# THE EFFECTS OF POSTHYPNOTIC STIMULATION OF HOSTILITY UPON MALE HIGH- AND LOW- MOTIVATORS

Thesis for the Dogree of Ph. D.
MICHIGAN STATE UNIVERSITY
William F. Moore
1963

THESIS



This is to certify that the

#### thesis entitled

THE EFFECTS OF POSTHYPNOTIC STIMULATION OF HOSTILITY UPON MALE HIGH- AND LOW-MOTIVATORS

presented by

William F. Moore

has been accepted towards fulfillment of the requirements for

Ph.D. degree in Education

John E. Jordan Major professor

Date February 13, 1963

0-169





RETURNING MATERIALS:
Place in book drop to
remove this checkout from
your record. FINES will
be charged if book is
returned after the date
stamped below.





# ABSTRACT

THE EFFECTS OF POSTHYPNOTIC STIMULATION OF HOSTILITY UPON MALE HIGH- AND LOW- MOTIVATORS

by William F. Moore

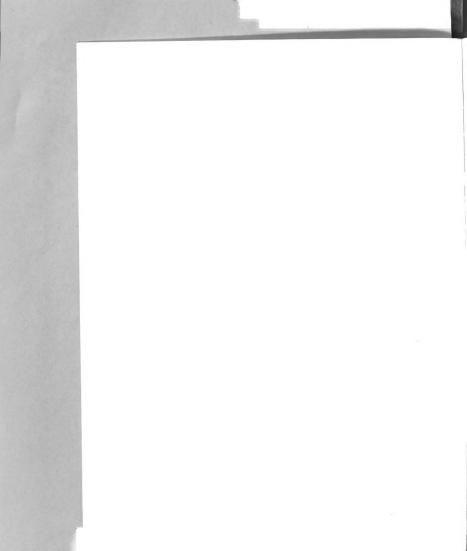
A procedure for the investigation of hostility was described which utilized hypnotically induced conflict and verbal productions in an interview situation. Based on a theory of academic motivation, specific predictions were made regarding the effects such conflict would have on the intensity of verbally expressed hostility. Theoretically, hostility is present in both high motivators and low motivators but in varying intensities and directions. The high motivator is characterized as having more "self control," and has learned effective defense mechanisms and control against anxiety which enable him to handle hostility by repressing it. The low motivator has not learned similar effective controls and ventilates his hostility in more overt forms of expression.

The study consisted of an experimental group comprised of high motivators and low motivators and a control group of Ss who simulated hypnosis. All Ss were treated under a control condition which consisted of an interview session in a normal "waking" state and an experimental condition immediately following a hypnotically induced paramnesia. Clause-units

were derived from the verbal productions and independently scored for hostility. The composite hostility scores for each group across each condition were compared.

The hypothesis was supported that low motivators do verbalize more hostility upon posthypnotic stimulation than do high motivators. Furthermore, the hypnotically induced paramnesia was shown to be genuine, and the criteria for hypnotically inducing psychosomatic reactions and psychopathology was met.

The present study is consistent with current motivation theories in regard to the intensity of hostility expressed by high- and low- motivators, and lends support to the theory of repression as a defense against anxiety-producing situations.



Copyright by WILLIAM F. MOORE 1963

.



# THE EFFECTS OF POSTHYPNOTIC STIMULATION OF HOSTILITY UPON MALE HIGH- AND LOW-MOTIVATORS

By

William F. Moore

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Guidance and Personnel Services
College of Education

126712 126712

# ACKNOWLEDGMENTS

To the school administrators, parents of the subjects, and to the individuals who served as subjects for this project, I wish to express my sincerest appreciation for their assistance. Special thanks are due to Miss Margaret Smith for her many hours of assistance in statistics, and to Dr. Rahe Corlis who offered invaluable suggestions.

To the members of my doctoral committee I am deeply indebted. They are:

Dr. John E. Jordan (Co-Chairman)

Dr. Joseph Reyher (Co-Chairman)

Dr. William W. Farquhar

Dr. Gwen Norrell

Each member has given unselfishly of himself, his time and his knowledge whereby all share in my deep gratitude and appreciation. Their individual contributions have been a source of constant encouragement and constructive guidance throughout my program of study.

Also, I wish to thank Dr. Leon Saul and Dr. Edith
Sheppard of the University of Pennsylvania, and to Dr.
Stanley Kaplan of the Department of Psychiatry, University
Of Cincinnati, for providing the manuals used in this study.



Lastly, to my wife Reatha and to my children Jerry and Diane, who have shared with me the hardships as well as the satisfactions of accomplishment, I thankfully dedicate this work.



# William F. Moore

# Candidate for the degree of Doctor of Philosophy

Final Examination: February 13, 1963, College of Education

Thesis: The Effects of Posthypnotic Stimulation of Hostility

Upon Male High- and Low- Motivators

Outline of Studies: Major subject: Counseling Psychology

Minor subject: Counseling and Guidance

# Biographical Items:

Born: June 28, 1929, Columbus, Ohio Undergraduate Studies: Owosso College, 1947-1951, Th.B. Degree, June, 1951; Taylor University, 1951-1952, A.B. Degree, June, 1952; Capital University, 1952-1953, A.B. Degree, June, 1953.

Graduate Studies: Ohio University, 1953-1954, M.A. Degree, August, 1954; Michigan State University, 1959-1963, Ph.D. Degree, March, 1963.

# Experience:

Probation Officer, Franklin County, Ohio, 1953-1955; Assistant Supervisor, Department of Mental Hygiene and Correction, State of Ohio, Columbus, Ohio, 1955-1959;

Chaplain, U. S. Navy, 1956-1959;

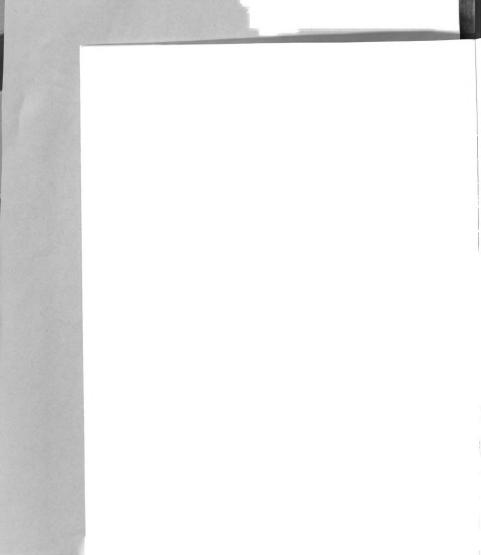
Psychologist Intern, Psychiatric Institute and Hospital, Columbus, Ohio, 1962--

# Professional Memberships:

American Psychological Association Psi Chi Phi Delta Kappa A CONTRACT OF THE PROPERTY OF

# TABLE OF CONTENTS

												Page
INTRODUCTION			•	•	•	•		•	•		•	1
Hypothesis	I.		•	•	•	•		•		•	•	5
METHOD				•				•	•	•	•	6
Experiment Paramnesia Conflict I Descriptio Dream Host Michigan S Materials Subjects Results. Analysi	nducinn of (ility tate !	ng Ins Contro Count M-Scal	truc l Gr e.	oup •	٠	•	•	•	•	•		6 8 9 10 11 12 14 14
DISCUSSION .			•		•	•	0	•	•		•	25
SUMMARY			•								•	<b>3</b> 5
REFERENCES .	• •			•	•	•	•	•	•	•	•	40
APPENDICES .			•		•	•	•	•	•		•	44
Appendix I Appendix I Appendix I Appendix I Appendix V	I Re II Pi V Hy	neory eview re-Exp pnosi	erim s In	ent duc	al tio	Pre n P	par roc	ati edu	re	•		45 54 69
Appendix V Appendix V	S I S	Situat coring ichiga	ion Ins	tru	cti	ons		•		•	•	74 81 84



# LIST OF TABLES

Table		Page
1.	Summary of Analysis of Variance Data for Hostility Scores for High- and Low-Motivators Under Two Conditions	22
2.	Newman-Keuls Significance Test for All Cell Means	23

# INTRODUCTION

Academic achievement in school has been hypothesized to be more than mental ability. Research points to a combination of factors as aptitudes and skill, personality traits, and environmental conditions. Investigators have developed an interest in the personality composition of the student in an attempt to find ways of assisting him in achieving his fullest potentiality. The problem has particular significance when the high proportion in school populations of low motivated students alone is considered.

McClelland, et al. (1953), characterized students with a high need for achievement motivation by a concern with (1) long-term involvement, (2) unique accomplishment, and (3) competition with a standard of excellence. Farquhar (1962) extended McClelland's formulations into polar dimensions by postulating the opposite end of the n-Achievement continuum by characterizing the student with low need for academic achievement by a concern with (1) short-term involvement, (2) ordinary or common accomplishment, and (3) merging or competition with a minimal standard of excellence. McClelland's concern was with one facet of personality and one facet of motivation; that is, general achievement motivation (n-Achievement). On the other hand, Farquhar



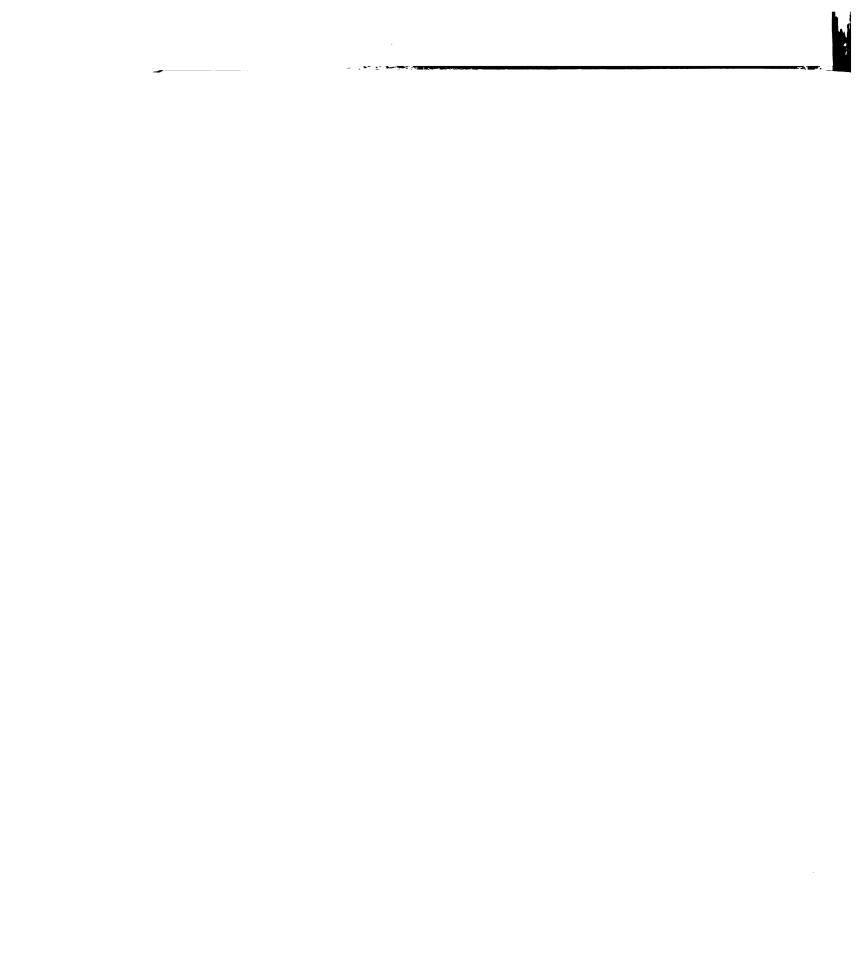
was interested in two facets of achievement motivation; that is, high and low need for academic motivation (Thorpe, unpublished paper). Refer to Appendix I for the theoretical formulations for this study.

In the present study, the term <a href="https://www.night.com/high.gov/high-like/high-

Over achiever is the student who receives grades which are higher than might be expected from predictive measures based on academic aptitude. The under achiever receives grades which are lower than might be expected.

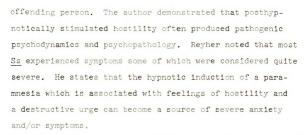
The terms high motivator and low motivator will be used as synonyms for over achiever and under achiever in the present study.

A number of studies (Taylor, 1962; Farquhar, W. W., Payne, D. A., Chubb, W. H., and Thorpe, M.D.; and Shaw, 1958) have uncovered evidence of a defused, generalized hostility in the low motivator and a few have found similar aggressiveness in the high motivator but with varying



intensities and control of direction, establishing (1) that hostility actually exists in the extremely discrepantly motivated student, and (2) the nature of the type and direction of whatever hostility is there would offer new and fundamental insight for both classroom practice and therapy. The H. M. tend to operate at a high level of energy. They control and direct their anxiety while conforming to academic pressures of culture. The H. M. is attempting to merge with the academic standard while resisting peer pressures. Conversely, the L. M. tends to operate at variable levels of energy, to control his anxiety less, and to resist social conventions. The low motivator attempts to conform to his peer group and to resist academic pressures (Taylor, 1962). See Appendix II for a more complete review of the literature.

An investigation of the intensity and direction of hostility in H.M.'s and L.M.'s necessitates being able to manipulate hostility which is crucial to testing the question of its presence in these two groups. Reyher (1958, 1960, 1961) has devised a procedure for manipulating hostility in the following manner. Under deep hypnosis the subjects were given a hallucinatory experience that generated intense feelings of hostility toward a given individual. A conflict was created by the posthypnotic suggestion that conscious awareness of anything related to these experiences would produce over-whelming feelings of hate and an urge to tear up some important papers nearby, which belonged to the



According to Rehyer (1962) the S's defenses and con-/ trols against hostility which are learned early in life are activated by the posthypnotic intensification of hostility, The intense hate would be threatening to the S's security under the circumstances of the waking state, therefore, its activation by a posthypnotic signal creates the conditions of conflict, anxiety, and psychopathology (Reyher, 1962). On the basis of the foregoing, individuals who have not previously learned effective defenses and/or controls against hostility can be expected to react to a hypnotically induced process in a manner which can be contrasted to the reactions of individuals who have learned effective controls and defenses against hostility. In this study, the H. M. is viewed as the S who has learned these defensive mechanisms and can be compared to the L. M. who has been unsuccessful in learning similar effective controls and defenses.

The specific hypothesis regarding the difference in expressed hostility between these two groups of  $\underline{Ss}$  is as follows:

5

 $\underline{\text{Hypothesis I:}} \quad \text{Low motivators will verbalize more} \\ \text{hostility upon posthypnotic stimulation that will high} \\ \text{motivators.} \\$ 



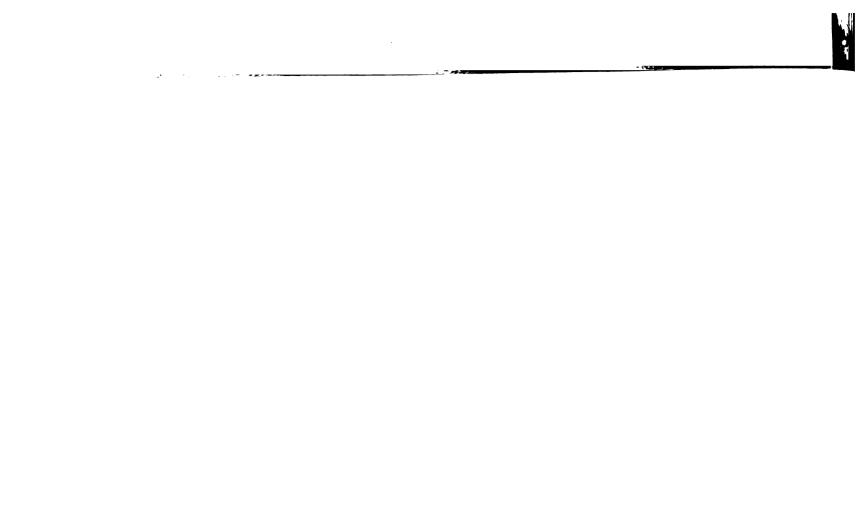
#### METHOD

#### Experimental Procedure

See Appendix III for the pre-experimental preparations and Appendix IV for the hypnosis induction procedure. Each  $\underline{S}$  was given two 30-minute long tape recorded interview sessions with a co-experimenter during which time he could talk about any dramatic or personal experience he has had or was having, or about anything else he desired to talk about. Prior to one of these interviews, which were counter-balanced across  $\underline{Ss}$ , a hypnotically induced paramnesia was used to generate affect and/or impulses that would be likely to have hostility-producing properties in the posthypnotic period, when activated by appropriate stimul1 (Reyher, 1958).

#### Paramnesia

This experience involved the  $\underline{S}$  taking an important examination in his most difficult subject. The results of this examination could determine whether he passed or failed the course. While attempting to study on the night preceding the examination, he found that the harder he tried to study the more other things, such as noises from children playing nearby and the radio, came in to interfere and bother him. He tried to think over what he had just read



7

but found that he could not remember much of it. The time was late in the evening and he was getting tired, but he knew the only thing he could do was to cram. He received very little sleep during the night and the following day everything went wrong; there was not a clean shirt to wear to school, no time remaining to study, and other classes before the examination only helped to confuse him. Finally, the time came for the examination. Some of the students were trying to cram in a little more, while others were making wisecracks about the examination. The competition for grades was stiff and he became more unsure of his ability to pass this one. The teacher had a reputation of being a "sour grape" and enjoyed giving failing grades. There had been an unspoken understanding between S and his teacher; neither one liked the other. As he watched the teacher write the questions on the chalkboard, S realized that the teacher had picked out the small, insignificant details which he had not emphasized in class and which S had not studied. This meant that after all of S's work, he had pulled a dirty trick like this. Other students were writing furiously; S could only scribble a confused, jumbled mess. Anxiety and pressure was building up more and more. After the teacher had finished writing, he started walking around the room stopping to look at one student's paper and then another. S could feel him coming up behind him and he stopped at his side. S looked up and there was that stupid, ugly smile. He knew S was having a rough time and now he was





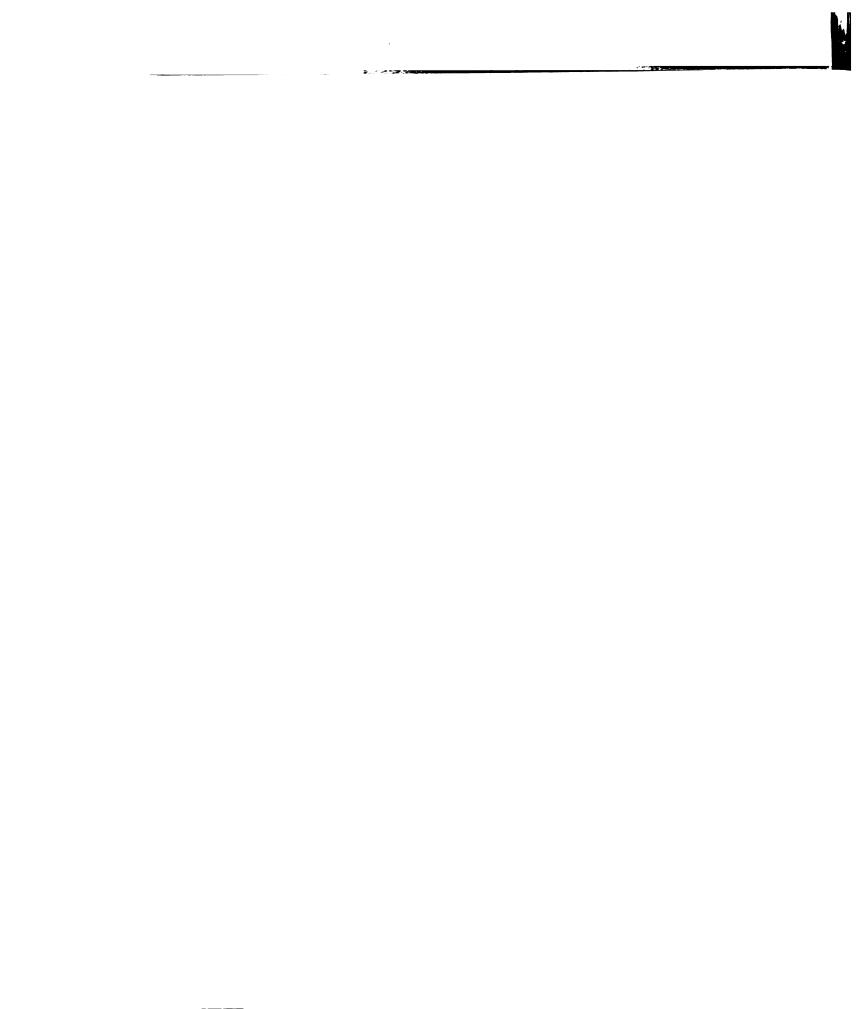
making fun of him. As the teacher went on up the aisle,  $\underline{S}$  had to hold onto the desk to keep from jumping on his back and letting him have it.  $\underline{S}$  finished the examination in a hurry, knowing there was no use in trying anymore. He slammed the papers down on the teacher's desk and left the room cursing him under his breath. Refer to Appendix V for the complete text of the hypnotically-induced conflict situation.

### Conflict Inducing Instructions

Under deep hypnosis  $\underline{S}$  was given a paramnesia which generated intense feelings of hostility toward the central person in the paramnesia. The posthypnotic conflict was created by the following instructions:

Now listen carefully. After I awaken you, you will not be able to remember anything about this session. Sometime soon, after I awaken you, you will be interviewed by Mr. who is doing a survey. As you talk with him you will notice that in some ways he reminds you more and more of this teacher whom you hate. As you talke with him, this feeling of similarity will increase until you are absolutely certain that he is the same kind of person as the teacher. In fact, you will find that all the old feelings about your teacher will come boiling up until you come to the brink of doing something about them. These feelings will become almost overwhelming and they will continue until the end of the interview.

One of the important factors about this procedure, as pointed out by Reyher (1963), is that the <u>Ss</u> were given an amnesia only for the paramnesia and not for the related affect and impulse which were activated in the posthypnotic period by the co-experimenter. The amnesia for the





paramnesia was maintained until the end of the research. At the end of the experimental interview session,  $\underline{S}$  was rehypnotized and told that the experience which the experimenter had recounted to him was only a dream; consequently, it would fade away and it would have no significance to him after being awakened.

## Description of Control Group

Six good hypnotic <u>Ss</u> were randomly selected to stimulate hypnosis. This control group were given the same treatment as the experimental <u>SS</u>; however, prior to the induction of the paramnesia they were awakened by a coexperimenter and told to fake hypnosis. This group served the purpose of controlling for the possibility that the nature of the instructions wereinstrumental in producing an increase in psychopathology.

The use of the control group is based on an implication involved in the use of hypnosis in research which has been pointed out by a number of previous investigators (Orne, 1959; Weitzenhoffer, 1960; Reyher, 1962). These authors have presented evidence which raises the question of hypnotic <u>Ss</u> responding in a manner complementary to the investigator. Orne (1959) suggests that some of the <u>Ss</u> must be asked by a co-experimenter, unknown to the experimenter, to fake hypnosis in order to determine the demand characteristics of the research. In his paradigm for hypnotically inducing psychopathology, Reyher (1962) has

made this a condition for meeting the requirements of the paradigm.

#### Dream Hostility Count

For the present study, an adaptation of Saul and Sheppard's Dream Hostility Count (D.H.C.) (Kaplan, et al., 1961) was used to obtain a hostility score for each S. The rationale for this results from a number of considerations: (1) the scoring procedure developed by Saul and Sheppard (1956) and modified by Kaplan, et al. (1961) provides discrete scoring categories for a S's verbal production. Each clause-unit was independently scored on the basis of its content. Scoring is along a 6-point scale. according to the degree of hostility in the action, feeling, or scene described. Thus, in general, a maximum of 6 is assigned if the clause refers to death, human; 5 to destruction, nonhuman; 4 to injury, human; 3 to damage, nonhuman; 2 to annoyance, human; and 1 to impairment, nonhuman. The final score for a verbal sample on the D. H. C. represents the sum of all the individual unit scores for the particular sample; (2) the D. H. C. scale provides for measuring the intensity of hostility expressed via a S's verbalization; and (3) the method provides a direct measurement of a S's hostility; that is, obtaining the strength of the hostility in an individual by observing the intensity and frequency with which he thinks and talks about hostility as measured by verbal productions.



#### Michigan State M-Scale

Using a bi-polar theory as a basis, Farquhar (unpublished paper) constructed an objective inventory suitable for measuring an individual's need for academic achievement.

The Michigan State M-Scale consists of four subscales totaling 259 forced-choice items (see Appendix VII for the complete M-Scale), and was utilized to differentiate the extremely discrepant H. M.'s from the L. M.'s in the present study. The four subscales are (1) Generalized Situation Choice Inventory, (2) Word Rating List, (3) Human Trait Inventory, and (4) Preferred Job Characteristic Scale. The full scale takes approximately 60 minutes to administer and the protocals are machine scored.

#### Materials

The typescript of the second, fourth, and sixth 5-minute segments of each interview for all <u>Ss</u> were broken down into their component clauses consisting essentially of a subject and predicate. Scoring was according to Saul and Sheppard's D. H. C. (1953). The independent clause-units were independently scored on the basis of their content by two individuals trained in scoring methods.

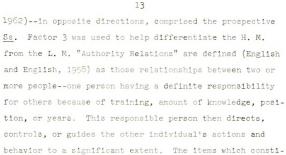
Although three 5-minute segments were theoretically derived from each 30-minute interview, the sum of the scores for the total number of clause-units was the score for the <u>S</u>. The scoring instructions are given in Appendix VI. The rationale for using three segments of the interview was

based on the fact that the intensity of hostility could conceivably vary over time. So could be mildly hostile during the initial minutes of the interview session but as the posthypnotic stimulus became more effective the hostility could increase in intensity. Or, the greatest amount of hostility could be expressed during the first few minutes of the interview session and then dissipate over time.

The experimental environment was the same for all  $\underline{Ss}$  in the study. Induction of hypnosis and the paramnesia by the experimenter was conducted in a small room arranged so that privacy was insured and distractions were minimal.  $\underline{S}$  was seated facing a wall, and  $\underline{E}$  was seated to the side and a little behind  $\underline{S}$  in an attempt to further minimize distractions. A similar environmental setting was utilized in the interview sessions, although  $\underline{S}$  and the co-experimenter were facing each other during the interview.

#### Subjects

The Michigan State M-Scale was administered to 520 eleventh grade male high school students. This population was comprised of the entire male classes from eleven Michigan high schools. The protocals were machine scored and tabulated by rank order with the top seven per cent (32 students) arbitrarily being designated as "high motivators" and the bottom seven per cent (32 students) being designated as "low motivators." The students at each extreme of the continuum who met Factor 3--entitled "Authority Relations" (Taylor,



Item 16: "I have been quite independent and free
from family rule."

tute Factor 3 are as follows:

Item 37: "I have difficulty working under strict rules and regulations."

Item 54: "I find it difficult to find time to study
assignments for the next day."

Item 69: "I have to be in the mood before I can study."

The H. M. answered all four of the above items on the Michigan State M-Scale in the opposite direction from the manner in which the L. M. answered the same items. All of the 51 students meeting Taylor's criteria volunteered for research involving hypnosis.

The hypnotic criterion utilized for including an  $\underline{S}$  in the study is his ability to experience a total hypnotic amnesia. Amnesia, in this study, is considered the minimal criterion of depth of hypnosis for the hypnotically induced conflict. Nineteen H. M.'s and 19 L. M.'s meeting this criterion were used in the present sample. Three of these



Ss from each group were selected randomly to "fake" hypnosis. The procedure for instructing "faking" Ss as controls is similar to the method utilized in a previous experiment (Reyher, 1960). This control group was utilized to serve the purpose of controlling for the possibility that the nature of the instructions was instrumental in producing an increase in psychopathology; that is, to determine the demand characteristics of the research. At a specified point in the proceedings the experimenter left the room and a co-experimenter entered and instructed the S, unknown to the experimenter, to either (1) awaken from the hypnotic trance and continue the experiment by "faking" hypnosis; or, (2) continue "sleeping." A difficulty encountered with this method is that one S apparently spontaneously returned to the hypnotic state when the senior experimenter returned to the room and continued with the experimental instructions.

The controlled variables for all <u>Ss</u> included sex, race, grade in high school, experimental environment, and experimental procedure. The ages ranged from 16 years, 3 months to 18 years.

#### Results

Analysis of the results. Current studies are beginning to show cultural differences in motivation. Therefore, the findings in the present study may be regarded as applicable only to this group; that is, to the male, white population from which the sample was drawn. The Spearman

under each condition will illustrate the nature and meaningfulness of the verbal content.

#### 1. Subject A, age 17, High motivator, Control condition:

We had a conference (golf) meet up at Ithica, Michigan. I'm still mad at myself cause it was such an easy course and I was so sure I couldn't lose it. First par 4 hole, I didn't even hit a good drive and I was to the right of the green.

#### 2. Subject A, Experimental condition:

One night my feet hurt and I couldn't even move. You had to lift me just to get me around. I thought I was an emergency case so they hustled me to the hospital and there wasn't one doctor in the whole hospital. While I was there a woman came in and you could tell she was in great pain. She told me she had great chest pains. I never had a right day yet. I am the world's most unluckiest person.

# 3. Subject B, age 16 years, 6 months, High motivator, Control Condition:

The only trouble is when I'm outside and running I breath clearly and my chest is clear. I'm 0.K. when I'm doing the sport and after I get done I slow down and fill up . . . ache . . . eyes start watering . . . sneezing. We played the second team. They scored 4 runs . . . they were gonna have us by one run, then they got us down 1, 2, 3 in the next minute. It was all over. They were clear plays; the umpire couldn't have missed them. We been going

there for about 10 years now. We haven't won a tournament yet. We just went over to play; we didn't figure much on winning.

# 4. Subject B, Experimental condition:

I've got a sinus condition and when I get out and run in the cool air I get all stuffed up and can't breath, sick . . . Most of the kids run around in separate little groups of their own. I don't seem to get any enjoyment out of it. Most of the popular ones stay together and the rest of the people just go their own way; same backgrounds, same enjoyments. I think some of the teachers they have in the junior class aren't helping too much. We could learn but they didn't seem to teach so we could learn. And, then, there's teachers that are all for our class; always trying to help us.

# 5. Subject C, age 16 years, 10 months, High motivator, Control condition:

One time we took my aunt looking for huckleberries, and she said "Isn't that a bottle?" And, there it was on a dirt road. I hopped out of the car because I wanted to find one first. And, I found this purple one. Boy, I proudly showed it around. My aunt called us over and she found the most perfect one you'd ever want to see. I sort of felt like leaving her there but we had to take her with us. Everytime I go over to her house and see that bottle sitting on her window, it just makes me envious but I don't let it show.

#### 6. Subject C. Experimental condition:

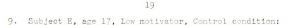
I feel like this teacher I dislike in particular although he was quite a good teacher. Sometimes his teaching was different than I would if I was teaching. He lets kids cheat a lot. And, I thought this wasn't right. I never cheated in his class; I don't mean to brag but I didn't. I didn't feel this was right; I didn't say anything cause I didn't want a flunky's grade. My life . . . been quite a dull life. It's been an average life; I can't say that I regret it. When I talk, I like to talk about Cuba, Berlin; and, I also like to talk about chemistry and teaching.

#### 7. Subject D, age 17, Low motivator, Control condition:

My sister's the one that bitches. Maybe its my imagination but someday I'd like to smack her. She tells my mother and my dad. And, my dad jumps down my neck and that's when I don't like it.

#### 8. Subject D. Experimental condition:

That teacher we had; she was a real bag. I felt like getting up and hitting her with a chair or something. I felt like getting up and hitting her so bad it wasn't funny. Could have killed her right there. The best thing to do is keep your mouth shut. If I had had a gun I'd get even with her but I'd have to go to jail. My dad does the same thing sometimes. Said I did something I didn't do. Gripping that I drive too fast.



I get up in front of the class and I just can't talk; I don't know why. Everybody's looking at you and they're all thinking well he's goofy or something, he's standing the wrong way, or doing something he's not supposed to be doing. So many different things that they can find fault with, you know,

#### 10. Subject E, Experimental condition:

I'd like to be a top-notch student and I don't know why I can't. One day right after another, sit in school and do stuff; just don't seem to accomplish anything. Lots of kids say its the teacher's fault; go back on the teacher; say the teacher don't like me, she gets on my nerves I guess . . . She's (mother) always saying that when you get out in life and find out it's harder and all that. I know all that; I know it's gonna be harder than heck, but I still want to get out and not be at home . . . My mother, if she tells me to do it, I guess I think I have to do it. I do it and I don't feel good about it.

# 11. Subject F, age 16 years, 3 months, Low motivator, Control condition:

I always had the bad habit of fouling (basketball) out. Last year, I was all over the guys. I don't know why; Just keep slapping at them all the time . . . Everybody can't be number one player but you lose interest in it if you're not in there with them working. I had a problem when I was in



my freshman year; I had a bad habit of smoking and I couldn't break it. It was just the bunch I was running with. I was with the crowd and we was always smoking and everything... The coach told him (a friend) he wasn't going to dress unless he ran something because all he was trying to do was be an individualist. I don't think very much of the coach after he did that.

#### 12. Subject F, Experimental condition:

I was on the first team (football). He (coach) was telling me what I'm supposed to do and I'm all tensed up. I didn't even get in the game. I got mad at the coach; I didn't want to talk to him or anything . . . I think we'll have a rotten season . . . Gonna be hurting.

From the foregoing examples, it appears that the H.

M. tend to be intrapunitive and direct their hostility
inwardly, while the L. M. tends to be extrapunitive and
direct their hostility outwardly. This finding is in agreement with current literature which characterized the H. M.
as operating at a high level of energy, while controlling
and directing his anxiety in the process of conforming to
academic pressures of culture. On the other hand, the L.

M. is characterized as operating at variable levels of
energy and controls his anxiety less effectively. He resists
social conventions and attempts to conform to his peer group
while resisting academic pressures. A number of implications



created by this differential behavior will be discussed in greater detail under "Discussion."

A Two-Factor Analysis of Variance with repeated measures on one factor (Edwards, 1960; Winer, 1962) was applied to the composite hostility scores for the experimental Ss, The assumptions for this analysis of variance; namely, the homogeneity of variance, was tested by the Harley's Fmay test. Both the homogeneity of variance within groups across conditions, as well as the homogeneity of variance of Ss within a given group and condition, were found to be significant at the .05 level. Technically speaking, since the assumptions of the analysis of variance have not been met, the procedure should end at this point or a nonparametric statistical model should be utilized. However, in view of the Norton study (Lindquist, 1956) in which the analysis of variance was found to be a very robust statistic even when the assumption of homogeneity of variance is not met but with equal N's within groups. the results of the analysis are presented. Furthermore, a conservative test for degrees of freedom suggested by Greenhouse and Geisser (1950) was used to enter the tabulated F distribution.

The obtained F-values for the H. M.'s and the L. M.'s under both conditions are reported in Table 1.

On the basis of previous research (Taylor, 1962; Farquhar, Payne, Chubb, Thorp, and Shaw, 1958), both H. M.'s and L. M.'s were characterized by a defused, generalized hostility. Relevant to these investigations, it is shown in the present study that the H. M. and the L. M. do not differ significantly in the intensity of hostility expressed when averaged across the two conditions. On the other hand, the analysis shows there is a significant difference at the .Ol level between the control condition and the experimental condition.

TABLE 1

SUMMARY OF ANALYSIS OF VARIANCE DATA FOR HOSTILITY

SCORES FOR HIGH- AND LOW-MOTIVATORS UNDER

TWO CONDITIONS

Source	Sum of Squares	df	F	p
Between Groups	1,415.7	1	3.76	n.s.
Between Conditions	3,122.1	1	28.56	<.01
Interaction	489.5	1	4.48	<.05
Between Subjects	11,284.95	30		
Residual	· <b>3,</b> 279 <b>.</b> 15	30		
Total	19,591.40			

The appropriate statistic for testing Hypothesis I is the interaction effect between groups. An inspection of the interaction between <u>Ss</u> and conditions reveals there is a significant interaction at the .05 level between <u>Ss</u> within the two groups and the two conditions. This finding leads to the conclusion that one of the conditions had a differential effect depending on the group to which it was applied; that is, the joint effect of the combination of

factors, over and above the effects of the factors separately, accounted for the significance of this finding.

Having shown a significant interaction, it becomes necessary to determine which combination of factors are significant. The Newman-Keuls Significance Test (Winer, 1962) is a statistical test which sequentially tests all possible combinations of factors while retaining both the alpha level and the "protection level" at a constant level.

The analysis shows that the mean scores for the L. M. under the experimental condition do differ significantly from the mean scores for the H. M. under the same condition at the .05 level. This finding supports Hypothesis I which predicted that L. M.'s would verbalize more hostility upon posthypnotic stimulation than would H. M.'s.

TABLE 2

NEWMAN-KEULS SIGNIFICANT TEST FOR ALL CELL MEANS

Source		Means	D	p		
Be tween and	L. H.	M. M.	(Experimental Condition) (Control Condition)	25.3 1.9	23.4	.05
Between and	L. L.	M. M.	(Experimental Condition) (Control Condition)	25 <b>.3</b> 5 <b>.</b> 8	19.5	.05
Be tween and	L. H.	M. M.	(Experimental Condition) (Experimental Condition)	25.3 10.3	15.0	.05
Between and	н.	M. M.	(Experimental Condition) (Control Condition)	10.3	8.4	n.s.
Between and	H. L.	M. M.	(Experimental Condition) (Control Condition)	10.3 5.8	4.5	n.s.
Between and	L. H.	M. M.	(Control Condition) (Control Condition)	5.6 1.9	3.9	n.s.

Although of secondary importance to the study, it is interesting to notice that the mean scores for the L. M. under the control condition do not differ significantly from the mean scores for the H. M. under the same condition. However, when the L. M. under the experimental condition is contrasted with the L. M. under the control condition, there is a significant difference at the .05 level in the intensity of hostility verbally expressed. When the H. M. is compared under the same two conditions, the analysis shows a nonsignificant difference. From these findings, it can be shown that the mean hostility scores for the L. M.'s, averaged across conditions, do differ significantly from the H. M.'s. Finally, when the H. M. under the experimental condition is compared with the L. M. under the control condition, the mean scores do not differ significantly.

### DISCUSSION

One of the primary purposes of the study was to investigate the differences in intensity of hostility verbally expressed by H. M.'s when contrasted with L. M.'s The feasibility of the techniques utilizing the verbal productions of Ss, and the use of hypnotically induced paramnesia, has been demonstrated by previous investigators. The present study combined the two established independent methods of investigating hostility into a single process in an attempt to clarify hostility as a personality trait characteristic of the H. M. and the L. M.

The theoretical considerations forming the basis for the study (McClelland, 1953, 1956; Farquhar, 1962), included a differential development for H. M.'s and L. M.'s. For example, H. M.'s are described as individuals who are involved in the attainment of a long-term goal, and in accomplishing other than run-of-the-mill daily tasks. They are engaged in competitive activity where competing with a standard of excellence is the primary concern. On the other hand, L. M.'s are characterized as being at the opposite extreme in their need for academic achievement.

In addition to the differences mentioned above, there are also other basic personality differences found in the

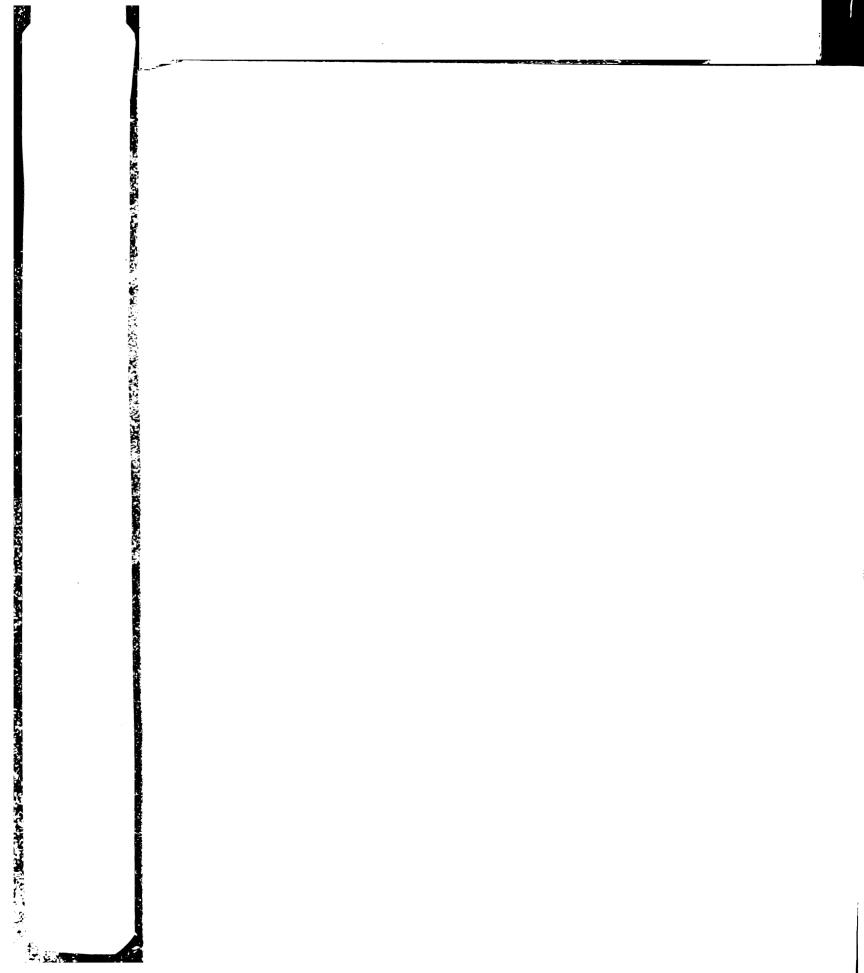
two groups, one of which is the expression of hostility. Although previous investigators (Taylor, 1962; Farguhar, Payne, Chubb, and Thorpe; and Shaw, 1958) have shown evidence of a defused and generalized hostility in both the H. M. and the L. M., the intensity of the hostility and the control of its direction of expression appears to vary between the groups. The hypothesis investigated in the present study predicted that L. M.'s would verbalize more hostility upon posthypnotic stimulation than would H. M.'s. The results, which supported the hypothesis, demonstrate that although the two groups do not differ significantly in the intensity of hostility expressed under a control condition, they do react differentially when the hostility is posthypnotically stimulated. From this result, it can be concluded that both groups possess hostility but the manner in which it is expressed depends upon the type of situation the particular S is in.

These findings are in essential agreement with current Literature pertaining to differences between H. M.'s and L. M.'s. Taylor's review of the literature (unpublished Paper) characterizes the L. M. as having much underlying aggression, strong feelings of inferiority, defensive about his abilities and anxious to maintain a belief in his own superiority, possesses a negative attitude toward education, lacks confidence in himself, hostility is a pronounced characteristic, engages in asocial behavior, has weak ego

control, and maintains an apathetic withdrawal. The H. M. possesses adequate self control, he tends toward stronger intellectual and social interest, is academically inclined, has high educational and vocational goals, maintains a sense of academic effectiveness, and is capable of sustained and diligent application to achieve a goal.

The H. M. has less underlying anxiety but more inner tension when contrasted with the L. M., according to Horrall (1957). Concommitantly, the H. M. has more self control; therefore, his anxiety does not manifest itself in as directly an overt manner as does the L. M. anxiety observed in the H. M. appears to be directed toward a fear of failure, and this fear is controlled and directed toward achievement. If the satisfactions he gains from academic achievement and adult approval is thwarted, he tends to turn his hostility inwardly. For example, if the H. M. fails an examination in school, he often rationalizes that he failed because he was not sufficiently prepared. The L. M., on the other hand, tends to deny his shortcomings and his fear of failure, and often will ventilate his hostility toward the teacher and/or the test. The L. M. attempts to derive his satisfaction in areas other than the academic environment. He more readily identifies with a group which is supportive and maintains an active interest in immediate rewards and gratification.

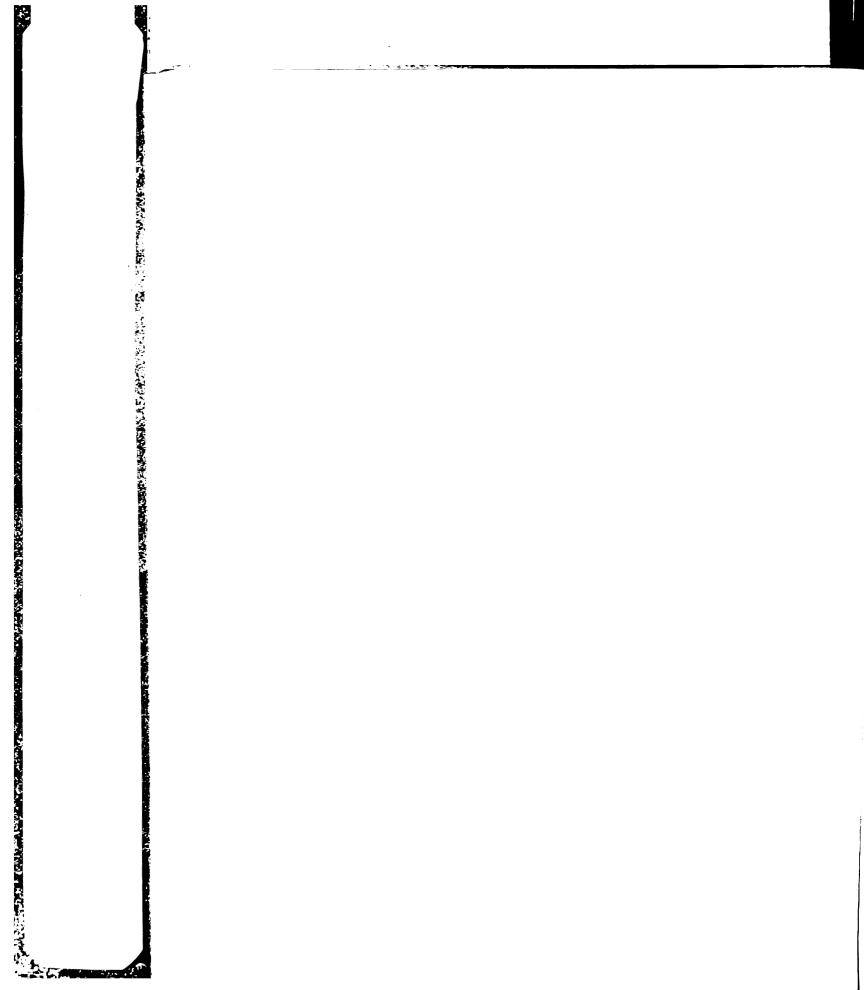
Orne (1959) has pointed out that hypnotic <u>Ss</u> tend to be particularly cooperative participants and that much of



their hypnotic behavior is the result of their conception of the role of the hypnotic subject as well as cues provided by the hypnotist and the situation. In other words, the extent to which compliance can take place depends upon the demand characteristics in the experimental situation. In the present study, an effort was made to determine the demand characteristics of the research, and the effectiveness of the experimental instructions, by the use of a "faking" control group. The use of a hypnotically induced process to produce psychosomatic reactions and psychopathology has been demonstrated (Reyher, 1958, 1961a, 1961b). If the induced process has no intrinsic capacity for spontaneously producing alterations in behavior, such as repression and psychosomatic reactions, then the induced processes have no real clinical significance and the imposed experimental reactions are simply hypnotic suggestions to be carried out (Reyher, 1962).

On the basis of Orne's formulations, if there were strong demand characteristics present in the experimental situation, there should have been no differential results in hostility expressed by the H. M. and the L. M. groups which was not the case.

Reyher (1960) noted that although the status of the conflict may be an important factor in determining the general characteristics of the symptoms, the uniqueness of the individual's neurophysiology would determine the specific form of the neurophysiological reactions, and the uniqueness



of the personality would determine the nature of his conscious states. From Reyher's formulations it would appear that the H. M. would be the greater repressor when compared with the L. M. and, concommitantly, more H. M.'s would report somatic symptoms. An investigation of the data shows that six H. M.'s did report symptoms as compared to four L. M.'s who reported symptoms, which is consistent with previous research in this area.

In terms of S's adjustment and current personality theory, such findings tend to point to a need for reevaluating present-day "accepted" approaches for dealing with these two groups of individuals. The H. M. characteristically accepts controls, regulations, and assignments. He is highly motivated toward academic success, and compulsively devotes much time and effort to studying, punctuality, and gaining his satisfactions from academic achievement and adult approval. In addition, he attempts to create a favorable impression on authority figures and is eager to please them. It would appear than an underlying assumption regarding the H, M. is that repression of his hostility allows for more psychological adjustment. However, in the H. M.'s attempt to conform to the demands of his Situation, it may be that the hostility he experiences has no outlet for expression and, consequently, it is turned inwardly.

Although speculative, the L. M. may be struggling to safeguard his mental health and individuality even though



he seemingly defeats his purpose by overtly expressing his hostility and engaging in less favorable behavior. While the results of the study must be interpreted cautiously, the findings do raise the question that perhaps investigators in this area have been operating under a misconception regarding the L. M.'s; that is, the L. M. may be as capable as the H. M. in controlling his hostility, especially in a monthreatening situation. Under a condition which stimulates hostility, the L. M. manages and directs his hostility in a manner different from the H. M. The significance of a study of hostility between these two groups may not revolve around the intensity of hostility expressed but may focus on the direction of its expression and the manner in which it is expressed.

Reyher (1960) investigated the degree of posthypnotic repression and type of reaction and found that the degree of repression appeared to fluctuate over the course of the experimental session. He also observed that the type of reaction appeared to vary with changes in the degree of repression. When repression first begins to break down, the first symptoms seem to be specific or circumscribed in nature, but as repression progressively weakens, there appears to be more generalized nonspecific reactions and higher drive level. It is possible that highly stressful states as the emotional reactions stemming from the threat of hostile impulses may produce different patterns of autonomic responses in the individual. Although sparce and

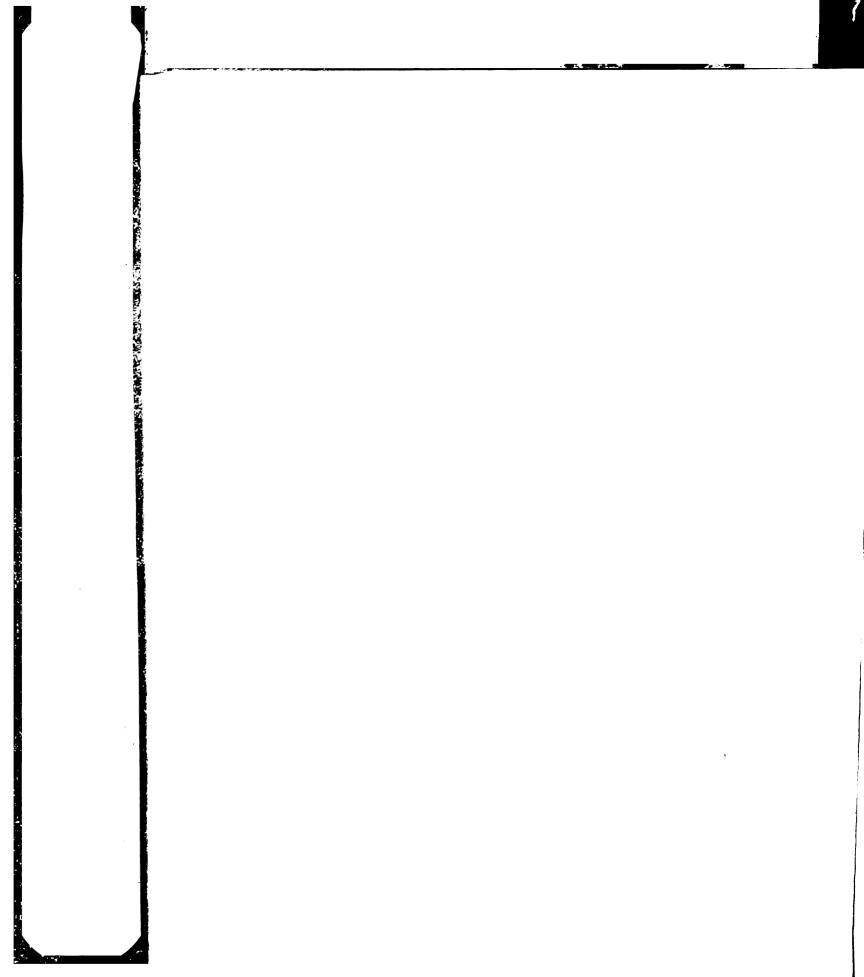
inconclusive data was obtained in the present study to demonstrate how the continuum of repression is characterized by a progression of symptoms along its extent, from the somatic reactions on a partially awareness level to the subjective reactions on a fully awareness level, a few samples will acquaint the reader with the nature of the somatic complaints and the psychological complaints.

## Somatic Reactions

- 1. <u>Subject I, age 17, High motivator</u>: Complained of tachycardia, quivering in stomach.
- 2. Subject II, age 16, High motivator: Tachycardia, stomach muscles tightened, hands perspiring.
- 3. Subject III, age 17, High motivator: Tachy-cardia, body muscles tense.
- 4. Subject IV, age 17, Low motivator: Rapid breathing, nausea.
  - 5. Subject V, age 17, Low motivator: Nausea.
- 6. Subject VI, age 16, Low motivator: Rigidity in left side of body.

# Psychological Reactions

- 1. Subject VII, age 17, High motivator: Became very quiet and withdrawn; refused to talk with interviewer.
- 2. <u>Subject VIII, age 17, High motivator</u>: Felt uneasy and tense.
- 3. Subject IX, age 16, High motivator: Had feelings of being angry but could not relate direction of his



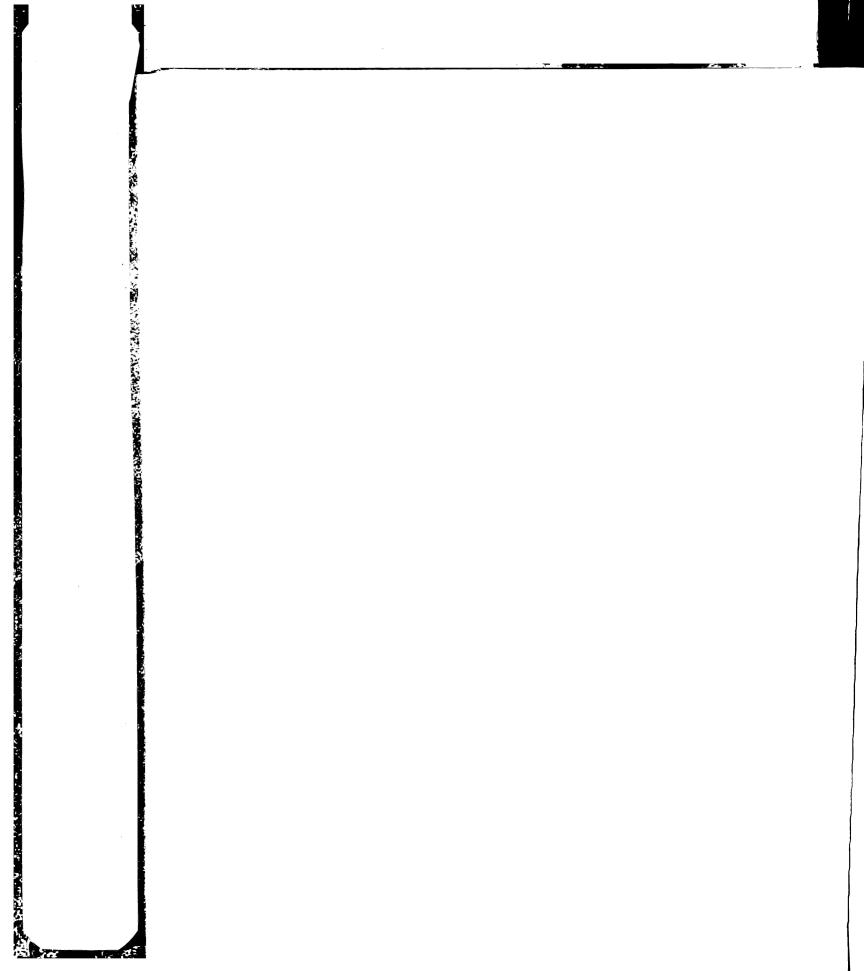
hostility. Later stated he did not feel like talking to the interviewer.

- 4. Subject X, age 17, Low motivator: S stated "That was it:"; namely, that he had experienced exactly this same type of experience.
- 5. Subject XI, age 17, Low motivator: Conflict was very realistic.  $\underline{S}$  states that a surgically removed section of his foot, which has healed, hurt very badly during the paramnesia, and during the interview.
- 6. <u>Subject XII, age 17, Low motivator:</u> <u>S</u> became intensely hostile and aggressive, and threatened the interviewer by his behavior.

In considering the findings of the study and implications regarding the education, management, and treatment of H. M.'s and L. M.'s, it may be convenient to explore the difficulty of characterizing the H. M. and the L. M. as being the same type of individual. They do not seem to be the same and must be dealt with differentially. Because the H. M. is cooperative and conforming, because he does strive to achieve academically and creates minimal difficulty, and because he does passively control his hostility he presents a favorable impression on the people in his environment and is amenable to change and instruction. Although he seemingly does contribute more to society than the L. M., it is questionable whether society is assisting him in his development and maturation or whether society is encouraging and rewarding the formation of a maladjusted personality.

Shaw and Brown (1957) state that low motivation is not a surface phonomenon easily modified but rather is related to the basic personality structure of the individual. Payne (1961) found that the literature supports certain relationships and behaviors related to the L. M. and academic achievement. Among the more salient of these are the following: (1) a low frequency of discipline in which the individual is expected to accept the consequences of his behavior, (2) a high frequency of parental and authority behavior which is perceived by the individual as rejecting or ignoring, and (3) a somewhat cold and emotionless atmosphere which engenders feelings of doubt and confusion in areas of understanding and acceptance. His hostility is a pronounced characteristic which tends to create a less favorable impression resulting in the student being less acceptable to his parents, teachers, and others who attempt to deal with him.

From the foregoing, it would seem apparent that before modifications in behavior and/or significant personality changes in these individuals can be expected, it may be necessary for the authority figures to change their viewpoint of and approach to these groups. The present study has shown that both H. M.'s and L. M.'s can verbally express their hostility, and inspection of the data suggest that the H. M. tends to direct his hostility inwardly while the L. M. directs his hostility outwardly. It is possible that the L. M. is psychologically healthier than the H. M. because he

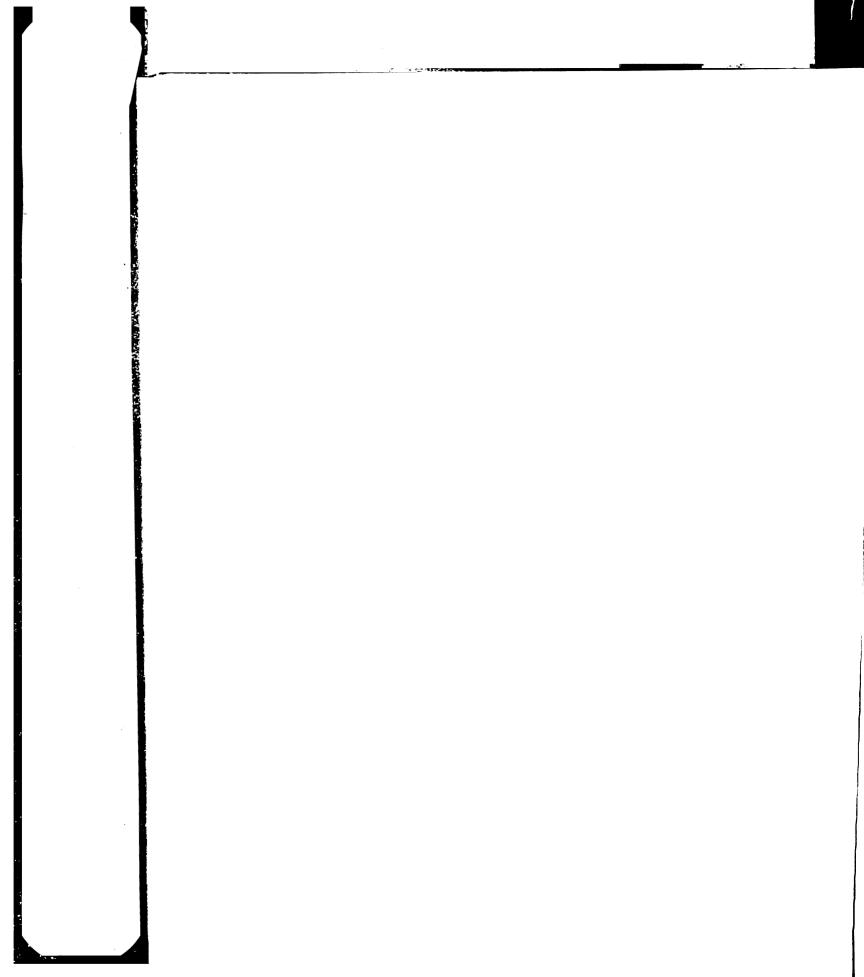


can and does ventilate his hostility. If he can be assisted in discovering new channels for redirecting the hostile energy which be expends, it is likely that the socially desirable changes in his personality will be facilitated. Likewise, if the H. M. can be assisted in ventilating a portion of his hostility, it is likely that later psychopathology could be avoided.

## SUMMARY

A procedure for the investigation of hostility was described which utilized a hypnotically induced process to produce psychopathology and psychosomatic reactions, and the verbal productions of  $\underline{Ss}$ , in an attempt to clarify hostility as a personality trait characteristic of the H. M. and the L. M.

The specific hypothesis of the study was derived from Farguhar's extension of McClelland's n-achievement theory. According to this theory, a student with a high need for achievement motivation is concerned with (1) longterm involvement, (2) unique accomplishment, and (3) competition with a standard of excellence. At the other extreme of the continuum, the student with a low need for academic achievement is concerned with (1) short-term involvement, (2) ordinary or minimal accomplishment, and (3) merging or competition with a minimal standard of excellence. Both the H. M. and the L. M. are characterized as possessing varying intensities and directions of hostility. The H. M. tends to control hostility and to direct it inwardly, while the L. M. tends to express overt hostility without the social or peer restrictions found in the first group.



The purpose of the study was to investigate the effects of posthypnotic stimulation of hostility upon male H. M.'s and L. M.'s. The male high school student who scored at the extremes on a measure of academic motivation was arbitrarily termed "high motivator" or "low motivator" depending upon his score. The sample consisted of 16 H. M.'s and 16 L. M.'s which served as the experimental groups. The "faking" control group consisted of 3 H. M.'s and 3 L. M.'s, and were given the same experimental instructions as the experimental group but who were simulating hypnosis. This control group served the purpose of controlling for the possibility that the nature of the instructions and experimental situation was instrumental in producing an increase in psychopathology; that is, to determine the demand characteristics of the research.

Each  $\underline{S}$  was given two 30-minute long tape recorded interviews during which time  $\underline{S}$  could talk about any dramatic or personal experience he has had or was having. One interview was in a normal "waking" state, and the other interview immediately followed a hypnotically induced paramnesia. The procedure for inducing a paramnesia followed Reyher's (1962) paradigm for hypnotically inducing psychopathology. The typescript of the second, fourth, and sixth five-minute segments of each interview for all  $\underline{Ss}$  were broken down into their component clauses consisting essentially of a subject and predicate. Each clause-unit was then scored along a



6-point scale (Saul and Sheppard, 1956), on the basis of its content, by two independent judges.

The inter-judge correlation, using a Spearman Rank-Order Coefficient, between scores was .999. Since the correlation was so high, the mean score was used for the statistical comparisons. To test the demand characteristics of the research, a procedure for hypnotically inducing a process for producing psychosomatic reactions and psychopathology (Reyher, 1958) was applied to the experimental Ss and the control group of "faking" Ss. It was found that a significantly greater number of experimental Ss reported psychosomatic reactions as contrasted to the control Ss. Since the hypnotically induced paramnesia appeared to be genuine, obtained differences on the dependent variable also are likely to be valid reactions to the induced conflict.

A number of examples were given to illustrate the nature and meaningfulness of the verbal content expressed by the <u>Ss</u> in the interview sessions. From these examples, it appeared that the H. M. is intrapunitive and directs his hostility inwardly upon himself, while the L. M. is extrapunitive and directs his hostility outwardly onto others. Such a finding is consistent with current literature pertaining to these two groups of students.

A Two-Factor Analysis of Variance with repeated measures on one factor (Edwards, 1960; Winer, 1962) was utilized to test the hypothesis of this study which predicted that

Σ.

STI cet

te:

Sia

<u>.....</u>

ar.s

the

the

Sty

11.7

· .

d:::

rese

161.

00,75 Â. T.

four

30 H

Some

theor "aoge

Altr.

L. M.'s would verbalize more hostility upon posthypnotic stimulation than would H. M.'s. The interaction effect between <u>Ss</u> and conditions revealed that there was a significant difference in the intensity of the hostility being expressed by these two groups. The Newman-Keuls Significance Test (Winer, 1962) was then utilized to determine which combination of factors was significant. The analysis indicated that the mean scores for the L. M. under the experimental condition did differ significantly from the mean scores for the H. M. under the same condition. This finding supports the hypothesis being tested in this study.

From the results of the study and a review of the literature, it has been shown that both the H. M. and the L. M. can be characterized as possessing hostility of a diffused and generalized nature. Consistent with previous research (Reyher, 1960), it was also noted that the H. M. tends to be a greater repressor than the L. M. and, concommitantly, more H. M.'s reported somatic symptoms. Although not consistent with previous investigations which found that L. M.'s report more psychological reactions than do H. M.'s, an equal number of <u>Ss</u> within each group reported some type of a subjective complaint.

In terms of a <u>S's</u> adjustment and current personality theory, such findings point to a need for reappraising "accepted" concepts regarding the H. M. and the L. M. Although the H. M. does appear to be contributing more to

> : ,. -::

society, it is questionable whether he is being assisted in his psychic development, or whether he is being encouraged and rewarded for the formation of psychopathology in his personality. Future research in this area may also be able to substantiate the speculation that the L. M. is as capable as the H. M. in controlling his hostility in non-threatening situations but that under a condition which stimulated hostility there is a differential difference in the intensity of hostility expressed and the manner in which it is directed. The significance of a study of hostility between these two groups may focus on the direction of its expression and the manner in which it is expressed, rather than on differences in intensities.

-

Edr

Farg

Fang

Gent (

Gowett.

32555

### REFERENCES

- Dowd, Robert Jr. Underachieving students of high capacity. J. higher Education, 1952, 23, 327-330.
- Drews, E. M. and Teahan, J. E. Parents attitudes and academic achievement. J. clinical Psychol., 1957, 13, 328-332.
- Duncan, C. P. and Wishner, J. <u>Psychology of motivation</u>. New York: Lippincott, 1961.
- Edwards, Allen L. Experimental design in psychological research. New York: Rinehart & Co., 1960.
- English, H. B. and English, A. D. <u>A comprehensive diction-ary of psychological and psychoanalytical terms</u>.

  New York: Longmans Green Co., 1958.
- Farquhar, William W. Research frontier: An integrated research attack on academic motivation. <u>J. counsel. Psychol.</u>, 1962, 9, 84-86.
- \_\_\_\_\_. The development of the Michigan State M-Scales.
  Unpublished Paper, Michigan State University.
- \_\_\_\_\_. A cross-cultural study of the motivational factors influenging academic achievement. Unpublished Paper, Michigan State University.
- Farquhar, William W., Payne, D. A., Chubb, W. H., and Thorpe, M.D. Summary of characteristics of over- and under-achievers. <u>Unpublished Paper</u>, Michigan State University.
- Gerberich, J. H. Factors related to the college achievement of high-aptitude students who fail of expectation and low-aptitude students who exceed expectation. J. Educ. Psychol., 1941, 32, 233-263.
- Gough, H. G. What determines the academic achievement of high school students. J. Educ. Research, 1953, 46, 321-331.
- Guthrie, J. A. Academic achievement motivation viewed in a self economy context. <u>Unpublished Paper</u>, American Personnel and Guidance Association Convention, 1961.

.

X.1:

X 1, 1

----

Maggi.

Maggy

Zenn :

- Haggard, E. A. Socialization, personality and academic achievement in gifted children. School Review, 1957, 65, 388-414.
- Hoffman, L. W., Rosen, S., and Lippitt, R. Parental coerciveness, child autonomy and child's role at school. Sociometry, 1960, 23, 15-21.
- Holland, J. L. The prediction of college grades from the California Psychological Inventory and the Scholastic Aptitude Test. J. Educ. Psychol., 1959, 50, 135-142.
- Horrall, Bernice. Academic performance and personality adjustment of highly intelligent college students. Genetic Psych. Monographs, 1957, 55, 3-83.
- Joseph, Michael P. The use of depth interviewing to explore the motivational factors underlying achievement of eleventh grade boys. <u>Unpublished Paper</u>, Michigan State University, 1961.
- Kaplan, S. M., Gottschalk, L. A. Magliocco, E. B., Rohovit, D. D., and Ross, W. D. Hostility in verbal productions and hypnotic dreams of hypertensive patients. Psychosom. Medicine, 1961, 23, 311-322.
- Kimball, Barbara. Case studies in educational failure during adolescence. Amer. J. Orthopsychia., 1953, 23, 406-415.
- Kirk, Barbara. Test versus academic performance in malfunctioning students. J. consult. Psychol., 1952, 16, 312-316.
- Kurtz, J. J. and Swenson, E. Factors related to overachievement and under-achievement in school. School Review, 1951, 59, 472-480.
- Lindquist, E. F. Educational measurement. Washington, D. C.: American Council on Education, 1951.
- McClelland, D. G. Studies in motivation. New York: Appleton-Crofts, 1956.
- McClelland, D. G., Atkinson, J. W., Clark, R. A., and Lowell, E. L. The achievement motive. New York: Appleton-Crofts, 1953.
- Merrill, R. M. and Murphy, D. T. Personality factors and academic achievement in college. J. counsel. Psychol., 1959, 6, 207-210.

Ser Shan Tay:1 Thom

S .

- Payne, D. A. The relationship between student perceptions of parental influence and academic achievement. Unpublished paper, Michigan State University, 1961.
- Orne, M. The nature of hypnosis: Artifact and essence. J. abnorm. soc. Psychol., 1959, 58, 277-299.
- Reyher, Joseph. A paradigm for determining the clinical relevance of hypnotically induced psychopathology. Psychol. Bull., 1962, 59, 344-352.
- . Hypnotically induced conflict in relation to subception, repression, antisocial behavior and psychosomatic reactions. Unpublished Doctoral Dissertation, University of Illinois, 1958.
- \_\_\_\_\_. Posthypnotic stimulation of hypnotically induced conflict in relation to antisocial behavior. J. Soc. Ther., 1961, 7.
- Posthypnotic stimulation of hypnotically induced conflict in relation to psychosomatic reactions and psychopathology. Psychosom. Medicine, 1961, 23, 384-391.
- Saul, Leon and Sheppard, Edith. An attempt to quantify emotional forces using manifest dreams; a preliminary study. <u>Unpublished paper</u>. American Psychoanalytic Association Midwinter Meeting, 1953.
- Senders, Virginia L. <u>Measurement and statistics</u>. New York: Oxford Univ. Press, 1958.
- Shaw, M. C. Hostility and able high school underachievers. J. counsel. Psychol., 1958, 5, 263-267.
- Shaw, M. C. and Brown, D. J. Scholastic underachievement of bright college students. <u>Person. & guid. J.</u>, 1957, 36, 195-199.
- Taylor, Ronald G. Personality factors associated with eleventh grade male and female discrepant achievement.

  <u>Unpublished Doctoral Dissertation</u>, Michigan State

  <u>University</u>, 1962.
- Summary personality characteristics of over (and high) and under (and low) achievers. <u>Unpublished</u> paper, Michigan State University.
- Thorpe, Marion D. Factors accounting for item intercorrelation in an inventory of academic motivation. <u>Unpublished paper</u>, Michigan State University.

- Walsh, A. M. Self concepts of bright boys with learning difficulties. Contributions to Educ., New York: Columbia Univ., 1956.
- Weitzenhoffer, A. M. Hypnotism: An objective study in suggestibility. New York: John Wiley, 1953.
- Winer, B. J. Statistical principles in experimental designs. New York: McGraw-Hill, 1962.
- Wiseman, Richard J. and Reyher, Joseph. A procedure utilizing dreams for deepening the hypnotic trance. Amer. J. clin. Hypnosis, 1962, 5.

APPENDICES

=

1.0 t e

ŝ.S

îe:

is:

\$3.1 72

at/;

1225

ažij

is hi 24 X

-----

extra

\$5° 0\$

Ter.t oomog

kind |

### APPENDIX I

### THEORY

According to McClelland (1955), all of man's motives are learned. He defines a motive as an aroused anticipatory goal state; that is, a strong affective association, characterized by an anticipatory goal reaction and based on past association of certain cues with pleasure or pain. He differentiates between two kinds of motives: (1) n-Achievement is when the person's primary goal is to enjoy the glories of success; and, (2) f-Failure when a person's primary goal is to avoid the misery and disgrace of failure. Certain situations produce pleasure or pain with such regularity either through biological or cultural arrangements that the probability of certain "common" motives developing in all people is high. These motives may be inferred (a) indirectly based on knowledge of past cue-affective arousal associations implying a direct knowledge of the individual studied, or by extrapolation from the experience of other individuals; or, (b) directly based on imaginal goal states; that is, obtaining the strength of the achievement motive in an individual by observing the frequency with which he thinks about achievement as measured through imaginative productions. McClelland concludes that whatever the variations in the strength or kind of n-Achievement associations, the fact remains that

-

\*\* :

317

--

Ten:

2: €2

Yesk

s)pei

Text

some associations of this sort are laid down in all individuals in all cultures, at all times, simply because with very few exceptions every person is faced at one time or another with achievement problems.

A number of studies demonstrate the value of measuring motivational strength indirectly by content analysis of imaginative stories. The basic assumption is that this method of assessing an individual's motivation is superior in predicting behavior than merely asking an individual to describe his own motives.

DeCharms, et al. (in McClelland, 1955), state that individuals who verbalize their achievement desires may have developed such conscious needs in response to adult pressures for becoming successful. These subjects may have been taught to value achievement; therefore, they should be more responsive to authoritative opinions as to what constitutes "correctness" or success, and in general, should be somewhat more conformist than subjects who tend to be individualistic and unwilling to be pressured into conformity. The authors conclude that a consciously high desire for achievement tends to be associated with conformity, a high valuation on expert authority, and a low valuation on unsuccessful people. A high need for achievement tends to be associated with internalized standards of excellence which lead to superior performance of various sorts in task situations.

McClelland, et al. (1953), has postulated that achievement motivation (n-Achievement) can be revealed through

 $P \times \sigma \times \omega$ 8 23-2

Achievement Imagery. Such imagery is present when an examinee's responses demonstrate content concerned with (1) long-term involvement, (2) unique accomplishment, and (c) competition with a standard of excellence (in Thorpe, Unpublished paper).

In using depth interviewing to explore the motivational factors underlying achievement of eleventh grade boys, Joseph (Unpublished paper) defined the above three elements of Achievement Imagery as follows:

# Long-termed Involvement

Client is involved in the attainment of a long-term goal. Being a success in life, becoming a mechinest, doctor, etc. are all examples of such career involvement. He has also planned the rest of his high school courses with an eye to further education. When a long-term assignment is given he plans ahead towards its completion. If client does not have a specific career in mind, at least he knows what he doesn't want to be.

### Unique Accomplishment

Client is involved in, or has been involved in, accomplishing other than run-of-the-mill daily task which marks him a personal success. Inventions, artistic creations, and other extraordinary accomplishments fulfill this criterion. He has had leads in plays; had held class office; has won prizes for his school projects or in sports. Has won a National Merit citation, or has been offered some academic scholarship.

### Competing With Standards

Client is engaged in, or has engaged in, some competitive activity (other than pure cases of aggression) where winning or doing as well as or better than others is actually stated as the primary concern. He wants to have positions of leadership in and out of school because they give him prestige.

Farquhar (1962) extended McClelland's formulations into a bi-polar theory by postulating the opposite end of the n-

(3)

r.e

a 12.

Fano

T.e.c.t

liehe Ion H

.866

92 tj

Negrate .

(ar.p.)

# ! ar

Achievement continuum for which three additional dimensions were hypothesized: (1) short-term involvement, (2) ordinary or common accomplishment, and (3) merging or competition with a minimal standard of excellence. These dimensions were stated as characterizing the individual with low motivation or a low need for academic achievement while McClelland's dimensions were characteristic of the person with a high need for academic achievement. Thorpe (Unpublished paper) points out that McClelland's concern was with only one facet of personality and one facet of motivation; that is, general achievement motivation (n-Achievement). On the other hand, Farquhar was interested with two facets of achievement motivation; that is, high and low need for academic achievement.

Using a bi-polar theory as a basis, Farquhar (Unpublished paper) constructed an objective inventory suitable for measuring an individual's need for academic achievement (see Appendix VII). The Michigan State M-Scales consists of four subscales totaling 259 forced-choice items. The full scale takes approximately 60 minutes to administer and the protocals are machine scored. The interpretation for each of the subscales is taken from the preliminary form of the Manual for Interpretation of the Michigan State M-Scale (unpublished paper).

### 1. Generalized Situation Choice Inventory

Items on this scale were constructed to describe the motivational situation. Students are required to make a forced choice between two types of situations, one

which depicts a high and one which depicts a low academic motivation situation. A high score on this scale indicates an individual who has a high need for academic achievement and would generally like the kind of task and activities that schools would value as part of the academic program. A low score indicates individuals who choose activities disassociated from the school's program which did not necessarily pay off in their academic study.

# 2. Word Rating List

This scale was designed to measure the academic self-concept of the student. Students are asked to rate themselves on series of descriptive phrases and words gleaned from literature describing high and low motivated and achieving students. These ratings are made as the student thinks their teachers would make them on the student. A high score on this scale indicates an individual with academic self-concept oriented towards the school environment. He sees himself as a person who fits the academic role. An individual who scores low on this has a fairly clear-cut picture that he is not academic. Furthermore, he sees himself outside of the academic role and its many ramifications.

### 3. Human Trait Inventory

Items from past personality tests have been found to differentiate between high and low achieving and motivated students in revised form constitute this scale. An attempt has been made here to differentiate the personality structure of high-low motivated students. Individuals who score high on this scale tend to have personalities more similar to highly motivated students and those scoring low tend to have personalities similar to low motivated students. The highly motivated student is characterized by a certain amount of compulsivity, positive attitude, controlled anxiety, and low fantasy life. The low motivated student tends to lack the above characteristics or to have them in their opposite form.

# 4. Preferred Job Characteristics Scale

Items from this scale were designed to differentiate between the job aspirations of high-low motivated students. Students who scored high on the scale tend to want jobs where their individuality is recognized, where their talents and skills are used, and where opportunities exist for change and advancement. Students who score low on this scale tend to prefer jobs where entry is easy, requirements are low, time restrictions are absent, and where one is "discovered" rather than worked into a position.

.

Min and Min an

Current literature indicates that personality is an important motivational variable leading to the conclusion that the personality characteristics of students who achieve well in school manifest anxiety about achieving well, concern about the planning and organization of their activities, and have an optimistic self-confidence (Farquhar, unpublished paper).

In reviewing the literature dealing with under- and over-achievement, Taylor (unpublished Doctoral Dissertation) found recurrent references to seven of these traits: academic anxiety, self value, authority relations, interpersonal relationships, independence-dependence conflicts, activity patterns, and goal orientation. "Authority relations," which is of interest in this study, are defined as those relationships between two or more people--one person having a definite responsibility for others because of training, amount of knowledge, position, or years. This responsible person then directs, controls, or guides the other individual's actions and behavior to a significant extent (English and English, 1958).

Taylor concludes that the model differences between under- and over-achievers can be summarized into a limited theory as follows: The over achiever tends to operate at a high level of energy. He controls and directs his anxiety while conforming to academic pressures of culture. The over achiever is attempting to merge with the academic standard while resisting peer pressures. The under-achiever tends to

·

-

- -

Χ-,

---

are

5763

रे द्र*ह* ह

â8 g

Pres.

¥8e √

Reptic

3517

operate at variable levels of energy, to control his anxiety less, and to resist social conventions. The under achiever attempts to conform to his peer group and to resist academic pressures.

## Definition of Terms

In the present study, the term <a href="high motivator">high motivator</a> is used to designate the student who scored at the upper extreme on the Michigan State M-Scale and who fulfilled the requirements for Factor III entitled "Authority Relations" in Taylor's "Personality factors associated with eleventh grade male and female discrepant achievement" (unpublished Doctoral Dissertation). The <a href="low motivator">low motivator</a> is the term applied to the student who scored at the lower extreme on the Michigan State M-Scale and who fulfilled the same requirements for Factor III but in the opposite direction from the high motivator.

Over achiever is the student who receives grades which are higher than might be expected from predictive measures based on academic aptitude. The <u>under achiever</u> receives grades which are lower than might be expected.

The terms high motivator and low motivator will be used as synonyms for over achiever and under achiever in the present study.

The theoretical constructs forming the basis for the use of hypnosis in the study are as follows. According to Reyher (1962), the type of instrumental hypnotic research as utilized in this study remains relatively inconsequential

: :: ::

> arı tal

<u> 2</u>es

Mari

Payro) the

Text.

regs ares

22.5

Way y

and isolated despite its ability to command interest. One of the primary reasons for this state of affairs, he maintains, is the lack of criteria for determining the relevance of hypnotically induced behavior to clinical or natural behavior.

Reyher postulates that phenotypic identity does not necessarily imply genotypic identity; that is, the fact that behavior similar to anxiety can be produced by hypnosis does not mean that the mechanisms of hypnosis are the same or similar to the processes underlying clinical anxiety. In 1953, Weitzenhoffer stressed the point that hypnotically induced phenomena resembling psychodynamic manifestations are apt to lack affective tone. He recognized the importance of inducing an appropriate genotype by his assertion that affective tone is most apt to be absent when the suggestions are aimed at directly bringing about the overt manifestations rather than creating the type of factors normally responsible for these.

In Reyher's (1962) paradigm for hypnotically inducing psychopathology, the hypnotically induced process defines the genotype, and the behavioral outcome defines the phenotype. The genotype is operationally defined by the statements in the hypnotic suggestions, while the phenotype is operationally defined by a description of the person's overt behavior. The requirements of the paradigm consists of four principles or criteria: (1) the induced process must in no way include cues as to how the experimenter expects the



subject to respond, (2) the induced process must produce other processes and behavior; that is, it must be response-producing; (3) some of these responses must satisfy the defining criteria for inclusion in some classification of psychopathology; and (4) some of the subjects must be asked by a co-experimenter to fake hypnosis in order to determine the "demand" characteristics of the research.

· £ tile: the \$1.X.1 Eut | espe <u> 2087</u>

Pear

€res :

î.e :

<sup>20</sup>204

### APPENDIX II

### REVIEW OF THE LITERATURE

Taylor (unpublished paper) and Farquhar, et al. (unpublished paper) have made an exhaustive review of the general and personality characteristics of high motivators and of low motivators. In addition to surveying the traits of these two groups of students, it will be beneficial to review the findings of other investigators in this area of interest. Following this, a review of the literature relating the investigation of hostility utilizing hypnosis will be made.

To gain a better understanding of the high- and lowmotivator, reference to Taylor for a summary description of
these two groups is made. In regard to anxiety, he states
the over achiever (or high motivator) has a long history of
anxiety which appears to be directed toward a fear of failure
but this fear is controlled and directed toward achievement,
especially academic success. On the other hand, the under
achiever (or low motivator) denies his shortcomings and his
fear of failure resulting in anxiety which necessitates a
great expenditure of energy to control. One consequence is
he has difficulty concentrating or being effective in the
academic environment.

0

ž a

å€.

٤٣٢

- 50

Tair Frai

achi Deno

At t

rige trae The high motivator views himself as an efficient and a persistent person with a positive self regard. In contrast, the low motivator exhibits a negative self regard and is overly concerned about his physical and mental functioning.

Quoting from Hoffman, et al.(1960), Drews and Teahan (1957), Horrall (1957), and Haggard (1957), Taylor concludes that most investigators find that the over achiever accepts controls, regulations, and assignments with little or no conflict. However, the under achievers' resistance to imposed academic tasks is seen as a reaction against his parents. While the over achiever is characterized as being highly motivated toward academic success and compulsively devotes much time and effort to studying, punctuality, and gaining his satisfaction from academic achievement and adult approval, the under achiever attempts to derive his satisfaction in areas other than the academic environment. He more readily identifies with a group which is supportive and maintains an active interest in immediate rewards and gratification.

Following McClelland's theorizing (1953), the over achiever is involved in long-termed planning, and displays perserverance in attending his academic goals of achievement. At the opposite end of the continuum, the under achiever is preoccupied with anxiety and insecurity to the extent he is indecisive regarding his goals. As a result, he is portrayed

e. ;

\$eŢ

iion and

and t

towal Jembe

eqcco

impre.

1967<sub>,</sub> Whiteh as an immature and undependable individual without a purpose in life. His goals, then, become fantasized wish fulfill-ment rather than realistically based.

A number of writers state that both the high- and low-motivator possesses a certain amount of anxiety but in varying intensities. For example, the over achiever has less underlying anxiety but more inner tension than the low achiever, according to Horrall (1957). Holland (1959) and Gough (1953) both state the high motivator has more self control; therefore, his anxiety does not manifest itself in as directly an overt manner as does the low motivator.

Referring again to Taylor's Factor III--Authority
Relations--and its significance to a study of hostility,
several studies (Horrall, 1957; Gough, 1953; Kurtz and
Swenson, 1951) indicate the over achiever has a good relationship with his parents in which the latter are interested
and supportive in regard to their children's academic success
and the children in turn respect their parents and attempt
to please them by doing well academically. The same type of
cooperative reaction is also exhibited by the over achiever
toward authority figures outside the home. According to
Gerberich (1941), Merrill and Murphy (1959), and Holland
(1959), the over achiever attempts to create a favorable
impression on these persons and is eager to please them.

These, and other writers (Kimball, 1953; Shaw and Brown, 1957), stress the fact that the hostility and aggression which the under achiever displays toward authority is largely

Ξ 7£t <u>ir.</u> . Ten-Tr. : re 005. Sec. 187.C White પેટાઉ<sub>લ</sub>

influenced by his relationship with his parents. They do not express their love for the child and are somewhat indifferent or disinterested in the child's academic success. The under achiever feels that his parents have not given him the material things in life that he would like to have. Studies by Dowd (1952), Kirk (1952), and Walsh (1956) indicate that the conflict and hostility between child and parent is also carried over to authority figures outside the home; that is, to his school teacher to whom he reacts by exercising resistance to externally imposed tasks. The under achiever's dislike and hostility is a pronounced characteristic which tends to create a less favorable impression resulting in the student being less acceptable to his teachers.

Payne found that the literature supports certain parent-child relationships and behaviors related to academic achievement. Among the more salient of these are the following. In reference to the over achiever or high motivator: (1) a high degree of achievement pressure developing in the growing child a competitive spirit; a need for achievement, and (2) a high degree of authoritarianism in the parents. In regard to the low achiever or low motivator: (1) a low frequency of discipline; the child is expected to accept the consequences of his behavior, (2) a high frequency of parental behavior which is perceived by the child as rejecting or ignoring, and (3) a somewhat cold and emotionless atmosphere which engenders feelings of doubt and confusion in areas of understanding and acceptance.

ęs

:.ê

3.5

i...

<u>.</u> . .

£\_

ach pro

of :

Set!

:: t

To be

nghos:

itie.

erte.

**a**001.

00116 Was c

With.

âdhie.

Guthrie (1961) viewed academic motivation in a self economy context and observed that some students seem to operate in general at a low level of ambition and achievement according to the commonly accepted norms of the area in which they are engaged. Others seem generally to operate at a high level. He postulates that the total perceptual point of view of the two extremes is different. For example, while the high level operant or over achiever perceives alternatives as competing rewards, the low operant or under achiever will count the cost. Guthrie concludes that the profit relative to academic achievement depends on the amount of reward perceived to accrue to the academic activity compared with the amount of reward perceived to accrue to competing alternative activities. If the balance is in favor of the academic activity the other rewards will be foregone. If the balance is in favor of the competing alternatives, the academic activity will be foregone. Over achievers, then, -chose the academic activity and forego the alternative activities more frequently than under achievers. On the other hand, under achievers perceive a greater number of competing alternatives to achievement activity as rewarding than over achievers.

In their investigation of underachievement among bright college students, Shaw and Brown (1957) found that hostility was characteristic of underachieving students when contrasted with achieving students. These authors state that underachievement is not a surface phenomenon easily modified but

ng in

2.1 8.3.

5.25

...

Ter

abt.

1100

Eron and

bee:

towa adag

:03t 84t/3

that

10851

rather is related to the basic personality structure of the individual. Kirk (1952) suggests that the under achiever satisfies an unconscious hostility motive which is often directed toward the family member who demands success of him. Shaw's (1958) investigation of hostility in able high school under achievers found that hostility is a more pronounced characteristic of under achievers than of over achievers.

In general, Taylor's review of the literature characterizes the high school under achiever as having much underlying aggression, strong feelings of inferiority, defensive about abilities and anxious to maintain a belief in their own superiority, possess a negative attitude toward education, lack confidence in themselves, hostility is a pronounced characteristic, asocial behavior, weak ego control, and maintain an apathetic withdrawal. The over achiever has been characterized as possessing adequate self control, tends toward stronger intellectual and social interest, they are academically inclined, have high educational and vocational goals, maintain a sense of academic effectiveness, and are capable of sustained and diligent application to achieve a goal.

In an attempt to quantify emotional forces using manifest dreams, Saul and Sheppard (1953) compared hypertensive subjects with nonhypertensive subjects. The authors observed that the hypertensives exhibited more frequent and intense hostility often associated with anxiety, a lower degree of

a a

£.

sh Sh

wh

asi

the

par host

zat:

tetw

(196)

that

panti

dice

repre

hopno

hypro-

tive

trol

psych



regressive passive receptive dependent trends, and a higher degree of muscular and work activity. It is noted that a number of these same characteristics have been used to describe the over achiever (or high motivator). It was with their investigation of hypertensive subjects that Saul and Sheppard formulated their Dream Hostility Count (D.H.C.) which attempts to evaluate two aspects of hostility. The aspects of hostility measured are: (1) the intensity of its expression, and (2) the relationship that this bears to the ego; that is, the degree to which the dreamer is able to participate in and/or accept hostile impulses. They defined hostility as anything which causes or represents disorganization of mind, matter, or concept, including relationships between people and the relationship of the self to the self.

In a similar study of hypertension, Kaplan, et al. (1961) used verbal productions and hypnotic dreams to find that essential hypertension accompanies inhibited, and only partially expressed, hostile aggressive impulses.

Reyher (1958) has employed the use of hypnosis to induce conflict in subjects in an attempt to study subception, repression, antisocial behavior, and psychosomatic reactions. He found that a deeply hypnotized subject can remember a hypnotically induced experience as real events. When a hypnotically induced hostility was combined with a destructive urge, in the absence of any suggestions regarding control or expression, the author noted that subjects experienced psychosomatic reactions and psychopathology. The hypnotic

.

pa

Re

in.

pro

5 h

in the

neur neur

pers Pers

Wills

Prof the

ters.

repr.

in to

induction of a paramnesia which is associated with feelings of hostility and a destructive urge can become a source of severe anxiety and/or symptoms. Under these conditions, the induced experience appears to become a "living reality" causing the subject to react and behave in a manner determined by his personality structure.

In his study of psychosomatic reactions and psychopathology produced by the hypnotically induced process. Reyher (1960) notes that the "status" of the conflictual impulse and/or idea may be an important factor governing a variety of posthypnotic reactions. He found this to be true with regard to a wide range of somatic reactions which were produced and which included such symptoms as tachycardia, flushing, sweating, gastritis, tremors, and sleepiness. Even though the status of the conflict may be an important factor in determining the general characteristics of the symptoms, the author points out that the uniqueness of the individual's neurophsiology would determine the specific form of the neurophysiological reactions, and the uniqueness of the personality would determine the nature of his conscious states. Personal experience and learned reactions would determine which cognitive and emotional processes will have anxietyproducing properties, the intensity of which may determine the degree of repression. If the subject has reacted to intense hostile and destructive impulses with anxiety and repression in childhood, then it is likely that he will react in the same way in adulthood when these emotions and impulses

: :

W.1

5.50 5.2 become intense. Although the intensity of the anxietyproducing processes may be one of the most important factors
in the activation of both repression and symptoms, other
factors such as degree of age regression and the presence of
other concurrent emotions, such as guilt, may enhance further
the reactions and contribute new facets to the symptomatology.

The definition of hostility used in Reyher's study and adopted as an operational definition for the present study states that hostility is the induction of a pseudo-experience which generates intense feelings of hostility and a destructive act towards the central figure in the experience. The subject is instructed that if he permits anything associated with the experience or certain stimuli to enter his conscious mind, after he is awakened he will be overwhelmed by feelings of hostility (Reyher, 1958).

6 27 65

ar.

77.1 71.6

£ § ;

a Ĝá

Size

soh:

and refly

01 0 E483

er.ta:

#### APPENDIX III

# PRE-EXPERIMENTAL PREPARATIONS

eleventh grade male high school students. This population was comprised of the entire male classes from eleven Michigan high schools including Corunna, Durand, Eaton Rapids, Elsie, Grand Ledge, Holt, Laningsburg, Okemos, Ovid, Perry, and St. Johns. Society's acceptance of the use of hypnosis for experimentation with adolescents was not known; therefore, it was necessary to employ elaborate preparations prior to initiating the data gathering procedure. One of the primary reasons for using a male population was based on the assumption that parents would be more permissive for a son to participate in such a study than they would be for a daughter.

The proposed study was discussed thoroughly with the Superintendent and/or Principal of approximately fourteen schools during which both the administration of the M-Scale and the use of hypnosis was explained. Three of the schools refused to participate for "political" reasons, such as fear of community repercussions, too much time involved, and too busy of a school schedule to allow for further interruptions.

The first phase in the preparations for the study entailed the administration of the M-Scale to the eleventh

is th

\$0? \$1.1

ist.

2 + v. .

1872

:613 :53

ine

**:**65%

2577

grade male students. The school administrator was assured he would receive a copy of the results of this test so that he could observe the rank of each of his students when contrasted with the total population. Each school official was also advised that a list of prospective subjects would be submitted for his approval before a student was contacted. The purpose for this action was an attempt to eliminate potential "problems" known to the school administrator. is interesting to notice that of the 193 names submitted to the eleven administrators, only four names were deleted. The second phase of the preparations, as explained to the school administrators, was the use of hypnosis. pointed out this technique was being used in an effort to help the subject to relax under the assumption that he would be able to express himself more freely. A significant finding was the willingness of the eleven high school administrators to cooperate in this study. Specific reasons for this cooperation, other than their ability to perceive the value of such a study and a generalized acceptance of hypnosis not heretofore known, are unknown at the present time.

Upon receipt of the lists of approved students, each student was visited in his school for the purpose of conferring with him regarding the study. At that time, the following explanation was given:

You have met the first requirements for being considered a subject for research being conducted in an effort to understand how students begin learning.

72%;

Pare.

Pant :

30% E



65

On the basis of the scores you received on the Michigan State M-Scale, you have been designated a "high motivator" or a "low motivator." However, since knowledge of your specific classification might in some way bias the results of the study, this information will remain unknown to you and me until after the data has been collected. At that time, I will inform you by letter of your standing.

The second phase of the study involves each student coming to Michigan State University for one day. During this time, you will be given two tape recorded interviews of 30 minutes duration each, in which you can talk about any dramatic or personal experience you have had or are having, or anything else you desire to talk about. Prior to one of these interviews, I will hypnotize you in an effort to help you relax and, consequently, feel freer in talking with the Interviewer. You will not purposely be embarrassed and whatever you talked about will be confidential within the University, or if the material is used it will be without any identification as to who the person is.

The hypnotic induction procedures were sparsely explained in an attempt to avoid creating undue anxiety prior to initiating the experimental conditions. The students were also informed they would be reimbursed for travel expenses and that luncheon would be provided; however, it was necessary that they arrange for their own transportation. Following this brief explanation, the students were requested to indicate their willingness or refusal to participate. It was emphasized that no pressure to participate or to refuse to participate was desired, and that their final selection would likewise depend upon the written approval of their parents. A number of the students placed telephone calls to their parents for approval prior to making a commitment; however, all of the 59 students contacted expressed their desire to participate. At that time a tentative appointment was made for each student whereby he knew in advance the date and time

t a.

ā.

7.18. 1.18.

x38.

<u>:</u>...

÷., ·

Mej .

ir. j Verk

â., .

28e

::.a:

he was scheduled to report to Michigan State University for the interviews and hypnosis.

The next and seemingly most difficult hurdle to overcome was considered to be that of gaining the sanction of the students' parents. At least one parent of each student, and in many instances the entire family, was visited during which time the parent(s) were given the same explanation as that given the administrators and students. If they were accepting of the explanation of the study and desired that their son be included, they were requested to sign a simple consent form which stated:

As you recall, when you volunteered to be a subject in research which involves the use of hypnosis, it was our wish that your parents approve. Please seek their consent by having one of them sign in the space provided below. We can not include you without this consent.

Four of the 59 families contacted would not give permission for their son to participate; two of these because they "did not believe in hypnosis" or were fearful of its use, one refused on the basis of religious conviction, and in the last situation a marital difficulty was encountered in which neither parent would take the initiative to give their consent. This result, which is considered significant in itself, can be attributed in part to the fact the parents were personally contacted during which time they were afforded an opportunity to ask questions concerning the study and the use of hypnosis. Correspondence via letters was deemed inadvisable and inappropriate.

Σŝ, 02 Şy.j ٤ ٪ 1.51

the

₫Je

the same of the same of the same of the

One of the interesting sidelights of the contact with parents was the incident of a student's mother calling the family physician to ask for his opinion regarding the safety of using hypnosis with her son. While conferring with her, the writer was in his office discussing the possible use of his son as a subject. The outcome was entirely satisfactory. Although the large majority of parents had questions concerning the study, and especially hypnosis, all families contacted were receptive to the entire study, with the exception of the four previously mentioned cases. The variables controlled for in the study were sex, grade in high school, race, research environment, and experimental procedures. Age differences are within a range of 16 years, 3 months to 18 years.

In an attempt to reduce or avoid public criticism, the following additional precautionary measures were taken. The major news media in each locality, as well as selected professional persons such as physicians, attorneys, ministers, and school teachers, were contacted for the purpose of providing each with the details and extent of this study whereby they would be in a better position to answer the questions of critics. Any person who has engaged in extensive research and has been victim to the reprimands of public opinion, has a knowledge that the investigation need not be of a sensitive mature to arouse some fractions of society. In this case, the complete study was accomplished without serious incident, due in large measure to the precautions taken.

;

Ξ

Ç

ξ.

3,

÷...

-..

5,71

Approximately one week prior to the date of appointment, a post card reminder was mailed to each student
stating the place, date, and time of his appointment. Although this was effective for its purpose, four students
failed to meet the appointment and were eliminated from consideration as subjects. The reasons offered by these
students included: a change of mind, inability to find
transportation, and employment commitments.

Permission to use the facilities of the University was obtained from the Chairman, Department of Counseling and Guidance, College of Education. Upon the recommendation of a number of staff members in the University, a graduate student completing a doctoral program in Counseling and Guidance and experienced in counseling techniques, was employed to serve as the Interviewer during the study. Typing of the recorded interviews was done by a student-employee on a part-time basis.

ئ. ق

);<sub>E`</sub>

j.e

## APPENDIX IV

# HYPNOSIS INDUCTION PROCEDURE

Hypnosis was attempted with 53 students to determine their susceptibility to hypnosis and their ability to reach the criterion depth of posthypnotic amnesia. Thirty-eight of this group were capable of reaching the desired depth of hypnosis using a technique devised by Wiseman and Reyher (1962). The induction procedure involved having the  $\underline{S}$  seated in a comfortable position. A combination of three induction processes was used in a manner which provided for an uninterrupted transition from one method to another depending upon  $\underline{S}$ 's resistance to hypnosis. A time limit of 60 minutes for inducing hypnosis applied to all  $\underline{S}$ s. That is, if the  $\underline{S}$  was unable to reach the criterion depth of hypnosis within the time limit, he was eliminated from participating in the study.

The  $\underline{S}$  was asked to look down at his hands held on his lap in a manner which enabled him to see both hands at the same time (Hand Levitation Method). Next, he was asked to look at a spot of light being reflected from a thumb tack placed on the wall in front of him approximately two feet above his horizontal plane of sight (Eye Fixation Method). While looking at the spot of light, the  $\underline{S}$  was told the was going to be assisted in relaxing every muscle in his

body, beginning with the muscles in his feet and working up to his facial muscles (Muscle Relaxation Method), At any time during this process, his eyelids would become extremely heavy and they would close by themselves and stay closed as he slipped deeper and deeper into a very comfortable and peaceful sleep-like state. If the Muscle Relaxation method was ineffectual, it was possible to proceed with the Eye Fixation method. Where necessary, the Hand Levitation method--considered by some as one of the more strenous and difficult induction methods for the S to achieve--was used as a final attempt to induce hypnosis. The induction process involved the following steps or levels:

- (1) Eye catalepsy.
- (2) Arm catalepsy.
- (3) Dream or image-like pictures of the S's last full meal.
- (4) Counting to 10:
  - (a) Without sound or lip movement.
  - (b) Without sound but with lip movement.
  - (c) With sound and with lip movement.
- (5) Hyperesthesia involving putting the hand in imaginary hot water and feeling a warm sensation on the hand.
- (6) Wiseman and Reyher's (1962) dream sequence technique for deepening the hypnotic trance.
- (7) Anesthesia involving the hypnotic anesthetizing of the right hand and arm, and lancing an imaginary boil on the fore-finger of the right hand.
- (8) Awakening instructions whereby the  $\underline{S}$  was fully awake on the count of 5.
- (9) Rapid-induction instructions. This technique avoids the time consuming induction procedure in subsequent hypnotic sessions. The  $\underline{S}$  was instructed that at any time during the experiment the  $\underline{E}$  wanted to re-hypnotize him, all  $\underline{E}$  need do is to ask S to close his eyes as he



counted to 10 and that on the count of 10,  $\underline{S}$  will be just as relaxed and in just as deep a sleep-like state-or a deeper state--than he is in now.

- (10) Post-hypnotic amnesia suggested.
- (11) Awakening process initiated.
- (12) Intensive questioning of the <u>S</u> regarding his ability to recall what had taken place during the session. As previously indicated, 38 out of the 56 students, or 68 per cent, were capable of meeting the hypnosis criterion of post-hypnotic amnesia. The amnesia level of hypnosis is considered by some as a moderate level, and it was considered to be the minimum level necessary for the present study. The students unable to meet this criteria were dismissed from the remaining part of the study. The remaining 38 students continued in the following manner.
- (13) Rapid-induction instructions initiated. The <u>S</u> was instructed to raise his right hand when the <u>previous</u> depth of hypnosis, or a deeper level, was reached.
- (14) Wiseman and Reyher's dream sequence technique was repeated to insure a sufficient depth of hypnosis.
- (15) Rapport transferred to a co-experimenter who came into the room after E had left. At this time, the co-experimeter talked briefly with each S. The method of selecting the control "faking" Ss was randomly done by the co-experimenter. After the control Ss were awakened, the instructions to them for faking hypnosis were essentially as follows:

Every scientific investigation such as the study being conducted here involves using control  $\underline{Ss}$  for the purpose of comparing the results they obtain with the results of the experimental  $\underline{Ss}$  under the same conditions. Thus far, you have responded in an acceptable manner which is the same as or similar to all of the other  $\underline{Ss}$ . Neither  $\underline{E}$  nor the Interviewer will know that you are awake. During the remaining time you are with either of these persons, or with anyone else during the time you are here today, I want you to fake hypnosis; that is, act as if you were still hypnotized or how you think a hypnotized person would act.

(16) Conflict induced. The test of the conflict situation is reported in Appendix V. A person experienced in hypnosis can frequently detect when a S is faking

hypnosis by their reflex actions and certain other forms of behavior. To guard against this possibility,  $\underline{E}$  purposely turned away from each  $\underline{S}$  as he read the conflict to the S.

- (17) Awakening process initiated. The  $\underline{S}$  was asked how he was feeling and if he was fully awake. When it was determined the  $\underline{S}$  was fully awake and feeling satisfactory, he was taken to the Interviewer for the interview session. After completing the 30-minute interview, the  $\underline{S}$  was returned to  $\underline{E}$  as soon as possible for removal of the paramnesia.
- (18) Rapid-induction instructions initiated. The  $\underline{S}$  was again asked to raise his hand when the previous depth of hypnosis, or a deeper level, was reached.
- (19) Conflict removed and instructions given for total recall. The instructions for removing the hypnotically induced conflict are stated in Appendix V, immediately following the text of the conflict situation. This precautionary measure was considered a critical step in the process. If the intensified conflict had not been successfully removed from the S's mental repertoire, it is conceivable he could have left the University and reacted in a hostile and aggressive manner toward his high school teacher. It is well to point out, however, that no attempt was made to completely alleviate or eradicate the hostility for the teacher which was originally present in the  $\underline{S}$ . The purpose for removing the conflict was just that; that is, to reassure the  $\underline{S}$  that the induced conflict situation was fabricated and to return the hostility being experienced by the S to its prehypnotic level. No objective measurement was available; therefore, it was necessary to rely on the S's subjective reports and the E's judgment that the hostility conflict had been removed. A crude indice that the conflict had been removed was the fact that no reports of hostility or violence were received from the  $\underline{Ss}$ , the teachers or school administrators. In addition to removing the conflict, each S was instructed that when awakened, he would be able to recall every detail of what had taken place and that there would be no gaps in his memory of these details.
- (20) Awakening process initiated.
- C21) Discussion with  $\underline{S}$  to obtain information regarding his reactions, feelings, and memory of the hypnosis procedure, conflict situation,  $\underline{S's}$  somatic and subjective reactions, and any other topic the  $\underline{S}$  desired to discuss. Approximately 30 minutes was devoted to this last step. This period of time provided an opportunity for  $\underline{S}$  to give his subjective report concerning the conflict

and his feelings of hostility toward the high school teacher and the Interviewer. It also aided  $\underline{E}$  to make an evaluation regarding the safety of permitting  $\underline{S}$  to leave the experimental environment. In addition, the  $\underline{S}$  could ask and receive an answer to any question he might have regarding the study or his participation in the study. Without exception, the  $\underline{S}$ s expressed their fascination with the experience of hypnosis and a willingness to return for subsequent participation.

## APPENDIX V

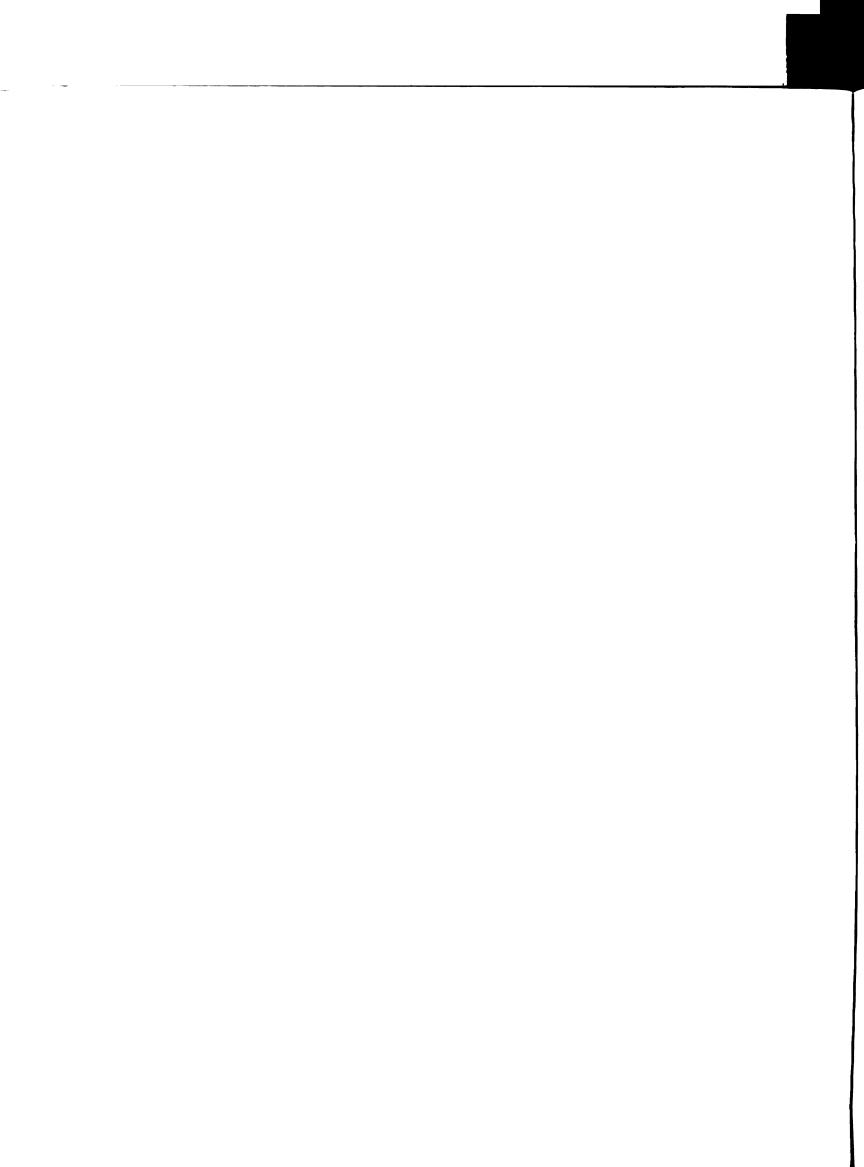
### HYPNOTICALLY-INDUCED CONFLICT SITUATION

The following is the text of the conflict situation which was hypnotically induced in the high- and low-motivators. Much of the material has been taken directly from Erickson's "The Method Employed to Formulate a Complex Story for the Induction of an Experimental Neurosis in a Hypnotic Subject," J. Genetic Psychol., 1944, 31, 67-84; and from Reyher's "A Paradigm for Determining the Clinical Relevance of Hypnotically Induced Psychopathology," Psycho. Bull., 1962, 59, 344-352.

Now, as you continue to sleep, I am going to recall to your mind an event which occurred last year. As I recount this event to you, will will recall fully and completely everything that happened. You have had good reason to forget this occurrence, but as I recall it, you will remember each and every detail fully, even though I may not relate each detail as it exactly happened.

Now bear this in mind, that while I repeat the event to you, you will recall fully and completely everything just as it happened. And more than that, you will re-experience the various conflicting emotions which you had at the time and you will feel exactly as you did while this occurrence was taking place.

Last year, you were preparing for an important examination in \_\_\_\_\_ which is one of your most difficult subjects. You can recall studying for this exam. It was evening before the exam. It seems that the harder you tried to study,



the more other things came in to interfere and to bother you. You could hear the radio playing in another room; and the more you tried to avoid listening to it, the louder it seemed. There were also noises coming in from the outside. You could hear some children screaming and playing, there was the noise of the cars passing on the street, a door slammed somewhere in the house. These noises seemed to get louder and louder. It became more and more difficult to read the text book and your notes as these noises became louder. You found yourself listening to the noises more than reading the material. You tried to think over what you had just read but found that you could not remember much of it. You had to read each sentence over and over again. The exercises just didn't make sense and you continue to read them repeatedly.

It was getting late and you were very, very tired. It became more difficult to hold your eyes open. Yet, you knew that to fail this exam would mean a poor grade or even to fail the course. You feel anxious and tense. You had spent a long time studying and there was very little that you could remember. Even though you were very tired and sleepy, you knew the only thing you could do was to cram. Now you began cramming. It was difficult to read the material, to think. It was difficult to retain what you had read.

You had been studying a very long time now. It was very late in the night. In fact, it was only a couple of hours before you had to get ready for school. As you laid down to

rest, everything that you studied became confused and mixed up. It was difficult to get to sleep and these thing you tried to study turned over and over in your mind. The next morning your head felt full of confused and mixed-up thoughts. You felt extremely tired and sleepy. You also felt more anxious and tense than you did the night before because now the time for the exam was getting nearer. You went into the bathroom and stood before the washbasin. You turned on the cold water and splashed it on your face. You continued to get ready for school but it was difficult doing so. It seemed everything went wrong. There was not a clean shirt to wear and your trousers were messed. Breakfast didnt' suit you and you dreaded the thoughts of attending classes. The tension was building up more now. You could feel yourself getting more anxious and tense. To make matters worse, the exam wasn't scheduled until later that day. You dreaded the thoughts of attending the classes before the exam because they would just help to confuse you and make you more tense. You now had no time left to study; and as the exam time drew nearer, the pressure built up and up.

Now the time came for you to go to the \_\_\_\_ class. You can recall walking down the hallway. You reached the door to the classroom, opened it, walked in, and took your seat.

Some of the other students were making wisecracks about the exam and others were trying to cram in a little more.

You could feel the tension in the class. The competiton for

grades was stiff and you became more unsure of your own ability to pass this exam. The things that you studied the night before kept coming into your mind but they were disorganized and confused. You recall vividly that the instructor warned the class the period before the exam that the final grade would largely be based on this exam, and that it would be a tough one to pass. He has a reputation of being a "sour grape" and gets enjoyment out of giving failing grades. He enjoys seeing to it that students flunk, unless you are one of his pets. And you know that you're not. In fact, there has been an unspoken understanding between the two of you; he doesn't like you and you don't like him. Everytime he would come into the classroom you would feel sick to your stomach. You don't like him, and you liked him even less the day of the exam. He now entered the classroom with that stupid and sarcastic smile on his face. He then went to the blackboard and started to write the questions on the board. As you continued to watch him write, you realized that he had picked out the small, insignificant details which he hadn't even emphasized in class and which you hadn't studied. This meant that after all of your hard work, he had pulled a dirty trick like this. That dirty so-and-so. You had felt like telling him off before, but now it was all you could do to keep from getting up out of your seat, and going up to the blackboard and telling him exactly what a stupid, dirty rat he really was.



78

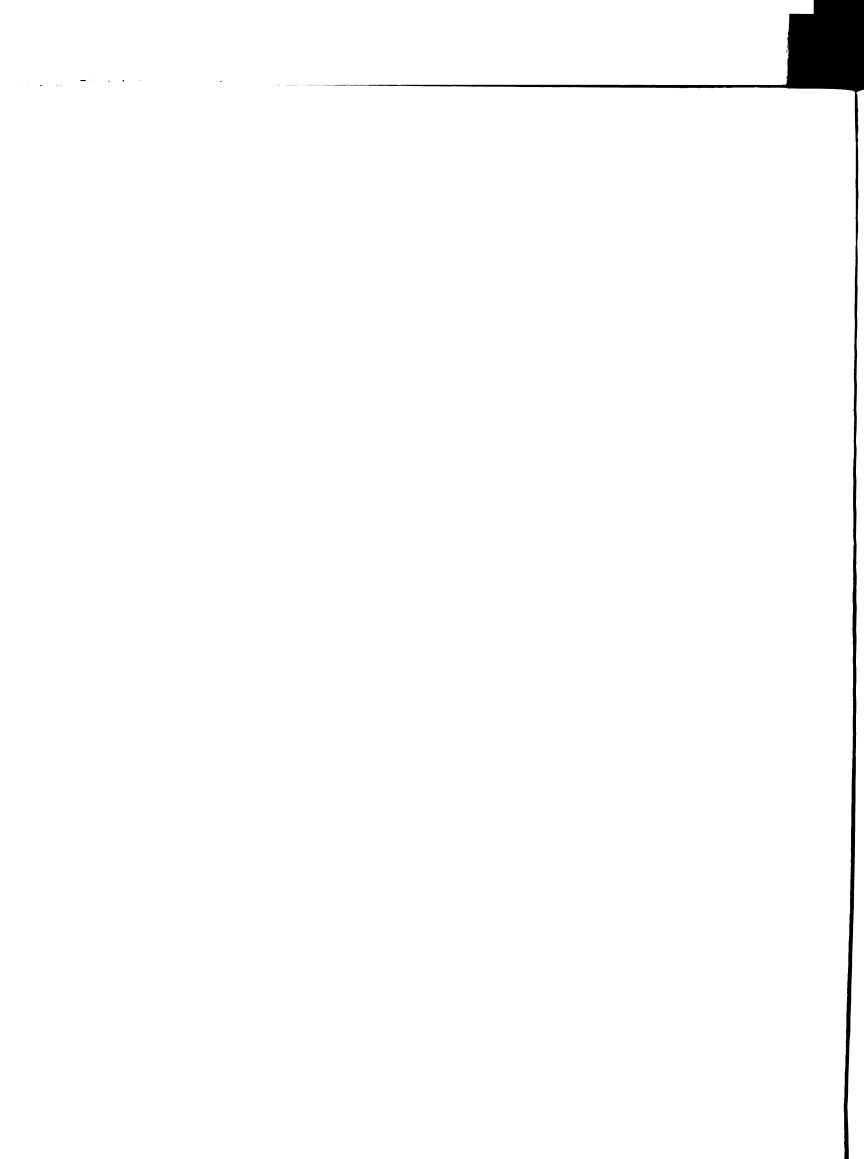
You looked around the class and you could see some of the other students had started to write furiously. Your mind was now a blank. All that came out was a confused, jumbled mess. Someone in the room let out a groan. Anxiety and pressure was building up more and more. You started to write but you sensed what came out was not correct. You looked down at the paper and all you could see was scribbling. The way the questions were written just did not make sense. Where in the devil did he get such stupid questions? But, knowing him you knew that only an ignorant dope like him could come up with something like this. You looked up at the blackboard now and all you could see were those impossible questions. Now you looked over at the teacher and the thought passed through your mind that he is lucky to have lived this long. Boy, how you hated that guy. That dirty, stinking rat. Even thinking about him made you almost get sick. You were not sure of vourself before the exam but now you know it was hopeless to try. Darn that guy! He didn't realize how much time and effort you had put into the course. Why should he care; he didn't have to take it. It didn't matter to him whether you flunked out or passed. In fact, he wanted to see you flunk.

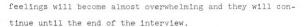
You can recall when he finished writing on the blackboard. He started to walk around the room, stopping to look at one student's paper and then another. You could feel him coming up behind you. Now he was beside you and he stopped. This wasn't the first time something like this had happened, but now you were fed up with him and the whole mess. You looked up at his face and there was that stupid, ugly smile. He knew you were having a rough time, and now he was making fun of you. This was the last time. Darn him! This was one guy you really hated. As he went on up the aisle you had to hold onto the desk to keep from jumping on his back and letting him have it. You could feel your muscles straining. Your face flushed and the hate for that ignorant rat was almost more than you could hold in, but you knew you had to withhold it.

You finished the exam in a hurry, knowing there was no use in trying anymore. You got up from your desk and as you left the classroom you slammed the test papers down on the teacher's desk. Going out of the room, you passed the rat and cursed him under your breath as you walked down the hall-way and out of the school building.

Now listen carefully. After I awaken you, you will not be able to remember anything about this session. Sometime soon, after I awaken you, you will be interviewed by Mr.

\_\_\_\_\_\_\_ who is doing a survey. As you talk with him you will notice that in some ways he reminds you more and more of this \_\_\_\_\_\_ teacher whom you hate. As you talk with him, this feeling of similarity will increase until you are absolutely certain that he is the same kind of person as the \_\_\_\_\_ teacher. In fact, you will find that all the old feelings about your teacher will come boiling up until you come to the brink of doing something about them. These





Before I awaken you, there is one more thing that I must tell you. You will not be able to recall anything about the hypnotic session after I awaken you. And, when I inform you that we have come to that point in the experiment at which I must hypnotize you again, you will want to be hypnotized. If you understand these instructions, let me know by nodding your head.

#### Resolving the Conflict After the Experiment is Completed

Sometime after I awaken you, I am going to mention the name of this building. Shortly after this you will recall the experience which I previously recalled to you and you will have an urge to tell me all about it, and you will find that you can tell me about it. However, before I awaken you, I want you to know that the feelings and experiences you had about the testing situation were manufactured, and these reactions will not occur again to the interviewer or to anyone else.

Prelin.

methos

inesm.

Freud,

12.51.1

ng-i,

of 1.a

to 13

70127

Ment

"A y

te :

Zir.

€-2

₹?.e

W S g

#### APPENDIX VI

### SCORING INSTRUCTIONS\*

# Preliminary Hostility Scale

The purpose of these instructions is to describe a method of quantifying hostility as expressed in the manifest dream. You are asked first to break up each dream, following Freud, into its conceptual elements, which are to be scored individually and then totaled to obtain the overall hostility rating. A "conceptual element" is here taken to mean a sort of natural unit of either action, feeling or scene. A guide to identifying this unit is the independent clauses through which the dream is reported.

Sometimes the dream will consist of only one such element expressed in one sentence; i.e., "He killed his mother."

"A corpse lay in the room." More often, however, there will be many sentences, each containing two or more units of this kind; i.e., "He searched for a brick/and then threw it at his mother/ as he wished to do away with her." In isolating the elements, it is sometimes necessary to supply missing words or grammatical links; i.e., "He was angrier/ and (he

<sup>\*</sup>Leon Saul and Edith Sheppard, "An Attempt to Quantify Emotional Forces Using Manifest Dreams," <u>Journal of American Psychoanalytic Association</u>, 4, 486, 1956, pp. 490-491.

was) more murderous when they were near." Likewise, "After picking up the brick, he threw it at his mother," really means: "He picked up the brick;/he then threw it at his mother." A sentence reading "He was angry, resentful, and hostile" means, "He was angry/ (he was) resentful/ and (he was) hostile." It thus contains three elements and is accordingly scored three times.

On the other hand, a sentence like, "He said that he was feeling very hostile" cannot be broken into two distinct elements because the verb "said" is transitive and requires the clause "that he was feeling very hostile" as its object. It is, therefore, scored only once. However, if a parenthetical clause is nonrestrictive, i.e., if it can stand alone and does not distort the meaning of the rest of the sentence when taken away, it can be treated as independent. Thus, "Peter, who incidentally hates women, is now preparing to murder his mother" means; "Peter hates women;/he is now preparing to murder his mother." If a sentence is ungrammatical, convert it into proper form and treat it as you would any other.

Hostility Scale

Score	Action	Setting
V	Human: Death or death threat by stabbing, shooting, pushing, striking, hit by car, drowning, illness, warfare, animal attack, mutilation, drive to insanity, violence.	rati rain rain vo
rv .	Non Human: Equivalent destruction of animate or inanimate objects other than human.	bodies, blood, caskets.
†	Human: Injury or injury threat by fight, accident, illness, abandon-ment, rendered helpless, robbed.	Adversity in situation: storm, fire, evidence of illness, hospitalization, doctor, accident.
ന	Non Human: Equivalent injury of animate or inanimate objects other than human.	
cv	Human: Discomfort or discomfort threat by minor difficulty, hurt, annoyance, failure, inappropriate behavior.	Something wrong in situation: shabby or deteriorated house.
1	Non Human: Equivalent discomfort of animate or inanimate objects other than human.	

#### APPENDIX VII

# THE MICHIGAN STATE M-SCALES\* (Form B)

developed by

William W. Farquhar, Project Director

David A. Payne, Research Coordinator Marion D. Thorpe, Research Assistant Ronald G. Taylor Roger C. Thweatt

<sup>\*</sup>These scales were developed under the auspices of the U.S. Office of Education, Department of Health, Education and Welfare, Research Project #846.

Copyright applied for, May, 1961.

The questi

This is a The resul

The inver-

The second secon

.

Answer a way wil you and what yo

Bo Not a spec small "l";

EYAME

Th

7

#### THE GENERALIZED SITUATIONAL CHOICE INVENTORY

The questions on this inventory refer to the spaces on your answer sheet numbered from 1 through 80.

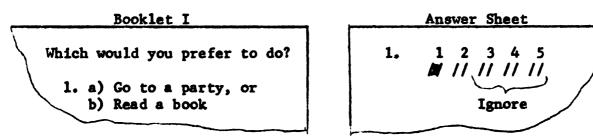
This is a survey of your choices. There are no right or wrong answers. The results will in no way affect your grades in school.

The inventory is made up of pairs of statements. Read each pair carefully. Choose the one you would most prefer or like to do.

Answer all questions as honestly and frankly as you can. Only in this way will the results be meaningful. Remember this inventory is about you and you alone. This is not a survey of what you can do, but of what you would like to do.

Do Not Write On This Booklet. You will be given an answer sheet and a special pencil to mark your answers with. Mark between the two small lines under the one of your choice. If you prefer "a", mark "l"; if you prefer "b", mark under "2".

#### EXAMPLE:



This person marked under the number "1" on the answer sheet which means that he would prefer to go to a party to reading a book. Ignore columns "3", "4", and "5".

If you have any questions, raise your hand. If not, turn to the next page and answer all the questions. Do Not Skip Any Questions! Work as rapidly as you can and do not spend too much time on any one item.

This is not a survey of what you can do but of what you would prefer to do.

Remember the questions in this inventory refer to the spaces on your answer sheet numbered from 1 through 80.

#### PLEASE DO NOT WRITE ON THIS BOOKLET

a P<sup>ro</sup> 

- 1. 1) Avoid failing in school, or
  - 2) Do well in school
- 2. 1) Be quick, but often incorrect, or
  - 2) Be slow, but often correct
- 1) Work hard for what I get, or
   2) Just get what I want
- -, odoc got mase 1 mans
- 1) Make something I have planned myself, or
   2) Make something planned by somebody else
- 5. 1) Accomplish a task slowly, but in an orderly manner, or
  - 2) Accomplish a task in a hurry, but less carefully

#### I would prefer to:

- 1) Receive a grade on the basis of how well I did on the teacher's test, or
  - 2) Get a grade on the basis of how hard I tried
- 7. 1) Work hard to be smart, or
  - 2) Take it easy and become rich
- 8. 1) Be thought of as being a studious person, or
  - 2) Be thought of as being a carefree person
- 1) Have the best teachers in the state in my school, or
   2) Have a large recreation center in my school
- 10. 1) Buy a car, or
  - 2) Continue my education

- 1) Be well prepared for a job after graduation from high school, or
  - 2) Be well prepared to continue learning
- 12. 1) Pass a usual classroom examination, or
  - 2) Pass a college entrance examination
- 1) Have the teacher give everyone the same grade at the beginning of the term and know I had passed, or
  - Take chances on getting a higher or lower grade at the end of the course

I would pr

14.

15.

I would pr

16.

17.

18.

19.

20.

I would

21.

- 14. 1) Develop a new product which may or may not be good, or
  - 2) Make a product as good as the best one available
- 15. 1) Receive money for my good grades, or
  - 2) Be allowed to take any course I wanted because of good grades

#### I would prefer to:

- 16. 1) Be successful in finishing a job, or
  - 2) Finish a job
- 17. 1) Play a game against experts and lose but learn how to play better, or
  - 2) Play a game against inexperienced players and win
- 18. 1) Get excellent grades because I have a great deal of ability, or
  - 2) Get average grades because I have average ability
- 19. 1) Be graded at the end of a course with the possibility of making an "A", or
  - 2) Get a "C" at the beginning of a course along with everyone else
- 20. 1) Make quick decisions and sometimes be right and sometimes wrong, or
  - 2) Deliberate over decisions and usually be right

- 21. 1) Be known to my parents as an intelligent person, or
  - 2) Be known to my parents as a practical person
- 22. 1) Be a person of leisure, or
  - 2) Be a person of action
- 23. 1) Be allowed to take extra courses before or after school, or
  - 2) Just take courses offered during the school day
- 24. 1) Complete a job which I recognize as difficult, or
  - 2) Complete a job which other's recognize as difficult
- 25. 1) Receive money for good grades, or
  - 2) Have my picture in the paper for good grades

I would pre

26. 1)

27. 1)

28. <u>1)</u> 2)

29. 1) 2)

30, 1) 2)

I would pro

31. 1

32.

33.

34.

35.

I would

36.

37.

38,

- 26. 1) Receive grades which are like everyone elses', or
  - 2) Receive grades that please my parents
- 27. 1) Do as well as most of my classmates, or
  - 2) Do better than most of my classmates
- 28. 1) Be considered as being strong but not very smart, or
  - 2) Be considered as being weak but smart
- 29. 1) Have someone show me the solution to a problem, or
  - 2) Take a long time to figure cut a problem for myself
- 30. 1) Be known as a person with much ability, or
  - 2) Be known as a person with adequate ability

# I would prefer to:

- 31. 1) Work at many less important jobs which I know I could finish, or
  - 2) Work at one very important job which may never be entirely finished in my life-time
- 32. 1) Be paid for how well I did a job, or
  - 2) Be paid the same amount no matter how I did the job
- 33. 1) Work rapidly just "skimming" along, or
  - 2) Work slowly with great thoroughness
- 34. 1) Do a less recognized but complete job, or
  - 2) Do a recognized but incomplete job
- 35. 1) Have a better job than my father has, or
  - 2) Have a job like my father has

- 36. 1) Have a great deal of money, or
  - 2) Be an expert in my favorite school subject
- 37. 1) Have average ability and be liked by many people, or
  - 2) Have superior ability but not be liked by as many people
- 38. 1) Have everybody in the class get a "C" at the beginning of the course, or
  - 2) Be graded at the end of the course with the possibility of getting a higher or lower mark

39. 1)

2)

40. 1)

I would pr

41. 1

42.

43.

44.

45.

I would

46

4

•

- 39. 1) Receive a grade on the basis of how much my teacher thinks I have learned, or
  - 2) Take a course from an instructor who only gives "G"'s
- 40. 1) Be an able person, or
  - 2) Be wealthy

- 41. 1) Be paid for the amount of work I did, or
  - 2) Be paid by the hour
- 42. 1) Work hard in everything I do, or
  - 2) Work at things as they come along
- 43. 1) Have a hard job which pays well, or
  - 2) Have an easier job which pays less
- 44. 1) Study my assignments during study hall, or
  - 2) Wait to study until the mood strikes me
- 45. 1) Be known for what I could do, or
  - 2) Be known for what I do

#### I would prefer to:

- 46. 1) Think of an idea that nobody has ever thought of, or
  - 2) Set a world's speed record
- 47. 1) Perform well in class, or
  - 2) Watch television
- 48. 1) Learn by defeating an inexperienced player, or
  - 2) Learn by defeating an expert
- 49. 1) Save enough money to buy something with cash, or
  - 2) Buy something on credit and pay for it as I use it
- 50. 1) Do what I think is right, or
  - 2) Do what others think is right

- 51. 1) Be known as a person who is able to do many things, or
  - 2) Be known as an expert
- 52. 1) Work overtime to make more money, or
  - 2) Get more schooling to make more money

53.

54.

55.

I would pr

56.

57. 1

58.

59.

60.

I would

61.

62.

63.

64.

65

I woul

•

- 53. 1) Inherit a great deal of money, or
  - 2) Earn a great deal of money
- 54. 1) Wait ten years and receive feme throughout the nation, or
  - 2) Receive fame in my community overnight
- 55. 1) Wait until I had finished college and make a better salary, or
  - 2) Get a job right after high school and make a good salary

- 56. 1) Plan my life in advance, or
  - 2) Live my life from day to day
- 57. 1) Have decisions made for me, or
  - 2) Make my own decisions
- 58. 1) Accomplish a difficult task well, or
  - 2) Accomplish a difficult task fast
- 59. 1) Study to go to college, or
  - 2) Study to get out of high school
- 60. 1) Live a life of leisure, or
  - 2) Live a life of many new experiences

#### I would prefer to:

- 61. 1) Enjoy myself at a museum, or
  - 2) Enjoy myself at a night-club
- 62. 1) Have a great deal of influence over people, or
  - 2) Have a great deal of ambition
- 63. 1) Play a "tie" game with an expert, or
  - 2) Win a game from an inexperienced player
- 64. 1) Carry out the plans of others, or
  - 2) Create something of my own
- 65 1) Be known as being a "good guy" or a "good gal", or
  - 2) Be known as a person who "does things well"

- 66. 1) Be very happy, or
  - 2) Have lots of money
- 67. 1) Be known as a person who knows his own mind, or
  - 2) Be known as a person who gets help in making decisions

68. 1

69. 1

70.

I would pr

71. 1

72.

73.

74.

75.

I would

76.

77,

78

- 68. 1) Do something like everyone else, or
  - 2) Do something outstanding
- 69. 1) Have an instructor who gave me an "A" and not care whether I learned anything or not, or
  - 2) Have an instructor who gave me a "C" but made sure I learned something
- 70. 1) Put together a new object, or
  - 2) Develop new ideas

- 71. 1) Be demanding on myself to do good work, or
  - 2) Be demanding on my friends so that they will do good work
- 72. 1) Accept what someone else says even though I don't agree, or
  - 2) Argue for what I believe to be right
- 73. 1) Study for an exam one night and know that I would receive an "A", or
  - 2) Go to a party on this night and take a chance on a lower grade
- 74. 1) Date the smartest girl or boy in class, or
  - 2) Date the girl or boy who is the most fun
- 75. 1) Do something that I have done before, or
  - 2) Do something that I never have done before

- 76. 1) Work hard enough to be outstanding, or
  - 2) Work hard enough to pass my courses
- 77. 1) Discover a gold mine, or
  - 2) Discover a new medicine
- 78. 1) Have one of my children win a beauty contest, or
  - 2) Have one of my children win a college scholarship
- 79. 1) Be the smartest person in the world, or
  - 2) Be the happiest person in the world
- 80. 1) Learn by defeating an experienced player, or
  - 2) Learn by losing to an expert

The numb

you the edu res in mar cas

EX

Th

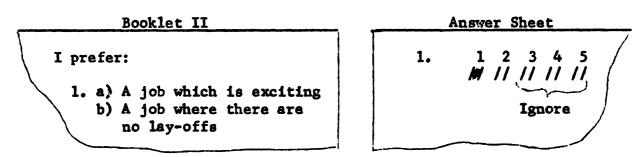
T .0

#### PREFERRED JOB CHARACTERISTICS SCALE

The questions on this scale refer to the spaces on your answer sheet numbered from 81 through 128.

Directions: What kind of a job do you prefer? In the following items you will find two job characteristics paired. From each pair choose the one characteristic you value most for your future job, after your education. If you prefer characteristic "a", mark in the column for response "1" on the special answer sheet. If you prefer "b", then mark in the "2" column. (Ignore columns "3", "4", and "5".) Be sure to mark only one choice for each pair. Do not omit any items. In some cases, it will be hard to make a choice between the items because you may want to choose both items or neither. But remember, you must make a choice.

#### **EXAMPLE:**



This person marked under the number "1" which means that he prefers job characteristic "a".

This is a survey to find out your job preferences. There are no right or wrong answers.

If you have any questions, raise your hand and ask the examiner. Be sure to fill in the spaces at the top of the answer sheet.

Remember, if you prefer characteristic "a", mark in the "1" column, if you prefer "b", mark in the "2" column.

The questions in this scale refer to spaces on your answer sheet numbers 81 through 128.

If there are no questions, turn the page and begin!

PLEASE DO NOT WRITE ON THIS BOOKLET

. . . . •

#### I prefer:

- 81. 1) A job where my opinion is valued
  - 2) A job with short working hours
- 82. 1) A job where I solve problems no one else can
  - 2) A job which permits me to take days off when I want
- 83. 1) A job which does not require a college education
  - 2) A job where I could decide how the work is to be done
- 84. 1) A job which pays well and requires little effort
  - 2) A job where I could express my ideas, talents, and skills
- 85. 1) A job which requires little thinking
  - 2) A job where I could continue to learn the rest of my life

#### I prefer:

- 86. 1) A job which absorbs my interests
  - 2) A job where I make few if any decisions
- 87. 1) A job where I could become known for outstanding accomplishments
  - 2) A job where I could not be fired
- 88. 1) A job which has high work standards
  - 2) A job which permits me to take days off when I want
- 89. 1) A job where I solve problems no one whee can
  - 2) A job which does not require a college education
- 90. 1) A job which pays well and requires little effort
  - 2) A job where I could decide how the work is to be done

#### I prefer:

- 91. 1) A job where I could express my ideas, talents, and skills
  - 2) A job which requires little thinking
- 92. 1) A job where I could continue to learn the rest of my life
  - 2) A job where I make few if any decisions
- 93. 1) A job with short working hours
  - 2) A job which absorbs my interests
- 94. 1) A job where my opinion is valued
  - 2) A job where I could not be fired
- 95. 1) A job which does not require a college education
  - 2) A job which has high work standards

• •

#### I prefer:

- 96. 1) A job which requires little thinking
  - 2) A job where I could decide how the work is to be done
- 97. 1) A job with short working hours
  - 2) A job where I could continue to learn the rest of my life
- 98. 1) A job which does not tie me down
  - 2) A job which absorbs my interests
- 99. 1) A job where my opinion is valued
  - 2) A job which permits me to take days off when I want
- 100. 1) A job where I could become known for outstanding accomplishments
  - 2) A job which does not require a college education

### I prefer:

- 101. 1) A job which pays well and requires little effort
  - 2) A job which has high work standards
- 102. 1) A job where I could decide how the work is to be done
  - 2) A job where I make few if any decisions
- 103. 1) A job with short working hours
  - 2) A job where I could express my ideas, talents, and skills
- 104. 1) A job which does not tie me down
  - 2) A job where I could continue to learn the rest of my life
- 105. 1) A job where I could not be fired
  - 2) A job which absorbs my interests

#### I prefer:

- 106. 1) A job which does not require a college education
  - 2) A job where my opinion is valued
- 107. 1) A job where I make few if any decisions
  - 2) A job were I solve problems no one else can
- 108. 1) A job where I could not be fired
  - 2) A job where I could continue to learn the rest of my life
- 109. 1) A job which permits me to take days off when I want
  - 2) A job which absorbs my interests
- 110. 1) A job where I could become known for outstanding accomplishments
  - 2) A job which requires little thinking

#### I prefer:

- 111. 1) A job which has high work standards
  - 2) A job where I make few if any decisions
- 112. 1) A job with short working hours
  - 2) A job where I solve problems
- 113. 1) A job where I could not be fired
  - 2) A job where I could express my ideas, talents, and skills
- 114. 1) A job which does not require a college education
  - 2) A job which absorbs my interests
- 115. 1) A job which requires little thinking
  - 2) A job where my opinion is valued

#### I prefer:

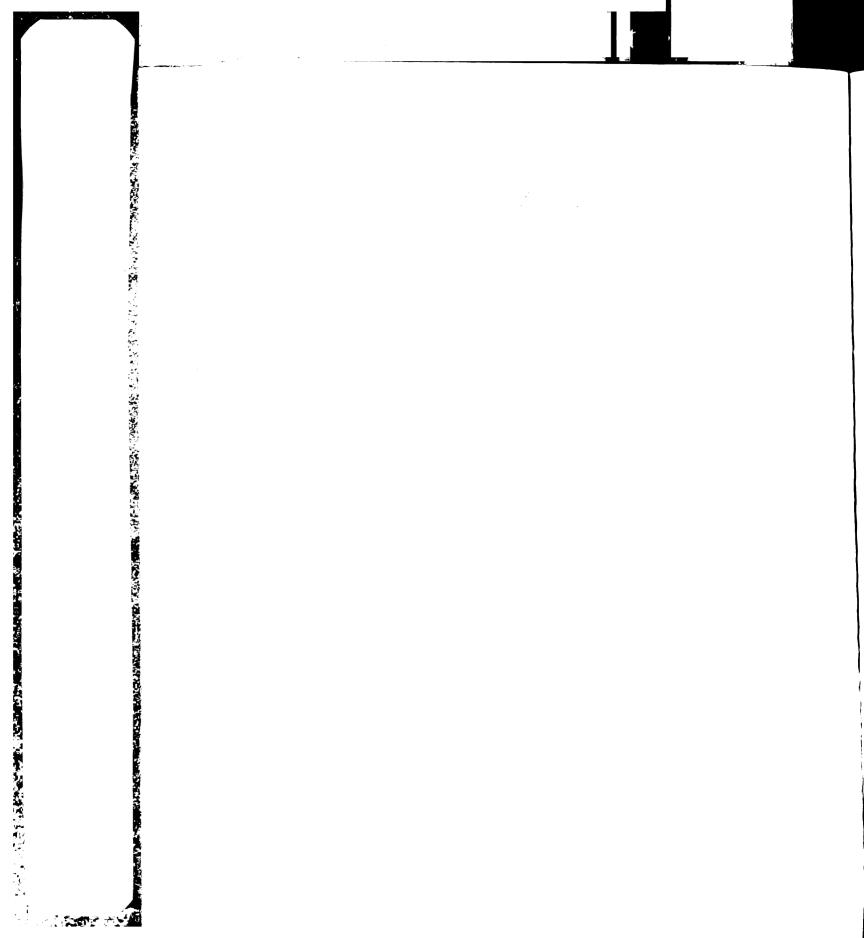
- 116. 1) A job where I make few if any decisions
  - 2) A job where I could become known for outstanding accomplishments
- 117. 1) A job with short working hours
  - 2) A job which has high work standards
- 118. 1) A job which does not tie me down
  - 2) A job where I solve problems no one else can
- 119. 1) A job where I could not be fired
  - 2) A job where I could decide how the work is to be done
- 120. 1) A job where I could express my ideas, talents, and skills
  - 2) A job which permits me to take days off when I want

#### I prefer:

- 121. 1) A job which does not require a college education
  - 2) A job where I could continue to learn the rest of my life
- 122. 1) A job where my opinion is valued
  - 2) A job where I make few if any decisions
- 123. 1) A job with short working hours
  - 2) A job where I could become known for outstanding accomplishments
- 124. 1) A job which does not tie me down
  - 2) A job which has high work standards
- 125. 1) A job which does not require a college education
  - 2) A job where I could express my ideas, talents, and skills

# I prefer:

- 126. 1) A job where I could continue to learn the rest of my life2) A job which pays well and requires little effort
- 127. 1) A job which absorbs my interest2) A job which requires little thinking
- 128. 1) A job which requires little thinking2) A job where I solve problems no one else can



#### WORD RATING LIST

The questions in this rating list refer to the spaces on your answer sheet numbered 129 through 211.

Following is a list of words teachers may use to describe students. You are to rate yourself on each word as you think your <u>teachers</u> would rate you.

Be sure to describe yourself as your teachers would, not as you would describe yourself.

Read each word carefully, then decide which of the following ratings would be chosen by your teachers to describe you.

Rating Number	Meaning of Number							
1	This word would never describe me							
2	This word sometimes describes me							
3	This word <u>usually</u> describes me							
4	This word always describes me							

After you decide how your teacher might rate you, mark the special answer sheet. Use the pencil provided and make heavy marks. Ignore column "5".

#### **EXAMPLE:**

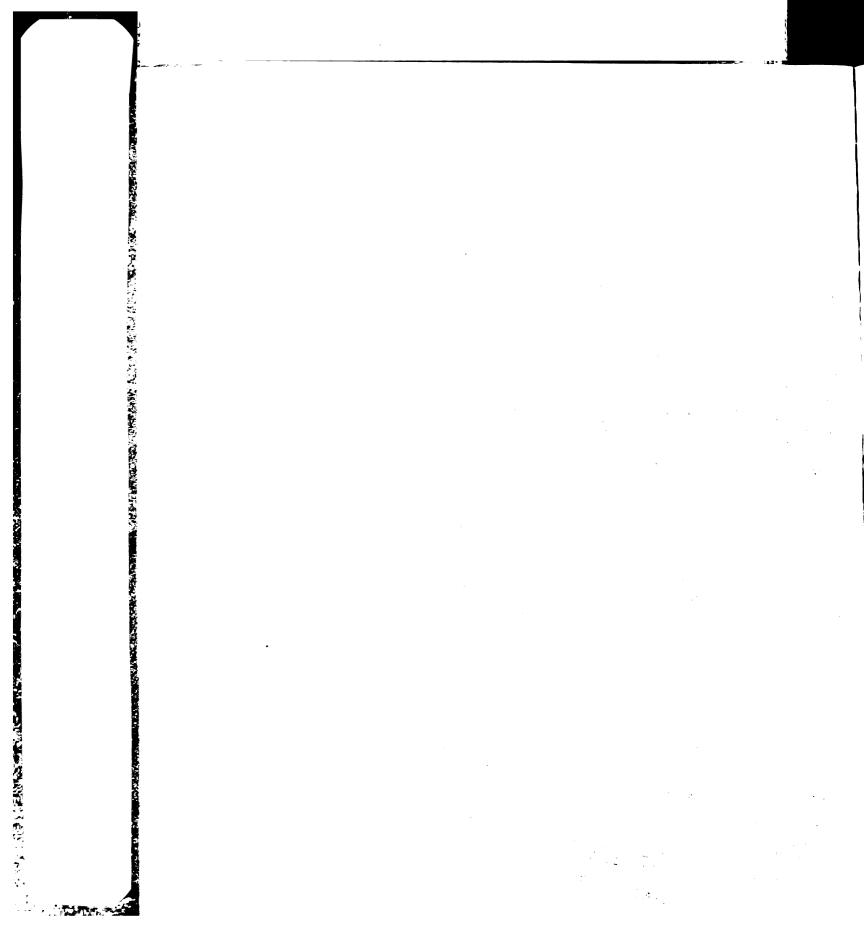
Booklet III	Answer Sheet
1. Happy 1 2 3 4	1 2 3 4 5 (Ignore // // // // column 5)

This individual has chosen the rating number "2" for the word "happy". This means that he feels that his teachers think that the word "happy" sometimes describes him.

If you have any questions, raise your hand. If not, turn to the next page and begin rating all of the words. Do Not Skip Any Words. Work as rapidly as you can and do not spend too much time on any one word. Remember, you are not to use column "5".

The questions in this rating list refer to the spaces on your answer sheet numbered 129 through 211.

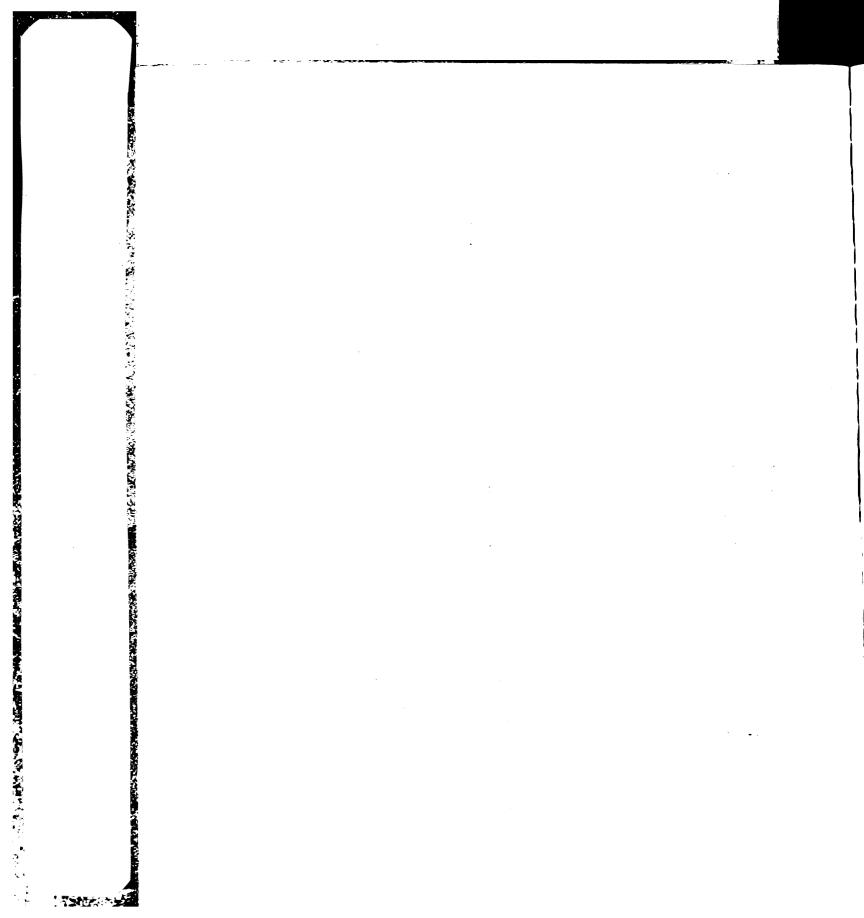
PLEASE DO NOT WRITE ON THIS BOOKLET



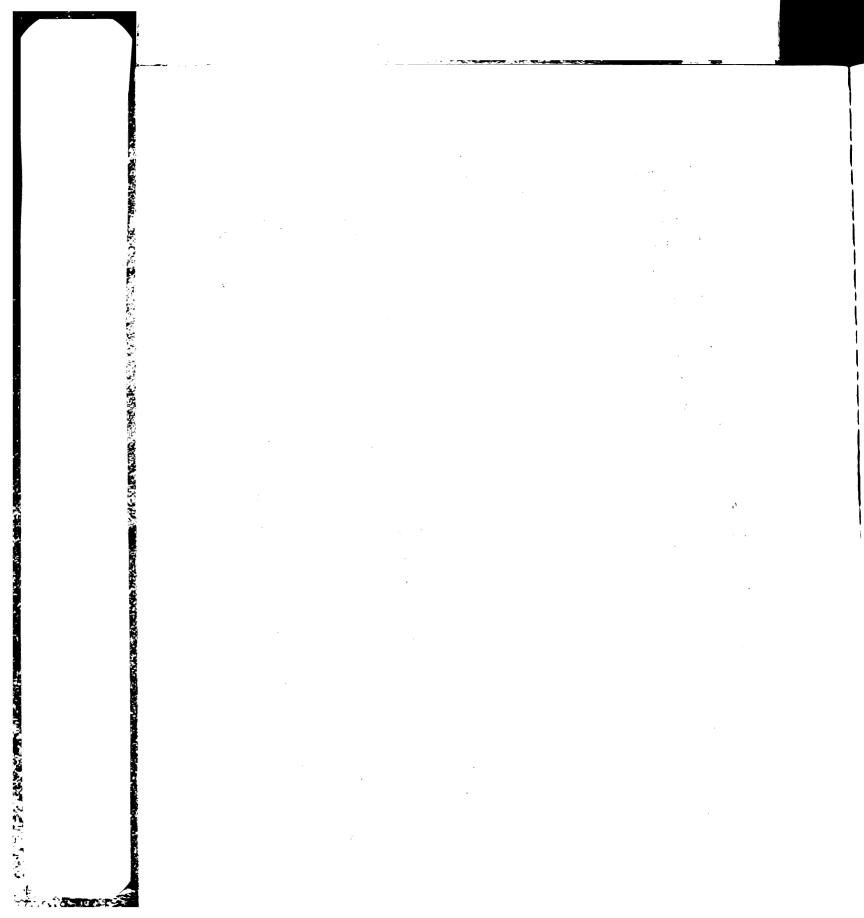
		-1		
		Me	133 AB	
,é	s Gode	OBU	Alueye Alueye	
zeré	Son.	9	P.J.	

News Gode Dead Live 18

	<u> </u>								
Teachers feel that I am:	N	S	U	A	Teachers feel that I am:	N	S	บ	A
129. patient	1	2	3	4	149. different	1	2	3	4
130. talented	1	2	3	4	150. discontented	1	2	3	4
131. dul1	1	2	3	4	151. flighty	1	2	3	4
132. inefficient	1	2	3	4	152. responsible	1	2	3	4
133. practical	1	2	3	4	153. original	1	2	3	4
Teachers feel that I am:	N	S	U	A	Teachers feel that I am:	N	S	U	A
134. confident	1	2	3	4	154. consistent	1	2	3	4
135. average	1	2	3	4	155. intelligent	1	2	3	4
136. logical	1	2	3	4	156. distractable	1	2	3	4
137. unsuccessful	1	2	3	4	157. in-the-know	1	2	3	4
138. smart	1	2	3	4	158. childish	1	2	3	4
Teachers feel that I am:	N	S	U	A	Teachers feel that I am:	N	S	U	A
139. successful	1	2	3	4	159. rebellious	1	2	3	4
140. "blah"	1	2	3	4	160. nervous	1	2	3	4
141. careful	1	2	3	4	161. systematic	1	2	3	4
142. thorough	1	2	3	4	162. daring	1	2	3	4
143. orderly	1	2	3	4	163. cold	1	2	3	4
Teachers feel that I am:	N	S	U	A	Teachers feel that I am:	N	S	U	A
144. purposeful	1	2	3	4	164. below average	1	2	3	4
145. uninterested	1	2	3	4	165. reckless	1	2	3	4
146. a procrastinator	1	2	3	4	166. dependable	1	2	3	4
147. unreliable	1	2	3	4	167. a person who	1	2	3	4
148. studious	1	2	3	4	postpones 168. a goof off	1	2	3	4



				عاریات د <b>ی</b> ۔					. 6
		ever	(ite	Ugua,	INE 78		ever	otte	Lines Jevelys
		e ·	<i>⊍</i> ′	0 8	·	_5		50 <	A Trans
Teachers feel that I am:	N	S	ប	A	Teachers feel that I am:	N	S	U	A
169. exacting	1	2	3	4	189. contented	1	2	3	4
170. lazy	1	2	3	4	190. cutsider	1	2	3	4
171. stubborn	1	2	3	4	191. a person who	1	2	3	4
172. perfectionistic	1	2	3	4	delays 192. indecisive	1	2	3	4
173. accepting	1	2	3	4	193. irresponsible	1	2	3	4
Teachers feel that I am:	N	s	บ	A	Teachers feel that I am:	N	s	U	A
174. carefree	1	2	3	4	194. concerned	1	2	3	4
175. competitive	1	2	3	4	195. an achiever	1	2	3	4
176. unreasonable	1	2	3	4	196. a planner	1	2	3	4
177. a "wheel"	1	2	3	4	197. competent	1	2	3	4
178. a "grind"	1	2	3	4	198. inconsistent	1	2	3	4
Teachers feel that I am:	N	s	บ	A	Teachers feel that I am:	N	S	U	A
179. fool-hearty	1	2	3	4	199. teachable	1	2	3	4
180. intellectual	1	2	3	4	200. reasonable	1	2	3	4
181. retiring	1	2	3	4	201. impatient	1	2	3	4
182. alert	1	2	3	4	202. friendly	1	2	3	4
183. above average	1	2	3	4	203. fault-finding	1	2	3	4
Teachers feel that I am:	N	S	U	A	Teachers feel that I am:	N	s	U	A
184. productive	1	2	3	4	204. dominant	1	2	3	4
185. a "brain"	1	2	3	4	205. inaccurate	1	2	3	4
186. persuadable	1	2	3	4	206. passive	1	2	3	4
187. a thinker	1	2	3	4	207. efficient	1	2	3	4
188. ambitious	1	2	3	4	208. easily distracted	1	2	3	4



# Never Jave 114

Teachers feel that I am:	N	S	U	A
209. reliable	1	2	3	4
210. serious	1	2	3	4
211. pushed	1	2	3	4

## HUMAN TRAIT INVENTORY

The questions in this inventory refer to the spaces on your answer sheet numbered 212 through 259.

GENERAL DIRECTIONS: PLEASE READ CAREFULLY!

Following is a list of statements about YOU. Read each statement carefully! Then decide whether this statement is how you always feel, usually feel, sometimes feel or never feel.

## Number

- 1 This statement would never describe the way I feel
- This statement sometimes describes the way I feel
- This statement usually describes the way I fee!
- 4 This statement always describes the way I feel

Answer each statement -- Do not leave any blank.

There are no right or wrong answers. The answers apply only to you. The way you answer these statements will not affect your school marks in any way. Mark between the lines under the number that best describes how you feel.

## EXAMPLE:

Booklet IV	Answer Sheet			
l. I feel it is always a good thing to be honest.	1 2 3 4 5 (Ignore // kg // // // column 5)			

This individual has chosen number "2" for the statement "I feel it is always a good thing to be honest." This means he feels that this statement sometimes describes him.

In marking your answers on the separate answer sheet, be sure that the number of the statement in the booklet is the same as the number on the answer sheet. It is best to mark your first impression, try not to change your answer. If you change an answer, erase completely your first choice and then blacken between the lines under the other column.

The questions in this inventory refer to spaces on your answer sheet numbered 212 through 259.

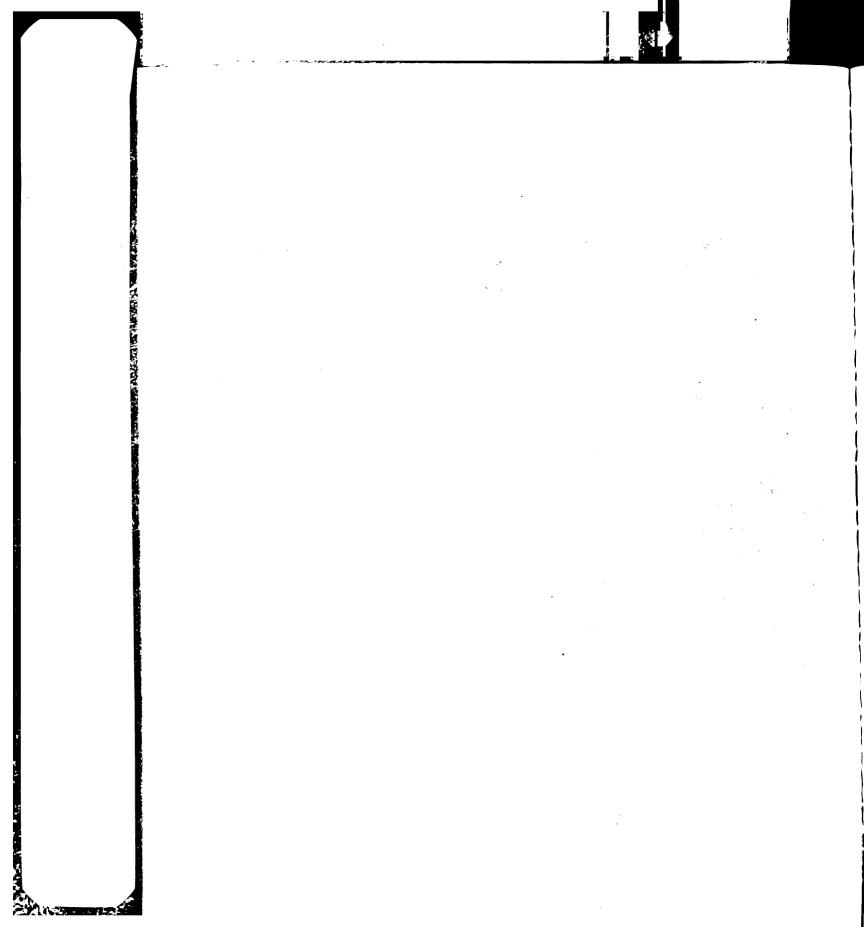
Remember to answer the statements as they apply to you!

PLEASE DO NOT WRITE ON THIS BOOKLET

Ratings: 1. Never 2. Sometimes 3. Usually	4.	4. Always		
	N	s	U	A
212. I like collecting flowers or growing house plants	1	2	3	4
213. I worry about my grades	1	2	3	4
214. Many times I become so excited I find it hard to go to sleep	1	2	3	4
215. I day dream frequently	1	2	3	4
216. I work things out for myself rather than have a friend show me how	1	2	3	4
217. I have been quite independent and free from family rule	1	2	3	4
218. I have played that I am sick to get out of doing something	1	2	3	4
219. When I have an opinion, I stand up for it	1	2	3	4
220. It is difficult for me to keep interested in most of my school subjects	1	2	3	4
221. I have difficulty working under strict rules and regulations	1	2	3	4
222. I flirt	1	2	3	4
223. Most of my school subjects are a complete waste of time	1	2	3	4
224. Most of my school subjects are useful	1	2	3	4
225. I find it difficult to find the time to study my assignment for the next day	1	2	3	4
226. I have done something that is considered dangerous just for the thrill of it	1	2	3	4
227. I like just about everything about school	1	2	3	4
228. I have a hard time concentrating on the subject during class periods	1	2	3	4

•• 

-19-	4	e <sup>ver</sup>	30me	lang 17
	N	S	U	A
229. When I was a youngster, I stole things	1	2	3	4
230. Even when I do sit down to study, I find mind tends to wander	that my	2	3	4
231. I have to be in the mood before I can st	udy 1	2	3	4
232. I like to make the best grades possible	1	2	3	4
233. I like to study	1	2	3	4
234. I like to plan very carefully what cours take in school	es I will 1	2	3	4
235. I have played hooky from school	1	2	3	4
236. I am said to be quick tempered	1	2	3	4
237. There was a time in my life when I liked with dolls	to play 1	2 2	3	4
238. I learn slowly	1	2	3	4
239. It would be worthwhile to belong to seve or lodges	ral clubs	2	3	4
240. My parents object to the friends I choos	e 1	2	3	4
241. I have been sent to the principal for mi in class	sbehaving 1	2	3	4
242. I have trouble with my muscles twitching	or jumping 1	2	3	4
243. I plan my activities in advance	1	2	3	4
244. I think I would like the work of a teach	er 1	2	3	4
245. I want very much to be a success	1	2	3	4
246. One of more times a week I suddenly feel over for no apparent reason		2	3	4
247. I work under a great deal of tension	1	2	3	4
248. I have trouble waiting for a class to be	over 1	2	3	4



-20-		et Soo		A A
249. I would be uneasy if some of my family were in trouble with the police		2		
250. I get disgusted with myself if I don't do as well as I should	1	2	3	4
251. I like to plan my activities in advance	1	2	3	4
252. I wish I were a child again	1	2	3	4
253. I feel cross and grouchy without good reason	1	2	3	4
254. I like being with people in social gatherings	1	2	3	4
255. Some subjects are so unpleasant to me that I can't talk about them	1	2	3	4
256. I feel that I haven't any goals or purpose in life	1	2	3	4
257. I like to be consistent in the things I do	1	2	3	4
258. I like to go to the movies more than once a week	1	2	3	4
259. I would like to belong to a motorcycle club	1	2	3	4

