTAL DESIGN

	Anxiety Scale		Depression Scale		Hostility Scale	
	checked	unchecked	checked	unchecked	checked	unchecked
FA	n = 20	- - - - - - - - - - - - - - - - - - - -				n = 20
FNA	n = 20	- - - - - - - - - - - - - - - - - - - -				n = 20
FD	n = 20	- - - - - - - - - - - - - - - - - - - -				n = 20
FND	n = 20	- - - - - - - - - - - - - - - - - - - -				n = 20
FH	n = 20	- - - - - - - - - - - - - - - - - - - -				n = 20
FNH	n = 20	- - - - - - - - - - - - - - - - - - - -				n = 20
CN	n = 20	- - - - - - - - - - - - - - - - - - - -				n = 20
	N = 140	- - - - - - - - - - - - - - - - - - - -				N = 140

APPENDIX E

TABLE V

SIGNIFICANCE LEVELS

Calculated F(2,57) compared to Tabled Values

	F(2,40)	F(2,60)
.001	8.25	7.76
.005	6.07	5.80
.01	5.18	4.98
.025	4.05	3.93
.05	3.23	3.15
.10	2.44	2.39
.20	1.68	1.65
.25	1.44	1.42

Calculated F(1,57) compared to Tabled Values

	F(1,40)	F(1,60)
.001	12.61	8.83
.005	8.83	8.49
.01	7.31	7.08
.025	5.42	5.29
.05	4.08	4.00
.10	2.84	2.79
.20	1.70	1.68
.25	1.36	1.35

Calculated q(3,57) compared to Tabled Values

	q(3,60)	q(3.40)
.01	4.28	4.37
.05	3.40	3.44

Calculated q(2,57) compared to Tabled Values

	q(2,57)	q(2,40)
.01	3.76	3.82
.05	2.83	2.86

APPENDIX F

TABLE V I

SUMMARY OF STATISTICAL TESTS

Faking Group	Dependent Variable	Main Effect: A Difference between 3 Faking Groups Post Hoc Tests are Tukey's HSD	Main Effect: B Difference between keyed checked and unchecked items	Interaction Effect: AxB Simple Main Effects tests are Tukey's HSD
FA, FNA, CN	Anxiety	$F(2,57) = 13.323$ $p<.001$ Post Hoc test FA>CN $q(3,57)=3.516$ $p<.05$ FA>FNA $q(3,57)=7.298$ $p<.01$ CN>FNA $q(3,57)=3.782$ $p<.05$	$F(1,57) = 89.928$ $p<.001$	$F(2,57) = .262$ N.S. Simple Main Effects Checked: FA-CN $q(3,57)=2.482$ N.S. FA-FNA $q(3,57)=5.568$ $p<.01$ CN-FNA $q(3,57)=3.086$ N.S. Unchecked: FA-CN $q(3,57)=3.384$ N.S. FA-FNA $q(3,57)=6.607$ $p<.01$ CN-FNA $q(3,57)=3.223$ N.S. Checked<Unchecked: FA $q(2,57)=8.573$ $p<.01$ FNA $q(2,57)=7.240$ $p<.01$ CN $q(2,57)=4.416$ $p<.01$

TABLE VI (Continued)

Faking Group	Dependent Variable	Main Effect: A Difference between 3 Faking Groups Post Hoc Tests are Tukey's HSD	Main Effect: B Difference between keyed checked and unchecked items	Interaction Effect: AxB Simple Main Effects tests are Tukey's HSD
FD, FND, CN	Anxiety	$F(2,57)=49.913$ $p<.001$ Post Hoc test FD>CN $q(3,57)=6.685$ $p<.01$ FD>FND $q(3,57)=14.123$ $p<.01$ CN>FND $q(3,57)=7.438$ $p<.01$	$F(1,57) = 90.154$ $p<.01$	$F(2,57)=6.793$ $p<.005$ Simple Main Effects Checked: FD-CN $q(3,57)=4.441$ $p<.01$ FD-FND $q(3,57)=8.714$ $p<.01$ CN-FND $q(3,57)=4.272$ $p<.05$ Unchecked: FD-CN $q(3,57)=6.523$ $p<.01$ FD-FND $q(3,57)=14.554$ $p<.01$ CN-FND $q(3,57)=7.981$ $p<.01$ Checked<Unchecked: FD $q(2,57)=11.067$ $p<.01$ FND $q(2,57)=3.783$ $p<.05$ CN $q(2,57)=8.409$ $p<.01$
FH, FNH, CN	Anxiety	$F(2,57)=12.284$ $p<.001$	$F(1,57)=93.413$ $p<.001$	$F(2,57)=3.775$ $p<.05$

TABLE VI (Continued)

Faking Group	Dependent Variable	Main Effect: A Difference between 3 Faking Groups Post Hoc Tests are Tukey's HSD	Main Effect: B Difference between keyed checked and unchecked items	Interaction Effect: AxB Simple Main Effects tests are Tukey's HSD
		Post Hoc Test FH>CN $q(3,57)=3.315$ N.S. FH>FNH $q(3,57)=7.006$ $p<.01$ CN>FNH $q(3,57)=3.778$ $p<.05$		Simple Main Effects Checked: FH-CN $q(3,57)=.839$ N.S. FH-FNH $q(3,57)=3.526$ $p<.05$ CN-FNH $q(3,57)=2.684$ N.S. Unchecked: FH-CN $q(3,57)=4.505$ $p<.01$ FH-FNH $q(3,57)=7.767$ $p<.01$ CN-FNH $q(3,57)=3.262$ N.S. Checked<Unchecked: FH $q(2,57)=11.030$ $p<.01$ FNH $q(2,57)=5.969$ $p<.01$ CN $q(2,57)=6.655$ $p<.01$
FA, FNA, CN	Depression	$F(2,57)=2.894$ $p<.10$ Post Hoc Test FA>CN $q(3,57)=0$ N.S.	$F(1,57)=165.135$ $p<.001$	$F(2,57)=2.072$ $p<.20$ Simple Main Effects Checked: FA-CN $q(3,57)=1.279$ N.S. FA-FNA $q(3,57)=1.191$ N.S.

TABLE VI (Continued)

Faking Group	Dependent Variable	Main Effect: A Difference between 3 Faking Groups Post Hoc Tests are Tukey's HSD	Main Effect: B Difference between keyed checked and unchecked items	Interaction Effect: AxB Simple Main Effects tests are Tukey's HSD
		FA>FNA $q(3,57)=2.947$ N.S. CN>FNA $q(3,57)=2.947$ N.S.		CN-FNA $q(3,57)=2.469$ N.S. Unchecked: FA-CN $q(3,57)=1.279$ N.S. FA-FNA $q(3,57)=3.836$ $p<.05$ CN-FNA $q(3,57)=2.558$ N.S. Checked<Unchecked: FA $q(2,57)=12.842$ $p<.01$ FNA $q(2,57)=9.258$ $p<.01$ CN $q(2,57)=9.377$ $p<.01$
FD, FND, CN	Depression	$F(2,57)=74.51$ $p<.001$ Post Hoc test FD>CN $q(3,57)=8.963$ $p<.01$ FD>FND $q(3,57)=17.260$ $p<.01$ CN>FND $q(3,57)=8.297$ $p<.01$	$F(1,57)=115.920$ $p<.001$	$F(2,57)=7.164$ $p<.005$ Simple Main Effects Checked: FD-CN $q(3,57)=9.439$ $p<.01$ FD-FND $q(3,57)=14.320$ $p<.01$ CN-FND $q(3,57)=4.881$ $p<.01$

TABLE VI (Continued)

Faking Group	Dependent Variable	Main Effect: A Difference between 3 Faking Groups Post Hoc Tests are Tukey's HSD	Main Effect: B Difference between keyed checked and unchecked items	Interaction Effect: AxB Simple Main Effects tests are Tukey's HSD
				Unchecked: FD-CN $q(3,57)=6.436$ $p<.01$ FD-FND $q(3,57)=16.251$ $p<.01$ CN-FND $q(3,57)=9.815$ $p<.01$ Checked<Unchecked: FD $q(2,57)=8.247$ $p<.01$ FND $q(2,57)=5.307$ $p<.01$ CN $q(2,57)=12.819$ $p<.01$
FH, FNH, CN	Depression	$F(2,57)=21.483$ $p<.001$ Post Hoc test FH>CN $q(3,57)=4.091$ $p<.05$ FH>FNH $q(3,57)=9.250$ $p<.01$ CN>FNH $q(3,57)=5.159$ $p<.01$	$F(1.57)=168.810$ $p<.001$	$F(2,57)=2.506$ $p<.10$ Simple Main Effects Checked: FH-CN $q(3,57)=1.568$ N.S. FH-FNH $q(3,57)=5.588$ $p<.01$ CN-FNH $q(3,57)=4.312$ $p<.05$ Unchecked: FH-CN $q(3,57)=8.967$ $p<.01$

TABLE VI (Continued)

Faking Group	Dependent Variable	Main Effect: A Difference between 3 Faking Groups Post Hoc Tests are Tukey's HSD	Main Effect: B Difference between keyed checked and unchecked items	Interaction Effect: AxB Simple Main Effects tests are Tukey's HSD
				FH-FNH $q(3,57)=4.998$ $p<.01$ CN-FNH $q(3,57)=3.969$ $p<.05$ Checked<Unchecked: FH $q(2,57)=13.183$ $p<.01$ FNH $q(2,57)=9.524$ $p<.01$ CN $q(2,57)=9.118$ $p<.01$
FA, FNA, CN	Hostility	$F(2,57)=8.845$ $p<.001$ Post Hoc Test FA>CN $q(3,57)=3.258$ N.S. FA>FNA $q(3,57)=5.920$ $p<.01$ CN>FNA $q(3,57)=2.681$ N,S,	$F(1,57)=182.017$ $p<.001$	$F(2,57)=1.550$ $p<.25$ Simple Main Effects Checked: FA-CN $q(3,57)=1.769$ N.S. FA-FNA $q(3,57)=3.253$ N.S. CN-FNA $q(3,57)=1.484$ N.S. Unchecked: FA-CN $q(3,57)=3.440$ $p<.05$ FA-FNA $q(3,57)=6.240$ $p<.01$

TABLE VI (Continued)

Faking Group	Dependent Variable	Main Effect: A Difference between 3 Faking Groups Post Hoc Tests are Tukey's HSD	Main Effect: B Difference between keyed checked and unchecked items	Interaction Effect: AxB Simple Main Effects tests are Tukey's HSD
				CN-FNA $q(3,57)=2.801$ N.S. Checked<Unchecked: FA $q(2,57)=13.011$ $p<.01$ FNA $q(2,57)=9.451$ $p<.01$ CN $q(2,57)=11.020$ $p<.01$
FD, FND, CN	Hostility	$F(2,57)=71.124$ $p<.001$ Post Hoc Test FD>CN $q(3,57)=10.908$ $p<.01$ FD>FND $q(3,57)=16.595$ $p<.01$ CN>FND $q(3,57)=10.593$ $p<.01$	$F(1,57)=292.462$ $p<.001$	$F(2,57)=8.867$ $p<.001$ Simple Main Effects Checked: FD-CN $q(3,57)=7.706$ $p<.01$ FD-FND $q(3,57)=10.137$ $p<.01$ CN-FND $q(3,57)=2.431$ N.S. Unchecked: FD-CN $q(3,57)=10.086$ $p<.01$ FD-FND $q(3,57)=16.930$ $p<.01$ CN-FND $q(3,57)=6.844$ $p<.01$

TABLE VI (Continued)

Faking Group	Dependent Variable	Main Effect: A Difference between 3 Faking Groups Post Hoc Tests are Tukey's HSD	Main Effect: B Difference between keyed checked and unchecked items	Interaction Effect: AxB Simple Main Effects tests are Tukey's HSD
				Checked<Unchecked: FD $q(2,57)=17.699$ $p<.01$ FND $q(2,57)=9.370$ $p<.01$ CN $q(2,57)=14.791$ $p<.01$
FH, FNH, CN	Hostility	$F(2,57)=107.992$ $p<.001$ Post Hoc Test FH>CN $q(3,57)=15.969$ $p<.01$ FH>FNH $q(3,57)=19.505$ $p<.01$ CN>FNH $q(3,57)=3.536$ $p<.05$	$F(1,57)=150.183$ $p<.001$	$F(2,57)=6.015$ $p<.005$ Simple Main Effects Checked: FH-CN $q(3,57)=15.471$ $p<.01$ FH-FNH $q(3,57)=17.495$ $p<.01$ CN-FNH $q(3,57)=2.023$ N.S. Unchecked: FH-CN $q(3,57)=9.628$ $p<.01$ FH-FNH $q(3,57)=13.163$ $p<.01$ CN-FNH $q(3,57)=3.535$ $p<.05$

TABLE VI (Continued)

Faking Group	Dependent Variable	Main Effect: A Difference between 3 Faking Groups Post Hoc Tests are Tukey's HSD	Main Effect: B Difference between keyed checked and unchecked items	Interaction Effect: AxB Simple Main Effects tests are Tukey's HSD
				Checked<Unchecked: FH $q(2,57)=6.124$ $p<.01$ FNH $q(2,57)=11.078$ $p<.01$ CN $q(2,57)=12.782$ $p<.01$

APPENDIX G

TABLE VII

ANALYSIS OF VARIANCE TABLE FOR ANXIETY SCORES OF THE FAKE ANXIOUS (FA), FAKE NOT ANXIOUS (FNA), AND THE CONTROL NORMAL (CN) GROUPS

Source of Variation	df	MS	F Ratio	p level
Between Subjects	59			
A (FA, FNA, CN)	2	14275.80	13.323	.001
Ss Within Groups	57	1070.550		
Within Subjects	60			
B (Obvious; Subtle)	1	42150.00	89.928	.001
AxB	2	122.76	.262	M.S.
BxSs Within Groups	57	468.710		

TABLE VIII

ANALYSIS OF VARIANCE TABLE FOR ANXIETY SCORES OF THE FAKE DEPRESSED (FD), FAKE NOT DEPRESSED (FND), AND CONTROL NORMAL (CN) GROUPS

Source of Variation	df	MS	F Ratio	p level
Between Subjects	59			
A (FD, FND, CN)	2	38414.31	49.913	.001
Ss Within Groups	57	769.629		
Within Subjects	60			
B (Obvious; Subtle)	1	32868.30	90.154	.001
AxB	2	2476.75	6.793	.005
BxSs Within Groups	57	364.581		

TABLE IX

ANALYSIS OF VARIANCE TABLE FOR ANXIETY SCORES OF THE FAKE HOSTILE (FH), FAKE NOT HOSTILE (FNH), AND CONTROL NORMAL (CN) GROUPS

Source of Variation	df	MS	F Ratio	p level
Between Subjects	59			
A (FH, FNH, CN)	2	13225.89	12.284	.001
Ss Within Groups	57	1076.70		
Within Subjects	60			
B (Obvious; Subtle)	1	54272.53	93.413	.001
AxB	2	2193.16	3.775	.05
BxSs Within Groups	57	580.997		

TABLE X

ANALYSIS OF VARIANCE TABLE FOR DEPRESSION SCORES OF THE FAKE ANXIOUS (FA), FAKE NOT ANXIOUS (FNA), AND CONTROL NORMAL (CN) GROUPS

Source of Variation	df	MS	F Ratio	p level
Between Subjects	59			
A (FA, FNA, CN)	2	2707.50	2.894	.1
Ss Within Groups	57	935.433		
Within Subjects	60			
B (Obvious; Subtle)	1	57860.20	165.135	.001
AxB	2	725.80	2.072	.2
BxSs Within Groups	57	350.380		

TABLE XI

ANALYSIS OF VARIANCE TABLE FOR DEPRESSION SCORES OF THE FAKE DEPRESSED (FD), FAKE NOT DEPRESSED (FND), AND CONTROL NORMAL (CN) GROUPS

Source of Variation	df	MS	F Ratio	p level
Between Subjects	59			
A (FD, FND, CN)	2	50790.81	74.51	.001
Ss Within Groups	57	681.657		
Within Subjects	60			
B (Obvious; Subtle)	1	21735.20	115.920	.001
AxB	2	1343.24	7.164	.005
Ss Within Groups	57	187.501		

TABLE XII

ANALYSIS OF VARIANCE TABLE FOR DEPRESSION SCORES OF THE FAKE HOSTILE (FH), FAKE NOT HOSTILE (FNH) AND CONTROL NORMAL (CN) GROUPS

Source of Variation	df	MS	F Ratio	p level
Between Subjects	59			
A (FH, FNH, CN)	2	14480.94	21.483	.001
Ss Within Groups	57	670.709		
Within Subjects	60			
B (Obvious; Subtle)	1	62563.33	168.610	.001
AxB	2	928.90	2.506	.1
BxSs Within Groups	57	370.616		

TABLE XIII

ANALYSIS OF VARIANCE TABLE FOR HOSTILITY SCORES OF THE FAKE ANXIOUS (FA), FAKE NOT ANXIOUS (FNA), AND CONTROL NORMAL (CN) GROUPS

Source of Variation	df	MS	F Ratio	p level
Between Subjects	59			
A (FA, FNA, CN)	2	5850.63	8.848	.001
Ss Within Groups	57	661.287		
Within Subjects	60			
B (Obvious; Subtle)	1	68115.62	182.017	.001
AxB	2	580.22	1.550	.25
BxSs Within Groups	57	374.226		

TABLE XIV

ANALYSIS OF VARIANCE TABLE FOR HOSTILITY SCORES OF THE FAKE DEPRESSED (FD), FAKE NOT DEPRESSED (FND), AND CONTROL NORMAL (CN) GROUPS

Source of Variation	df	MS	F Ratio	p level
Between Subjects	59			
A (FD, FND, CN)	2	28580.59	71.124	.001
Ss Within Groups	57	401.843		
Within Subjects	60			
B (Obvious; Subtle)	1	59185.20	292.462	.001
AxB	2	1794.35	8.867	.001
BxSs Within Groups	57	202.369		

TABLE XV

ANALYSIS OF VARIANCE TABLE FOR HOSTILITY SCORES OF THE FAKE HOSTILE (FH), FAKE NOT HOSTILE (FNH), AND CONTROL NORMAL (CN) GROUPS

Source of Variation	df	MS	F Ratio	p level
Between Subjects	59			
A (FH, FNH, CN)	2	47090.56	107.992	.001
Ss Within Groups	57	436.057		
Within Subjects	60			
B (Obvious; Subtle)	1	40516.86	150.083	.001
AxB	2	1623.76	6.015	.005
BxSs Within Groups	57	269.964		

APPENDIX H

TABLE XVI

CORRELATION MATRIX

		ANX-O	ANX-S	DEP-O	DEP-S	HOS-O	HOS-S
	FA	1.000	.593	.788	.431	.636	.254
	FNA	1.000	.089	.143	-.009	.305	.086
	FD	1.000	.249	.478	.218	.526	.291
ANX-O	FND	1.000	.174	.776	.292	.794	.005
	FH		.280	.735	.236	.264	.108
	FNH		.068	.621	-.137	.469	-.076
	CN		.505	.743	.399	.782	.370
	FA		1.000	.441	.544	.486	.648
	FNA		1.000	.134	.762	.068	.770
	FD		1.000	.655	.984	.425	.966
ANX-S	FND		1.000	.428	.588	.414	.432
	FH		1.000	.343	-.163	.001	-.152
	FNH		1.000	.382	.848	.319	.508
	CN		1.000	.529	.914	.588	.855
	FA			1.000	.425	.714	.158
	FNA			1.000	.452	.260	.236
	FD			1.000	.665	.697	.728
DEP-O	FND			1.000	.666	.979	.178
	FH			1.000	.188	.001	-.152
	FNH			1.000	.193	.485	.275
	CN			1.000	.533	.718	.467
	FA				1.000	.363	.419
	FNA				1.000	.205	.766
	FD				1.000	.436	.978
DEP-S	FND				1.000	.622	.549
	FH				1.000	.635	.427
	FNH				1.000	.117	.553
	CH				1.000	.445	.871

TABLE XVI (Continued)

		HOS-0	HOS-S
HOS-0	FA	1.000	.354
	FNA	1.000	.120
	FD	1.000	.492
	FND	1.000	.161
	FH	1.000	.467
	FNH	1.000	.220
	CN	1.000	.528

Significant levels for one tailed test of r(18 df)

r (.05) = .3783

r (.025) = .4438

r (.01) = .5155

r (.005) = .5614

r (.001) = .6787

APPENDIX I

RAW DATA PERCENTS

Experimental condition 1=FA;2=FNA;3=FD;4=FND5=FH;6=FNH;7=CN
Sex 0=Female; 1=Male

Subject number	Score in % total response					
	Anxiety Scale		Depression Scale		Hostility Scale	
	checked	unchecked	checked	unchecked	checked	unchecked
10001	82	100	15	75	81	100
10002	73	100	50	100	13	92
10003	91	90	100	90	69	67
10004	100	100	95	95	81	100
10005	27	80	0	80	6	33
10006	27	80	0	60	6	100
10007	27	60	0	35	0	67
10008	18	50	0	20	6	8
10009	9	80	0	50	0	67
10010	0	60	0	85	19	67
11016	9	80	0	80	6	75
11017	0	50	0	80	0	58
11018	18	50	0	35	6	83
11019	45	100	5	85	13	100
11020	91	80	40	65	6	33
11021	0	100	5	35	13	92
11022	91	100	20	95	6	100
11023	0	60	0	80	0	58
11024	18	100	0	100	19	100
11025	64	100	30	90	31	92
20031	0	50	10	80	0	33
20032	18	20	5	20	6	25
20033	0	30	0	30	0	8
20034	0	0	35	40	0	17
20035	0	70	0	65	0	50
20036	0	60	10	60	0	75
20037	0	100	10	60	0	83
20038	0	10	0	25	0	17
20039	0	0	5	45	0	42
20040	0	10	0	30	0	33
21046	0	60	0	65	19	42
21047	0	0	0	5	0	8
21048	0	20	0	20	0	8
21049	27	10	30	25	6	8
21050	0	90	45	95	0	67
21051	0	40	10	65	6	83
21052	9	50	55	85	13	75

	Anxiety Scale		Depression Scale		Hostility Scale	
	checked	unchecked	checked	unchecked	checked	unchecked
21053	36	80	5	70	0	83
21054	0	60	0	50	0	58
21055	0	40	5	65	0	42
30061	100	100	75	95	56	100
30062	91	100	90	95	56	100
30063	73	100	40	100	13	100
30064	0	100	75	100	25	100
30065	91	100	90	100	50	100
30066	55	100	70	100	50	100
30067	64	100	70	100	50	100
30068	91	100	100	100	50	100
30069	45	90	75	100	44	100
30070	55	100	100	100	44	100
31076	9	100	50	100	50	100
31077	55	100	100	100	19	100
31078	18	20	0	20	81	50
31079	73	100	85	100	0	100
31080	18	100	85	100	93	100
31081	18	100	30	100	19	92
31081	45	100	65	95	25	92
31083	9	100	70	100	19	100
31084	27	100	75	100	56	100
31085	18	90	40	85	31	92
40091	0	10	0	15	19	25
40092	0	10	0	30	0	42
40093	0	10	0	15	0	58
40094	0	30	0	15	0	33
40095	0	50	0	15	0	42
40096	0	0	0	10	0	17
40097	0	20	0	10	0	0
40098	9	0	0	0	0	17
40099	0	10	0	25	0	17
40100	0	10	0	15	0	42
41106	9	40	30	50	0	42
41107	0	40	0	30	6	50
41108	0	0	0	10	0	25
41109	0	10	0	15	0	25
41110	0	10	0	5	0	8
41111	9	30	20	30	0	33
41112	0	30	0	35	6	42
14413	0	10	0	10	0	17
41114	0	20	0	20	0	33
41115	0	10	0	20	0	42
50121	9	0	20	100	75	100
50122	0	80	15	85	75	100
50123	9	100	30	85	88	100
50124	82	100	60	95	75	100
50125	45	100	45	100	100	92
50126	55	100	60	95	93	100
50127	73	100	25	90	100	100
50128	0	100	30	95	88	100

	Anxiety Scale		Depression Scale		Hostility Scale	
	checked	unchecked	checked	unchecked	checked	unchecked
50129	45	100	65	95	88	92
50130	82	100	45	95	100	92
51136	9	100	65	100	93	100
51137	9	100	25	65	6	75
51138	0	100	30	85	88	100
51129	0	100	0	85	56	100
51140	9	100	20	85	69	100
51141	64	0	10	90	75	100
51142	36	100	60	70	56	100
51143	27	100	15	95	44	100
51144	18	100	30	100	63	100
51145	0	100	15	90	69	100
60151	9	30	0	20	0	25
60152	0	20	0	55	0	75
60153	0	20	0	15	0	25
60154	9	30	0	85	0	42
60155	0	90	0	85	0	58
60156	0	20	0	35	0	25
60157	0	30	0	20	0	67
60158	0	90	0	90	0	92
60159	0	50	10	55	6	42
60160	0	100	0	100	0	17
61166	9	70	5	100	0	67
61167	82	30	20	5	6	17
61168	0	0	0	20	0	42
61169	0	30	0	40	0	33
61170	0	10	0	15	0	0
61171	0	0	0	0	0	17
61172	0	20	0	15	0	42
61173	18	80	10	75	13	67
61174	9	60	0	50	6	75
61175	0	0	0	5	0	17
70181	64	100	60	90	19	100
70182	0	0	0	0	0	17
70183	9	30	0	30	6	17
70184	0	60	0	65	0	58
70185	0	30	0	45	0	58
70186	18	70	40	65	6	25
70187	0	10	15	30	0	25
70188	73	60	25	60	19	50
70189	18	50	15	80	0	42
70190	0	20	0	35	0	33
71196	18	100	0	80	6	75
71197	64	90	70	100	25	83
71198	55	80	55	85	6	67
71199	73	100	60	85	44	92
71200	9	60	20	50	13	50
71201	36	10	45	25	13	17
71202	36	100	30	90	19	75
71203	9	70	0	80	6	75

	Anxiety Scale		Depression Scale		Hostility Scale	
	checked	unchecked	checked	unchecked	checked	unchecked
71204	0	90	45	100	13	100
71205	0	70	25	95	6	83

VITA

Walter Willis Beam, Jr.

Candidate for the Degree of

Master of Science

Thesis: SOCIAL DESIRABILITY AND THE MULTIPLE AFFECT ADJECTIVE CHECK LIST - TODAY FORM

Major Field: Psychology

Biographical:

Personal Data: Born in Freeport, Texas, November 10, 1946, the son of Mr. and Mrs. Walter Beam.

Education: Graduated from Ponca City High School, Ponca City, Oklahoma, in May, 1965; received the Bachelor of Science degree from Abilene Christian College in 1969, with a major in Psychology. Completed requirements for the Master of Science degree at Oklahoma State University in May, 1975.

Professional Experience: National Institute of Mental Health trainee in clinical psychology at Oklahoma State University, 1972-1973; psychological associate at Payne County Guidance Center, 1972-1973; psychological associate at Psychological Guidance Center, Oklahoma State University, 1973-1974.