EVALUATION OF A TRAINING PROGRAM
TO IMPROVE THE ABILITY TO
DIFFERENTIATE BETWEEN PEOPLE

Thesis for the Degree of Ph. D.
MICHIGAN STATE UNIVERSITY
Burton A. Grossman
1967

THESIS

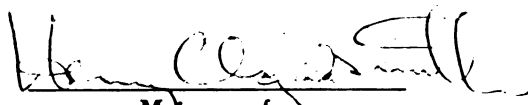This is to certify that the

thesis entitled

EVALUATION OF A TRAINING PROGRAM TO
IMPROVE THE ABILITY TO DIFFERENTIATE
BETWEEN PEOPLE

presented by

Burton A. Grossman

has been accepted towards fulfillment
of the requirements for

___Ph.D.___ degree in _Psychology_

_____
Major professor

Date_January 16, 1967_

O-169

ABSTRACT

EVALUATION OF A TRAINING PROGRAM TO IMPROVE THE
ABILITY TO DIFFERENTIATE BETWEEN PEOPLE

by Burton A. Grossman

The purposes of the present study were twofold:
(1) to evaluate the effectiveness of a training program
designed to increase Individual Accuracy, and (2) to investi-
gate specific individual differences in the impact of training.

Individual Accuracy was defined as the ability of a
judge to differentiate between individuals when group member-
ship cues are reduced to a minimum, and to use this knowledge
in making predictions about the individuals.

The training program utilized the principles of
practice, participation, and feedback, focused on systemati-
zation of the prediction process, and used an explicit
empirical personality theory as a guideline for change.
The training criterion consisted of the typescripts of
interviews with three men followed by sixty items which
required the judge to make predictions differentiating
between the men. Thirty items measured the accuracy of
second-person predictions, and thirty items measured the
accuracy of third-person predictions.

The experimental design involved pre- and post-tests on the training criterion for both the experimental and control groups, and comparison of pre- to post-test differences for the two groups through the use of matched t-tests. A correlational analysis was used to study the individual differences in the impact of training.

The training program consisted of five one-hour training sessions interpolated between the pre- and post-test on the training criterion. There was a period of approximately four weeks between the pre-test and post-test.

On the basis of the data reported, the following conclusions can be made:

1. Specially designed training programs can lead to significant improvement in Individual Accuracy. Most of this improvement can be attributed to an increase in the accuracy of second-person predictions.

2. The use of an explicit, empirical personality theory as a guideline and aid to change does not seem to be related to improvement in Individual Accuracy.

3. For male subjects, boldness is related to gains on the criterion; for female subjects, there is no relation between boldness and improvement.

4. Male subjects who are more emotional, and more impulsive show greater gains on the criterion as a result of training.

5. No specific personality factors are related to differential improvement in Individual Accuracy among female subjects.

6. Female subjects show slightly greater improvement on the criterion than do male subjects.

7. Age and intellectual ability have no clear relationship to improvement in Individual Accuracy.

It was suggested that future training programs use smaller groups, more discussion of, and more effective presentation of, knowledge of results, and a criterion composed exclusively of second-person predictions. Also, the use of diagnostic tests of the various components of sensitivity was suggested as a likely starting point for future training programs.

EVALUATION OF A TRAINING PROGRAM TO IMPROVE THE

ABILITY TO DIFFERENTIATE BETWEEN PEOPLE

By

Burton A. Grossman

A THESIS

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

DOCTOR OF PHILOSOPHY

Department of Psychology

1967

DEDICATION

To my parents, for their continuing faith in me.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF APPENDICES

CHAPTER I

INTRODUCTION

In the recent past there has been increased interest
in the area of interpersonal relations, and, more particularly
in interpersonal sensitivity. Attempts have been made to
determine the nature of interpersonal sensitivity, its re-
lationship to other psychological variables (mainly personality
traits), and ways of developing it. These attempts have
been hampered by the lack of a sound theoretical basis from
which testable hypotheses could be developed. Smith (1966)
proposes a new approach to the problem by looking at inter-
personal sensitivity as composed of a number of independent
components: Level, Spread, Observation, Empathy, Differentiation
between Groups, and Differentiation between Individuals.
Each of these is assumed to make an independent contribution
to the overall ability. He defines interpersonal sensitivity
as the ability to accurately predict the thoughts, feelings
and attitudes of another person about you, himself, and
others.

Past attempts to improve sensitivity by training
have not been rigorously evaluated; studies that have been
done have produced conflicting results. Presenting the
individual components as being independently defined and
measured permits a more rigorous testing of more concrete

1

training hypotheses. The purpose of the present research
is to make such an experimental test. It deals with the
component we call Individual Accuracy--the ability to accurate-
ly differentiate between individuals on the basis of their
thoughts, feelings, and attitudes. The research focuses on
two general questions: Can specific training programs
help people to increase their Individual Accuracy? What
characteristics distinguish those persons who do from those
who do not show increased sensitivity as a result of training?

History

After tracing the conceptual and methodological
development of interpersonal sensitivity, the following
discussion considers (1) informal, academic programs aimed
at improving sensitivity, (2) empirical research investi-
gating training in sensitivity, (3) individual differences
in the impact of training, and (4) an evaluation of training
research.

Development of the Concept of Interpersonal Sensitivity

The concept known as "the ability to understand
people" has a long and varied history. One of the first
constructs referring to this ability was "empathy." Dymond
(1949, 1950) defined empathy as "the imaginative transposing
of oneself into the thinking, feeling and acting of another."
It was assumed that an "empathic" person, through this
transposing process, could perceive the characteristics of

another person and thus predict his behavior. However, there seemed to be some inherent faults in the measurement of the ability; generally, the subject was given information about another person and was asked to predict how that person rated himself. A number of studies pointed out that the empathy score was seriously affected by such variables as projection, assumed similarity, and various rating errors (Hastorf and Bender, 1952; Bender and Hastorf, 1953; Lindgren and Robinson, 1953; Gage and Cronbach, 1955).

In an attempt to clarify these methodological problems Cronbach (1955) published a study in which he proposed a statistical breakdown of empathy scores into four components:

1. <u>Elevation</u>: the way in which the judge uses the response scale;

2. <u>Differential Elevation</u>: the judge's ability to judge deviations of an individual's elevation from the average elevation;

3. <u>Stereotype Accuracy</u>: the judge's ability to predict the norm for the Objects (persons) he is judging;

4. <u>Differential Accuracy</u>: the judge's ability to predict differences between Objects (persons) on any item.

His analysis explained many of the contradictory research findings, and served as a basis for further methodological developments. Differential Accuracy now seemed to be the key concept in the ability to predict the behavior of individuals. Attempts to develop a purer measure of

this component were somewhat successful (Cline, 1955; Crow and Hammond, 1957; Cline and Richards, 1960). Pieper (1960), using a matching rather than a rating method, eliminated the influence of Elevation and Differential Elevation on Differential Accuracy.

Bronfenbrenner et al (1958) furthered the conceptual and methodological development of the ability to understand individuals by treating it as a social skill, and by attempting to define and measure independent components. He proposed two types of social perceptions: Sensitivity to the Generalized Other--an awareness of the social norm as the typical response of a large class or group (Cronbach's Stereotype Accuracy component); and Interpersonal Sensitivity--recognition of the ways in which one person may differ from another (or from the average) in his behavior. Bronfenbrenner also felt that a thorough analysis demanded different kinds of predictions of behavior, and suggested inclusion of second person sensitivity--A's awareness of what B thinks of himself--and third person sensitivity--A's awareness of what C, a third person, thinks of B. By using predictions expressed as deviations from the mean, he obtained a measure that was independent of the judge's similarity and sensitivity to the generalized other, a "pure" measure of Interpersonal Sensitivity, free from the influence of Stereotype Accuracy.

The most recent development of the concept is that of Smith (1966). Building on the work done by Cronbach and Bronfenbrenner, he proposes that the ability to predict

behavior consists of six components (Level, Spread, Empathy, Observation, Differentiation between groups, and Differentiation between individuals), which are both defined and measured independently.

Level and Spread, characteristics of the perceiver (Judge), are similar to Cronbach's Elevation and Differential Elevation, but are defined as tendencies of the rater rather than as statistical components of an overall accuracy score. Empathy and Observation, related to the interaction between the perceiver and the person perceived, are defined respectively as "the tendency of the perceiver to assume that another person's feelings, thoughts, and behavior are similar to his own," and; "not the accuracy of inferences based on perceptions, but the accuracy of the perceptions themselves," Smith (1966).

The remaining two components are associated with the person being perceived. Differentiation between groups is the ability to predict the differences between groups, rather than predicting norms within groups as Bronfenbrenner and Cronbach proposed. The final component, and the one most relevant to the present study since it is used as the criterion for improvement in sensitivity, is Differentiation between individuals, or, as we refer to it, Individual Accuracy. Measured independently of the other five components, it is "the ability to differentiate between individuals when group membership cues are reduced to a minimum." This is the definition that will be used in the present study.

Attempts to measure each of the six components have been fairly successful, and have been combined with investigations of the determinants of each component. Grossman (1965) developed a measure of Level and Spread; Bruni (1963) a measure of Observational Accuracy; Mullin (1966) a measure of Empathic Accuracy; Johnson (1963) a measure of Differentiation between groups, and Grossman (1963) a measure of Differentiation between individuals. The training criterion used in the present study, developed by Grossman, is free from the influence of Level, Spread, and Differentiation between groups, and includes second and third person predictions as suggested by Bronfenbrenner (1958).

Research on Sensitivity Training

In his book, Smith (1966) discusses the need to improve programs aimed at training people to be more sensitive, and suggests ways of improving accuracy. This seems to follow naturally from the conceptual development of "interpersonal sensitivity" i.e., once we know what sensitivity is, can we train people to be more sensitive?

The following sections deal with research on sensitivity training. The studies are divided into two parts: (1) those which equate psychological experience or course work with training (no formal training programs); and (2) those that interpolate training between a pre-test and end-test (training programs are integrated into the research design). A final section will evaluate training research.

Informal, Academic Training Programs

It has generally been assumed that psychological training leads to increased sensitivity; empirical research, however, does not seem to support this assumption. Studies comparing psychologists and non-psychologists on the basis of predictive accuracy find no differences between the two groups, and often the non-psychologists are found to be more accurate (Estes, 1938; Luft, 1950; Taft, 1955; Soskin, 1959; Weiss, 1963; Stelmachers and McHugh, 1964; and Smith, 1966).

Another group of studies, comparing the relationship between the number of psychology courses (one or more) and interpersonal sensitivity, finds no significant relationship between the two factors (Rabin, 1950; Taft, 1955; Trumbo, 1955; Smith, 1966; Grossman, 1963). Comparisons of under-graduates and graduate students in terms of the ability to predict behavior, have found undergraduates as accurate as the graduate students (Buzby, 1924; Wedell and Smith, 1951; Trumbo, 1955; Cline, 1955). Also, no differences in sensitivity have been found between graduate students in psychology, and practicing clinical psychologists (Kelly, and Fiske, 1951; Soskin, 1954; Taft; 1955).

In general, across a variety of subjects, and a variety of sensitivity criteria, training (when equated with psychological experience or amount of course work) has not led to improvement in the ability to predict behavior.

Empirical Research in Sensitivity Training

There has been of late, increased interest in sensitivity training in industrial settings. This is due partly to a proposed relationship between interpersonal sensitivity and organizational effectiveness (Likert, 1961; Argyris, 1962). However, there has been a dearth of well-designed research which evaluates training programs (Carron, 1964), and as a result the effectiveness of sensitivity training has been questioned (Anderson, 1963). In general, studies have focused on individual differences in the impact of training and the correlates of improvement, rather than the effectiveness of the training program in improving sensitivity (Hariton, 1951; Papaloizos, 1962). In all cases the validity of the criterion of sensitivity can be seriously questioned (Miles, 1960). Let us turn now to some relevant studies.

Martin (1938) had judges watch people being interviewed, and then asked the judges to estimate five traits of the interviewees. He gave the judges the correct answers, and then proceeded to the next interviewee. Using this training technique of practice and correction, he found improvement in judging ability, with a trial and error learning curve for each trait.

Crow (1957) reported a study in which he investigated the effects of training on predictive accuracy, and the relationship between accuracy and variability. Using pre- and post-tests to evaluate training effectiveness,

he gave his experimental group instruction in patient-physician relationships (the Ss were medical students), and more pro-longed contact with patients than the control group. Using three sets of 10 films each showing a physician interviewing a patient as input information, he asked the judges to predict how the interviewees rated themselves, and how they "actually" should be rated. He found that the control group improved <u>more</u> than the experimental group, although not significantly; training seemed to lead to a <u>decrease</u> in accuracy. He proposes that the experimental group showed a greater increase in the amount of differentiation in their judgments about patients, and shows that there is a negative relationship between variability of judgments and accuracy (twelve negative correlations between accuracy and variability significant at the .01 level). "If a subject increases his differentiations among objects without a corresponding increase in estimating ability, he will make greater errors" (Crow, 1957).

Using six different training programs, Wakeley (1961) investigated the effects of a brief (one-hour) training procedure on sensitivity. He used two criteria to test the effectiveness of the training: (1) Accuracy in Judging People--the judge is asked to predict an inter-viewee's behavior after seeing him in a sound, color film; (2) Ability to Judge Differences between People--the judge has to differentiate between three interviewees with respect to their behavior. Of the six training programs

based on an analysis of the judging process, two focused on

observation in the judging situation, two focused on infer-

ring, one related to recording aspects of the situation,

and one "outlined the analysis of the judging situation and

presented all of the principles of the other five programs."

Comparing pre- to post-test differences among the six

experimental groups and the control group, Wakeley found

no change in performance with the criterion Accuracy in

Judging People. However, with the criterion Ability to

Judge Differences between People, both the combination

(t = 2.50, 28 df) and the Inferring-Pooling programs

(t = 2.69, 40 df) were effective in improving performance.

A second study "confirmed the effectiveness of the Inferring-

Pooling program and suggested that a modification of the

Combination program was effective" (Wakeley, 1961). The

Inferring-Pooling program emphasized the use of individually

determined reference groups, a kind of stereotyping, in

helping to improve sensitivity, and since Wakeley's criterion

was probably heavily influenced by the Stereotype Accuracy

component, it seems likely that this program would have the

best chance of the six to improve sensitivity.

Practicing clinicians were compared with under-

graduates to investigate the relationship of experience

(practical) to predictive accuracy (Oskamp, 1962). Their

task was to predict, on the basis of an MMPI profile, whether

a patient was hospitalized for psychiatric or medical

reasons. Before training the undergraduates were inferior

in accuracy to the clinicians. However, after being taught
a method of diagnosing the MMPI based on an actuarial decision-
making system, the undergraduates' mean accuracy score was
72.6 compared to 71.7 for the clinicians (nonsignificant,
t = 0.93). Oskamp concludes: "for this particular task,
the brief training procedure had an effect on judgmental
accuracy equal to many years of clinical experience and
training." The success of the training programs seems due
to their specificity, their use of immediate feedback, and
extensive experience with the prediction task.

Dailey (1963) reports a study in which 43 subjects
were asked to predict events in the lives of twelve persons.
In his "programmed case" technique, life histories are pre-
sented to the subject event by event, and the subject pre-
dicts the next event (out of three possible events). The
subject is then given the correct answer, and thus accumu-
lates information about the person in the case. The im-
portant training principles are immediate feedback and
successive accumulation of information. Dailey compared
total accuracy scores (across persons) for the first,
second, third, etc., predictions, and obtained a chi square
of 19.5 (df = 4, significant beyond the .01 level). He
concludes "the subject does 'learn' another person if the
data are programmed, and, there is a measurable degree of
generalization of this skill to other cases."

The study most comparable to the present one, both
in experimental design and training criterion, is an

investigation of sensitivity training by Kepes (1965).
Using pre- and post-tests with an experimental and control
group, he studied the effectiveness of eight one-hour training
sessions on improvement in sensitivity. The training was
designed to stress the principles of practice, participation,
and knowledge of results. The training criterion was the
test of Interpersonal Sensitivity developed by Grossman
(1963). This test consists of viewing sound, color films
of interviews with three subjects (of the same sex), followed
by sixty items which ask the judge to differentiate between
the three people by predicting which one of the three behaved
in a certain way. There is a men's test (60 items) and a
women's test (60 items), and each includes second and third
person predictions as suggested by Bronfenbrenner (1958).
By the use of a matching technique and a double item analysis,
the test is a relatively "pure" measure of interpersonal
sensitivity (or Individual Accuracy as we refer to it).
Items were constructed so that the subject had to match
one of the three interviewees with a particular item, thus
reducing the effect of Level and Spread. Items for the final
form were chosen on the basis of high discrimination for
interpersonal sensitivity, and no discrimination for group
sensitivity, thus reducing the effects of stereotyping.

The effectiveness of the eight-hour training program
was tested by matching experimental and control subjects
on the basis of pre-test scores and computing matched t-
tests. Kepes found that there was a trend of increased

performance for second-person sensitivity, but no such trend was found for third-person sensitivity. His conclusions are: (1) "The main effectiveness of training was for those subjects who score low on the pre-test. It was suggested that these subjects make larger errors of stereotyping, assumed similarity, and implicit personality theories." (2) "Training was effective in enabling subjects to practice making inferences, to discuss their reasons for specific inferences, and to determine whether or not they were correct. The major limitation of the training was a lack of explicit guidelines for changing and correcting interpersonal inferences." He suggests constructing empirically derived personality theories as a means of establishing explicit guidelines.

Individual Differences in the Impact of Training

The concern here is to identify those characteristics that distinguish the person who shows improvement in sensitivity as a result of training (the "improver") from the person who does not show an improvement in sensitivity (the "non-improver").

Studies have been made of the correlates of sensitivity itself (Cline, 1955; Taft, 1955; Grossman, 1963) but few have dealt with sensitivity training and the differentiation of improvers from non-improvers. Smith (1966) summarizes a discussion of who is sensitive in this way:

> In sum, the most sensitive person is the one best
> equipped to learn about people. He is curious

about and deeply involved with others but is neither gregarious or undiscriminating. He is open to people and non-defensive in his relations with them. He is frank about himself and bold, but not hostile, in his dealings with others. He is an intelligent user of complex concepts.

Some research has been done on the personality correlates of improvement in sensitivity due to training. Hariton (1951) compared foremen who improved (as a result of human relations training) with those who showed negative change, and found the improvers: (1) were more receptive to training principles; (2) saw more opportunity to use the results of their training; (3) were more highly motivated to use their training; and (4) were more adaptable. Papaloizos (1962), using the Maudsley Personality Inventory, found that normal extroverts (33% of his sample) were the only group that showed a significant improvement (pre- to post-test) on training criteria. He also found no correlation between intelligence and changes on the criteria.

Miles (1960) in a study of human relations training outcomes, hypothesized that "persons high in ego strength, flexibility, and need affiliation were thought to be more likely to wish for change in self, unfreeze, become involved, and receive feedback in a learningful way." Of the three factors, only flexibility was related to gains as a result of the training.

Smith (1966) reviews five training studies and concludes: "learning about people requires boldness--a willingness to approach people, ask questions, and express feelings . . . boldness is particularly relevant in

training, for the trainee who is a bystander will not learn."
He refers to an unpublished study by Hershey (1960) in which
people were assigned to training groups on the basis of
their social boldness score. The bold groups improved
more than the cautious groups; they expressed opinions more
freely, were more willing to listen to others, and more
willing to change their own opinions. Cline and Richards
(1959) describe their most sensitive trainees as possessing
a considerable amount of ego strength, self-assuredness,
and even conceit. Quite inconsistent findings were reported
by Poplar and Jones (1966), who compared the personality
traits of Gainers (Ss showing a pre- to post-test increase
on six or more of ten criteria) and Nongainers (showing a
decrease in score on six or more criteria). They found that
the Nongainers were more bold than Gainers--for male subjects,
t = -1.37, 29 df, nonsignificant; for female subjects,
t = -2.00, 24 df, nonsignificant.

Of all the studies reviewed, the preceding ones
were the only ones to investigate correlates of improvement
in sensitivity due to training. Even such simple variables
as age, sex, and intelligence have not been fully investi-
gated. One of the purposes of the present study is to fill
in this gap in our knowledge of individual differences in
the impact of training.

Evaluation of Training Research

Previous studies have presented valid criticisms of
past research attempts in sensitivity training. The two

major faults pointed out are: (1) many studies do not have formal training programs, but rather equate years of psychological experience or course work with training--in such cases it is difficult to determine exactly what has been measured, and generalization is practically impossible; and (2) most studies fail to state explicitly the content of the training programs, and fail to specify a framework or guidelines for improvement in sensitivity.

These two factors prevent one from drawing any significant conclusions from past research. But two relevant comments should be added. First, in order to obtain an accurate evaluation of the effectiveness of any training program, a rigorous experimental design must be used. The most suitable design utilizes experimental and control groups, with pre-tests and post-tests on a training criterion for both groups. Few studies have used this type of design.

Secondly, in light of the previous discussion on the concept of interpersonal sensitivity, it would seem that a training criterion that is a relatively "pure" measure of sensitivity is a necessity. The key ability seems to be Individual Accuracy--"the ability to differentiate between individuals when group membership cues are reduced. to a minimum" (Smith, 1966). The variety of criteria purported to measure "sensitivity" is very broad, but in many cases it is unclear exactly what it is that is being measured.

Much of the training research in the past has suffered from one of the above-mentioned criticisms. However, these investigations have helped to establish the criteria for an effective training study: (1) a suitable experimental design to evaluate effectiveness of the training program; (2) a specific formal program providing a structure for learning, and guidelines for change; (3) a training criterion that is a relatively "pure" measure of sensitivity, i.e., Individual Accuracy; and (4) the use of practice, participation and feedback as general training principles.

CHAPTER II

PROBLEM

The preceding discussion brings the problem of
evaluating sensitivity training into clearer focus. We
now have some specific criteria from which we can develop
an appropriate research study. The present investigation is
an attempt to conduct such a study.

First, the experimental design included experimental
and control groups (students enrolled in Psychology of
Personality), and both groups are given a pre- and post-test
on the training criterion. Secondly, the goal of the train-
ing was to improve sensitivity, defined operationally as
Individual Accuracy. The training criterion is a "pure"
measure of sensitivity, being free from the influence
of Level, Spread, and stereotypes. Thirdly, a unified
training program was developed with the goal of increasing
Individual Accuracy in mind. The actual content of the
training program is specific, and practice, participation,
and feedback are utilized as principles of training.
Finally, an explicit, empirical theory of the basic personal-
ity traits is introduced as part of the training program.
The purpose of the theory is to provide guidelines for change,
and to provide a framework within which the subject can
develop his predictive ability.

Having fulfilled the criteria for a successful re-
search study, it was felt that the present investigation
could help to clarify some of the conflicting findings arising
from past evaluations of sensitivity training. Towards this
end, some specific hypotheses were developed, and they are
presented below.

1. Participation in a specially designed training
   program will result in an increase in Individual
   Accuracy.

2. Gains in Individual Accuracy will be greater for
   second person predictions than for third person
   predictions.

   Kepes (1966) found an increase in sensitivity for
second-person predictions but not for third person predictions.
It appears that second person predictions are more direct
and less difficult than third person predictions, and thus
should be more amenable to improvement through training.
This hypothesis is presented to permit validation of this
relationship.

3. Those subjects with greater knowledge of the explicit
   empirical personality theory will show greater gains
   than subjects with less knowledge of the theory.

   For purposes of clarity, let us define what we mean
by empirical personality theory. In general, a theory is a
set of concepts, and an assumed relationship between them.
The concepts in this case are the empirically-derived
personality traits; but the traits are independent of one
another, and thus the assumed relationship is one of

independence. The twenty-two scales from which the five
traits are derived were taken from various personality
inventories, and thus have been derived and validated by
other psychologists. Our purpose has been to adopt these
emperically-derived traits as a framework for organizing
behavioral cues, and as guidelines for improvement of sensiti-
vity.

4. <u>The bolder subjects will show greater gains in
   Individual Accuracy than the cautious subjects</u>.

This hypothesis is included in an attempt to clarify
the conflicting findings of Hershey (1960) and Poplar and
Jones (1966) with regard to the relationship between boldness
and increases in sensitivity.

In addition to the above specific hypotheses, it
was felt that further investigation of individual differences
in the impact of training would be beneficial. However,
due to the lack of previous findings on which to base
hypotheses, this aspect of the study is somewhat exploratory.
Towards this end the relationships between gains in Individual
Accuracy and the following variables were investigated:
age, sex, intelligence, and four personality traits (Impulsive-
Controlled, Extroverted-Introverted, Rational-Empirical,
Emotional-Calm).

CHAPTER III

METHOD

The research was divided into the following phases:
(1) pre-testing on the sensitivity criteria and administration
of the Protebob Personality Inventory; (2) administration of
five one-hour training sessions designed to improve sensiti-
vity; (3) post-testing on the sensitivity criteria; and
(4) testing of the experimental hypotheses by appropriate
methods of data analysis. A secondary analysis investigated
the variables related to improvement in sensitivity.

Subjects

The subjects in the experimental groups were Michigan
State University students enrolled in the Fall, 1965, class
of Psychology of Personality (N = 301), Section 1. The
subjects in the control group were MSU students enrolled
in the Fall, 1965, class of Psychology of Personality,
Section 301 (N = 49).

Table 1 presents a breakdown of these subjects by
sex and by training group. The purpose of the three experi-
mental groups will be explained later in the General Procedure
section. See Appendix E for complete analysis of the sample
sizes.

21

Table 1. Sample sizes.

Subjects	Males	Females	Total
Individual Accuracy Training Group	49	44	93
Empathy Training Group	47	44	91
Level Training Group	59	58	117
No Training Group	28	21	49

Criterion Instrument

The criterion instrument used to measure changes in sensitivity from the pre-test to the post-test (See Appendix A) was a modification of the film test originally developed by Cline (1955) and later modified by Grossman (1963). The original test consisted of two sound color motion picture films of interviews with three men and three women. Each interviewee in the films was asked a series of standard questions dealing with his personal values, hobbies, reactions to being interviewed, religious beliefs, and personality strengths and weaknesses.

There are two subtests, the "men test" and the "women test." In the present study only the "men test" was used, due to the brevity of the time available for testing. The testing procedure was as follows: the subjects viewed the three men in the process of being interviewed, and then were asked to answer a series of questions (60 in all) which require them to predict which of the three men (a) responded in a certain way to a statement, (b) described himself in a certain way, or (c) was rated or described by his friends in a certain way.

There are two types of predictions in the men test: second person accuracy, in which the subject is asked to make judgments about how the interviewee views himself (30 items); and, third person accuracy, in which the subject makes judgments about how other people (friends and relatives) view the interviewee.

Grossman (1963) started with Cline's original data (which consisted of tests, questionnaires, and ratings completed both by the interviewees and their friends and relatives) and developed a purer measure of "Interpersonal Sensitivity." First, to lessen the effects of Stereotype Accuracy upon test scores, he grouped the films by sex, three men, and three women, and developed items for both groups. Second, the items were constructed so that the judge had to match one of the three subjects with a particular item, thus reducing the effects of Level and Spread. Items for the final form were chosen on the basis of (1) high discrimination for interpersonal sensitivity, and (2) no discrimination for group sensitivity (Stereotype Accuracy); this further reduced the effects of stereotyping. The odd-even reliability for the "men test" was .50, for the "women test" .36, and for the total test, .59.

Only the men test was used in the present study, and it was chosen because of its higher reliability. The major modification made was to change from a visual presentation (films) to a written presentation (typescripts of the original interviews). The reason for this change was threefold:

(1) elimination of visual cues probably reduces the effect
of stereotyping by eliminating the physical appearance cues
which have a powerful influence (McKeachie, 1952; Secord,
1958); (2) ease of administration to a larger group of
subjects, and (3) control over extraneous variables such
as memory, and differences in hearing and vision. In addition,
there is empirical evidence (Giedt, 1955; Borke and Fiske,
1957; and Kepes, 1965) that mode of presentation has no
significant effect upon predictive accuracy.

The final form of the criterion consisted of the
typescripts of the interviews with the three men, followed
by a sixty-item test, 30 items measuring second person
accuracy, and 30 items measuring third person accuracy.
Measures of internal consistency were obtained for the test
using the Kuder-Richardson formula No. 20, and these are
presented in Table 2, for all three experimental groups,
and the control group.

Table 2. Reliabilities of the individual accuracy criterion
(internal consistency).

	N	Second Person	Third Person
Experimental Groups			
Pre-test	360	.57	.56
Post-test	283	.45	.60
Control Group			
Pre-test	93	.71	.79
Post-test	61	.68	.73

Additional Experimental Variables

There are some additional variables which are crucial to this study; their particular relevance is to the delineation of those factors which lead to improvement in sensitivity. First the background and intellectual ability variables will be discussed, and then the personality variables.

Demographic Variables

Certain variables are of value for a complete evaluation of the effectiveness of the training program, and therefore the following data were obtained for each subject in the Fall, 1965, class of Psychology of Personality, Section 1.

Age: The age of each subject was obtained.

Sex: Each subject recorded his (or her) sex on the IBM answer sheet.

American Council on Education Psychological Examination for College Freshmen (ACE): This is a measure of scholastic aptitude. A quantitative, linguistic (verbal), and total score were obtained.

Grade Point Average: Based on the subject's overall academic record.

Course Grade: The grade in the Psychology of Personality course, based on two examinations, a total of 104 multiple choice questions.

Personality Achievement Score: Based on two quizzes of knowledge of the personality theory; a total of 32 multiple-choice questions.

<u>Attendance</u>:   Number of training sessions attended.

<u>Personality Variables</u>

The personality variables actually play a dual role
in this study. First, they form an explicit, empirical
theory of personality which is used as a part of the train-
ing program. The goal of the training is to have this theory
replace the implicit personality theories that the subjects
previously used to make judgments about people. The theory
is based on a factor analysis of twenty-two personality
scales, and the subsequent development of five basic factors.
These factors, and their related traits are presented in
Table 3. The factor loadings are also given as an indication
of how heavily that trait is "saturated" with the factor.

The second use of the personality variables (Linden,
1965) was in the form of the Protebob Personality Inventory
(see Appendix B). This test is composed of 200 items, with
40 items measuring each of the five basic traits listed in
Table 4. Each of the subjects in the experiment took this
test, and received a profile of their scores. Our interest
is in finding out which of the traits is related to improve-
ment in sensitivity: What are the personality characteris-
tics of the person who has increased his sensitivity as a
result of the training program? Our specific hypothesis is
that the "bold person" will be more likely to show an
improvement due to training.

Internal consistency and stability measures for the
Protebob Personality Inventory are presented in Table 4.

Table 3. An explicit and empirical theory of common basic traits of personality.

Basic Traits and Related Traits		Loading
1. **The Cautious** vs. **The Bold**		
Submissive	Dominant	.79
Low activity level	High activity level	.71
Low self-confidence	Self-confident	.63
Pessimism	Optimistic	.62
2. **The Emotional** vs. **The Calm**		
Emotional	Calm	.79
Critical	Amiable	.74
High sensory awareness	Low sensory awareness	.55
Cold	Warm	.34
Expressive	Inhibited	.32
3. **The Introverted** vs. **The Extroverted**		
High artistic values	Low artistic values	.72
Low economic values	High economic values	.68
Introverted thinking	Extroverted thinking	.64
Low manifest sexuality	High manifest sexuality	.55
4. **The Impulsive** vs. **The Controlled**		
Unambitious	Ambitious	.82
Unorganized	Organized	.77
Low emotional control	High emotional control	.50
Gregarious	Aloof	.37
5. **The Rational** vs. **The Empirical**		
Resistance to change (conservative)	Readiness for change (Liberal)	.67
Religious believer	Religious sceptic	.66
Social conformist	Nonconformist	.59
Nonscientific	Scientific	.49

(Linden, 1965)

Table 4. Reliabilities of the Protebob Personality Inventory. N = 322.

Trait	Internal Consistency	Stability
Cautious-Bold	.88	.83
Emotional-Calm	.88	.81
Introverted-Extroverted	.90	.92
Impulsive-Controlled	.80	.80
Rational-Empirical	.90	.94

(Linden, 1965)

General Procedure

In order to aid the reader, a summary table of the overall experimental design is presented in Table 5. Section 1 was split into thirds alphabetically so that three separate experimental groups could be established. Section 301 was divided alphabetically to provide two control groups for different training criteria.

The data gathered in the Fall, 1965, class of Psychology of Personality included three hours of testing (pre-test, post-test, Protebob Personality Inventory) and five hours of training. Actually, three separate training programs were carried out. The Level program was conducted by the instructor of the course. The level component is a judge's normal tendency to rate people favorably or unfavorably. The object of this program was to teach the subjects to maintain a flexible level, varying with the actual judging conditions. A second program, conducted by a graduate student in psychology, concerned a component of interpersonal sensitivity known as empathy, defined as the tendency to assume similarity to other people. The aim of this program was to improve the accuracy of a judge's assumed similarities.

Their relevance for our purposes relates to the fact that both of these other training groups took the pre- and post-test on the Individual Accuracy criterion. Therefore, in some cases, they can be considered as second and third control groups. In fact, since they were students in the same class as the Individual Accuracy experimental group, for some situations there is a high degree of

Table 5. Overall experimental design.

	Psychology 225: Section 1			Psychology 225: Section 301	
	Experimental Group No. 1	Experimental Group No. 2	Experimental Group No. 3	Control Group	
	A - G	H - N	O - Z	A - K	L - Z
	Pre-test on all criteria	Pre-test on all criteria	Pre-test on all criteria	Level and Individual Accuracy Pre-test	Empathic Accuracy
	Empathy Training	Individual Accuracy Training	Level Training	No Training	
	Post-test on all criteria	Post-test on all criteria	Post-test on all criteria	Level and Individual Accuracy Post-test	Empathic Accuracy Post-test

Training for experimental groups: five one-hour sessions, with the post-test during the sixth hour.

Time between pre- and post-test (for both experimental and control groups) was approximately four weeks.

comparability. The reader will find that from time to time these groups are used for purposes of comparison; in such cases, the relevance of the comparison will be stated.

A further consideration of these two groups is important for the general improvement of sensitivity training programs. By comparing these three groups, it may be possible to uncover some significant facts that otherwise might be lost. This point is discussed further in the Discussion section.

The purpose of the Individual Accuracy training program was to improve the ability to differentiate between people. This was to be achieved by five one-hour training sessions interpolated between the pre- and post-test on the criterion. A brief description of these five sessions is presented in Table 6.

Table 6. Summary of the contents of the training sessions.

Training Session	Contents
1	Lecture on the purpose, method, and sequence of training.
2	Brief test and discussion on knowledge of the empirical, explicit personality theory.
3	Matching of written biography and personality profiles (based on the Protebob).
4	Live interview with three male students in class, followed by behavior prediction test.
5	Typescripts of interviews with three women followed by the Women's Individual Accuracy Test.

The contents of each session are listed in the following paragraphs. The training materials used in each session are found in Appendix C.

Training Session 1.--This session consisted of a lecture which gave the subjects an overall view of the training program. It included four basic topics: (1) the overall program--the goal of developing sensitivity with the focus on Individual Accuracy, and the concepts of second and third person sensitivity; (2) the method--the use of the empirical personality theory, and, the relationship between observation of behavior, use of the theory to order the information gathered, and prediction of behavior on the basis of the ordered information; (3) sequence of training-- knowledge of theory, practice in relating behavior to traits, practice in making predictions from live interviews, practice in making inferences from written typescripts; and (4) cycle of each session--information presented, prediction, feed- back of correct answers, discussion, second set of pre- dictions.

Training Session 2.--The subjects were asked to predict whether people who had a certain personality trait (each of the five basic traits was considered) would answer true or false to a set of items (see Training Session No. 2, Appendix C). After completing a group of items, the correct answers were given, and the basis for making choices was discussed. Then the Ss completed the next set of questions, received feedback, discussed choices, etc. until all of the

five traits and their related items had been completed.

Training Session 3.--In this session the Ss were given a group of three biographical sketches, and a group of three personality profiles (based on the Protebob Personality Inventory). Their task was to match each biography with its corresponding profile by using the information gathered from the biography. After completing this task, they were given the correct answers, and the reasons for their choices were discussed. Then the procedure was repeated with a second set of biographies and profiles.

Training Session 4.--This session began with the experimenter asking a standard set of questions to three male volunteers in front of the class. The interviewees had each previously completed the same series of personality measures. The class was then asked to make behavioral predictions which required them to differentiate between the three interviewees. After completing a group of twenty items, the class was given the correct answers, and, in addition, the personality profiles of the three men (from their Protebob Personality Inventory scores). The class then completed a second set of predictions about the interviewees.

Training Session 5.--In this session the subjects were given the typescripts of interviews with three women who had been asked a standardized set of questions concerning

themselves and their values and beliefs. The judges'
task was to choose which of the three women had made a
certain response to a personality questionnaire item, or
had been described in a certain way by their friends and
relatives. After completing one set of items, they were
given the correct answers, their choices were discussed,
and then they were asked to complete a second set of items.
This test uses the same format as the criterion instrument
except that the interviewees in this case were women. This
enables the trainees to have practice on a task similar to
the actual training criterion.

Method of Data Analysis

The basic measure of improvement in sensitivity due
to the training program is the difference between pre- and
post-test scores on the criterion. To insure that these
differences are due to the training programs and not to
other uncontrolled variables, the difference scores of the
experimental groups should be compared to the difference
scores of the control group, on the assumption that the
training is the only differential variable affecting scores
on the criterion.

However, past research (Kepes, 1965) has shown that
pre-test scores are related to improvement in sensitivity
(gains scores). That is, there may be differential improve-
ment along the range of the pre-test scores, with those Ss
who start low having a greater probability of showing

improvement than those who start with higher pre-test scores.
Table 7. presents data to show this differential improvement
effect in the current research. It can be seen that the
phenomenon occurs for all three experimental groups as well
as the control group.

Table 7. Relationship between pre-test scores and gains
on the post-test criterion.

Training Group	% above median showing gains	% below median showing gains
2nd Person:		
Level	34	77
Empathic Accuracy	30	68
Individual Accuracy	36	71
Control	33	64
3rd Person:		
Level	26	64
Empathic Accuracy	33	61
Individual Accuracy	15	62
Control	14	64

In addition, correlations were obtained for the
relationship between pre-test scores and gains on the
criterion for the Individual Accuracy training group. These
correlations are presented in Table 8.

Table 8. Correlations between pre-test scores on the
criterion and gains in scores as a result of
training.

Subjects	N	2nd person gains	3rd person gains
Males	48	-.60	-.60
Females	44	-.50	-.56
Total	92	-.54	-.58

As seen in Table 7, if a subject's pre-test score
is below the median score, he is more likely to show improve-
ment on the criterion than if his score is above the median.
In Table 8, it is seen that there is a strong negative
relationship between pre-test scores and gains on the criterion,
supporting the data found in Table 7.

Because of this relationship it was felt that a
matched t-test would be more suitable for the analysis of
difference scores because it would permit matching subjects
in the experimental and control groups on pre-test scores,
controlling for any differential improvement effect, and
providing greater comparability between the groups. All
comparisons between experimental and control groups pre-
sented in the Results section are based on a score for
score matching procedure.

A secondary analysis concerned the variables related
to individual differences in the impact of training. The
variables included here are discussed in a previous section
(Additional Experimental Variables). The data were analyzed
by the use of a correlational analysis run on Michigan
State's Control Data 3600 computer. Because of the relation-
ship between pre-test scores and gains on the criterion,
partial correlations were calculated so as to obtain a
clearer picture of the relationship between the additional
variables and training gains. The correlations presented
in the Results section are partial correlations, with the
influence of pre-test score partialed out of the original
correlations.

CHAPTER IV

RESULTS

The results of this study will be presented in two
sections. The first section deals with the overall effective-
ness of the Individual Accuracy training program and pre-
sents results concerning the first three hypotheses: (1) parti-
cipation in a specially designed training program improves
Individual Accuracy; (2) gains in Individual Accuracy will
be greater for second person predictions than for third
person predictions; and (3) those subjects with greater
knowledge of the explicit empirical personality theory will
show greater gains in accuracy than those subjects with
less knowledge of the theory.

The second section deals with individual differences
in the impact of training. It presents results concerning
the fourth hypothesis: bolder subjects will show greater
gains in accuracy than the cautious subjects. Also, results
concerning the influence of personality and intellectual
factors will be presented.

The two other experimental groups are used to clarify
the generality of the major findings by highlighting the
similarities (and differences) in results for the three
training groups. Comments on the effectiveness of these
other training programs (Level training, and Empathy training)

in improving Individual Accuracy will be reserved for the

Discussion section that follows this one. Table 9 presents

a summary of the results.

Table 9. Summary of evidence for hypotheses.

Hypothesis	Level of Confidence
1. Participation in a training program improves Individual Accuracy	.05
2. Gains in second person predictions will be greater than gains in third person predictions	.05 for 2 of 3 experimental groups
3. Subjects with greater knowledge of the explicit personality theory will show greater gains than subjects with less knowledge	.05 in the negative direction for 2nd person gains
4. The bold subjects will show greater gains in Individual Accuracy than the cautious subjects	Males, .05 Females, not significant

Due to the matching procedure, the Ns used in the

following tables vary. Where possible the N is incorporated

into the body of the table; where this would hamper readability,

the Ns are given immediately below the table.

Effectiveness of Training

Hypothesis 1: Participation in a specially designed training

program improves Individual Accuracy.

Table 10 presents the overall results of the matched

t-tests for all three training groups. Each group is matched

with the same identical control group, so comparisons across

groups are possible. The figures show that the training

programs led to significant increases in Individual Accuracy,

and thus provide support for the hypothesis stated above.

It seems that all three programs lead to equivalent gains

in accuracy.

Table 10. Matched t-tests for all subjects (males and
females combined) in all training groups on
total Individual Accuracy. (N = 19)

Subjects	Initial Score	Final Score	Gain	t
Individual Accuracy Training Group	26.68	27.05	0.37	1.81*
Empathy training group	"	27.16	0.48	1.80*
Level training group	"	27.26	0.58	1.89*
No training group	"	24.42	-2.26	

*=significant at the .05 level of confidence.

Hypothesis 2 suggests that gains for second person

predictions would be greater than those for third person

predictions. Results concerning this hypothesis are pre-

sented in Table 11. Again, within each type of prediction,

the experimental groups are matched with the same control

group. The results show that gains for second person pre-

dictions are significant for two of the three experimental

groups. The results of the matched t-tests for third person

predictions, however, show no significant increase in accuracy

for all three experimental groups. In terms of actual

numerical gains, also, no increases in accuracy are revealed.

These data provide support for the hypothesis stated above;

the training programs led to significant increases in second

person Individual Accuracy, but did not lead to increases in third person Individual Accuracy. In fact, no increase at all was found for third person predictions. The training programs seem to improve the ability of a judge to predict how a person describes himself, but do not help him to predict how other people would describe this person.

Table 11. Matched t-tests for all experimental groups on second and third person individual accuracy.

2nd person, N = 37; 3rd person, N = 34

Type of Prediction	Initial Score	Final Score	Gain	t
2nd Person:				
Individual Accuracy Training Group	12.16	12.76	0.60	0.66
Empathy training group	"	13.43	1.27	1.74*
Level training group	"	13.59	1.43	1.70*
No training group	"	12.27	0.11	
3rd Person:				
Individual Accuracy Training Group	13.65	13.00	-0.65	N.S.
Empathy training group	"	13.59	-0.66	N.S.
Level training group	"	13.65	0.00	N.S.
No training group	"	13.35	0.30	

* = significant at the .05 level of confidence
N.S. = not significant

Hypothesis 3: Those subjects with greater knowledge of the explicit, empirical personality theory will show greater gains than subjects with less knowledge of the theory.

The correlations in Table 12 show the relationship between knowledge of the theory and gains on the training criterion for the Individual Accuracy training group. All of the correlations are negative, and two of them are

statistically significant. The data do not provide support for Hypothesis 3 stated above; actually it seems that, for 2nd person gains, knowledge of the personality theory leads to decreases in Individual Accuracy. The hypothesis is not supported; greater knowledge of the theory does not lead to greater increases in predictive accuracy.

Table 12. Correlations between Knowledge of Personality theory test and gains on Individual Accuracy criterion.

Subjects	N	2nd person gains	3rd person gains	Total gains
Males	48	-.27*	-.05	-.18
Females	44	-.13	-.12	-.16
Total Ss	92	-.17*	-.08	-.16

* = significant at the .05 level.

Table 13 presents the correlations between attendance and gains on the criterion for the Individual Accuracy training group. There is no significant relationship between any gains scores and attendance; attendance is not related to improvement.

Table 13. Correlations between training session attendance and gains on the Individual Accuracy criterion.

Subjects	N	2nd person gains	3rd person gains	Total gains
Males	48	.16	-.08	.06
Females	44	-.04	-.07	-.07
Total Ss	92	.05	-.06	.01

Individual Differences in the Impact of Training

In this section we look at sex differences, dif-
ferences in personality factors, and differences in intel-
lectual factors, in that order.

Sex Differences

Table 14 presents the results of t-tests comparing
the performance of male and female subjects matched with
same-sex control groups on total Individual Accuracy. A
check was made of the comparability of the two groups of
subjects by calculating a t-test on the pre-test scores.
The test showed no significant differences in pre-test
means for male and female subjects (t = 0.38, 17 df). The
data show that male subjects compared with a male control
group, show no significant increases in Individual Accuracy
across all three experimental groups. However, two of the
three experimental groups of females (when compared with
a same-sex control group) did show statistically signifi-
cant increases in total Individual Accuracy. The third
group's performance approaches significance (a t of 1.9
is needed for significance at the .05 level, with 6 df).
The results seem to indicate that females show greater
responsiveness to the training programs than the male subjects
do.

Since differences between second and third person
types of predictions are of interest to the present study,
a comparison of male and female subjects was made on this

basis. T-tests of the pre-test scores of male and female subjects again showed no significant differences: (a) 2nd person: t = 0.68, 37 df; (b) 3rd person: t = 0.09, 32 df.

Table 14. Matched t-tests for male and female subjects in all groups, on total individual accuracy. Male, N = 12; Females, N = 7.

Subjects	Initial Score	Final Score	Gain	t
Males:				
Individual Accuracy Training Group	27.00	26.75	-0.25	0.48
Empathy training group	"	27.50	0.50	0.95
Level training group	"	26.83	-0.17	0.55
No training group	"	25.92	-1.08	
Females:				
Individual Accuracy Training Group	26.14	27.57	1.43	2.53**
Empathy training group	"	26.57	0.43	1.55
Level training group	"	28.00	1.86	2.38**
No training group	"	21.85	-4.29	

** = significant at the .025 level of confidence.

The results are presented in Table 15. Again, all experimental groups are matched with an identical same-sex control group. The findings here are less conclusive; only one t-test was statistically significant, and this was for the Level training group. However, a general comparison indicates a slight tendency for the females to show higher performance gains on both second and third person predictions.

Table 15. Matched t-tests for male and female subjects in all groups on second and third person individual accuracy.

2nd person: Males, N = 24; Females, N = 15.
3rd person: Males, N = 22; Females, N = 12.

Subjects	Initial Score	Final Score	Gain	t
2nd Person Accuracy:				
Males:				
Individual Accuracy Training Group,	12.29	12.63	0.34	-0.68
Empathy training group	"	13.63	1.34	-0.61
Level training group	"	13.04	0.75	-0.04
No training group	"	13.08	0.79	
Females:				
Individual Accuracy Training Group	11.67	11.73	0.06	0.24
Empathy training group	"	12.60	0.93	1.15
Level training group	"	13.60	1.93	1.98*
No training group	"	11.40	-0.27	
3rd Person Accuracy:				
Males:				
Individual Accuracy Training Group	13.50	12.59	-0.91	-1.07
Empathy training group	"	13.68	0.18	0.05
Level training group	"	13.41	-0.09	-0.25
No training group	"	13.64	0.14	
Females:				
Individual Accuracy Training Group	13.58	15.00	1.42	1.75
Empathy training group	"	12.50	-1.08	0.00
Level training group	"	13.83	0.25	1.29
No training group	"	12.50	-1.08	

* = significant at the .05 level of confidence.

Focusing specifically on the Individual Accuracy training group, a direct comparison of male and female subjects in this group was made. The results of the matched t-tests are presented in Table 16. No significant difference

was found for second person predictions. But for third person predictions, female subjects when compared to male subjects, showed a significant superiority in gains in Individual Accuracy. However, the difference seems due more to the decrease in the scores of male subjects than in an increase in the scores of the female subjects.

Table 16. Matched t-tests comparing male and female subjects (in Individual Accuracy training group) on Individual Accuracy criterion.

Subjects	N	Initial Score	Final Score	Gain	t
2nd Person:					
Males	35	12.62	12.97	0.35	0.23
Females	35	12.62	12.77	0.15	
3rd Person:					
Males	32	13.59	12.13	-1.46	-2.31**
Females	32	13.59	13.81	0.22	

** = significant at .025 level of confidence.

Differences in Personality Factors

Hypothesis 4:   The bolder subjects will show greater gains in Individual Accuracy than the cautious subjects.

The boldness scores noted in Table 17 are taken from each subject's score on the Cautious-Bold factor of the Protebob Personality Inventory; only subjects in the Individual Accuracy training group are included here. The correlations show a significant relationship between Boldness and total gains on the criterion for male subjects, but not for female subjects. On the basis of this data we must conclude that the hypothesis is partially supported.

Table 17. Correlations between Boldness scores and gains
          on the Individual Accuracy criterion.

Subjects	N	2nd person gains	3rd person gains	Total gains
Males	48	.13	.21	.24*
Females	44	.05	-.03	.01
Total Ss	92	.08	.08	.10

* = significant at the .05 level.

Table 18 presents the data regarding the relation-
ship between gains on the criterion and four factors from
the Protebob Personality Inventory. In order of their
presentation in the table, they are: Emotional-Calm,
Introverted-Extroverted, Impulsive-Controlled, and
Rational-Empirical. It is important to keep in mind that
the factors are relatively independent, and that the results
presented here are exploratory. The correlations in Table 18
show that for female subjects, no particular personality
characteristics are related to improvement in Individual
Accuracy. For male subjects two personality factors are
significantly related to gains in Individual Accuracy:
Calmness and Controlled. Male subjects who show improvement
as a result of training tend to be more emotional and more
impulsive.

Differences in Intellectual Factors

Table 19 reports the relationships between various
indicators of intellectual aptitude and ability and gains
in score on the training criterion. Grade point average

Table 18. Correlations between personality variables and
           gains on the Individual Accuracy criterion.

Subjects	N	Calm-ness	Extro-version	Control-led	Empiri-cal
2nd person gains:					
Males	48	-.17	.17	-.21	-.11
Females	44	-.10	.17	-.01	.00
3rd person gains:					
Males	48	-.30*	-.19	-.33*	.14
Females	44	.09	.05	.06	-.04
Total gains:					
Males	48	-.30*	-.04	-.36**	.06
Females	44	-.03	.15	.02	-.01

 * = significant at the .05 level.
** = significant at the .025 level.

Table 19. Correlations between measures of intellectual
           ability and gains òn the Individual Accuracy
           criterion.

           Males, N = 48; Females, N = 44

Subjects	Grade Point Average	Course Grade	ACE Quanti-tative	ACE Linguis-tic	ACE Total
2nd person gains:					
Males	.06	-.12	-.24	-.11	-.21
Females	.16	.06	-.10	.06	.11
3rd person gains:					
Males	.14	.12	-.04	.08	.06
Females	-.03	-.06	-.25	-.29	-.25
Total gains:					
Males	.18	.07	-.18	.00	-.11
Females	.11	.01	-.19	-.11	-.05

and Course grade are measures of intellectual achievement, one a general measure, and the other specifically related to achievement in the course in which the subjects (the Individual Accuracy training group) were enrolled. The three ACE scores are measures of aptitude, given to all incoming freshmen at Michigan State. No significant correlations are found between any of these measures and gains. However, it appears the relationship is more positive for measures of achievement than for measures of aptitude.

A final factor that was included in this study was age. The correlations between age and gains on the criterion for male and female subjects combined are: (1) for second person gains, $r = -.07$; (2) for third person gains, $r = .07$; and (3) for Total gains, $r = .00$. Thus, there seems to be no relationship between age and gains on the training criterion, for the restricted range of age available in our sample.

CHAPTER V

DISCUSSION

Effectiveness of the Training Program

The results of this study support the hypothesis that participation in specially designed training programs leads to increases in predictive accuracy; individuals participating in the training showed significant improvement on the Individual Accuracy training criterion. Comparison of increases in second person predictions--when the judge is asked to predict how another person views himself--and third person predictions, where the judge predicts how a third person will view a particular individual, suggest that second person gains are greater.

The findings do not support the third hypothesis: subjects with a greater knowledge of the empirical personality theory did not show more improvement on the training criterion than subjects with less knowledge of the theory. In fact, there was a significant negative correlation between knowledge of the theory and second person gains on the criterion.

Explanation of the Findings

The improvement in Individual Accuracy can be attributed to a number of factors. One of these is the presence

of clearly stated, explicit goals of training. The subjects were provided with their own scores on the pre-test, and thus knew where they stood in terms of their ability to predict behavior. Also, the first training session provided them with a clear picture of what was expected of them during the training, and gave them an idea of what to expect in the course of the training. The subjects knew the task on which they were expected to improve and they were provided with a picture of how this improvement was expected to occur. Many studies in the past have failed to provide this kind of structuring (Crow and Farson, 1957; Miles, 1960).

The make-up of the training sessions provides another source of aid for improvement. The use of practice, participation, and knowledge of results is a key factor in any training program. Each training session permitted the subjects to practice making predictions of behavior, to discuss the reasons for their predictions, and to evaluate the effectiveness of their predictions through the use of feedback. This allows them to focus on the judging process, and enables them to improve their performance.

The sequence of the overall training program also heightens the possibility of improving performance. It is based on a breakdown of the components of the prediction process: (1) observation of the behavior of a person; (2) underlying causative personality characteristics; and (3) prediction of behavior. The training first focuses on

information or cues obtained from observation, and their relationship to underlying personality characteristics. Then a theory of personality traits is presented, and the subjects practice relating observed behavior to traits, and making comparisons across persons based on trait differences. Next they practice comparing individuals on the basis of trait differences and then making predictions on the basis of these differences. This procedure permits them to make their predictions in a more organized, systematic manner, and helps them to improve the general accuracy of their predictions.

The failure of the use of an explicit personality theory to aid improvement is probably due to three factors. First, knowledge of the theory does not necessarily guarantee that it will be used in the prediction process. Implicit personality theories are highly resistant to change, and although a new theory is presented, the individual is not really sure that it will help him to improve his predictions. Second, the items measuring knowledge of the personality theory were part of two quizzes given in the Psychology of Personality course. There was no attempt to relate the items to the training program, and perhaps the subjects saw no direct relationship between knowledge of material presented as the content of a course and the use of this material as an essential aspect of the training program. Third, the theory itself may not have provided enough information concerning the relationship between observed behavior and the

underlying personality characteristics associated with it. The theory provides a means of differentiating between individuals in terms of differences on the five personality traits but may not provide enough detailed information on the behavioral cues indicative of these differences.

Agreement with Previous Findings

Only two studies are comparable with the present investigation. Wakeley (1961) compared the effectiveness of six different training programs in improving predictive accuracy, and found two of them--Pooling and a Combination program--to lead to increases in accuracy. His Pooling program was based on a form of stereotyping, and since the present training criterion eliminates the influences of stereotypes, it cannot be compared to this study. But the contents of his Combination program are similar to our analysis of the prediction process, and our results here seem comparable to his findings. Use of this analytical procedure in training seems to be a key factor in the design of an effective training program.

The study most relevant to the present one, is an investigation carried out by Kepes (1966). Using a similar training procedure and experimental design, he found "a trend in the direction of increased performance on second-person sensitivity as a function of training." This result agrees with our finding of significant improvements in second-person predictions. As pointed out by Kepes, both Bronfenbrenner et al (1958) and Grossman (1963) have

suggested that second- and third-person sensitivity have different determinants, and this could be the cause of the differential improvement in second- and third-predictions found in the present study. Predicting the behavior of another person is a fairly straightforward process; predicting what a third person thinks of another individual is a much more complicated process. Besides the influence of one's own implicit theories, one must consider how the implicit theories of this third person influence <u>his</u> views of the individual we are asked to make predictions about. This compounding factor could lead to more difficult predictions, and thus reduce the accuracy of third-person predictions. In addition, the training program did not include a specific consideration of the problems of third-person predictions, and focused more on factors concerned with second-person prediction. This combination of factors could account for the differential improvement for the two types of predictions.

Individual Differences in the Impact of Training

The only specific hypothesis concerned with individual differences involved the Cautious-Bold factor measured by the Protebob Personality Inventory. It was hypothesized that the bold subjects would show greater improvement on the training criterion than the cautious subjects. The results show that this is true for male subjects, but not for female subjects. Thus the hypothesis is not fully supported.

Hershey (1960) found that bold groups improved more than cautious groups on a written test of the ability to predict behavior, but he does not deal with sex differences. Poplar and Jones (1966) found female gainers more cautious than male gainers. More research is needed to clarify the relationship between sex, boldness and training gains.

Sex Differences

In general, the results seem to suggest that females profit more from the training program than males do. The comparisons made show that the female subjects made greater gains on the training criterion than did the male subjects. Past research has suggested that there is no sex difference in ability to judge, or perhaps a slightly superior ability in women (Taft, 1955; Grossman, 1963). The present research suggests that training has a differential impact on men and women, and that training helps to develop the ability of women more than the ability of men. Motivation could be an important factor in this situation; in our society women are expected to be more interested in other people and in social relationships, and perhaps they are more motivated to learn, and to improve their ability to understand other people.

Personality Differences

The exploratory findings presented in the Results section suggest that: (1) for female subjects the personality characteristics investigated lead to no differential training

improvement; and (2) for male subjects, the more emotional, and impulsive show greater improvement on the training criterion. Only three studies were found that investigated the relationship between impact of training and personality variables (Hariton, 1951; Miles, 1960; and Papaloizos, 1962); two deal with human relations training, and one with T-group training, and thus they are not directly comparable to the present study.

The results suggesting that males who are more emotional and more impulsive show greater gains cannot be compared to any prior studies. However, the relationships seem to make some sense. The more emotional males are more critical, have higher sensory awareness, and are more expressive; this would permit them to look more closely and carefully at the behavior they are observing, to be more aware of all the cues present in the behavior, and to feel more free to express their feelings and opinions about what they see and hear. All of these factors seem to lead to more sensitivity and responsiveness to the training program, and result in greater improvement. The more impulsive subjects are more gregarious and perhaps this leads to increased social interaction and social knowledge, and thus helps increase sensitivity. This relationship is not too clear, and future investigations may help to clarify it.

Differences in Intellectual Factors

The results concerning these factors are again exploratory. In general, the findings seem to indicate that intelligence is not a crucial factor in the improvement of Individual Accuracy. An important factor to consider here is the nature of the sample. All of the subjects are college students and as such have a higher level of intelligence than a random sample drawn from the general population. Also, the range of intelligence in the sample is somewhat restricted, and this would tend to depress the size of any correlations obtained. Therefore, although no significant relationship between intellectual ability and gains is found, the high minimum level of intelligence of the subjects must be kept in mind. Future investigations should include a wider range of intelligence to more rigorously test this relationship.

The interpretation of the correlations is further clouded by the fact that there is no consistency in the correlations for male and female subjects. It would seem that for a factor such as intelligence, there should be only slight differences between male and female subjects, yet some large differences do occur. Thus caution should be taken in making any definitive statements concerning the findings reported.

Methodological Considerations

The Criterion

The requirements for an adequate criterion are:
(1) it should include all levels of item difficulty;
(2) relatively clear differences should exist among the
Others to be judged; and (3), judgments should be made
between two or more individuals. The present criterion
meets the first and third requirements by providing various
levels of item difficulty, and requiring differentiation
among three men. Satisfying the second requirement is more
difficult, especially because of practical limitations. To
insure clear differences one would have to gather data on
a large number of people, and choose those with extreme
differences. However, getting detailed data from a large
group of people is almost impossible; usually one must rely
on volunteers, and often there are only a handful. Secondly,
how does one decide what characteristics are most important
in setting up extreme differences?--do differences in bold-
ness lead to more accurate predictions than differences in
degree of extroversion-introversion? More information is
needed about the relationship between cues obtained from
behavior and predictive accuracy before this question can
be answered.

The use of written typescripts rather than films
seems to have no harmful effect on reliability, and it
simplifies administration greatly, so it is recommended

that this mode of presentation continue to be used.

Limitations of the Present Research

One of the difficulties encountered in the training sessions was obtaining a thorough discussion of the reasons for predictions among the class members. This was due partly to the size of the group which averaged about one hundred students. Related to this was the problem of making feedback of the correct answers in a meaningful way. It is suggested that in the future groups of about twenty subjects would be ideal, and some audio-visual means of feedback be utilized.

Another problem was the maintenance of a high level of motivation. Design of practice tasks should begin with relatively easy predictions and proceed to more difficult ones. Often the subjects would become frustrated if the predictions asked of them were too difficult. Pre-testing of all practice materials would seem to provide one means of alleviating this problem.

A limitation mentioned previously was the lack of relating specific behavioral cues to the underlying personality traits. Some form of systematization would be desirable, e.g., classes of cues related to personality traits. In general, more research needs to be done to isolate specific behavioral cues related to personality characteristics.

The Other Experimental Groups

It is evident from the tables presented in the Results section of this study, that the training given in the Level and Empathy training programs led to improvement on the Individual Accuracy criterion. It is beyond the scope of this paper to delve into the specific nature of this phenomenon. Sufficient data is not yet available, and the experimental design does not permit certain comparisons across the groups. However, some comments are in order.

One possibility is that both of these programs utilized diagnostic tests which provided information to the subject about his judging habits. This type of general information could easily lead to improved performance on all of the various components of sensitivity, including Individual Accuracy. The subject becomes more aware of his personal biases in making predictions, and elimination of these biases could lead to heightened predictive accuracy. More research is called for, especially in the area of the effectiveness of diagnostic tests, and in the appropriate sequencing of training. Perhaps it would be best to begin training by focusing on the individual, and trying to show him how his own biases and prejudices are affecting his predictions. Then the training could move on to a more detailed examination of the prediction process itself, to a look at the role of behavioral cues, implicit personality theories, etc., and finally to an improvement of specific predictions.

Implications

There remains the question of what implications the present research results have for the design and evaluation of future training programs. Hypotheses derived from a consideration of the overall results of the study are presented below. Each is followed by a summary of the major facts that suggested that hypothesis, speculations about ways the hypothesis might be tested, and some of the more general implications of the hypothesis, if correct.

1. <u>Training that stresses what a person is and does is more effective than training that stresses what others think he is or will do.</u>

With regard to the training criterion, the elimination of third person predictions seems desirable. The results of the present study indicate that training can improve the accuracy of second person predictions (judging what a person is and does)--t significant at the .05 level, but does little to improve third person accuracy (judging what others think he is or will do)--t not significant. This finding is supported by similar results found by Kepes (1966). Elimination of third person predictions from the criterion would probably increase its reliability, and would permit training to focus exclusively on increasing the accuracy of predictions of actual behavior. Since most of the daily judgments we make about people are predictions of what they think of themselves or of us, this would make the training more useful and more realistic.

Third person predictions require more complex judgments because the judge is not asked to predict how the person actually behaves, but rather how another person thinks he will. This increases the number of variables that must be considered in making a prediction, making it more difficult, and this also makes the design of an effective training program that much more difficult. The state of our knowledge in this area does not yet permit a clear delineation of all relevant variables.

From a practical point of view, students are often confused by third-person predictions, and eliminating them would lead to less confusion and clearer goals. Also, data gathered from the person himself is probably more valid than data gathered from a third person.

The implication that stressing predictions of actual behavior would lead to more practical, realistic and valid training criteria, and training goals, could be tested by comparing the performance of two groups who received the two different types of training on a common criterion.

2. <u>Trainees who take Level training before Individual Accuracy training will improve more than those who do the reverse</u>.

The development of the component approach has given rise to the question of the optimal sequence of training. Our suggestion would be to focus first on the individual and his judging habits, and then move on to differentiation between individuals.

The present study did not include a direct test of the sequencing hypothesis, but the results suggest that Level and Empathy training are as effective as the Individual Accuracy program in improving Individual Accuracy (all three ts for total gains are significant at the .05 level), and in some cases more effective (for second person gains, Level and Empathy t-tests are significant at the .05 level, but the Individual Accuracy group showed no significant gain).

It could be argued that the other trainers were more effective. But they taught completely different programs, so what the subjects learn plays a more important role than who trains them. It could also be argued that the training materials were different, or better developed for one group than another. This is possible, but there is no reason to assume so, and besides, the effectiveness of the materials in improving predictions has never been determined. All three groups had some common training material (the "women test"), but it was utilized differently in each group.

It is the author's opinion that the first phase of training should be Level training. Through the use of diagnostic tests and feedback, this training helps the subject learn about himself and about his judging habits. His ability to diagnose and correct his judging errors will enhance the effectiveness of subsequent Individual Accuracy training. The increased self-understanding gained through the Level training can provide a high level of motivation throughout subsequent training programs, and can help lower the subject's resistance to change.

Training should proceed from less stressful to more stressful situations. Level training is less stressful than Individual Accuracy training because: (1) there are no right or wrong answers, just information about one's judging habits; (2) it requires less complex judgments; and (3) it does not create frustration due to the lack of a pass-fail situation. Level training should therefore precede Individual Accuracy training.

This hypothesis could be tested by comparing two matched groups--one receiving Level training then Individual Accuracy training, and the other Individual Accuracy, then Level training--on a standardized criterion.

3. **The most effective training matches the training methods to the varying personalities of the trainees.**

The results of the present study show that bold males do well in this type of training, but bold females do not. Perhaps some other method would be more suitable for these females. Hershey (1960) used a group discussion method and found that his bolder subjects improved more, but he failed to investigate sex differences.

More research is needed before additional specific recommendations can be made, but, in general, bold subjects would probably benefit more from training using small groups. Here they could assert themselves, say what they feel, listen to what others think and develop a greater willingness to change. Cline and Richards (1959) found that trainees in T-groups (intensive group interaction) who improved more

were bolder. Larger groups may be more suitable for the more cautious subjects.

This hypothesis could be tested by comparing both cautious and bold subjects who participated in small group discussion training with their counterparts who participated in large group (lecture-type) training.

4. Most effective training is achieved by closely articulating the discussion of theoretical principles with practice in applying them.

Training research has suffered from the lack of a sound theoretical basis from which programs could be developed. When training is equated with psychological experience or course work, no relationship is found between training and improvement in sensitivity (Taft, 1955; Smith, 1966). The theoretical principles are presented, but not practiced. The few studies where principles are practiced have shown that training can improve sensitivity, e.g., Wakeley, 1961; Kepes, 1966, and the present study. Theory alone does not seem sufficient; practice and feedback must accompany it.

This hypothesis could be tested by comparing groups which have received varying proportions of theory, and practice in applying the theory.

CHAPTER VI

SUMMARY AND CONCLUSIONS

The purposes of the present study were twofold:
(1) to evaluate the effectiveness of a training program
designed to increase Individual Accuracy, and (2) to investi-
gate specific individual differences in the impact of training.

Individual Accuracy was defined as the ability of a
judge to differentiate between individuals when group member-
ship cues are reduced to a minimum, and to use this knowledge
in making predictions about the individuals.

The training program utilized the principles of
practice, participation, and feedback, focused on systemati-
zation of the prediction process, and used an explicit
empirical personality theory as a guideline for change.
The training criterion consisted of the typescripts of
interviews with three men followed by sixty items which
required the judge to make predictions differentiating be-
tween the men. Thirty items measured the accuracy of second-
person predictions, and thirty items measured the accuracy of
third-person predictions.

The experimental design involved pre- and post-tests
on the training criterion for both the experimental and
control groups, and comparison of pre- to post-test dif-
ferences for the two groups through the use of matched

64

t-tests. A correlational analysis was used to study the individual differences in the impact of training.

The training program consisted of five one-hour training sessions interpolated between the pre- and post-test on the training criterion. There was a period of approximately four weeks between the pre-test and post-test.

On the basis of the data reported, the following conclusions can be made:

1. Specially designed training programs can lead to significant improvement in Individual Accuracy. Most of this improvement can be attributed to an increase in the accuracy of second-person predictions.

2. The use of an explicit, empirical personality theory as a guideline and aid to change does not seem to be related to improvement in Individual Accuracy.

3. For male subjects, boldness is related to gains on the criterion; for female subjects, there is no relation between boldness and improvement.

4. Male subjects who are more emotional, and more impulsive show greater gains on the criterion as a result of training.

5. No specific personality factors are related to differential improvement in Individual Accuracy among female subjects.

6. Female subjects show slightly greater improvement on the criterion than do male subjects.

7. Age and intellectual ability have no clear relation-
ship to improvement in Individual Accuracy.

It was suggested that future training programs use
smaller groups, more discussion of, and more effective
presentation.of, knowledge of results, and a criterion com-
posed exclusively of second-person predictions. Also, the
use of diagnostic tests of the various components of sensiti-
vity was suggested as a likely starting point for future
training programs.

BIBLIOGRAPHY

Anderson, W. How effective is human relations training
         for the first line supervisor? Personnel, 1963,
         40, 62-66.

Argyris, C. Interpersonal Competence and Organizational
         Effectiveness. Homewood, Ill.: Irwin, 1962.

Bender, I. E., and Hastorf, A. H. On measuring generalized
         empathic ability (social sensitivity). J. abnorm.
         soc. Psychol., 1953, 48, 503-506.

Borke, Helen, and Fiske, D. W. Factors influencing the
         prediction of behavior from a diagnostic interview.
         J. consult. Psychol., 1957, 21, 78-80.

Bronfenbrenner, V., Harding, J., and Gallwey, M. The
         measurement of skill in social perception. In
         McClelland, D. C. (ed.). Talent and Society. New
         York: Van Nostrand, 1958, pp. 29-108.

Bruni, E. A film test of accuracy in observing people
         and its correlates. Unpublished Master's thesis,
         Michigan State University, 1963.

Buzby, D. E. The interpretation of facial expression.
         Amer. J. Psychol., 1924, 35, 602-604.

Carron, T. J. Human relations training and attitude
         change: A vector analysis. Personnel Psychol.,
         1964, 17, 403-422.

Cline, V. B. Ability to judge personality assessed with a
         stress interview and sound film technique. J. abnorm.
         soc. Psychol., 1955, 50, 183-187.

Cline, V. B., and Richards, J. M. Variables related to
         accuracy in interpersonal perception. Second annual
         report, Office of Naval Research, Contract NE 171-146,
         University of Utah, 1959.

Cline, V. B., and Richards, J. M. Accuracy of interpersonal
         perception: A general trait? J. abnorm. soc. Psychol.,
         1960, 60, 1-7.

Crow, W. J. The effect of training upon accuracy and variability in interpersonal perception. J. abnorm. soc. Psychol., 1957, 55, 355-359.

Crow, W. J. and Hammond, K. R. The generality of accuracy and response sets in interpersonal perception. J. abnorm. soc. Psychol., 1957, 54, 384-390.

Dailey, C. A. An experimental method for improving interpersonal understanding. Psychol. Reports, 1963, 13, 240.

Dymond, R. F. A scale for measurement of empathic ability. J. consult. Psychol., 1949, 13, 127-133.

Dymond, R. F. Personality and empathy. J. consult. Psychol., 1950, 14, 343-350.

Estes, S. G. Judging personality from expressive behavior. J. abnorm. soc. Psychol., 1938, 33, 217-236.

Gage, N. L., and Cronbach, L. J. Conceptual and methodological problems in interpersonal perception. Psychol. Rev. 1955, 62, 411-422.

Giedt, F. H. Comparison of visual, content, and auditory cues in interviewing. J. consult. Psychol., 1955, 19, 407-416.

Grossman, B. A. The measurement and determinants of interpersonal sensitivity. Unpublished Master's thesis, Michigan State University, 1963.

Grossman, B. A. The ALAS test. Unpublished research project, Michigan State University, 1965.

Hariton, T. Conditions influencing the effect of training in new human relations principles. Diss. Abstr., 1951, 11, 734.

Hastorf, A. H. and Bender, I. E. A caution respecting the measurement of empathic ability. J. abnorm. soc. Psychol., 1952, 47, 574-576.

Hershey, D. L. The relative effectiveness of discussion groups with dominant and submissive members. Unpublished research report, 1960.

Johnson, R. L. Correlates of a test of group sensitivity. Unpublished Master's thesis, Michigan State University, 1963.

Kelley, E. L., and Fiske, D. W. The prediction of performance in clinical psychology. Ann Arbor: University of Michigan Press, 1951.

Kepes, S. Y. Experimental evaluations of sensitivity training. Unpublished doctoral dissertation, Michigan State University, 1965.

Likert, R. New patterns of management. New York: McGraw-Hill, 1961.

Linden, J. The self-centered orientation in interpersonal relationships. Unpublished master's thesis, Michigan State University, 1965.

Lindgren, H. C., and Robinson, J. An evaluation of Dymond's test of insight and empathy. J. consult. Psychol., 1953, 17, 172-176.

Luft, J. Implicit hypotheses and clinical predictions. J. abnorm. soc. Psychol., 1950, 45, 756-759.

McKeachie, W. J. Lipstick as a determiner of first impressions of personality. J. soc. Psychol., 1952, 36, 241-244.

Martin, H. W. Effects of practice on judging various traits of individuals. Psychol. Bull., 1938, 35, 690.

Miles, M. B. Human relations training: Processes and outcomes. J. counsel. Psychol., 1960, 7, 301-306.

Mullin, J. Reliability and validity of a projective film test of empathy. Unpublished Master's thesis, Michigan State University, 1962.

Oskamp, S. W. The relation of clinical experience and training methods to several criteria of clinical prediction. Psychol. Monogr., 1962, 76, No. 28 (Whole No. 547).

Papaloizos, A. Personality and success of training in human relations. Personnel Psychol., 1962, 15, 423-428.

Pieper, W. J. Study on and revision of a test on accuracy in judging people. Unpublished research project, Michigan State University, 1960.

Poplar, J., and Jones, D. Personality traits and sensitivity training. Unpublished research study, Michigan State University, 1966.

Rabin, A. I. Szondi's pictures: identification of a diagnosis. J. abnorm. soc. Psychol., 1950, 45 392-395.

Secord, P. F. Facial features and inference processes in interpersonal perception. In R. Tagiuri and L. Petrullo (Eds.), Person perception and interpersonal behavior. Stanford: Stanford University Press, 1958.

Smith, H. C. Sensitivity to people. New York: McGraw-Hill, 1966.

Soskin, W. F. Bias in postdiction and projective tests. J. abnorm. soc. Psychol., 1954, 49, 69-74.

Soskin, W. F. Influence of four types of data on diagnostic conceptualization in psychological testing. J. abnorm. soc. Psychol., 1959, 58, 69-78.

Stelmachers, Z. T., and McHugh, R. B. Contribution of stereotyped and individualized information to predictive accuracy. J. consult. Psychol., 1964, 28, 234-242.

Taft, R. The ability to judge people. Psychol. Bull., 1955, 52, 1-23.

Trumbo, D. A. The development and analysis of a test of the ability to predict behavior. Unpublished Master's thesis, Michigan State University, 1955.

Wakeley, J. H. The effects of special training on accuracy in judging others. Unpublished doctoral dissertation, Michigan State University, 1961.

Wedell, C., and Smith, K. V. Consistency of interview methods in appraisal of attitudes. J. appl. Psychol., 1951, 35, 392-396.

Weiss, J. H. Effect of professional training and amount and accuracy of information on behavioral predictions. J. consult. Psychol., 1963, 27, 257-262.

APPENDICES

A. The Training Criterion

B. The Protebob Personality Inventory

C. Training Materials

D. Additional Statistical Data

E. Explanation of Varying Sample Sizes

APPENDIX A

THE INDIVIDUAL ACCURACY CRITERION

Directions: This is a test of your ability to make accurate predictions about people. You will be given information about three men--Mr. George, Mr. Walter, and Mr. Allen. Your task is to make judgments about the three men; that is, to predict their behavior.

The Case of Mr. George

Mr. George is a middle-aged, married man with one child. As part of a research project on understanding people, he was given a brief interview. A typescript is given below.

Psychologist: "What sort of person are you? How would you characterize yourself as a person?"

Mr. George: "Just an average person. I like the normal things most people do. I like sports, I like to dance and play around that way. Of course, I don't run around, I'd say I was getting into a stable class. I'm over the younger fling."

Psychologist: "What would you consider to be your greatest personality difficulty or handicap?"

Mr. George: "Well, maybe too reserved."

Psychologist: "You find you're too reserved, in what way?"

Mr. George: "Well, especially in business. I think I take too much of what the boss says, and do it. And, though maybe I can do it better, I do it the way he says to avoid trouble. In other words, I try to get along with people, which is good. But maybe sometimes I should say more about it to maybe help me and the others."

Psychologist: "Assert yourself a little more?"

Mr. George: "Yes."

Psychologist: "Do you ever lose your temper?"

Mr. George: "Well, very seldom with the person. I may become upset. I try my best not to let them know it."

Psychologist: "What would you do if someone told a lie about you?"

Mr. George: "Well, what kind of a lie - that I did something I didn't?"

Psychologist: "Yes. A lie that perhaps would be damaging to your character."

Mr. George: "Well, I don't know, but I imagine I'd try and find out why the person said it. Maybe, as far as he knew, he was telling the truth."

Psychologist: "Do you think that you would go to him and talk to him about it?"

Mr. George: "If it was of importance, otherwise I would forget it."

Psychologist: "What sort of hobbies do you particularly enjoy?"

Mr. George: "Well, I like to make things. Oh, woodwork and hunting I guess are the main things."

Psychologist: "How important do you feel religion is to people in these times?

Mr. George: "I don't go in for religion too much. I believe that it is necessary for everybody to have a basic belief. As far as the religious part goes, in my own living I don't place that as a major issue."

Psychologist: "Then religion is not too important to you personally?"

Mr. George: "No."

Psychologist: "But you do feel that people should have some sort of basic faith?"

Mr. George: "Yes, they have to have a code to live by, and that's the best one I can think of."

The Case of Mr. Walter

Mr. Walter is a young married man with two children. As part of a research project on understanding people, he was given a brief interview. A typescript is given below.

Psychologist: "Just what sort of a person are you?"

Mr. Walter: "That's hard to determine. I'm one type of person to myself and another type of person to society. I'd have to give two definitions to answer that correctly - how I am to myself, and how I am to people who know me."

Psychologist: "Would you like to discuss that a little further? What sort of a person are you to yourself?"

Mr. Walter: "Well, I think I'm a person of probably over-average intelligence, with ambitions to be able to better myself and my society, to be able to help society."

Psychologist: "What sort of person do you feel you are to other people?"

Mr. Walter: "Well, I hope I'm pretty nearly the same kind of person to other people as I am to myself. I get along well with most people, I don't have a great many friends; I have a few intimate friends, and with these people I'm quite close. I get along well

with these people. And, I can be pretty compatible
with most people."

Psychologist: "What do you feel is your greatest personality
handicap?"

Mr. Walter: "The fact that I try too hard to do things, I
believe. This hinders me from being able to do
things - by being under certain tensions."

Psychologist: "Do you ever lose your temper?"

Mr. Walter: "Rarely."

Psychologist: "What sort of thing would cause you to lose
your temper?"

Mr. Walter: "Well, never having lost my temper completely -
I've always been able to hold my emotions pretty
well in check - it would have to be a fairly devastat-
ing thing. I think, to make me lose it, or to become
completely out of control of myself."

Psychologist: "What sort of hobbies do you particularly
enjoy?"

Mr. Walter: "Golf, music, spectator sports - I am not too
athletic - tennis, things such as this."

Psychologist: "Well, how important do you feel religion is
to people in these times?"

Mr. Walter: "That's a pretty deep subject. Not being a
deeply religious man myself, it isn't too important
to me. The moral teachings of religion help man be
able to live better with himself, and with other
people in society. I think today it's quite important
for most people - not for the supernatural aspects
of it, but for the moral teachings of religion."

Psychologist: "You don't feel that it's necessary for you?"

Mr. Walter: "Not necessary, no."

The Case of Mr. Allen

Mr. Allen is a young, single man. As part of a
research project on understanding people, he was given a
brief interview. A typescript is given below.

Psychologist: "Just what sort of person are you?"

Mr. Allen: "Well, I guess an easy-going one. I'm easy to
get along with."

Psychologist: "Well, what else can you tell me about your-
self as to what sort of person you are?"

Mr. Allen: "Well, I guess that's about all. I have some
temper - not much."

Psychologist: "Well, what would you consider to be your
greatest personality handicap?"

Mr. Allen: "Well, I guess just paying attention when there
are people talking to me. Just paying attention to
them."

Psychologist: "Do you have difficulty paying attention to
people when they talk to you?"

Mr. Allen: "No, No, I don't have no difficulty, it's just
          that whenever I walk into a place, I just don't
          speak, I'm quiet."
Psychologist: "Oh, I see, you find yourself quiet. Do
          you have difficulty making friends?"
Mr. Allen: "No, No, I don't find no difficulty making friends."
Psychologist: "After you once get to know them, then. But to
          begin with, you feel a little reserved about it, is
          that it?"
Mr. Allen: "Yuh."
Psychologist: "Well, do you ever lose your temper? What
          sort of thing would cause you to lose your temper?"
Mr. Allen: "Once in a great while. It has to be something
          pretty mean, I guess, or something pretty big. One
          I guess is just - I don't know - couldn't tell you
          that until I lost my temper. Well, for instance, my
          little brother taking off with my car."
Psychologist: "That would make you unhappy?"
Mr. Allen: "Yuh."
Psychologist: "What would you do if someone told a lie
          about you?"
Mr. Allen: "I guess that would make me a little sore too,
          if it wasn't true."
Psychologist: "What would you do about it? Would you go
          to the person and talk to him about it?"
Mr. Allen: "I wouldn't do nothing. Just sort of keep it
          to myself."
Psychologist: "Well, how would you feel, and what would you
          do if someone gave you a million dollars?"
Mr. Allen: "I'd be pretty happy, I guess. I guess I've
          never thought about what I'd do with it. I'd spend
          it I guess."
Psychologist: "What sort of things do you do in your spare
          time, when you're not working?"
Mr. Allen: "Oh, usually drive around; I like to drive
          around quite a bit."
Psychologist: "Do you participate actively in any sports,
          or are you a spectator?"
Mr. Allen: "No, I participate in it. Basketball, for
          instance."
Psychologist: "Well, tell me, how important do you feel
          religion is to people in these times? How is it
          important to you?"
Mr. Allen: "Yes, I really do think that religion is important.
          I don't know, I guess just being good, people go out,
          and that ain't so bad, just going out and partying,
          but after that, the way they gather--."
Psychologist: "And you think that religion would affect
          that sort of thing?"
Mr. Allen: "I think so, because of conscience - people have
          a conscience, and that would be on it."
Psychologist: "In what way is religion important to you?"
Mr. Allen: "I don't know, well, sometimes when you go out
          partying, you feel like doing something else, and
          yet you don't."

<u>Psychologist</u>:   "Because of your religion, is that it?"
<u>Mr. Allen</u>:   "Uh-huh."

Behavior Predictions

INSTRUCTIONS:
All the men in the interviews filled out a series of attitude
and personality scales. Their friends rated them on
a series of traits and also gave sketches of them.
The statements below are based on the answers that the
men and their friends gave. When you answer the
questions, use only spaces 1, 2, and 3, on the IBM
sheets. The numbers correspond to the order in which
the interviews appeared. That is, Mr. George is (1), Mr.
Walter is (2), and Mr. Allen is (3). In other words, if
you think the answer to a particular question is:

> Mr. George mark "1"
> Mr. Walter mark "2"
> Mr. Allen mark "3"

The correct answers are known from the attitude scales
and other tests that the interviewed men filled out.
Also, the correct answers are equally distributed among
the three men. You may go back and reread the inter-
views if you wish to.

Religious Beliefs

(1) Mr. George, (2) Mr. Walter, and (3) Mr. Allen, filled
out a rating scale about their religious beliefs. Which
one answered in the following manner?

Correct Answer

2   67. Agreed that "I am unable to accept the idea
of 'Life after death' at least not until
we have some definite evidence there is
such a thing."

3   68. Agreed that "God will punish those who
disobey his commandments and reward those
who obey Him (either in this life or a
future life)."

2   69. Disagreed that "There exists an evil
intelligence, personnage, or spirit in
the universe often referred to as Satan
or the Devil."

Adjective Check List

The three men were each given pairs of adjectives and were asked to choose the one which they thought was a better description of themselves. In each of the pairs below only one of the men checked the adjective underlined. Mark "1" if you think it was Mr. George, "2" if you think it was Mr. Walter, or "3" if you think it was Mr. Allen.

2	70.	Arrogant - apathetic
2	71.	Progressive - outgoing
3	72.	Shy - assertive
1	73.	Steady - spunky
1	74.	Tolerant - ingenious
1	75.	Stable - robust
1	76.	Practical - charming
3	77.	Contented - quick
1	78.	Warm - forceful
1	79.	Moderate - artistic
2	80.	Restless - unemotional
3	81.	Sincere - original
1	82.	Good-natured - painstaking
3	83.	Kind - insightful
1	84.	Changeable - tense
3	85.	Loyal - clever
3	86.	Considerate - sharp-witted
1	87.	Foolish - cynical

Personality Inventory Items

(1) Mr. George, (2) Mr. Walter, and (3) Mr. Allen were given a series of true-false items. Which one of the three answered false to these items?

3	88.	I like to be the center of attention.
3	89.	It is easy for me to talk to strangers.
2	90.	At times I think I am no good at all.

Which one of the three answered _true_ to these items?

2	91.	I easily become impatient with people.
1	92.	I take a pretty easy-going and lighthearted attitude toward life.
2	93.	My hardest battles are with myself.
3	94.	Policemen are usually honest.
3	95.	I seldom have quarrels with the members of my family.
1	96.	I do not always tell the truth.

Thumbnail Sketches by Friends

Friends of (1) Mr. George, (2) Mr. Walter, and (3) Mr. Allen also gave thumbnail descriptions of them. Which one was described as follows?

2	97.	"Is in a state of rebellion against all religions."
2	98.	"Enjoys almost all good art and music."
3	99.	"Does quite poorly in speaking to groups."
2	100.	"Rather fussy about what he eats and how it is prepared."
3	101.	"Is shy and reserved at parties."
3	102.	"Prefers going steady with one person."
3	103.	"Rather easy-going with no great ambition."
1	104.	"Is fairly easy-going with his children."
1	105.	"Raises voice a little but maintains control in family arguments."
1	106.	"Is about average in regards to ambition."
2	107.	"Somewhat insecure and highstrung."
1	108.	"Is easy to get along with."
3	109.	"Is a rather quiet and humble person."
3	110.	"Loyal, honest, and kind."
1	111.	"Enjoys himself at parties, but is not much noticed."
3	112.	"Very reliable and hard working."
2	113.	"Avoids emotional scenes with people because they make him feel most uncomfortable."
2	114.	"Tends to 'stew' about things, changes his mind back and forth before making final decisions."

Ratings by Friends

(1) Mr. George, (2) Mr. Walter, (3) Mr. Allen, were rated by their friends on a series of personality traits. Which one was rated as follows?

2	115.	least affectionate
2	116.	most rebellious
2	117.	least shy
2	118.	least friendly
3	119.	least egotistical
3	120.	most careful
1	121.	least ambitious
3	122.	least realistic
2	123.	least confident
2	124.	most egotistical
1	125	least rebellious
1	126.	least careful

APPENDIX B

THE PROTEBOB PERSONALITY INVENTORY

Directions: There are no <u>right or wrong</u> answers to the
              following statements. They represent experiences,
              preferences, ways of doing things, or beliefs
              that are true of some people but are not true
              of others.

              Read each statement and decide whether or not
              it is true with respect to yourself. Indicate your
              answers on the separate answer sheet.

              Mark "1" if it is <u>true</u> or more true than false of
              yourself.

              Mark "2" if it is <u>false</u> or more false than
              true of yourself.

1. I like to make a very careful plan before starting
    in to do anything.
2. I am guided in all my conduct by firm principles.
3. I find it rather hard to keep to a rigid routine.
4. I like to be with people who don't take life too
    seriously.
5. Whenever I have to undertake a job I make out a care-
    ful plan of procedure.

6. I never lose my head.
7. I set very difficult goals for myself.
8. I am not particularly methodical in my daily life.
9. I generally go from one thing to another in my daily
    life without a great deal of planning.
10. I like to keep all my letters and other papers neatly
    arranged and filed.

11. I always keep control of myself in an emergency situation.
12. Most of my spare money is used for pleasure.
13. I occasionally neglect serious things in order to have
    a good time.
14. I am extremely systematic in caring for my personal
    property.
15. I always finish one task before taking on others.

16. I find it difficult to keep my mind on one detail for
    very long.
17. I like to have my life so arranged that it runs smoothly
    and without much change in plans.

18. I can always do a good job even when I am very excited.
19. I am extremely ambitious.
20. I'm occasionally disorganized if I am called on suddenly to make a few remarks.

21. I enjoy work more than play.
22. I feel that friendship is more important in life than anything else.
23. I really don't like to drink alcoholic beverages.
24. I find that my minor likes and dislikes change rather frequently.
25. I frequently obey whatever impulse is strongest.

26. I am considered extremely "steady" by my friends.
27. I like to have my meals organized and a definite time set aside for eating.
28. I keep my workplace very neat and orderly.
29. I believe in getting as much fun as I can out of life.
30. I believe that I have the disposition of a pleasure-seeker.

31. I generally seek whatever makes me happy here and now.
32. I would rather see a musical comedy than a documentary film.
33. I live more for the future than for the present.
34. I believe that what a person does about a thing is more important than what he feels about it.
35. I like to be with people who are not preoccupied with the future.
36. I am greatly influenced in minor decisions by how I happen to be feeling at the moment.
37. I am much more interested in activities which I can enjoy for their own sake than in activities which are of long range benefits.
38. I spend a good deal of time thinking about my plans for the future.
39. I accept my feelings as the best guide for my actions.
40. I have some difficulty in concentrating my thoughts on one thing for a long time.

41. I am more interested in what I see and hear than in abstract principles.
42. I am temperamentally more a sceptic than a believer.
43. I am more interested in general ideas than in specific facts.
44. No individual, no matter what the circumstances, is justified in committing suicide.
45. The idea of God must remain absolutely central to the whole plan of human purpose.

46. It is possible that there is no such thing as divine inspiration.
47. My faith in God is complete for "though he slay me, yet will I trust him."

48. I believe that everybody would be happier if both men and women had more sexual freedom.
49. I carry a very strict conscience about with me wherever I go.
50. I consider the close observance of social customs and manners as an essential aspect of life.

51. I have occasionally doubted the reality of God.
52. It is absolutely vital to assume that there is a God behind the Universe.
53. A person should develop his greatest loyalty toward his religious faith.
54. The world might benefit from having a new kind of religion.
55. I think that it is much more important to learn to control sexual impulses than to express them.

56. I take pains not to incur the disapproval of others.
57. Some of my friends think my ideas are a bit wild and impractical.
58. I control my sexual impulses by instituting prohibitions and restrictions.
59. I have always been unalterably convinced of the reality of God.
60. I would rather be a salesman than a scientific research worker.

61. The thought of God gives me a complete sense of security.
62. The European attitude toward mistresses is more sensible than ours.
63. I trust in God to support the right and condemn the wrong.
64. In matters of conduct I conform very closely to custom.
65. I haven't yet reached any final opinion about the nature of God.

66. It is as important for a person to be reverent as it is for him to be sympathetic.
67. The idea of God means more to me than any other idea.
68. I think that cremation is the best method of burial.
69. In the long run, science provides the best hope for solving the world's problems.
70. I like to read scientific articles in popular magazines.

71. Radical agitators should be allowed to make public speeches.
72. Women should have as much right to propose dates to men as men to women.
73. I believe we should have less censorship of speech and press than we do now.
74. I often act contrary to custom.
75. Science should have as much to say about moral values as religion does.

76. I would enjoy the kind of work that a scientific research worker does.
77. I think that I have a more rigorous standard of right and wrong than most people.
78. It is necessary to retain the belief that God exists as a personal being.
79. Divine inspiration is an infallible source of truth.
80. Compared to your own self-respect, the respect of others means little.

81. I enjoy going to art galleries very much.
82. I would like to hear a popular lecture on contemporary painters.
83. I can deal much better with actual situations than with ideas.
84. I like to discuss abstract questions with my friends.
85. If I had unlimited leisure and money, I would enjoy making a collection of fine sculptures or paintings.

86. I have seldom really enjoyed an art course.
87. I like to visit exhibits of famous paintings.
88. Sports generally interest me somewhat more than very intellectual affairs.
89. I am mainly interested in ideas that are very practical.
90. I like abstract paintings.

91. I am an extremely practical person.
92. I like ballet performances.
93. I sometimes think more about my ideas than about the routine demands of daily life.
94. I only work for concrete and clearly-defined results.
95. I would rather be a salesman than an artist.

96. If I had the ability, I would enjoy teaching poetry at a University.
97. Magazines such as Arts and Decorations bore me.
98. I get an intense pleasure from just looking at a beautiful building.
99. I like to read poetry.
100. Artistic experiences are of great importance in my life.

101. I would like to take a course in the modern novel.
102. I would rather read "Business Week" than "Atlantic Monthly."
103. I spend a lot of time philosophizing with myself.
104. I tend to judge people in terms of their concrete accomplishments.
105. I tend to accept the world as it is and not worry about how it might be.

106. I always keep my feet solidly on the ground.
107. I think there are few more important things in life than money.

108. I am really only interested in what is <u>useful</u>.
109. I prefer friends who have well developed artistic tastes.
110. In a discussion, I tend to lose interest if we talk about serious literature.

111. I think I would like to decorate a room with flowers.
112. I have never tried to collect pictures of paintings I like.
113. I would rather see a movie than read a book.
114. My head is always full of imaginative ideas.
115. I believe that competitiveness is a necessary and desirable part of our economic life.

116. I would rather read an article about a famous musician than a financier.
117. I often think for a long time about an idea that has occurred to me.
118. I would particularly enjoy meeting people who had made a success in business.
119. I prefer the friends of my own sex to be very efficient, and of a practical turn of mind.
120. Daydreams are an important part of my life.

121. I am generally regarded by others as a leader.
122. I am very self-confident.
123. I like to have people around me practically all the time.
124. I am generally active in my everyday life.
125. I generally talk very quietly.

126. Most of the time, I am extremely carefree and relaxed.
127. I am quite often lacking in self-confidence.
128. I am cautious about undertaking anything which may lead to humiliating experiences.
129. I enjoy speaking in public.
130. There are few things I enjoy more than being a leader of people.

131. I have frequently assumed the leadership of groups.
132. I am a rather carefree person.
133. I feel somewhat inferior as a person to a few of my friends.
134. I am frequently discouraged by my own inadequacies.
135. When I meet a stranger, I sometimes think he is a better person than I am.

136. I am somewhat more shy than the average person.
137. I generally feel self-conscious in the presence of important superiors.
138. I am inclined to limit my friends to a few people.
139. I always like to be with people rather than be alone.
140. I spend myself freely as I have plenty of energy.

141. I would rather listen to a story than tell one.
142. I prefer quiet games to extremely active ones.
143. I frequently become involved in too many activities.
144. Some people I know can look forward to a happier life than I can.
145. I am very optimistic.

146. I am a very adventurous person.
147. I have quite a few fears about my future.
148. I am at least as much of a pessimist as an optimist.
149. I sometimes become melancholy without very good reasons.
150. I have some feelings of inferiority.

151. I am almost never embarrassed.
152. I always prefer to work with others.
153. I dislike it when I am with people constantly.
154. I enjoy taking the full responsibility for introducing people at a party.
155. I am always taking on added social responsibility.

156. I am generally leader of the people I know.
157. I am seldom the center of attention in a group.
158. I am often called upon to settle arguments between people.
159. I sometimes find it hard to lead people and maintain them in order.
160. I generally keep in the background at social functions.

161. I am rather easily stirred up.
162. I have never been seasick, plane sick, or car sick.
163. It takes a great deal to make me emotional.
164. My emotional life is marked by great moderation.
165. I believe I am less emotional than most people.

166. I rather frequently find myself getting emotional about something.
167. Sometimes I become so emotional that I find it a little hard to get to sleep.
168. I become emotional fairly easily.
169. I have sometimes actually screamed with joy.
170. I am seldom disturbed about sexual matters.

171. I usually prefer to keep my feelings to myself.
172. I almost always do about as well as I expected in competitions.
173. I suppress my emotions more often than I express them.
174. I am easily moved to laughter or tears.
175. I think much and speak little.

176. I consider most matters from every standpoint before I form an opinion.
177. I have sometimes gotten so angry that I felt like throwing and breaking things.

178. I am practically always tolerant even in dealing with people that I don't like.
179. My feelings and emotions are very easily aroused.
180. I almost never notice minor physical injuries.

181. I am considered rather emotional by my friends.
182. I find that my life moves along at an even tenor without many ups and downs.
183. I have occasionally had to make an effort not to cry.
184. I am a rather objective and matter-of-fact person.
185. I like having someone with whom I can talk about my emotional problems.

186. I am rather spontaneous in speech and action.
187. I usually express myself objectively, with considerable caution and restraint.
188. I am a fairly impulsive person.
189. I never complain about my sufferings and hardships.
190. I have sometimes corrected others, not because they were wrong, but only because they irritated me.

191. I have occasional difficulty getting the temperature of my bath the way I like it.
192. I have very strong likes and dislikes.
193. Quite a few things make me emotional.
194. I am moderate in my tastes and sentiments.
195. I usually do things in a leisurely sort of way, seldom getting excited.

196. I am almost never extremely excited or thrilled.
197. I experience rather frequent pleasant and unpleasant moods.
198. I like to discuss my emotions with others.
199. I sometimes speak on the spur of the moment without stopping to think.
200. I can stand pain better than the average person.

APPENDIX C

TRAINING SESSION NO. 2

Knowledge of the Empirical Personality Theory

Listed below are items from the Protebob personality inventory
which measure each of the basic traits. In order to gain a
more thorough knowledge of the theory, we will discuss how
each of the traits is measured. Then you will be asked to
predict how each of the items should be answered (true or
false) on the basis of this discussion. Then the correct
answers will be given so that you can check your own
accuracy.

Please mark all scores on the separate Summary Sheet.
(Correct answer given next to each item.)

CAUTIOUS-BOLD

   Submissive - Dominant

      T 1.   I have frequently assumed the leadership of groups.
      F 2.   I am seldom the center of attention in a group.
      T 3.   I am often called upon to settle arguments between
              people.
      F 4.   I sometimes find it hard to lead people and main-
              tain them in order.
      F 5.   I generally keep in the background at social functions.

   Low activity level - High activity level

      F 6.   I generally talk very quietly.
      T 7.   I spend myself freely as I have plenty of energy.
      F 8.   I would rather listen to a story than tell one.
      F 9.   I prefer quiet games to extremely active ones.
      T 10.   I frequently become involved in too many activities.

Low self-confidence - Self-confident

      F 11.   I am cautious about undertaking anything which
              may lead to humiliating experiences.
      T 12.   I enjoy speaking in public.
      F 13.   I feel somewhat inferior as a person to a few of
              my friends.
      F 14.   I am frequently discouraged by my own inadequacies.
      F 15.   I am somewhat more shy than the average person.

Pessimistic - Optimistic

      T 16.   Most of the time, I am extremely carefree and
              relaxed.
      F 17.   Some people I know can look forward to a happier
              life than I can.

90

T 18.   I am a very adventurous person.
F 19.   I have quite a few fears about my future.
F 20.   I sometimes become melancholy without very good
        reasons.

Low sociability - High sociability

T 21.   I like to have people around me practically all
        the time.
T 22.   I always like to be with people rather than be
        alone.
F 23.   I am inclined to limit my friends to a few people.
T 24.   I always prefer to work with others.
F 25.   I dislike it when I am with people constantly.

EMOTIONAL - CALM

Emotional - Calm

F 26.   My feelings and emotions are easily aroused.
T 27.   I find that my life moves along at an even tenor
        without many ups and downs.
T 28.   I am moderate in my tastes and sentiments.
T 29.   I usually do things in a leisurely sort of way,
        seldom getting excited.
F 30.   I experience rather frequent pleasant and
        unpleasant moods.

High sensory awareness - Low sensory awareness

T 31.   I have never been seasick, plane sick, or car sick.
T 32.   I almost never notice minor physical injuries.
F 33.   I have occasional difficulty getting the temperature
        of my bath the way I like it.
T 34.   I can stand pain better than the average person.
T 35.   I am occasionally not too aware of my physical
        surroundings.

Cold - Warm

T 36.   I always try to praise people who are discouraged
        by their failures.
T 37.   I enjoy helping people with their personal problems.
F 38.   I say what I think about important things even
        if it hurts the feelings of some people.
T 39.   I almost always forgive people who hurt me.
F 40.   I am somewhat intolerant of people who bore me.

Expressive - Inhibited

T 41.   I suppress my emotions more often than I express
        them.
F 42.   I think much and speak little.
T 43.   I consider most matters from every standpoint before
        I form an opinion.

F 44. I am rather spontaneous in speech and action.
T 45. I usually express myself objectively, with considerable caution and restraint.

INTRODUCED - EXTROVERTED

High artistic values - Low artistic values

F 46. If I had unlimited leisure and money, I would enjoy making a collection of fine sculptures or paintings.
F 47. I get an intense pleasure from just looking at a beautiful building.
F 48. I like to read poetry.
F 49. I prefer friends who have well developed artistic tastes.
T 50. In a discussion, I tend to lose interest if we talk about serious literature.

Low economic values - High economic values

T 51. I think there are few more important things in life than money.
T 52. I am really only interested in what is useful.
T 53. I believe that competitiveness is a necessary and desirable part of our economic life.
F 54. I would rather read an article about a famous musician than a financier.
T 55. I prefer the friends of my own sex to be very efficient, and of a practical turn of mind.

Introverted thinking - Extroverted thinking

T 56. I can deal much better with actual situations than with ideas.
T 57. Sports generally interest me somewhat more than very intellectual affairs.
F 58. I sometimes think more about my ideas than about the routine demands of daily life.
T 59. I only work for concrete and clearly-defined results.
T 60. I tend to judge people in terms of their concrete accomplishments.

Low manifest sexuality - High manifest sexuality

F 61. I am rather modest about sexual matters.
T 62. I enjoy the company of almost all members of the opposite sex.
T 63. It is extremely important to me that I be regarded as physically attractive by those of the opposite sex.
T 64. I like to participate in discussions about sex and sexual activities.
F 65. I seldom asked questions about sex when I was a child.

IMPULSIVE - CONTROLLED

Unambitious - Ambitious

    T 66. I set very difficult goals for myself.
    F 67. Most of my spare money is used for pleasure.
    F 68. I occasionally neglect serious things in order
           to have a good time.
    T 69. I enjoy work more than play.
    F 70. I generally seek whatever makes me happy here and
           now.

Unorganized - Organized

    T 71. Whenever I have to undertake a job I make out a
           careful plan of procedure.
    F 72. I generally go from one thing to another in my
           daily life without a great deal of planning.
    T 73. I am extremely systematic in caring for my personal
           property.
    F 74. I always finish one task before taking on others.
    F 75. I have some difficulty in concentrating my
           thoughts on one thing for a long time.

Low emotional control - High emotional control

    T 76. I always keep control of myself in an emergency
           situation.
    T 77. I can always do a good job even when I am very
           excited.
    F 78. I frequently obey whatever impulse is strongest.
    T 79. I am considered extremely "steady" by my friends.
    F 80. I am greatly influenced in minor decisions by how
           I happen to be feeling at the moment.

Gregarious - Aloof

    F 81. When I am in low spirits I always try to find
           someone to cheer me up.
    F 82. I enjoy taking part in any large social affair.
    T 83. I enjoy it immensely when I am left alone with my
           own thoughts.
    T 84. I could become so absorbed in work that greatly
           interested me that I would not notice the
           absence of social life.
    T 85. I usually enjoy spending an evening alone.

RATIONAL - EMPIRICAL

Resistance to change (conservative) - Readiness for change
                                                   (liberal)

    T 86. I believe that everybody would be happier if both
           men and women had more sexual freedom.
    T 87. The world might benefit from having a new kind of
           religion.

T 88. The European attitude toward mistresses is more sensible than ours.
T 89. Women should have as much right to propose dates to men as men to women.
T 90. I believe we should have less censorship of speech and press than we do now.

Religious believer - Religious sceptic

T 91. It is possible that there is no such thing as divine inspiration.
F 92. My faith in God is complete for "though he slay me, yet will I trust him."
T 93. I have occasionally doubted the reality of God.
F 94. A person should develop his greatest loyalty toward his religious faith.
F 95. I trust in God to support the right and condemn the wrong.

Social conformist - Nonconformist

F 96. I consider the close observance of social customs and manners as an essential aspect of life.
F 97. I take pains not to incur the disapproval of others.
T 98. Some of my friends think my ideas are a bit wild and impractical.
F 99. In matters of conduct I conform very closely to custom.
T100. Compared to your own self-respect, the respect of others means little.

Nonscientific - Scientific

F 101. I would rather be a salesman than a scientific research worker.
T 102. In the long run, science provides the best hope for solving the world's problems.
T 103. I like to read scientific articles in popular magazines.
T 104. I would enjoy the kind of work that a scientific research worker does.
F 105. I think I can lead a full life without knowing much about science.

TRAINING SESSION NO. 3

Matching Trait Profiles

      Given below are three sketches of people based on their autobiographies. Your task is to match each of these sketches with the personality trait profiles given on the Summary Sheet. Read the sketches, choose the profile that fits each case (the people also took the Protebob test) and record your answer on the Summary Sheet. Repeat for the second group of cases and profiles.

No. 1. Mary is a 43 year old senior majoring in Home Economics. Her childhood was difficult because her parents were very strict and expected much of her, and permitted no deviation from their high standards. As a result, she tended to avoid trouble, became independent early in life, and has some difficulty establishing relationships with people. As she says "nothing offered; nothing accepted." She spent her summers with her aunts and uncles who were very religious, and thus developed very very high ethical and religious standards for herself. She is tolerant of other people, can deal easily with abstract theories, and has an almost unlimited amount of physical energy to do what she wants to do.
      She lists her favorable characteristics as "impeccable honor and integrity, very empathetic, extremely tender hearted, organized, perserverant, very fastidious, respect for the dignity of man. On the other hand she is somewhat conceited, is unable to compromise, often attempts to do too much, and tries too hard to be perfect. She finds it difficult to balance recreation and work, wants to be a complete person, and feels she is obligated to no one person and holds no person obligated to her.

No. 2. Ray is a 38 year old junior majoring in Mechanical Engineering. He comes from a middle class background, and his parents did not get along with each other too well. His parents were submissive to his desires, but often inflicted harsh punishment. He was not close to any of his relatives, and went his own way in play and friendships.
      Ray has a tendency to stay aloof from people (of both sexes) who do not show ready acceptance of him. He tries to operate within his own moral and religious standards but is often not true to them. He feels he is above average in ability in most activities, but is hampered by feelings of inferiority and embarrassment. He admits that his grades are low, but says that at his age the degree is the important thing. He describes himself as sincere, willing to try, and introverted.

No. 3. Charlotte is a 47 year old junior majoring in Social Work. She was often ill as a child, and this was resented by her foster parents who raised her. Her mother punished her often and sometimes unjustly, and avoided handling her if she could help it. She ran away from home a number of times, and only survived her childhood because her foster father liked her, showed her some consideration, and tried to help her. Charlotte has difficulty getting along with women, especially her superiors at work. She likes to be in a helping relationship with any person, male or female.

She believes in God but not in a formal religion, and her moral views are narrow: "intent to wrong is almost like doing." Her first goal is to someday teach creative writing; now she writes poetry and prose for pleasure and profit. Improvising is something she does well because of her versatility, and she has a great deal of perserverance. However, she is somewhat egocentric, and feels she often talks more than she should, especially in class. She feels she may be losing something by not participating in college activities, and is anxious to complete her education and get to work.

Group 2

No. 4. Joan is a sophomore, majoring in Psychology, and is 20 years old. She has three older brothers, and all of the children were raised by her grandmother because her mother was working. Her mother always compared her to her brothers, and she never measured up to their achievements. Her father, the vice-president of a small company, was respected and obeyed by all the children, and gave no physical disciplining. Her brothers considered her as the "kid" or a tag-along. Joan had negative feelings toward her grandmother because she sided with her mother, and often berated Joan's father. She had few friends as a child, and got along better with boys than with girls.

Joan says her ideas on religion are in the process of changing, but she is anti-organized religion. She is a curious person, doesn't get bored easily, is interested in practically everything, and likes to read and learn. But she is inconsistent, often needs reassurance from her close friends and relatives, and is sometimes frightened by external conditions like the possibility of World War III.

No. 5. Susan is a 19 year old Social Work major, and is in her sophomore year. Her family was not very close because the members were individualistic, and shared few common interests. At an early age she developed a liking for animals and she had as many and as varied an assortment of pets as her parents would allow. Her parents didn't understand where this interest came from (they were both teachers) and disliked her spending so much time with her animals.

Susan says "I told my animals my secrets and how I felt, and
can't see why I should tell people who might take it the
wrong way or not understand."

Susan didn't date much till she came to college, and
gets along better with older people than with people of her
own age group, who seem immature to her. She believes in
two religions - God and Mother Nature - and understands
the latter better; "I just don't know what side God is on."
She likes cooking, skating, swimming, and horseback riding.
Her interests are broad, and she feels she often expects
too much of herself. She respects other people's beliefs,
is persistent, and is depressed a lot of the time. She
says she can be a tomboy, or a lady, when called for.

No. 6. Carol is a sophomore, 20 years old, and is majoring
in Home Economics. She comes from an upper middle class
family, and feels that her parents (who are "snobby") were
strict, but that the discipline was good for her. Her
relationship with her parents was "terrible" during adolescence,
but improved when she started dating. She doesn't like to
be pushed around by her friends, and feels that she has often
been persuaded (fairly easily) to do things she would not
normally do.

Her ethical and moral standards are very high; she
does not smoke or drink. Religion means a lot to her, but
she doesn't go to church often during the school year. She
wants to teach Home Economics, and has to study hard to get
good grades. She tries to be friendly and get along with
everybody, and doesn't deliberately hurt people's feelings.
She says she is considerate, responsible, and sincere, but
also is very sensitive, and gets hurt easily. She also gets
moody and depressed easily for no reason.

SUMMARY SHEET: Training Session No. 3

Listed below are the Personality Profiles of the people described in the sketches. These people wrote autobiographies, and also took the Protebob Personality Inventory. Your job is to match the sketches with the profiles, first for the cases in Group 1 and then for the cases in Group 2. Record your choices in the spaces provided below.

The figures given in the profiles are percentiles, as in your own personality profiles.

GROUP 1		GROUP 2	
Profile A		Profile D	
	Percentile		Percentile
Cautious-Bold	30	Cautious-Bold	50
Emotional-Calm	90	Emotional-Calm	40
Introverted-Extroverted	20	Introverted-Extroverted	80
Impulsive-Controlled	90	Impulsive-Controlled	30
Rational-Empirical	90	Rational-Empirical	5
Profile B		Profile E	
	Percentile		Percentile
Cautious-Bold	80	Cautious-Bold	60
Emotional-Calm	40	Emotional-Calm	95
Introverted-Extroverted	50	Introverted-Extroverted	45
Impulsive-Controlled	90	Impulsive-Controlled	75
Rational-Empirical	40	Rational-Empirical	40
Profile C		Profile F	
	Percentile		Percentile
Cautious-Bold	0	Cautious-Bold	10
Emotional-Calm	30	Emotional-Calm	10
Introverted-Extroverted	40	Introverted-Extroverted	10
Impulsive-Controlled	65	Impulsive-Controlled	30
Rational-Empirical	40	Rational-Empirical	85

Mark the letter of the Profile that corresponds with the sketch.

	Correct answer		Your answ.	Correct answer
Sketch # 1 ___	B	Sketch # 4 ___		F
Sketch # 2 ___	C	Sketch # 5 ___		E
Sketch # 3 ___	A	Sketch # 6 ___		D

Total Score ____

TRAINING SESSION NO. 4:   Behavior Prediction

Part 1

All the men interviewed in class filled out a series
of attitude and personality scales. The statements below
are based on the answers that the men gave. When you answer
the questions, use the spaces on the separate answer sheet.
If you think the answer to a particular question is Mr. A,
then mark "A" in the space next to that item on the answer
sheet.
The correct answers are known from the scales that
the men filled out. Also, the correct answers are equally
distributed among the three men.

Adjective Check List

The three men were given a list of adjectives and asked to
check those which applied to, or were descriptive of, them-
selves. For each of the adjectives below only <u>one</u> of the
three men checked it as applying to himself. Mark "A" if
you think it was **Mr. A**; "B" for **Mr. B.**; and "C" for **Mr. C.**

1. Assertive
2. Distrustful
3. Perservering
4. Rebellious
5. Disorderly

6. Pleasure-seeking
7. Conservative
8. Fault-finding
9. Self-confident
10. Unemotional

Sentence Completion

The three men were given the first part of a sentence and
had to choose an ending (the endings are underlined). For
each of the sentences below, only <u>one</u> of the three men chose
the ending given. Mark "A" if you think it was **Mr. A.**;
"B" for **Mr. B.**; and "C" for **Mr. C.**

11.   When they didn't invite me I <u>didn't care and said the
      hell with it.</u>
12.   Religion seems to me <u>necessary and important.</u>
13.   I would go mad if <u>I thought there were no purpose in life.</u>
14.   I feel "down in the dumps" when <u>I don't succeed.</u>
15.   I boiled up when <u>I was criticized unjustly.</u>

Personality Inventory

Mr. A., **Mr. B.**, and **Mr. C.** were given a series of true-
false items. Which one of the three answered <u>false</u> to
these items?

16. I am very sensitive to what others think of me.
17. I frequently ask people for advice.
18. I hate to have to rush when working.

Which one of the three answered _true_ to the following items?

19. At times I have a strong urge to do something harmful or shocking.
20. My hardest battles are with myself.

Stop when you have completed items 1 through 20.

Part 2

Adjective Check List

The three men, **Mr. A.**, **Mr. B.**, and **Mr. C.**, filled out an adjective check list, and checked those adjectives which they felt applied to them. Only _one_ of the three checked the adjectives given below. Mark "A" if you think **Mr. A.** checked that particular adjective, "B" for **Mr. B.**, and "C" for **Mr. C.**

21. Dependent
22. Emotional
23. Organized
24. Complaining
25. Dominant
26. Boastful

27. Dissatisfied
28. Indifferent
29. Vindictive
30. Unambitious
31. Reserved
32. Unconventional

Sentence Completion

For each of the sentences below, only one of the three men chose the ending given. Mark "A" if you think it was **Mr. A.**; "B" for **Mr. B.**; and "C" for **Mr. C.**

33. The thing that gets me into hot water most is <u>trusting people too much</u>.
34. When I'm criticized <u>I take it.</u>
35. My philosophy of life is "<u>Whatever you do, do well.</u>"
36. I felt my lack of success was due to <u>adverse conditions and bad luck.</u>
37. When I make a mistake <u>I am embarrassed.</u>
38. Sex is <u>too often considered as filthy.</u>
39. I felt most dissatisfied when <u>I didn't do the right thing.</u>
40. I enjoy <u>sports.</u>

Personality Inventory

Mr. A., Mr. B., and Mr. C. were given a series of true-false
items. Which one of the three answered <u>false</u> to these items?

41. I like to read about science.
42. I seldom have quarrels with the members of my family.
43. I am often the center of attention at a party.
44. I have often had to take orders from someone who did
    not know as much as I did.

Which one of the three answered <u>true</u> to the following items?

45. It takes a lot of argument to convince most people of
    the truth.
46. I can remember "playing sick" to get out of something.

Name _____ Student # _____

SUMMARY SHEET: Training Session No. 4

Mark "A", "B", or "C", depending on your choice of the correct
answer, for each item.

	Your answ.	Correct answer			Your answ.	Correct answer	
1.	___	A		41.	___	C	P
2.	___	B		42.	___	B	A
3.	___	C		43.	___	A	R
4.	___	C		44.	___	A	T
5.	___	B		45.	___	B	
6.	___	B	P	46.	___	B	2
7.	___	B	A				
8.	___	C	R				
9.	___	A	T				
10.	___	A					
11.	___	A	1				
12.	___	B					
13.	___	B					
14.	___	C					
15.	___	C					
16.	___	A					
17.	___	A					
18.	___	B					
19.	___	C					
20.	___	B					

Score for Part 1 _____
(items 1 - 20)

Score for Part 2 _____
(items 21 - 46)

TOTAL SCORE _____

	Your answ.	Correct answer	
21.	___	B	
22.	___	B	
23.	___	A	
24.	___	C	P
25.	___	C	A
26.	___	B	R
27.	___	C	T
28.	___	A	
29.	___	A	2
30.	___	C	
31.	___	B	
32.	___	A	
33.	___	A	
34.	___	C	
35.	___	B	
36.	___	B	
37.	___	A	
38.	___	C	
39.	___	A	
40.	___	B	

THE CASE OF MRS. DORIS

Your task is to make accurate predictions about Mrs. Doris. As part of a research project on understanding people, she was given a brief interview. A typescript is given below.

Psychologist: What sort of person are you?
Mrs. Doris: I like people-everything I do is involved with people, young people especially. I like to write and I think that's where I get my curiosity about people. In order to write about people you've got to know them. I enjoy my children, I like being a housewife, a homemaker. I like to sew. I enjoy spending a lot of time with my youngsters, and teaching them. I like to watch them grow and develop.
Psychologist: What do you consider to be your greatest personality handicap?
Mrs. Doris: The fact that I get too overenthusiastic about things. Overenthusiasm can be a liability as well as an asset.
Psychologist: In what way do you find it a liability?
Mrs. Doris: If I get interested in a project I want to keep at it, and work at it until it's finished and consequently I'll lose sleep, and let other things go so I can work on that project. (That's the biggest handicap?)
Psychologist: Do you find that you do this often?
Mrs. Doris: Oh yes, like if I start cleaning the basement, I've got to get the basement done all at once. I can't let it go till the next day and do a little at a time; it's got to be done all at once.
Psychologist: Why is this true?
Mrs. Doris: I don't know. I've often wondered. I guess it's feeling that once I've started something I want to know it's finished; something's finished and complete. And that's the one thing I don't like about housework--it's a constant thing--you never have everything just perfect and complete. You never get finished.
Psychologist: Do you ever lose your temper?
Mrs. Doris: Yes. I used to have a terrible temper when I was younger. I'd anger quickly. But I don't any more--I've succeeded in controlling it. In fact I think I've learned to control it too well some-times. So things will build up and build up and build up, and then when I do let go, the roof blows off.
Psychologist: What sort of things cause you to lose your temper?

Mrs. Doris: Well, the thing that bothers me most is people
            who are inconsiderate of other people. It angers
            me to see people mistreated--a child, or a dog, or
            to have a friend hurt, their feelings hurt--where
            someone has hurt a friend's feelings.
Psychologist: Do you think there's a great deal of that?
Mrs. Doris: Yes I do. A great deal.
Psychologist: Well, what would you do if someone told a
            lie about you?
Mrs. Doris: Well, I'd be mad, probably. You should have
            asked me that question about ten years ago--I'd
            have said I was very angry, and I'd immediately try
            to confront the person with the lie. But now you
            expect people to be inconsiderate of other people
            sometimes--and I think I'd be hurt, but I'd just
            accept it.
Psychologist: Well, what sort of hobbies do you enjoy?
Mrs. Doris: I like things that are creative. I like to
            sew, to design my own sewing, especially for my
            children. And I love to write. I spend about
            three hours a day writing.
Psychologist: How important do you feel religion is to
            people in these times?
Mrs. Doris: We all have to have something to cling to, and
            depend on. Without the feeling that there is a
            God and that there is a hereafter, and that there is
            some purpose to our life, I think we'd be rather
            defeated. I think it's very important. END

                    THE CASE OF MRS. NORA

        Your task is to make accurate predictions about
Mrs. Nora. As part of a research project on understanding
people, she was given a brief interview. A typescript is
given below.

Psychologist: Well tell me, just what sort of person you are?
Mrs. Nora: Oh, I don't know. I try to be tolerant, con-
            siderate, and understanding in my work. In my spare
            time I think of my children, and problems that I
            had at work.
Psychologist: What would you consider to be your greatest
            personality handicap?
Mrs. Nora: I guess that is rather hard to answer. I don't
            have time enough to do the things I want to do.
            Just what does that (handicap) include?
Psychologist: Possibly you wish you could change?
Mrs. Nora: I wish I had a little more patience. That's
            probably due to my work. I have several things
            that are pressing--and being patient and under-
            standing, sometimes I'm not as patient as I'd like
            to be.

Psychologist: Well, do you ever lose your temper?
Mrs. Nora: Very often.
Psychologist: Well, what sort of things cause you to lose
        your temper?
Mrs. Nora: Well, when you have charge of anything like that
        I think that's quite natural. You have quite a
        few problems to put up with, and ten other people
        that you have to satisfy. You try to see it their
        way, and make it pleasant for them, and in so doing,
        it's very easy to lose your temper. You have to
        suppress it however, when you're working with people.
        But sometimes it gets on your own nerves, and that
        makes it rather hard to please everybody and please
        yourself at the same time.
Psychologist: What sort of hobbies do you particularly enjoy?
Mrs. Nora: Relief society work and crocheting.
Psychologist: That keeps you busy, does it?
Mrs. Nora: Very busy.
Psychologist: Well, tell me, how important do you feel
        religion is to people in these times?
Mrs. Nora: Very important. In fact it should be over fifty
        percent of your life. My work is religion.
Psychologist: In what way do you feel religion is important
        to people?
Mrs. Nora: Why I think it makes them better, makes them
        more understanding, makes them able to get along with
        people. We're not here for too long, so that makes
        it important, very important, to people. I think
        that's what we're here for. END

THE CASE OF MRS. PAULS

        Your task is to make accurate predictions about Mrs.
Pauls. As part of a research project on understanding people,
she was given a brief interview. A typescript is given below.

Psychologist: Would you tell me, just what sort of person
        are you?
Mrs. Pauls: Well, now that takes in a lot of ground. Well,
        I don't know, what do you want to know? What
        particularly?
Psychologist: If you were asked to describe yourself in
        just a few short sentences what kind of person would
        you say you are?
Mrs. Pauls: Probably easy going and quite a hard worker.
        That's about it.
Psychologist: Well, tell me what do you consider to be your
        greatest personality handicap?
Mrs. Pauls: I don't know. Making friends, I guess. Going
        out and meeting somebody that I don't know too well.

Psychologist: You find it difficult to do?

Mrs. Pauls: Well to talk to people that I don't know too well. That's about the only thing.

Psychologist: Well, are you embarrassed when you have to meet someone?

Mrs. Pauls: Well, no not exactly embarrassed. I have difficulty in remembering names. And I guess that's my greatest trouble. I can usually remember faces but not names.

Psychologist: Do you usually try to avoid situations in which you . . .

Mrs. Pauls: have to remember names, no. I just don't usually remember names. Not any difficulty in particularly meeting people. If I have to remember names, then it's kind of hard.

Psychologist: Do you ever lose your temper?

Mrs. Pauls: Oh, once in a while. Most people do don't they?

Psychologist: I suppose so. What sort of thing would cause you to lose your temper?

Mrs. Pauls: Getting upset, I guess, nervous.

Psychologist: What sort of things would upset you?

Mrs. Pauls: Well, being overly tired or being sick or having to do a lot of work and not being able to accomplish it in the short length of time that I have.

Psychologist: What would you do if someone told a lie about you?

Mrs. Pauls: Well, that's pretty good. I'd probably consider the source and laugh it off if I didn't think it was especially hurting me in any way.

Psychologist: Well, suppose you thought it was hurting you?

Mrs. Pauls: Well, I'd probably walk up to the person and try to straighten it out. Face them and discuss it, and find out why they had made that particular statement, and for what reason, what they thought they were going to gain by it.

Psychologist: Fine. Well, what would you do if someone gave you a million dollars?

Mrs. Pauls: Well, that's a good story. I probably wouldn't know how to act. Well, first of all, I think I would try and pay off some of my bills. And then maybe do something for a lot of the crippled children and mentally disturbed people.

Psychologist: Fine. Tell me, how important do you feel that religion is for people in these times?

Mrs. Pauls: I think religion should be one of the greatest things in a family home. They should go to church and worship and try to keep with their religion or with God.

Psychologist: In your own home does religion play a part?

Mrs. Pauls: Yes, it does.

Psychologist: In what way?

Mrs. Pauls: I think it makes us closer to one another. I
        know it's making my children a lot happier. Every
        Sunday morning they go through breakfast without
        even a word of encouragement. We don't need to force
        them to eat; they'll eat because they know they're
        going to Sunday School and to church.
Psychologist: Well, that in itself is a big help to a busy
        mother with small children.
Mrs. Pauls: That's true, very true.

Training Session No. 5:   Behavior Prediction

All the women in the interviews filled out a series of attitude and personality scales. Their friends rated them on a series of traits and also gave sketches of them. The statements below are based on the answers that the women and their friends gave. Mark your answers on the separate summary sheet. If you think the answer to a particular question is Mrs. Doris mark "D", Mrs. Nora mark "N", and Mrs. Pauls mark "P".

The correct answers are known from the attitude scales and other tests that the interviewed women filled out. Also, the correct answers are equally distributed among the three women.

Religious Beliefs

Mrs. D., Mrs. N., and Mrs. P. filled out a rating scale about their religious beliefs and values. Which <u>one</u> of the three would have made the following statements?

1. Agreed that "While God may exist, it is quite difficult for me to accept such a fact without some definite proof."
2. Most strongly agreed that "God will punish those who disobey his commandments and reward those who obey Him (either in this life or a future life)."
3. Agreed least that "I have sometimes been very conscious of the presence of God."
4. Most strongly agreed that "I have sometimes been very conscious of the presence of God."

Adjective Check List

Mrs. D., Mrs. N., and Mrs. P., filled out a form which contained a number of pairs of adjectives. They were asked to check the adjectives in the pair which most closely fit themselves. Which <u>one</u> checked the underlined adjective in the following pairs?

5. <u>Unconventional</u> - unassuming   8. <u>Practical</u> - wholesome
6. <u>Unselfish</u> - cool   9. <u>Poised</u> - moderate
7. <u>Changeable</u> - submissive   10. <u>Capable</u> - obliging

Thumbnail Sketches

Mrs. D., Mrs. N., and Mrs. P., were described by their friends. Which <u>one</u> was described as follows?

11. "Emotionally possessed of considerable mood swings (happy or very unhappy)."
12. "Handles and budgets money extremely well."
13. "Maintains quite firm and strict discipline with her children."
14. "Very conscientious and responsible."
15. "A very generous and warm hearted person."

Ratings by Friends

Mrs. D., Mrs. N., and Mrs. P., were rated by their friends on a series of personality traits. Which one rated as follows? (comparing the ratings of all three women)

16. least cooperative
17. least confident
18. most careful
19. most affectionate
20. least rebellious

PART 2

Women's Religious Beliefs

Mrs. D., Mrs. N., and Mrs. P., filled out a rating scale about their religious beliefs and values. Which one of the three made the following statements?

21. Most strongly agreed that "People don't necessarily have to believe in God in order to lead good lives and have a high system of ethics and morals."
22. Most strongly agreed that "When in doubt, I have usually found it best to stop and ask God for guidance."
23. Most strongly agreed that "No one who has experienced God like I have could doubt his existence."

Adjective Check List

Mrs. D., Mrs. N., and Mrs. P., filled out a form which contained a number of pairs of adjectives. They were asked to check the adjective in the pair which most closely fit themselves. Which one checked the underlined adjective in the following pairs?

24. Conservative - excitable   28. Sympathetic - charming
25. Impulsive - forgetful   29. Talkative - boastful
26. Courageous - rational   30. Healthy - too tough
27. Sincere - warm

Thumbnail Sketches

Mrs. D., Mrs. N., and Mrs. P., were described by their friends. Which <u>one</u> was described as follows?

31. "Is very friendly to everybody at social gatherings and enjoys herself very much."
32. "Weighs things quite carefully before making a decision."
33. "Is exceptionally sound and stable with regard to her emotional and mental health."
34. "Is open and warm in showing affection to people."
35. "An exceptionally hard working and energetic person."

Ratings by Friends

Mrs. D., Mrs. N., and Mrs. P , were rated by their friends on a series of personality traits. Which one was rated as follows? (comparing the ratings of all three women)

36. most stubborn
37. least friendly
38. least impractical
39. most shy
40. least egotistical

SUMMARY SHEET: Training Session No. 5

Name _____   Student No. _____

For each item mark "D", "N", or "P" according to your choice
of the correct answer.

	Your answ.	Correct answer		Your answ.	Correct answer
1.	_____	D	21.	_____	D
2.	_____	N	22.	_____	N
3.	_____	D	23.	_____	N
4.	_____	N	24.	_____	N
5.	_____	D	25.	_____	D
6.	_____	P	26.	_____	P
7.	_____	D	27.	_____	N
8.	_____	N	28.	_____	P
9.	_____	P	29.	_____	D
10.	_____	P	30.	_____	P
11.	_____	D	31.	_____	D
12.	_____	N	32.	_____	N
13.	_____	P	33.	_____	P
14.	_____	N	34.	_____	D
15.	_____	P	35.	_____	P
16.	_____	D	36.	_____	P
17.	_____	D	37.	_____	D
18.	_____	P	38.	_____	N
19.	_____	N	39.	_____	D
20.	_____	N	40.	_____	P

PART 1   **PART 2**

Score for PART 1 _____ (items 1-20)

Score for PART 2 _____ (items 21-40)

TOTAL SCORE _____

APPENDIX D

Additional Statistical Data

Table 10D. Additional data for all subjects (males and females combined) in all training groups for total Individual Accuracy gains.

Subjects	Standard Error*
Individual Accuracy Training Group	1.45
Empathy training group	1.52
Level training group	1.50

*This figure is the standard error of the differences in gains between each experimental group and the no training group. It is used in calculating the t tests presented in the Results section, and is used in all tables in Appendix D.

Table 11D. Additional data for all subjects in all training groups for 2nd and 3rd person gains.

Subjects	Standard Error	
	2nd person gains	3rd person gains
Individual Accuracy Training Group	0.74	0.88
Empathy training group	0.67	0.61
Level training group	0.78	0.69

Table 14D. Additional data for male and female subjects on total Individual Accuracy gains.

Group	Standard Error	
	Male Ss	Female Ss
Individual Accuracy Training Group	1.75	2.26
Empathy training group	1.66	3.04
Level training group	1.67	2.59

Table 15D. Additional data for male and female subjects
on second person and third person Individual
Accuracy gains.

| | Standard Error | |
Subjects	2nd person gains	3rd person gains
Males:		
Individual Accuracy Training Group	0.68	0.97
Empathy training group	0.89	0.89
Level training group	1.07	0.90
Females:		
Individual Accuracy Training Group	1.40	1.43
Empathy training group	1.05	0.87
Level training group	1.11	1.03

The Standard Errors for the comparison of male and
female subjects in the Individual Accuracy Training Group
presented in Table 16 are: (a) for second person gains,
S.E. = 0.87; and (b) for third person gains, S.E. = 0.73.

APPENDIX E

EXPLANATION OF VARYING SAMPLE SIZES

The varying Ns in the tables are due to a number
of factors. The 301 subjects in Section 1, Psychology 225
were divided into three experimental groups; those in Section
301 into 2 control groups. Thus the figures given in
Table 1 (Sample sizes) are the sizes of the groups before
any of the pre-test matching was done. The pre-test matching
resulted in attrition of the Ns because: (1) some Ss did
not complete the test (last 30 items measuring third person
accuracy), and third person scores were not available for
them; (2) comparisons of total Individual Accuracy necessarily
excluded Ss with incomplete tests; and (3) matches across
four groups (three experimental, one control) led to smaller
Ns because it was necessary for a subject in each of the
groups to have a particular score, and often one or the
other of the groups did <u>not</u> have a person with a score that
the other three did have. Table 1E presents the various Ns
used in the tables, and the reasons for their sizes.

Table 1E. Explanation of varying sample sizes used in the tables.

Table	N		Explanation
2		360	Based on pre-testing of criterion with Psychology 225, Section (entire class)
		283	Based on post-testing of criterion with Psychology 225, Section 1 (entire class)
		93	Based on pre-test of criterion with Psychology 225, Section 301, A-K
		61	Based on post-test of criterion with Psychology 225, Section 301, A-K
8	Males,	48	Correlations based on male and female Ss in the Individual Accuracy Training Group for which pre- and post-test scores were available
	Females,	44	
	Total,	92	
10		19	Based on a score for score matching (pre-test scores) across three experimental groups and the control group, for Ss for which total pre- and post-test scores were available
11	2nd:	37	Difference is due to fact that some Ss did not complete test, and therefore 3rd person scores were not available
	3rd:	34	
12, 13, 17 18, 19	Males,	48	Correlations based on male and female Ss in the Individual Accuracy Training Group for which pre- and post-test scores were available
	Females,	44	
	Total,	92	
14	Males,	12	Based on matching of three experimental groups with same-sex control group; includes male and female subjects for which pre- and post-tests on Total individual accuracy were available
	Females,	7	

Table 1E. Continued.

Table	N	Explanation
15	Males, 24, 22 Females, 22, 12	Based on matching of subjects in all three experimental groups with same-sex control group subjects for 2nd and 3rd person accuracy. Differences due to lack of 3rd person scores for some subjects, and attrition due to matching-procedure.
16	2nd: 35 3rd: 32	Based on matching of male subjects with female subjects from the Individual Accuracy Training Group