The T-group and accurate self-perception: a time trend and process analysis.

Eunice Parisi-Carew
University of Massachusetts Amherst

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THE T-GROUP AND ACCURATE SELF-PERCEPTION:  
A TIME TREND AND PROCESS ANALYSIS

A Dissertation Presented  
By  
Eunice M. Parisi

Submitted to the Graduate School of the  
University of Massachusetts in  
partial fulfillment of the requirements for the degree of  
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ACKNOWLEDGEMENTS

It is very difficult to express in words the gratitude I feel toward those people who have been with me during this process. A dissertation can be a lonely experience, instead the continuous support and concern of others has made mine a rich rewarding one.

My deepest gratitude is expressed to my committee, Donald Carew, William Kraus, and Dee Appley. The painstaking hours spent going over the work, their support and warmth when I needed it, and their gentle prodding, provided the motivation to complete the project.

Thanks also goes to the people I live with, the people of Cricket Hill. When the deadline drew near, all pitched in to type, to edit, and to lend support.

Finally, my love and appreciation goes to my family. Without their belief in me and their constant encouragement I would never have started this project in the first place.

E. M. P.
THE T-GROUP AND ACCURATE SELF-PERCEPTION:
A TIME TREND AND PROCESS ANALYSIS

Abstract of Dissertation

This study was designed to test the effectiveness of the T-group in increasing accurate self-perceptions and secondly to link the T-group process to the empirical outcomes of accurate self-perception. Accurate self-perception was defined as a congruence between the semantic differential scores of the concepts The way I actually am in this T-group (perceived self), The way I think most others in this T-group see me (projected self), and the rating of self by six other participants (others' perceptions). The study was also interested in the effect of the T-group on positive self-perception, i.e., the congruence between perceived self and ideal self (The way I would like to be in this T-group).

From a total population of 48 graduate students, participants were randomly assigned to three experimental groups and one Hawthorne group. The three experimental groups met simultaneously for an intensive week experience while the Hawthorne group met on the testing days only for a leader centered discussion on group issues.

An analysis of variance with unequal frequencies was used to analyze the data gathered from the semantic differ-
ential. Where the analysis of variance indicated significant results, at the .01 level, a Duncan's Multiple-range test was used to determine where significance lay. Main effects on the group and time variable were also done for each of the experimental groups. A time trend analysis of four testings was used to investigate the changes of the nine dependent variables; (a) perceived self, (b) ideal self, (c) projected self, (d) others' perceptions, (e) the discrepancy between ideal and perceived self, (f) the discrepancy between others' perceptions and perceived self, (g) the discrepancy between others' perceptions and ideal self, (h) the discrepancy between projected self and perceived self, and (i) the discrepancy between others' perceptions and projected self.

Critical incidents forms were collected after each session along with perceived self scores. The incidents were categorized and related to changes in the perceived self scores.

Results indicated that the T-group was effective in increasing accurate self-perceptions as well as increasing positive self-perceptions. The learnings tended to be maintained over an eight week follow-up period.

The results of the critical incidents shed some light on the events surrounding changes in self-perception. General learnings included; failure to deal with difficult
situations led to feelings of inadequacy and less positive view of self, the incidents of greatest impact were those dealing with here and now, feeling of personal failure decreased as trust built in the T-group, and the incidents support the function of the T-group's feedback in increasing accurate self-perception.

The favorable results of this study dealing with the T-group as a treatment in increasing accurate self-perception lend support to the use of the T-group as a viable educational strategy. The isolation of elements of the T-group process further supports the values and techniques of the T-group in other situations.

Eunice M Parisi
School of Education
University of Massachusetts
Amherst, Massachusetts
September, 1972
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CHAPTER I

INTRODUCTION

Society has spawned two movements in the behavioral sciences which have been gaining momentum in the past 25 years. In spite of the abundance and wealth in our society, more and more people feel lonely, alienated, and dissatisfied. This has led to a growing awareness that our technological society has failed to acknowledge and support the development of man's needs for love, esteem, and self-actualization. These needs are some of the major concerns of a third force in psychology, sometimes referred to as humanistic psychology, which places a great deal of importance on one's concept of himself as a major determinant of behavior (Combs & Snygg, 1959; Maslow, 1954). This same social scene, a technological society characterized by urbanization and alienation, has contributed to the use of small intensive groups for a variety of purposes including interpersonal growth, increased self-awareness, and perceptual clarity. Rogers (1970) suggests that: "The planned intensive group experience . . . is the most rapidly spreading social invention of the century and probably the most important [p. 1]."

Within the humanistic movement in psychology, one theoretical approach to the understanding of man's behavior
is a phenomenological or perceptual view of man. This approach basically focuses on man's perceptions of himself as the most crucial variable in understanding and changing his behavior.

In a book edited by Combs (1962), several authors (among them Combs, Jourard, and Rogers) have stated the importance of perception to behavior. They claim that behavior and learning are products of one's perception of himself and others. Effective behavior can only begin from reality, i.e., a consensus of perceptions—a sense that I see my behavior as similar to the way I think others see it. A person needs a realistic understanding of self and the world in which he lives. He needs to be open to experiences, including perceptions of self, so that he can realistically set goals and achieve his desired ends. An accurate view of self allows the individual to predict his actions and reactions within his environment and thus allows him freedom of choice.

According to Kelly (1962), the self is accumulated experiential background unique to the individual. A person's perception of himself is developed through exchange with the environment. The quality of perception determines the quality of behavior. To these statements Rogers (1961) adds, that as perception becomes more realistic, the individual values himself more highly and becomes more confident, self-
directing, open to experience, and acceptant of self and others—all of which make him able to cope with life more adequately. A trust in self and others is a necessary condition for growth.

Combs (1962) speaks similarly of the "adequate person" as one who is open to experience and who does not need to distort perceptions of himself. Such a person realistically knows himself and his effects on others. To accurately know self makes one a trustworthy instrument to meet one's own ends.

To know self and one's effectiveness one must know how he is perceived by others, not how he assumes he effects others. Accuracy of perception deals with the discrepancy between how a person thinks he is coming across and how he actually does come across.

Since the inception of the T-group in 1946, the use of small groups has mushroomed. The groups take many forms but share the use of experience based learning, awareness of interpersonal dynamics, and the intense personal involvement of the participants. The T-group is a learning group based on an educational strategy in which the participants learn through experiences which they themselves generate. It advocates a method of learning based on the values of science and democracy. In short, participants learn through collaboration and experimentation with their own behaviors.
Two distinguishing features of the T-group are the initial, ambiguous milieu in which members must form a group, and the increasing encouragement of the trainer to use the ongoing experience as data from which to learn about self and others as group members (Burke & Bennis, 1961).

The goals of the T-group are multifarious as reported by Bradford, Gibb, and Benne (1964). Eight behavioral scientists contributed their individual views of the T-group in this edited book. One goal agreed upon by all eight scientists was that of increased self-awareness and perceptual clarity. One of the major ways this learning is accomplished in the T-group is through a feedback process, where an attempt is made to communicate clearly the effect of one's behavior on others. These goals are consistent with those expressed by perceptual psychologists. Therefore, one may assume that the T-group would be a powerful tool in the development of accurate self-perception.

I. THE PROBLEM

Some efforts have been made to study the T-group's effect on accurate self-perception. The results have sometimes been confusing, sometimes dichotomous. In addition to confusing results, little has been done to study the process of the T-group and to relate elements of the process to outcome measures. In view of the fact that the group movement
is such a powerful force, it seems important to continue to try to understand more precisely the effects of T-groups on personal and interpersonal perceptions, and to continue to clarify the elements of the process that are significant to the participants. It was toward these ends that this study was undertaken.

Purpose of the Study

There were two major purposes of this study. The first was to measure the effect of the T-group as a treatment in increasing accurate self-perception. This was done by looking at changes in discrepancy scores among four variables, namely, (a) the perceived self (The way I actually am in this T-group), (b) the ideal self (The way I would like to be in this T-group), (c) the projected self (The way I think most others in this T-group see me), and (d) others' perception of self (averaged score of ratings of self by six other T-group members).

The second purpose was to link the T-group process to outcomes of self-perception through the use of the Critical Incident Technique (Flanagan, 1954). An attempt was made to look at what specific occurrences in the group made an impact on how the individual sees himself. These occurrences were used in order to gain a fuller picture of how and when perceptual changes took place.
Methodology

Much of the confusion in interpreting the results of the research on small groups is related to the difficulties in controlling variables and in finding appropriate populations for treatment and control groups. Efforts were made in this study to overcome some of these problems. A detailed description of the design and methodology for this study is presented in Chapter III so only a brief summary is included here.

The population for the study included graduate students primarily from the School of Education who had applied for enrollment in a basic course in group activities. Three treatment groups and one Hawthorne group were randomly selected from this population. The course consisted of a laboratory experience focused on personal and group development (see Appendix A for course description), with the majority of the time devoted to T-group sessions. The three treatment groups met simultaneously yet separately except for a few skill and theory sessions. The basic experience was followed by two follow-up sessions, one two weeks and one eight weeks after the training.

In order to gather the data on self and others' perceptions, a 21 item semantic differential scale was developed (Appendix B). The four concepts measured were: (a) The way I actually am in this T-group (perceived score), (b) The way
I would like to be in this T-group (ideal score), (c) The way I think most others in this T-group see me (projected score), and (d) Others' name (name of another T-group member--each person rated six other members each time). In addition, a critical incident questionnaire was developed to determine the incident of greatest import of the session and its effect on self-perception.

Data on all four variables were collected at four points in order to make possible a Time Trend Analysis. In addition, a pretest was done involving collection of data on two concepts of the semantic differential--The way I actually am in this T-group and The way I would like to be in this T-group. This was collected from the experimental groups just before the beginning of the experience. The critical incident questionnaire and the perceived self variable of the semantic differential (The way I actually am in this T-group) were collected after each session throughout the experience from the three experimental groups.

The hypotheses which were stated in null form for the variables measured by the semantic differential were examined by using an analysis of variance. The Duncan's Multiple-range test was used when a significant F was found between groups and between testing times. The critical incidents were analyzed with special attention to categories developed by initial readings of the incidents. They were then related
to the growth curves, i.e., the results of the statistical analysis on the self-perception variable and the discrepancy between others' perceptions and self-perceptions.

II. DEFINITION OF TERMS

T-Group

As used in this study, the T-group is a small unstructured group involving experience based learning. The participants learn through experiences which they themselves generate. The focus of the T-group is on personal and group development where the participant has the opportunity to develop a greater insight into himself and the effect of his behavior on others, as well as to examine the forces which operate in the group and his contribution to these forces.

Accuracy

Accuracy in terms of this study is defined by the discrepancy between the way others perceive a person and the way he perceives himself. This is measured by the concepts of the semantic differential, others' perceptions and The way I actually am in this T-group, respectively.

Self-perception

Self-perception in terms of this study is the score computed from the semantic differential variable The way I actually am in this T-group.
III. LIMITATIONS OF THE STUDY

The dangers inherent in self-report are present in this study. As Combs and Snoper (1957), and Courson (1963) have stated, it is not to be assumed that there is a one-to-one relationship between what a person says he is and what he actually is. The self-concept is a gestalt of all a person believes of himself. The self-report is a mere description to an outsider, and at best may be considered an indication of the person's self at that particular moment. However, the focus of this study is not on self-perception itself, but the accuracy of the self-perception. The use of peer ratings as a check to accurate self-perception has been chosen by the author for use in this study. Several studies (Astington, 1960; Carroll, 1952; Doll, 1963; Flyer, 1963; Klieger, de Jung, & Dubuisson, 1962) have shown peer ratings to have good reliability and predictive validity. However, there are some biases which reduce the validity of the data and some difficulty in achieving test conditions required for valid use. Despite these limitations, the use of peer ratings is justified because of their amazing analytic power. Their validity increases as the insight and astuteness of the observers increase. The observers become more astute as mutual observations increase in frequency and duration (Smith, 1967). This is especially appropriate for use in the T-group.
All precautions possible were taken to maintain exact treatment among the three groups. However, the major variable of the effect of different trainers in each group was not controlled in this study. Some precautions were taken to increase the similarities of the six trainers involved. All six agreed to the goals of the training experience and the importance of accurate self-perception as a major goal. The six met as a group preceding and following each group session for mutual support, to share results and concerns, and to get added perspectives on their own functioning in the group. In addition, they jointly planned large group sessions. Each of the co-training teams consisted of one male and one female, respectively, a faculty member and a graduate student within the Human Relations Center, with the exception of one pair, which consisted of a faculty member and a nonstudent co-trainer. All of the trainers had been involved with the course the semester before.

There were some limitations centering around the repeated use of the semantic differential. The bias of familiarity with terms through multiple testing may have occurred. There was some concern among the members that the tests were biasing the experience, i.e., they tended to perceive themselves and others in terms of the adjectives appearing on the semantic differential. Fatigue also may have occurred due to the fact that testing of 30 minutes duration was done
at the end of the sessions.

Group 2 ended the third testing period with a celebration. The tests were completed and returned a few days after the assigned testing period. Some of the immediacy and relevance of the data may have been lost.

Still another limitation may be in the subjective interpretation of the critical incidents. The author was aware of this and tried to control it as much as possible. The incidents were analyzed in terms of specific categories in an attempt to be objective. Secondly, the data were read and interpreted in conjunction with a faculty member in the Human Relations Center who was also a member of the training team and the dissertation committee. The interpretations were agreed upon before being used for analysis.

IV. SIGNIFICANCE

The use of the intensive small group for personal growth has become extensive over the past 20 years. Surprisingly enough, little can clearly be said of its effectiveness in changing self-perception. Because the goals and the methods of the T-group are synonymous with those of perceptual psychology, one can make the assumption that the T-group should be a powerful vehicle for changing self-perception and its accuracy. This study will help us to more clearly understand the usefulness of the T-group in the
change of perception.

The critical incidents provide a vehicle for looking at the process more systematically than has been done in the past. Through them, one may gain a better understanding of when and under what circumstances changes in perceptions occur. This knowledge will enable future practitioners to provide a more useful experience as well as add to the knowledge of the dynamics of perceptual change.

The T-group has become a popular training tool for those in the behavioral sciences. This study may add support and further insight into its usefulness. It also has implications for training in any field that requires a sensitivity to self and others.

V. ORGANIZATION OF THE REMAINDER OF THE DISSERTATION

Chapter II is focused on a brief review of the related literature including research done involving the T-group and its relationship to accurate self-perception.

Chapter III is the methodology chapter and includes a detailed description of the study and the procedures involved in conducting it.

Chapter IV presents the results of the study, both in statistical and narrative form. The critical incidents were presented and analyzed in relation to the statistical results.
Chapter V includes a general discussion of the results of the study, its significance, implications, and suggestions for further research.
CHAPTER II

REVIEW OF LITERATURE

The review of literature chapter is divided into three sections. The first section reviews the principles involved in perceptual psychology. The second section involves the rationale for using the T-group as a treatment in increasing accurate self-perception, and the third section deals with specific research done on the effects of the T-group on self-perception.

I. PERCEPTUAL PSYCHOLOGY

The perceptual approach to psychology has provided the theoretical framework for this study and therefore it seems important to review some of its basic principles. The perceptual psychologists believe all behavior, without exception, is a function of the individual's perceptual field at the instant of behavior (Combs, 1965). The perceptions a person holds of himself and his environment are the determinants of his behavior. Rogers (1959) suggests that it is perception, not reality, which regulates a person's behavior. All behavior is a function of the individual's perceptual field operating at the moment. This field includes all a person's perceptions. Within the perceptual field are the perceptions a person holds about himself, irrespective of
their importance or clarity at any particular moment. Combs and Snygg (1959) call this the phenomenal self. Within this is a cluster which includes only those aspects which are vital to the self--the self-concept. It is the "I" of the person. The self-concept is not merely a conglomerate of all the concepts a person holds about himself, but a patterned gestalt of these. It is the self-concept which has stability and lends predictions to an individual's behavior (Combs & Snygg, 1957). This is the most vital determinant of behavior. It is the self-concept which affects the perceptions to which the individual reacts.

The self-concept is at the center of a person's frame of reference for every act. It is learned from experience--especially from experience with significant others. The family is key in the development of the self-concept. It is the family that provides the facts of acceptance which are closely related to feelings of worth and adequacy. It is through the family that expectancies come, i.e., the "shoulds," "oughts," and "musts" required to be acceptable. The culture and other individuals also contribute to the self-concept but to a lesser degree. Once these perceptions are established they are difficult to change, for new perceptions are dependent on antecedent experiences (Combs & Snygg, 1959). Man struggles to maintain his perceived or phenomenal self (Combs & Snygg, 1959). This is a complex
task for he needs to be open to new perceptions to grow, but at the same time needs to maintain selectivity in perception in order for these to be consistent with his self-image. If facts seem inconsistent with self-perception, a person will do violence to the facts, he will distort or deny them (Combs, 1958). This is especially true when a person feels threatened. Threat occurs when a person sees himself as basically inadequate to satisfy a need (Rogers, 1959). The result is a narrowing down of perception. This is the opposite of what is needed for effective functioning. If perceptions are narrow and unclear, behavior becomes fixed and rigid. The person is unable to weigh the facts correctly and becomes defensive. He may be ineffective because he blocks or distorts some data, thus reducing his chances to act effectively. A feeling of alienation from self and others may result from this inability to behave effectively (Moustakas, 1971).

Behavior is limited by the quality of perceptions which in turn is dependent on a person's openness to perceptions. This is connected to personal feelings of adequacy. The more adequate a person feels, the more likely he is to be open to test perceptions. The adequate person accepts himself and has no need to distort or deny his experience. Generally the adequate person does not feel threatened. He accepts himself and does not feel the need to distort evi-
dence. He looks at information clearly, making wise choices, and thus perceives himself as adequate.

Man strives toward growth, self-actualization, or the realization of his potential (Maslow, 1968). Snygg (1965) states a basic goal of man is to increase his feeling of personal worth. This is never satisfied or completely reached, thus constantly sought after. The moves toward this may be called growth.

Jourard (1968) says growth occurs when one suspends his self-concept, and allows new perceptions to reveal themselves to him. When one operates smoothly there is no need to receive any new disclosures, but when challenged one forms new concepts which are integrated into new patterns. This growth cycle is triggered by failure in goal attainment. When failure to achieve a desired end occurs, there is the realization that something in one's initial concepts and beliefs is faulty. In order for growth to occur one must be able to test new perceptions and be open to feedback.

Donald Snygg (1965) also states that growth is a product of frustrated needs. In trying to meet a need, it may be necessary to reorganize one's perceptual field. This results in a search of his phenomenal field for some new means of achieving organization. When a path is found, action becomes possible. If the act achieves the goal no significant reorganization is necessary, therefore little
new learning occurs. If results are not attained, a person goes on until he finds another goal or a better way of reaching the original one. The new perception of the problem is what is learned. There is a transfer of learning when, (a) the person perceives two situations as similar, (b) he perceives a solution to one problem as applicable to part of another, or (c) he acquires new perceptions of himself or the world or both which are applicable to all situations.

Only when events are perceived as having an important relationship to the self are they likely to produce a change in behavior. To grow or change a person must be willing to examine himself, to risk new experiences, and to explore new meanings. This calls for an openness, a trust in oneself, and a lack of defensiveness. To be effective one must have a clear, undistorted view of the phenomenal field.

Self-adequacy and self-acceptance are closely related terms. Rogers (1951) and Maslow (1954) among others, define self-acceptance as the ability of an individual to accept into awareness facts about himself with a minimum of defense or distortion. It is related to the accuracy of observation and self-awareness. Accurate perceptions (especially of self) are the key to efficient, effective behavior. When the phenomenal field is open, the person has the advantage of more available data and then can look more realistically
at the problem. With real data, goals are more attainable. If perceptions are vague, ill-defined, or distorted, so will be the resulting behavior. Effective behavior can only begin from a clear reality, i.e., a clear understanding of self and the world. According to Rogers (1961), as perceptions become more realistic a person becomes more confident and self-directing. He does not repress experiences from which he may learn. As a result he becomes more adequate. An adequate person is a self-acceptant person. Adequacy allows the person to be open to change when change is necessary to be effective. Adequacy leads to more realistic perceptions which allow more effective behavior which in turn produces a greater feeling of adequacy.

To be effective and fully functioning, an accurate perception of self and an awareness of the effects of one's behavior are essential. Accurate perception allows a more basic trust in oneself as a sound instrument for encountering life. The achievement of accurate self-perceptions is the foundation on which self-adequacy and goal achievement is based.

This theoretical background of the perceptual approach to behavior makes it essential that we understand and study the kinds of experiences that can help people have clear, accurate self-perception. One of the major goals of small intensive group experiences is to help people improve the
accuracy of perceptions of self and their relationship with others.

The next section deals with the T-group and its relationship to accurate self-perception.

II. T-GROUP

The T-group is a small unstructured group which may take many forms. However, basic to all groups is use of experience based learning, awareness of interpersonal dynamics, and intense personal involvement on the part of the participants.

The T-group was developed in 1946 when Kurt Lewin brought together Ron Lippitt, Ken Benne, and Leland Bradford to conduct a training session for community leaders in New Britain, Connecticut. It was their intent to study differential effects among participants in terms of back home behavioral transfers. For this reason an observer was placed in the discussion and role playing groups to record behavioral interactions. The staff discussed the observations in private meetings. As the workshop progressed, participants, out of curiosity, asked to join these meetings and were allowed. There was great excitement as people reacted to observations of their own behavior (Bradford et al., 1964). It was thought that observation and reaction could be used as part of the curriculum. As a result of
this experience, three staff members secured support and located a fairly isolated place (Gould Academy, Bethel, Maine) to try to continue to develop this educational strategy. In 1947 the Basic Skills Training Group, predecessor of the T-group was born.

The workshops continued during the summers and new techniques (such as immediate feedback by participants) began to emerge. The strengths and limitations of the T-group (shortened title of Basic Skills Training Group) were explored as staff members attempted to resolve conflicts of orientation and ideology. Early conflicts between Freudian and Rogerian clinically oriented views and the socially oriented Lewinians was an influential factor in discovering that the T-group or variations of it may have a variety of useful purposes. Today some groups focus on personal change while others focus on social issues and organizational problems (Benne, 1964).

The goals of the T-group are numerous. According to Bennis (1962):

The objective of the T-group is a general improvement of adaptive capability for all members based on (a) improved accuracy of perception of self and one's relationship with others (b) cognitive mapping of one's interpersonal realm (c) increase in behavioral range and flexibility through experimenting with relating to others and (d) developing an interest in learning how to learn (p. 1).
The increased self-insight or self-awareness concerning one's own behavior and its effect on others and the motivation behind behavior is stressed by others (Bradford et al., 1964; Buchanan, 1965; Miles, 1960). Argyris (1964) stresses that the information needed for competent problem solving should not be distorted. One needs to be self-aware and self-accepting in order to discuss and listen to information clearly.

The stated goals of the T-group are parallel to those of perceptual psychologists in that effective behavior is seen to be dependent on the receiving of undistorted information.

The success of the T-group depends on the crucial process of feedback. Participants must be able to inform each other how their behavior is being seen and interpreted and the feelings which it generates. This is consistent with both Buber (1958) and Jourard (1964) who write that no man can know himself except in relation to others. To know oneself, one needs the reactions of others.

For the feedback process to be effective a certain amount of tension or anxiety must be present. A person discovers that his normal mode of operating is not producing the hoped for results. This causes some anxiety and the seeking of new behaviors. This is consistent with Snygg's (1971) Cognitive Field Theory of Learning. Parallel to
Snygg's theory, Schein (1964) reports that when one is frustrated in meeting his goal in a T-group, tension results. A person then searches his phenomenal field for new ways to act. Without this initial shaking of habitual role behaviors, feedback may be ineffectual.

Another necessary condition for effective feedback is referred to by Schein and Bennis (1965) as a "climate of psychological safety." The participant must trust that he will not be rejected and must feel free to drop his defenses so he can hear feedback in an undistorted way. This corresponds to the theory of the perceptual psychologists (Combs, 1958; Snygg, 1971) who indicate that threat causes a person to retreat to rigid defensive patterns of behavior. When a person is threatened he distorts perceptions in order to maintain a self-image. On the other hand a person who feels accepted is more likely to hear information in an undistorted way and re-evaluate his perceptions (Combs & Snygg, 1958).

In the T-group all the participants are in a helping relationship. Through nonevaluative feedback in an atmosphere of acceptance, they help each other look at behaviors and provide the information needed for self-examination and change. The T-group also provides a safe laboratory where one can test new behaviors and receive immediate reactions to their effect.
By continued and immediate feedback regarding the effect of a person's behavior, one has the opportunity to examine the perceptions he holds of himself and his effect on others. Perceptual psychologists hold accurate self-perceptions as a key to effective behaviors. T-group theoreticians and practitioners claim accurate self-perceptions as a desired outcome of the T-group experience. One might therefore assume that the T-group should be a powerful tool in producing attitudinal and behavioral changes in its participants.

The T-group has been the subject of a great deal of examination. This next section attempts to look at the numerous problems facing T-group research and then at some specific studies dealing with self-perception.

III. REVIEW OF RESEARCH

Much energy has been focused on the use of T-groups for personal growth, i.e., behavioral, attitudinal, and perceptual change. However, the results of such efforts have proven to be somewhat tentative. The questions raised are largely due to the difficulties in controlling variables when dealing with small groups. The barriers to precise research on the effects of the T-group training are numerous. Achieving a rigorous design is difficult when the setting is concerned with inducing change.
One major problem, as agreed upon by Campbell and Dunette (1968) and Gibb (1970) relates to the inadequacy of theories of training and the lack of cross-fertilization between actual training and research. Innovation in T-group methodology is largely intuitive; new methods are not tested and research has little effect on the evolution of methods and theories. Recently there have been some efforts to change this picture. Some examples are the efforts of French, Sherwood, and Bradford (1966) who have applied a self-identity and process-feedback model to the T-group, and provide data relevant to this model. Miles (1960, 1965) integrates his data into a feedback model; Clark and Culbert (1965) have constructed a model around mutually therapeutic relationships and provide data relative to this.

Other barriers have to do with design problems. First, the emphasis is on good training conditions rather than research conditions. Researchers have usually settled for less than ideal conditions due to such factors as expense, resistance, and time (Gibb, 1970). The researcher has to take care not to jeopardize the training. If he tries to be secretive, he is running contrary to lab values and may raise hostility among the participants. If he is open about his intent, he runs the risk of biasing the results.

Participation in T-groups is usually voluntary, and therefore the problem of an adequate control or comparison
group exists. A key variable is the degree of readiness or willingness to participate in an intense group experience. Finding matching groups of equal readiness is extremely difficult. One may divide a population and give half training now and half later, however, the effects of such delay are unknown. Also confusing is the Hawthorne effect of any group used as a control due to the special attention given to them.

Measurement problems are also perplexing. It is difficult to find adequate, reliable measures which are suited to the training group. The most reliable measures often are not suited to the goals of the T-group. There is a resistance to multiple, extensive measurements. The trainees feel them of dubious value, a waste of time, and tedious (Gibb, 1970). Also there exists the danger that the measurement itself may influence the training and bias the results. Participants may work toward the "correct" responses, or in resistance, not respond thoughtfully.

When dealing specifically with changes in self-perception, most studies have used a discrepancy between ideal and real self. Although research does indicate a lessening in such discrepancy, it does not necessarily indicate what caused the changes. When using a pre-posttest measure, as many studies do, there is the danger that results are due to mere regression toward the mean (Campbell & Dunnette, 1968).
Research concerning the relative contribution of technological features of the T-group is wanting. Most studies of the interaction of training style and individual outcome are based on anecdotal evidence (Lakin, 1960; Weschler & Reisel, 1959). There have been few well designed studies of group composition. Studies of feedback are few and equivocal. The feedback studies show a range of sophistication (French, 1966; Harrison, 1966; Stock, 1964). In the realm of self-perception no research has forged the link between changes and means employed to produce them (Cooper & Mangham, 1971). Research in this area has just started.

The results of T-group research are mixed. The equivocal results may be due to poor design or inadequate instruments which do not measure critical changes (Campbell & Dunette, 1968). In view of these difficulties, it is unfair to make a firm statement on the effect of the T-group training and the persistence of learnings on perceptual variables.

The remainder of this chapter deals with results of studies dealing with changes in self-perception and accuracy of self-perception. This section is organized as follows: (1) studies dealing with the discrepancies between perceived self and ideal self; (2) studies dealing with the discrepancies between perceived self/ideal and average other; (3) the discrepancies between perceived self/ideal and the ability to predict how I must seem to others (called
projected scores by the author); (4) the discrepancies between perceived self/ideal and actual ratings of self by others (called others' perceptions score by the author); (5) recent studies dealing with the T-group's effect on self-concept; (6) studies dealing with process.

Perceived Self-Ideal

There are several studies which deal with changes in self-perception of participants in a T-group. The interest in the congruence between the actual self and the ideal self was based on beliefs like those of Rogers (1951) who claims that all people have within them the capacity for self-direction. Rogers suggests that under the right conditions people will become more like they wish to be. At the end of successful treatment, people will have a more positive view of themselves or be closer to their ideal. Hopefully there would be a congruence between actual and ideal self, indicating self-esteem.

An early study designed to assess the discrepancy between "actual self" and "ideal self" was conducted by Bennis, Burke, Cutler, Harrington, and Hoffman (1957). The study was conducted with twelve business administration students in a semester long T-group. The students rated 34 items on possible role behaviors according to real and ideal self. Using a pre-posttest measure, the study found no significant change in the discrepancy between the two
scores. The Sixteen Personality Factor Questionnaire, The Edwards Personal Preference Schedule, Harrington's Self Sort Test, and The Fundamental Interpersonal Relations Orientation Scale-Behavior (FIRO-B) measures were used to test personality. Interestingly enough, the FIRO-B showed that those with high inclusion needs were seen as low participants, thus either indicating that a wish may be operating rather than a behavioral characteristic, or that the measure is not useful. This study cautions against using perceptions of behavior as measure of actual behavior. It also stresses the importance of using instruments which are specially in tune with the social situation in which predictions are to be made.

Evidence that congruence increases as a result of the T-group treatment is inconclusive. Gassner, Gold and Snadowsky (1964) found similarities in consequence developing in their control group. Peters (1966) supported Burke and Bennis' (1961) finding that there was a significant convergence of self-concept and ideal self during the lab, while the control group showed none. The increased self-concept (defined as a lessening in discrepancy between perceived self and ideal self) as a result of T-group treatment was further demonstrated by Clark and Miles (1954) and Bunker and Knowles (1967).
Perceived Self-Ideal-Average Other

Grater (1959) used Bills' Index of Adjustment and Values to obtain descriptions of "actual self," "ideal self," and average group member before and after a 22 session leadership training course. Although the focus was on leadership problems, and not on interpersonal behavior in the group, there was a climate of psychological safety. The results indicated a lessening in discrepancies between the real and ideal self (due mainly to changes in perception of real self). The expected decrease in discrepancies between the actual self and the average group member was found, but not at a statistically significant level.

Gassner et al. (1964) showed the danger of making inferences from studies without control groups. They conducted three experiments using undergraduate students at CCNY as subjects. Each experimental group was complimented by a control group. Each participant completed the Bills' Index of Adjustment and Values on these three sets: (a) "This is most characteristic of me," (b) "I'd like this to be most characteristic of me," and (c) "Most CCNY students my age would like this to be characteristic of them." Both control and experimental groups were themselves like the average students and both reduced discrepancies between real and ideal self. They failed to replicate these results in another setting.
Perceived Self-Ideal-Projected

Wedel (1957) and Diettrich (1961) reported no significant change in ability of participants to predict how they were seen by others, while Gibb (1953) and Blansfield (1962) did report a significant increase in awareness of reactions of others to self. Fennell and William (1970) used the Self Activity Inventory and the semantic differential concepts "I see myself" and "How I must seem to others," to achieve greater congruency between ideal and actual. The results showed no significant differences. A recent study by Weissman, Seldman, and Ritter (1971) showed the efficiency of encounter group experiences, in inducing changes in perception of self and others in personal and interpersonal dimensions of psychological functioning. Objective tests were administered to encounter and control groups consisting of 77 graduate students in psychology. Forced-choice peer-nomination rating forms and attitude questionnaires were administered, at various points, to the encounter groups, and the Barron Welsh Art Scale and the FIRO-B to both groups. Peer-nomination data indicate Ss became more accurate in predicting how group members viewed them, but did not change their self-perceptions with group ratings.

Perceived Self-Ideal-Others

Acknowledging the statement by Shepard (1964) that "a member's perceptions of his relationship to the group should
be in accord with other members' perceptions of these things [p. 379]," and heeding the warnings that the self-perception of behaviors without perceptual crosschecks may be merely a wish, Burke and Bennis (1961) developed an instrument called the Group Semantic Differential. This instrument provides a crosscheck to the accuracy of self-perception by asking each member to rate his perceptions of each other member. Taking the average of the other members' ratings, and comparing it to the self-rating, gives a check on the accuracy of individual self-perception. The instrument was designed especially for the T-group setting. Burke and Bennis used this instrument with six NTL groups. The participants described, (a) The way I actually am in this T-group, (b) The way I would like to be in this T-group, and (c) Each of the other people in this T-group. The rating scales were administered in a pre-posttest fashion. Changes were in the direction of greater agreement between actual and ideal self descriptions and toward subjects seeing themselves more nearly as others described them. The changes were seen as statistically significant, on all rating scales, for all the groups combined, but not for each of the groups. One major drawback to this study is the lack of a control group.

Carson and Lakin (1963) replicated the Burke and Bennis study, improving it by adding a control condition. Partici-
pants filled out a 16 item rating scale questionnaire, in respect to themselves and every other participant in the group, two weeks before and two weeks after training. One group was used as its own control by completing the questionnaire six weeks prior to training. This group showed little change following training, whereas the other group supported the original results found by Burke and Bennis.

A more recent improvement of the Burke and Bennis study (1961) was done by Peters (1966). He used Burke and Bennis' Group Semantic Differential to look at perceived/ideal self discrepancies and identification with the T-group trainer. Unlike Burke and Bennis, a control group was used. Peters' study supported the Burke and Bennis finding that there is a significant convergence of self-concept and ideal self-concept for the experimental group.

Sherwood (1965) used the check of cross rating by other T-group members in his study of self-identity and its dependence on his subjectively held version of his peers' ratings of him. Using bipolar adjective rating scales, he found a decrease in actual self and ideal self discrepancy scores at the end of the T-group training. These changes were found to be dependent on the differential importance of various peers for the individual, the extent to which peer perceptions were communicated to him, and the individual's involvement in the group.
Recent Studies

There have been some recent studies which support the use of the T-group in increasing self-perception (self-concept). Among them are Allan and Allan (1971), and Foulds, Girona, and Gurnan (1970). These authors have consistently found that as a result of the T-group experience, positive changes in self-perception occurred. Osborne (1970) in a comprehensive unpublished doctoral dissertation, demonstrated the relationship between sensitivity training, self-perception, and actual student-teacher behavior. Osborne raised a question as to whether the T-group was effective in changing self-perception. Self-report forms were used, along with actual observed behavior as reported by students, cooperating teachers, and supervisors. The student-teacher population was divided into three groups: (1) those who received human relations training; (2) those who did not; (3) a leaderless placebo group which received a treatment-like program utilizing human relations training material. All three groups were measured the same way. The measures were the Teacher-Pupil Relationship Inventory, Barrett-Lenard Relationship Inventory, and the Effective Teacher Rating Scale. The results showed changes in self-perceptions to be inconclusive but there was a positive relationship between sensitivity training and classroom behavior. Those who had the training were viewed by the
raters as more effective in the classroom.

Process

While the above studies have assessed changes in clarity of self-perceptions, none have forged the link between the changes and the means employed to produce them. Research in this area is sparse.

Little is known about when and why change in self-perception occurs. Research using repeated measures (more often than not pre-posttest measures) have focused primarily on the persistence of T-group learnings. For example, Schutz and Allen (1966) gathered information on the FIRO-B from participants at the beginning, end, and six months after a two-week lab, to see if participants changed during training and if the changes persisted. The results indicated that people continued to change even after the lab. Harrison (1966) collected information from 76 participants at the beginning, a few weeks after, and a few months after laboratory training, for the same reasons. He found changes actually increase over time. The study which is most relevant is one conducted by Peters (1966). His study dealt with changes in phenomenal self during human relations training. He used the Group Semantic Differential (Burke & Bennis, 1961) three times during the training—at the beginning of the second day, at the end of the first week, and on the next to the last day. Although his results give a more
discrete look at changes in self-perception, there is no attempt made to look at the process leading to phenomenological self-change.

The whys of change are to be answered by an analysis of the T-group process. Attempts to look at the process have thus far been general anecdotal expressions of the unique meaning of the experience for the individual participant. Two such studies, dealing with process, are those by Lakin (1953) and Weschler and Reisel (1959). Lakin did a case study of 12 T-group members' interpretation of the training group experience. His intent was to isolate themes which had an emotional impact on the participants. He found that participants felt best when they felt accepted and able to influence group process and worst when there was disagreement or conflict with authority. However, he did not deal with the cognitive aspects of the T-group nor the learning of skills.

Weschler and Reisel (1959) cataloged impressions and reactions of the experience through the use of a session by session diary kept by each individual. The unique meaning of the training for each participant was identified. No attempt was made, by the author, to identify critical incidents which resulted in specific outcomes, i.e., changes in self-perception.

The best example of a process study is one conducted by
French, Sherwood, and Bradford (1966) to test whether self-identity is influenced by the amount of personal feedback. The data were collected at the beginning of the first week, end of the first week, end of the second week, and after ten months from two two-week T-groups of ten members each. The purpose was to test whether changes in self-identity were permanent or whether there would be regression to a pre-T-group level. Members filled out a questionnaire containing 19 bipolar scales measuring different dimensions of self-identity. The amount of personal feedback to the participants was manipulated. On one extreme (high feedback condition) the participant was rated on one of the bipolar scales by the other members and the information fed back to him in written form and discussed in detail by two other members. On the other extreme (low feedback condition) he was not rated, nor fed information either written or verbally.

Five such feedback conditions were created. It was expected that changes in self-identity would be greater for conditions with the greatest feedback. The results indicated no consistent change in self-identity during the first week, most change occurred during the second week, and less (although statistically significant) for the follow-up period. The lowest feedback condition showed the least amount of change. They found little statistical difference among the three highest feedback conditions. There is a
question as to how much feedback was produced in each case. Two other hypotheses were tested: (1) the greater the importance or centrality of a dimension of self-perception to the participant, the greater the change in self-identity; (2) the lower a person's self-evaluation or the higher his dissatisfaction on a dimension of self-perception, the greater the change in his self-identity. No support for the first hypothesis was found, while there was some support for the second. They conclude by saying that:

... [the] results give some support to the proposition that a person's self-identity is influenced by the opinion that others have of him which then communicate to him and that the more that is communicated, the more change in self-identity [French et al., 1966, p. 217].

There are some pitfalls in the study by French et al. (1966), such as the small number of subjects used, the lack of a control group, and the lack of evidence that manipulation of the feedback was successful. However, this study is the first of its kind.

Stock (1964) reported on two unpublished studies whose results are equivocal. Both evaluated effectiveness of T-group feedback indirectly by observing the effects of providing additional feedback at the end of the T-group experience. The large effects from additional feedback would imply that T-group feedback was not sufficient. Lippitt (1959) selected 14 pairs of individuals from two different T-groups.
The members were described in similar fashion by the other members of their group. One member of each pair was given the feedback and the ways the group would like him to change. Trained observers rated the behavior of all T-group members before and after the additional feedback. Thirteen of the fourteen counseled members changed in the desired direction while only eight of the uncounseled members changed in the given direction. This would argue for the insufficiency of T-group feedback.

In contrast, Gibb and his associates (Gibb, Smith, and Roberts, 1955; Lott, Schopler, and Gibb, 1954), conducted a series of studies which investigated the effects of T-groups' feedback on individual behavior and group processes. The results of these studies suggest that T-group feedback is sufficient in producing behavioral change toward the desired goals.

A recent study by Egelhoff (1970) selected aspects of the feedback process and their effect on self-perception change in an encounter group. The predictions were derived from the cognitive dissonance theory, that change is caused by direct feedback to the self. The rationale is based on similarities between dissonance producing persuasive communication and the feedback in encounter groups. Both produce change in attitudes. The lab was a four day human relations lab involving 47 student leaders. She predicted
that change in self-perception, toward a greater consistency with the perceptions the group had of a member, would occur when: (1) the member received a high consensus of feedback from the group, (2) a member possessed fewer referent groups, (3) values of a member are similar to those held by the group, and (4) members perceived the group as being of great importance.

Hypothesis I was partially supported. Hypothesis II was accepted. Hypothesis III showed contradictory results and Hypothesis IV had ambiguous results. The amount of change in self-perception was found to be a function of the degree to which members' initial self-perceptions were discrepant from the group perception of them. An anticipation of the study was that those whose self-perceptions did not remain stable would devalue the source of feedback or forget it. This proved true at the two week follow-up.

Kolb, Winter, and Berlew (in press) studied four T-groups in each of two semesters. They hypothesized that self-directed change (person sets his own goals and works to meet them) is facilitated by the degree of commitment and amount of relevant feedback. The groups had to write a paper and keep track of their progress after each session. The first semester, two groups received no feedback; two groups discussed their projects and received feedback. One group receiving feedback and one group receiving no feedback
had to write papers on ideal self and actual self and the discrepancies of the two prior to selecting change goals. The combination of feedback and papers on ideal/actual discrepancies produced the most change.

Rutan (1971) showed the key variable in the increase of self-concept is that of trust. He looked at self-acceptance within the framework of phenomenological self theory. The theory suggested that: (1) the discrepancy between trust and significant relationships with other persons are of critical importance in increasing self-acceptance; (2) small groups, properly organized, and led, produce unique opportunities for increasing self-acceptance; (3) self-acceptance will increase in small groups, irrespective of different leaders. He used 126 experimental and 36 control subjects in his study. The Interpersonal Check List and the Index of Adjustment and Values were used in a pre-posttest manner to measure self-acceptance. The testing took place at 15 week intervals including the first 15 weeks of life in each group. The hypotheses tested included: (1) persons in small groups will demonstrate significantly more self-acceptance at the end of 15 weeks than those not in small groups; (2) persons in small groups will perceive themselves as more trusting at the end of 15 weeks; (3) there will be a significant correlation between a reported increase in trust and increase in self-acceptance; (4) the ideal self concept of group
members will change in the direction of the leaders' self-concept; (5) no significant difference in the degree of self-acceptance will exist as a result of different types of groups (sensitivity, therapy, or consultation), different sexes, leaders, or age groups; (6) among the variables measured by the Interpersonal Check List, trust will demonstrate the most significant change from pretest to posttest. Results indicated that there was a significant positive correlation between increased trust and increased self-acceptance in small groups. There was support (but not at a significant level) for the assertion that ideal self concept of leaders is adopted by the group. There was significant support that small groups function irrespective of the type of group, leadership, sex, or age. The most important variable is the sense of trust. The actual self concepts change in the direction of consensual validation but not at significant levels.

Despite some confusing and dichotomous results, a number of studies have shown that it seems reasonable to expect changes in the way people see themselves and the accuracy of these perceptions as a result of a T-group experience. Studies supporting these changes include: Gibb (1953); Clark and Miles (1954); Grater (1959); Burke and Bennis (1961); Blansfield (1962); Sherwood (1965); Peters (1966); Bunker and Knowles (1967); Foulds, Girona, and Gurnan (1970);
Allan and Allan (1971); and Weissman et al. (1971).

However, due to methodological problems the evidence remains inconclusive. The attempt of this study was further to investigate the effect of the T-group on accurate self-perception, taking into account some of the problems of previous research. In addition, an attempt was made to link the T-group process to changes in self-perception by analyzing the critical incidents that occur in the group.
CHAPTER III

METHODOLOGY

This chapter involves a detailed description of the design and methodology used in this study. Basically the study involved doing a Time Trend Analysis (analysis of variance) and an analysis of critical incidents on data collected from three treatment groups (T-groups) and one Hawthorne group. The purpose was to study the effect of the T-group on accurate self-perception and to examine the process of the groups through an analysis of critical incidents.

I. POPULATION

The population for this study included graduate students (primarily doctoral students from the School of Education, University of Massachusetts) enrolled in a course entitled "Group Activities in Guidance." The students came from varied backgrounds with varying amounts of experience in group dynamics. The course has been a popular one and was expected to once again be over-enrolled. Agreement was made to limit the size of the groups to twelve participants. The Hawthorne group was randomly selected from the population and the participants were guaranteed enrollment in the course for the following semester. (The Hawthorne group
met for discussion and testing four times during the semester on the same day the experimental groups met for their four major testings.)

A stratified random sample was employed to assign participants to the groups. The participants were divided by sex, alphabetized, and randomly assigned to the three experimental and one Hawthorne group.

II. DESIGN OF THE T-GROUP EXPERIENCE

The laboratory experiences focused on personal and group development. The participants were encouraged to examine themselves and the effect of their behaviors on others. They were given the opportunity to examine the forces that operated within the group and their role in the group. The majority of the time was spent in unstructured small groups. The three treatment groups met as one large group for all cognitive inputs and skill exercises, but met separately for the unstructured group experience. The groups met at the same time for the same length of time. The schedule was: Friday evening, 7-11 p.m.; Saturday, 9 a.m.-11 p.m.; Sunday, 9 a.m.-5 p.m.; and Monday through Friday evenings, 7-11 p.m. There were two follow-up sessions: The first was two weeks after the intensive training and the second was eight weeks after the training. A more complete description of the course expectations and goals is
included in Appendix A. The Hawthorne group met from 12-1:30 p.m. on Friday, Monday, and Thursday as well as eight weeks later (December 21). During those times a series of group related issues were discussed. Care was taken that the focus would not be on personal interaction and feedback, but rather it was a leader centered discussion.

All precautions possible were taken to maintain exact treatment among the three experimental groups. The trainer variable was the major variable which was uncontrolled within the three groups. There were some precautions taken to increase the similarities of the six trainers involved. All six agreed to the goals of the training experience and the importance of accurate self-perception as a major goal. The six met as a group preceding and following each group session for mutual support, to share results and concerns, and to get added perspective on their own functioning in the group. In addition, they jointly planned the large group sessions. Each of the co-training teams consisted of one male and one female.

III. INSTRUMENTATION

Semantic Differential

Burke and Bennis’s (1961) Group Semantic Differential was the research tool used to determine accurate self-perceptions. This instrument has been used in T-group
research before (Gassner et al., 1964) and as a basis for other semantic differential instruments (Peters, 1970). Although no pre-posttest reliability information is reported for this particular instrument, its 19 bipolar adjective scales were chosen from word pairs exhibiting high reliability by Osgood (Osgood, Suci, & Tannenbaum, 1957). Burke and Bennis took into account Osgood's (Osgood et al., 1957) factors of semantic meaning (evaluation, potency, and activity), Schutz's (1958) group dimensions (inclusion, control, and affection), and Carter's (1954) group factors (individual prominence, group goal facilitation, and group sociability) in construction of this instrument. Thus a particular attempt was made to choose scales which would show the relationship between Osgood's more individual factors of meaning and factorial studies of groups.

The investigator of this study added two bipolar adjective scales to the Group Semantic Differential. These were spontaneous-controlled and supportive-punitive. These two scales are important additions to the instrument. In the author's experience and in the literature, these seem to be visible behaviors. Their addition was not thought to change the factor loadings of this instrument appreciably. Both word pairs are in Osgood's (Osgood et al., 1957) reliability measures. This particular instrument was chosen because of
its sensitivity to change in interpersonal perceptions and its applicability to the T-group setting. It is a relatively short instrument and is easy to administer. The instrument as used in this study is located in Appendix B.

Burke and Bennis used the three concepts: (a) The way I actually am in this T-group, (b) The way I would like to be in this T-group, and (c) person concepts (the name of each individual in the group). However, they indicate that the test has been developed to measure perception by T-group participants on a variety of concepts relevant to group functioning and member behavior in groups. Consequently, the author added a fourth concept, (d) The way I think most others in this T-group see me. This fourth concept deals with assumptions and projections an individual may make of how others perceive him. This may be compared to self-perception and actual ratings of peers to get a more accurate picture of how a person perceives himself and the accuracy of his perceptions. Heeding the warning of Bennis, Burke, Cutler, Harrington, and Hoffman (1957) who stated the dangers of inappropriate instruments, this instrument was chosen because of its direct applicability to the social situation of the T-group. The four concepts used for this study included:

a. The way I actually am in this T-group (perceived self).
b. The way I would like to be in this T-group (ideal self).

c. The way I think most others in this T-group see me (projected self).

d. Names of six other people in the T-group randomly assigned each time. (Averaged ratings by six other T-group members is called others' perception.)

These concepts will be referred to from this point on as underlined above.

Reliability. Reliability information regarding the specific 21 bipolar semantic differential using the four concepts mentioned above, was obtained by the author in the pre-posttest administration of the instrument to two similar groups. The word "T-group" was dropped from the concepts, using just the word "group."

The test was given to a class in Group Theories and Practice on two occasions. Although not a T-group, the class was designed to include experiences such as psycho-drama which allowed the 12 members to participate in situations which involve awareness of perceptions of self and others. The two testing dates were eight days apart with no meetings in between.

The second group, involving 12 members, was enrolled in a course entitled, "Crises in Human Relations." This class was an unstructured group experience involving attitudes
toward racism. Although not a T-group, the major goal of the course was understanding one's own attitudes, perceptions, and motivations and those of others. The measures were taken one week apart with one class meeting intervening. The results are included in Table 1.

**TABLE 1**

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Group theories class (N=12)</th>
<th>Racism class (N=12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The way I actually am in this group</td>
<td>0.9532</td>
<td>0.7858</td>
</tr>
<tr>
<td>The way I would like to be in this group</td>
<td>0.9468</td>
<td>0.8288</td>
</tr>
<tr>
<td>The way I think others in this group see me</td>
<td>0.9584</td>
<td>0.7226</td>
</tr>
<tr>
<td>Others' perceptions of me</td>
<td>0.8736</td>
<td>0.7244</td>
</tr>
</tbody>
</table>

**Validity.** No direct tests for validity have been done on this particular instrument, however there is a good deal of indirect evidence to justify the validity of the semantic differential as a technique.

The use of the semantic differential (SD) and the assumptions of its underlying procedures have been justified in research. The semantic differential may possess some
validity if it differentiates among concepts. An example of a study which was concerned with the validity of the SD procedure as a means of measuring the differences in connotative meaning between concepts, is reported by Solarz (1963). Seventy-five undergraduates were presented with a number of SD profiles each of which was accompanied by a pair of alternative concepts that differed from each other by varying degrees as indicated by D-scores (difference). The subjects had to determine for each profile which concept was represented. The researchers found the number of correct responses increased with the increase in the size of the D representing the distance between the two concepts, thus supporting the validity of the procedure.

Another example is Desse (1964) who also attested to the validity of using bipolar-opposite adjective scales to make clear associative meaning. (The meaning of each word is clarified by its association with its opposite.) However, he warned that several of the semantic differential anchors are not fundamental contrasts by the present view, and a large number of adjectives (forty of his sample of 278 adjectives) are orthogonal bipolar dimensions. None of these words is found in the SD used in this study.

Snieder and Osgood (1969) state that "all the data collected so far (on the semantic differential) displays convincing face validity [p. 34]." Osgood has done validity
tests on word pairs. A value of the technique is that selection of specific scales to match factors can proceed on a purely objective basis in terms of factor loadings for each scale. As a matter of fact, the polar scales which define each scale do not allow much in the way of misinterpretation.

Burke and Bennis (1961) did a factor analysis on their instrument and found 86% of the total variance was accounted for in Osgood's three factors (potency, activity, and participation). All of these adjective scales are among those tested by Osgood and Suci (1955) for validity.

Burke and Bennis's instrument showed sensitivity to change in the predicted direction thus validating its discriminating abilities between concepts and demonstrating its susceptibility to change. Peters (1966), using the Group Semantic Differential as a basis for his instrument, was able to discriminate between concepts as well as between experimental and control groups. The author further validated the instrument by demonstrating the ability of this semantic differential to discriminate between concepts as well as between experimental and control groups. This gave further evidence of construct validity to the semantic differential.

**Critical Incidents**

The Critical Incident Technique (Flanagan, 1954) is a
procedure for collecting direct observations of human behavior in such a way as to be useful in solving problems or principles. An incident is any activity that is sufficient in itself to permit inferences and predictions about the person performing the act. To be critical means the act should seem clear to the observer and consequences definite enough to leave little doubt concerning its effect, in this case, its effect on perceptions of the self.

Flanagan cites the effectiveness of the use of the Critical Incident Technique in many areas. Perhaps, revealing is the key word to describe the potential value of this tool. In relatively unexposed areas, such as T-group process and its effect on self-perception, it offers a means to discover elements of the process we might not otherwise discover by standardized methods.

Rogers (1967) and Laing (1967) state that only the individual has a grasp of the incidents and behaviors that induce change. Mayhew (1956) also argues that the participants know best what happens to them—more than an objective observer.

Travers (1964) stresses caution with the technique. He warns against the use of this technique claiming that it invites emphasis on negative things and it leads to infrequent not crucial behaviors. It is also laborious and imprecise. Taking these criticisms into account, Mayhew
(1956) emphasizes the need for careful planning to overcome these difficulties. With precautions, the use of this technique has proven to be a valuable tool in the identification of significant elements of various problems under study (Andersson & Nilsson, 1964; Flanagan, 1954).

Following the guidelines and precautions of Flanagan (1954) and Mayhew (1956), the author has taken special precautions to overcome the difficulties cited by Travers. The critical incident form was tested on two groups. First, it was tested on participants in a training for T-group trainers course. The group was asked to complete the form and give reactions to it. The form was then made more concise and unclear wording was changed. The revised form was again pretested. This time it was administered to the staff of Community Development and Human Relations at the University of Massachusetts. Similar reactions were sought producing further refinement of the form. The finished instrument is short (five minutes) and concise, yet open ended so as not to load answers. Its basic question is asking for the most important incident that occurred in the past session that affected how one saw himself in the group. The critical incident form as used in this study is included in Appendix C.
IV. DATA COLLECTION

Experimental groups

Observations involving two concepts, perceived self and ideal self, of the SD were collected within the first ten minutes of the first group on Friday evening, October 15.

Observations involving all four concepts of the semantic differential; perceived self, ideal self, projected self, and others' perceptions and the critical incident were collected at four points throughout the study. These were at the end of the first meeting of the intensive group, October 15; Monday evening, October 18; Thursday evening, October 21 (the next to the last group session); and at the second follow-up meeting eight weeks later (December 21). The semantic differential was administered to the experimental groups and the Hawthorne group while the critical incident (CI) was only administered to the experimental groups.

Observations involving a report of the CI and the SD using the concept perceived self were collected each evening. A total of seven reports per person was obtained. These were collected only from the experimental groups. A summary of the data collection for the experimental groups is included in Table 2. The six trainers participated in the research along with the participants.
### TABLE 2

**SUMMARY OF DATA COLLECTION FOR EXPERIMENTAL GROUP**

<table>
<thead>
<tr>
<th>Testing dates</th>
<th>Perceived self</th>
<th>Ideal self</th>
<th>Projected self</th>
<th>Others' perceptions</th>
<th>Critical incident</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 15,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>beginning of session</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>October 15,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>end of session</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>October 16,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>evening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>October 17,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>evening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>October 18,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>evening</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>October 19,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>evening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>October 20,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>evening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>October 21,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>evening</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Follow-up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December 21,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>evening</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Hawthorne group

The Hawthorne group completed only the four concepts of the semantic differential; perceived self, ideal self, projected self, and others' perceptions. These were completed at four different times corresponding to the major testing times for the experimental groups (October 15, October 18, October 21, and December 21). The word "group" replaced the word "T-group" for the Hawthorne group.

V. ANALYSIS OF DATA

Semantic Differential Data

A score was computed for each of the four concepts of the semantic differential: (a) perceived self, (b) ideal self, (c) projected self, and (d) others' perceptions. The score was computed by determining the positive and negative end of the continuum. The positive end received a numerical value of five while the negative end received a value of one. The values were based on directions generally hoped for in T-groups. The values for each scale were added giving a total score for each concept. (See Appendix B for weightings of each word pair.) The maximum score one could receive was 105 based on receiving a score of five for each of the 21 bipolar scales.

D-scores were obtained for each of the discrepancy variables by subtracting the score of the second concept
from that for the first. The nine dependent variables were:

a. perceived self scores
b. ideal self scores
c. projected self scores
d. others' perceptions scores
e. discrepancy between the perceived self and ideal self scores
f. discrepancy between the perceived self and projected self scores
g. discrepancy between the perceived self and others' perceptions scores
h. discrepancy between others' perceptions and ideal self scores
i. discrepancy between others' perceptions and projected self scores.

Time Trend Analysis. A Time Trend Analysis was utilized to determine the effect of the T-group over time on each of the nine dependent variables. The Time Trend Analysis is of interest in studies involving learning. It demonstrates change in performance as a result of practice by tracing changes in the variables at different points in time. It allows one to compare over-all performance of subjects in different experimental groups as well as changes in performance during the experimental period.

The Time Trend Analysis provides information about;
differences between the experimental groups and the Hawthorne group (group variable), differences on each of the variables at different points in time (time variable), and differences on each variable resulting from being in a particular group (group/time interaction variable).

The design called for random assignment to groups and an equal number of subjects in each group. Random assignment was followed, however, there were an unequal number of subjects in each group due to the fact that some people dropped out at the last moment. This was accounted for in the statistical analysis as outlined in Table 3.

The 4 x 4 analysis of variance design was used to analyze the data. This design deals with two independent variables. The treatment variable contained four levels (three experimental groups and one Hawthorne group) and the time variable contained four levels (October 15, October 18, October 21, and December 21).

An F value was computed for each of the nine dependent variables. Where significant F values were found, the Duncan's Multiple-range test (Duncan, 1960) was used to determine the specific groups or testing times which accounted for the over-all significant F. A group/time interaction chart was drawn for each of the nine dependent variables to graphically portray the growth curves of each group.
TABLE 3

4 X 4 ANALYSIS OF VARIANCE: CORRECTION FOR UNEQUAL N’S

<table>
<thead>
<tr>
<th>Group</th>
<th>Time</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
<td>II</td>
<td>III</td>
<td>IV</td>
</tr>
<tr>
<td>Group 1 (Exp.)</td>
<td>n=14</td>
<td>n=14</td>
<td>n=14</td>
<td>n=14</td>
</tr>
<tr>
<td>Group 2 (Exp.)</td>
<td>n=9</td>
<td>n=9</td>
<td>n=9</td>
<td>n=9</td>
</tr>
<tr>
<td>Group 3 (Exp.)</td>
<td>n=13</td>
<td>n=13</td>
<td>n=13</td>
<td>n=13</td>
</tr>
<tr>
<td>Group 4 (Hawthorne)</td>
<td>n=12</td>
<td>n=12</td>
<td>n=12</td>
<td>n=12</td>
</tr>
</tbody>
</table>

Hypotheses. The specific null hypotheses which were tested are listed below.

Hypothesis I

There will be no significant difference among the four groups (three experimental and one Hawthorne) on any of the following variables:

- a. perceived self
- b. ideal self
- c. projected self
- d. others' perceptions
- e. discrepancy between the perceived self and ideal self scores
- f. discrepancy between the perceived self and projected self scores
Hypothesis II

There will be no significant difference between observations (four major testing times) on any of the following variables:

a. perceived self
b. ideal self
c. projected self
d. others' perceptions
e. discrepancy between the perceived self and ideal self scores
f. discrepancy between the perceived self and projected self scores
g. discrepancy between the perceived self and others' perceptions scores
h. discrepancy between others' perceptions and ideal self scores
i. discrepancy between others' perceptions and projected self scores
Hypothesis III

There will be no significant interaction between time and treatment on the following variables:

a. perceived self  
b. ideal self  
c. projected self  
d. others' perceptions  
e. discrepancy between the perceived self and ideal self scores  
f. discrepancy between the perceived self and projected self scores  
g. discrepancy between the perceived self and others' perceptions scores  
h. discrepancy between others' perceptions and ideal self scores  
i. discrepancy between others' perceptions and projected self scores

Critical Incident Data

An attempt was made to categorize responses to the critical incidents into frequency tables for use in a three way Chi Square Analysis. The chi square proved unsatisfactory due to insufficient numbers in all cells. No statistical test produced the discrimination needed for meaningful analysis.
From the initial readings of the critical incidents, key categories were selected for use in analysis. These were:

a. Number of incidents reported
b. Focus of incidents
c. Nature of feedback
d. Group-leader interaction
e. Mean impact of the incidents
f. Those who rated the impact of the incident eight or above.

The incidents were reread and analyzed by recording how each group responded to the categories and then comparing the responses of the different groups in terms of the categories developed. Similarities and differences were noted. The analysis was done in conjunction with a member of the dissertation committee and agreement was reached prior to analysis. The CI results were then related to the perceived self scores of the same group everyday for each group. Finally, the over-all change curves for the perceived self variables and the discrepancy between others' perceptions of self and perceived self were looked at in relation to the critical incidents. Hypotheses were generated to explain similarities, differences, and patterns in the curves.
CHAPTER IV

RESULTS OF STUDY

This chapter is divided into three sections. The first involves a presentation of the results of the statistical analysis. The second section presents a further analysis of each group individually. The third section presents the results from the critical incident questionnaire.

I. ANALYSIS OF VARIANCE

This section contains the results of the analysis of variance on the nine variables. The Duncan's Multiple-range reported where significant Fs were found. Critical incidents were used to further explain the empirical results of the study.

Perceived Self

The results of the analysis of variance on the perceived self scores are presented in Table 4, page 67. Since a significant F was found for the group and time variables in the perceived self scores, the Duncan's Multiple-range was computed. Figures 1 and 2, pages 67 and 68, display the results of the Duncan's Multiple-range for both group and time. Graph 1, page 68, portrays the
data including the relationship of the group and time variable.

Findings of the Duncan's Multiple-range test indicated that the mean score of Group 3 was significantly different from the mean score of Group 4, meaning there were significant differences on the perceived self scores between experimental group 3 and the Hawthorne group. (See Figure 1, page 67.) The Duncan's test on the time variable demonstrated that the mean scores of time one were found to be significantly different from the mean scores of times two, three, and four. This means that the results of the first testings were significantly different from those on the next three testings. (See Figure 2, page 68.)

In studying the group/time interaction chart (Graph 1, page 68), it was noticed that Group 3 scored well above the other three groups on this variable. To interpret the data more accurately, an analysis of variance test was done on the pretest scores for experimental groups 1, 2, and 3. The results are shown in Table 5, page 69. The mean score of experimental group 3 was found to be significantly different on the pretest score of the perceived self variable from experimental groups 1 and 2.

Summary of the Perceived Self Variable

The results show a significant difference between experimental group 3 and the Hawthorne group perceived self
scores. Although perplexing because of random assignment, Group 3 started significantly different from experimental groups 1 and 2 on the pretest. It is relatively safe to assume it was significantly different from the Hawthorne group. Therefore, one cannot conclude that the difference was due to the treatment. One cannot say that people see themselves as better as a result of the T-group. (By "better" the author means change in a positive direction.)

The perceived self scores increased over time even though there was a slight decrease at the end of the experience. This is especially true of Groups 1 and 2 who changed seventeen and thirteen points respectively between the first and last testings. Group 3 and the Hawthorne group followed similar change patterns, each gaining a total of three points upon completion of the experience. Although the null hypothesis Ia, involving groups, was rejected, one cannot interpret the significance to be due to the treatment. The null hypothesis IIa, involving significant differences between testing times, was rejected. The null hypothesis IIIa, involving interaction between group and time on the perceived self variable, was accepted.

The remainder of the data on each variable is reported as follows: First, the results of the analysis of variance on each variable. Secondly, the results of the Duncan's Multiple-range on the group and time variables is reported
**TABLE 4**

ANALYSIS OF VARIANCE FOR THE PERCEIVED SELF SCORES

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>3</td>
<td>4294.67</td>
<td>1431.56</td>
<td>14.97</td>
</tr>
<tr>
<td>Time</td>
<td>3</td>
<td>4076.34</td>
<td>1358.78</td>
<td>14.21</td>
</tr>
<tr>
<td>Group X Time</td>
<td>9</td>
<td>1001.10</td>
<td>111.23</td>
<td>1.16</td>
</tr>
<tr>
<td>Within</td>
<td>184</td>
<td>17592.37</td>
<td>95.61</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>36555.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ F(.01, 3, 184) = 3.78 \]

\[ F(.05, 3, 184) = 4.28 \]

In interpreting the Duncan's, "any two means not underscored by the same line are significantly different. Any two means underscored by the same line are not significantly different (Duncan, 1960, p. 109)."

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>76.29</td>
<td>78.75</td>
<td>83.02</td>
<td>83.02</td>
<td></td>
</tr>
</tbody>
</table>

Alpha = p > .01

**FIGURE 1**

DUNCAN'S MULTIPLE-RANGE FOR PERCEIVED SELF SCORES ON THE GROUP VARIABLE
DUNCAN'S MULTIPLE-RANGE FOR PERCEIVED SELF SCORES ON THE TIME VARIABLE

FIGURE 2

GROUP/TIME INTERACTION FOR THE PERCEIVED SELF VARIABLE
TABLE 5
ANALYSIS OF VARIANCE FOR PRETEST PERCEIVED SELF SCORES

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>1055.03</td>
<td>529.01</td>
<td>6.7227</td>
</tr>
<tr>
<td>Within Groups</td>
<td>35</td>
<td>2754.18</td>
<td>78.70</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>37</td>
<td>3812.21</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[
F (.01, 2, 35) = 5.29 \\
F (.05, 2, 35) = 3.28
\]

\[
\begin{array}{ccc}
2 & 1 & 3 \\
70.73 & 71.06 & 82.00 \\
\end{array}
\]

Alpha = p > .01

FIGURE 3
DUNCAN'S MULTIPLE-RANGE FOR PRETEST PERCEIVED SELF SCORES
where a significant $F$ was found. The data is next portrayed in graphic form, further illustrating the relationship of group and time factors on each variable. Finally, a summary interpretation of the variable is presented.

**Ideal Self**

The analysis of variance indicated a significant $F$ value on the group variable. The Duncan's Multiple-range test was then conducted. The Duncan's indicated that the mean score of experimental group 2 was significantly different from those of experimental groups 3 and 1, and the Hawthorne group (Group 4) on the ideal self variable.

**Summary of the Ideal Self Variable**

The results show differences between the experimental group 2 and the Hawthorne group on the ideal self variable. This is however, not true for the other two experimental groups. The scores for all four groups remain fairly consistent over time.

The null hypothesis Ib was rejected. The null hypotheses involving time and group/time interaction, IIb and IIIb, were accepted for the ideal self variable.

**Projected Self**

Since a significant $F$ was found on the group and time variables, a Duncan's Multiple-range test was performed. The Duncan's test on the group variable indicated that the
TABLE 6
ANALYSIS OF VARIANCE FOR THE IDEAL SELF SCORES

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
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<td>2017.30</td>
<td>672.44</td>
<td>10.36</td>
</tr>
<tr>
<td>Time</td>
<td>3</td>
<td>333.94</td>
<td>111.31</td>
<td>1.71</td>
</tr>
<tr>
<td>Group X Time</td>
<td>9</td>
<td>357.98</td>
<td>39.78</td>
<td>0.61</td>
</tr>
<tr>
<td>Within</td>
<td>184</td>
<td>11937.88</td>
<td>64.88</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>59214.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ F (.01, 3, 184) = 3.78 \]
\[ F (.05, 3, 184) = 4.28 \]

\[
\begin{align*}
2 & | 4 & 1 & 3 \\
84.64 & | 89.58 & 90.88 & 93.67 \\
\end{align*}
\]

Alpha = \( p > .01 \)

FIGURE 4
DUNCAN'S MULTIPLE-RANGE FOR IDEAL SELF SCORES ON THE GROUP VARIABLE
GRAPH 2
GROUP/TIME INTERACTION FOR THE IDEAL SELF VARIABLE
mean scores of the projected self were significantly different between the Hawthorne group and the experimental groups 1, 2, and 3. On the time variable, the Duncan's Multiple-range test showed that the mean scores at time one were significantly different than those mean scores of times two, three, and four on the projected self variable. It also indicated that the mean scores of testing three were significantly different from those of testings one, two, and four.

Summary of the Projected Self Variable

The results show that people think other T-group members see them in a more positive way as a result of the T-group experience. The projected self scores increased over time, reaching a peak at the end of the experience, then dropped significantly to a point approximately equivalent to time two.

The null hypotheses dealing with group and time, Ic and IIc respectively, were rejected. The null hypothesis involving group/time interaction, IIIc, was accepted.

Others' Perceptions

A significant F was found on the group and time variables of the others' perceptions scores. The resulting Duncan's Multiple-range test on the group variable indicated that the mean score of the Hawthorne group was significantly different from the mean scores of experimental groups 1, 2,
# TABLE 7
ANALYSIS OF VARIANCE FOR THE PROJECTED SELF SCORES

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>3</td>
<td>5727.52</td>
<td>1909.17</td>
<td>19.16</td>
</tr>
<tr>
<td>Time</td>
<td>3</td>
<td>4072.35</td>
<td>1357.45</td>
<td>13.62</td>
</tr>
<tr>
<td>Group X Time</td>
<td>9</td>
<td>914.06</td>
<td>101.56</td>
<td>1.02</td>
</tr>
<tr>
<td>Within</td>
<td>184</td>
<td>18338.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>32641.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F (.01, 3, 184) = 3.78
F (.05, 3, 184) = 4.28

<table>
<thead>
<tr>
<th>4</th>
<th>2</th>
<th>1</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>71.56</td>
<td>76.75</td>
<td>80.98</td>
<td>86.12</td>
</tr>
</tbody>
</table>

Alpha = p > .01

FIGURE 5
DUNCAN'S MULTIPLE-RANGE FOR THE PROJECTED SELF SCORES ON THE GROUP VARIABLE
\[ \alpha = \beta \cdot 0.01 \]

**FIGURE 6**

**DUNCAN'S MULTIPLE-RANGE FOR THE PROJECTED SELF SCORES ON THE TIME VARIABLE**

Mean

![Graph showing group/time interaction](image)

**GROUP/TIME INTERACTION FOR THE PROJECTED SELF VARIABLE**
and 3 on the others' perceptions variable. The test also indicated that on the group factor of others' perceptions scores, mean scores of experimental group 2 were significantly different from the Hawthorne group and experimental groups 1 and 3.

The Duncan's Multiple-range test on the time variable indicated that the mean scores of others' perceptions scores were significantly different at testing time one than at the other three testing times.

Summary of Others' Perceptions Variable

The results show that the T-group has an effect on how others see you. The experimental groups 1 and 3 were consistent but not different from one another. However, they were significantly different from experimental group 2 and the Hawthorne group. This indicates that some T-groups have more of an effect than others.

Others' perceptions ratings increased over time reaching a peak at the end of the experience. There was a decrease in scores following the group experience, but this was not significant.

The null hypotheses dealing with group and time, Ic and IIc respectively, were rejected. The null hypothesis involving group/time interaction (IIIC) was accepted.
## Table 8

**Analysis of Variance for the Others' Perceptions Scores**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>3</td>
<td>4934.88</td>
<td>1644.96</td>
<td>28.25</td>
</tr>
<tr>
<td>Time</td>
<td>3</td>
<td>1613.32</td>
<td>537.77</td>
<td>9.24</td>
</tr>
<tr>
<td>Group X Time</td>
<td>9</td>
<td>448.93</td>
<td>49.88</td>
<td>0.80</td>
</tr>
<tr>
<td>Within</td>
<td>184</td>
<td>10712.69</td>
<td>58.22</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>22049.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ F (0.01, 3, 184) = 3.78 \]

\[ F (0.05, 3, 184) = 4.28 \]

\[
\begin{array}{cccc}
4 & 2 & 1 & 3 \\
72.31 & 77.16 & \underline{82.68} & 85.13 \\
\end{array}
\]

**Alpha** = \( p > 0.01 \)

**Figure 7**

Duncan's Multiple-Range for the Others' Perceptions Scores on the Group Variable
Alpha = p > .01

FIGURE 8

DUNCAN'S MULTIPLE-RANGE FOR THE OTHERS' PERCEPTIONS SCORES ON THE TIME VARIABLE

GROUP/TIME INTERACTION FOR OTHERS' PERCEPTIONS VARIABLE
Ideal/Perceived Self Discrepancy

The analysis of variance on the discrepancy score between the ideal self scores and the perceived self scores yielded a significant F on the group and time variables. The Duncan's Multiple-range test showed that the Hawthorne group was significantly different in mean scores than experimental groups 1, 2, and 3. (See Figure 9, page 81.)

At the first testing time, the mean discrepancy scores between the ideal self and the perceived self scores were significantly different from the mean scores at testings two, three, and four as shown by the Duncan's, Figure 10, page 82.

Summary of the Ideal/Perceived Self Discrepancy Variable

The discrepancy score is the difference between the perceived self score and the ideal self score. One of the purposes of a T-group is to decrease the discrepancy between ideal self scores and perceived self scores. The results supported the contention that the T-group experience reduced the discrepancy in these scores since the discrepancy in the experimental groups was significantly lower than that of the Hawthorne group.

In addition, there was a significant decrease in the discrepancy scores over time in that the discrepancy score at time one was significantly higher than the discrepancy scores at the other three times. This is true even with a
increase in discrepancy at the follow-up session.

The null hypotheses involving group and time, \( I_c \) and \( IIe \) respectively, were rejected. The null hypothesis (\( IIIe \)) involving group/time interaction was accepted.

**Others' Perceptions/Perceived Self Discrepancy**

An analysis of variance on the discrepancy score between others' perceptions scores and the perceived self scores showed the group variable to be significant at the .01 level. The Duncan's Multiple-range test demonstrated that the mean score on the discrepancy scores between others' perceptions scores and the perceived self scores for the Hawthorne group were significantly different than those of experimental groups 1, 2, and 3. On the time variable, the Duncan's Multiple-range test demonstrated that the mean scores of the discrepancy between the others' perceptions score and the perceived self score for time one was significantly different from those at testing time four.

**Summary of the Others' Perceptions/Perceived Self Discrepancy Variable**

A key factor in effective behavior is the congruence of the perceived self and others' perceptions of self. The T-group is instrumental in decreasing the discrepancy between these two variables. It is evidenced in the fact that the Hawthorne group is significantly different than
TABLE 9
ANALYSIS OF VARIANCE ON THE DISCREPANCY SCORE BETWEEN THE IDEAL SELF SCORES AND THE PERCEIVED SELF SCORES

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>3</td>
<td>1714.11</td>
<td>571.37</td>
<td>7.75</td>
</tr>
<tr>
<td>Time</td>
<td>3</td>
<td>2886.03</td>
<td>962.01</td>
<td>13.04</td>
</tr>
<tr>
<td>Group X Time</td>
<td>9</td>
<td>840.04</td>
<td>93.34</td>
<td>1.27</td>
</tr>
<tr>
<td>Within</td>
<td>184</td>
<td>13572.64</td>
<td>73.77</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>46391.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ F(.01, 3, 184) = 3.78 \]
\[ F(.05, 3, 184) = 4.28 \]

3 2 1 4

\[
\begin{array}{cccc}
5.69 & 6.43 & 7.86 & 13.29 \\
\end{array}
\]

\[ \text{Alpha} = p > .01 \]

FIGURE 9
DUNCAN'S MULTIPLE-RANGE FOR THE DISCREPANCY SCORE BETWEEN THE IDEAL SELF SCORES AND THE PERCEIVED SELF SCORES ON THE GROUP VARIABLE
Alpha = p > .01

**FIGURE 10**

DUNCAN’S MULTIPLE-RANGE FOR THE DISCREPANCY SCORE BETWEEN THE IDEAL SELF SCORES AND THE PERCEIVED SELF SCORES ON THE TIME VARIABLE

**GRAPH 5**

GROUP/TIME INTERACTION FOR THE IDEAL/PERCEIVED DISCREPANCY VARIABLE
the three experimental groups. There was a continual decrease in discrepancy over time including a decrease after the experience was over. It was not until two months after the experience that there was a significant difference from the initial scores.

The null hypotheses I\(g\) and II\(g\), namely group and time, were rejected. The null hypothesis III\(g\) (group/time) was accepted.

**Others' Perceptions/Ideal Self Discrepancy**

After the analysis of variance demonstrated that the group variable on the discrepancy score between the others' perceptions scores and the ideal self scores was significant at the .01 level, the Duncan's test was used. This demonstrated a significant difference between the mean scores of the Hawthorne group and those of the three experimental groups.

**Summary of the Others' Perceptions/Ideal Self Discrepancy Variable**

The discrepancy score is the difference between the ideal self and others' perceptions. Jourard (1961), states for accurate perception it is not only important to enhance the self-image, but also to have others recognize this.

The results show the T-group to be effective in this since all three experimental groups are significantly different from the Hawthorne -roup.
# TABLE 10

**ANALYSIS OF VARIANCE ON THE DISCREPANCY SCORE BETWEEN THE OTHERS' PERCEPTIONS SCORES AND THE PERCEIVED SELF SCORES**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>3</td>
<td>1424.19</td>
<td>474.73</td>
<td>5.17</td>
</tr>
<tr>
<td>Time</td>
<td>3</td>
<td>1062.19</td>
<td>354.06</td>
<td>3.85</td>
</tr>
<tr>
<td>Group X Time</td>
<td>9</td>
<td>1121.22</td>
<td>124.58</td>
<td>1.36</td>
</tr>
<tr>
<td>Within</td>
<td>184</td>
<td>16909.67</td>
<td>91.90</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>70760.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F (.01, 3, 184) = 3.78

F (.05, 3, 184) = 4.28

DUNCAN'S MULTIPLE-RANGE FOR THE DISCREPANCY SCORE BETWEEN THE OTHERS' PERCEPTIONS SCORES AND THE PERCEIVED SELF SCORES ON THE GROUP VARIABLE

<table>
<thead>
<tr>
<th>1</th>
<th>3</th>
<th>2</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.16</td>
<td>2.77</td>
<td>3.18</td>
<td>8.86</td>
</tr>
</tbody>
</table>

Alpha = p > .01

FIGURE 11
DUNCAN'S MULTIPLE-RANGE FOR THE DISCREPANCY SCORE BETWEEN THE OTHERS' PERCEPTIONS SCORES AND THE PERCEIVED SELF SCORES ON THE TIME VARIABLE.

Alpha = $p > .01$

FIGURE 12

GROUP/TIME INTERACTION ON THE OTHERS'/PERCEIVED DISCREPANCY VARIABLE.
The discrepancy did not vary significantly over time. While experimental groups 1 and 2 decreased in discrepancies over time, Group 3 increased in discrepancy. The reasons for this are perplexing. The null hypothesis concerning group (Ih) was rejected. The group/time and the time hypotheses (IIh and IIIh) were accepted.

Projected/Perceived Self Discrepancy

The discrepancy score is the difference between the projected self score and the perceived self score. The results show no significant differences on this variable between the experimental and Hawthorne groups. One may say that the T-group was not effective in decreasing the discrepancy between the projected self and the perceived self. However, the discrepancies were relatively low to begin with and did decrease (although not significantly at the .01 level, it was significant at the .05 level) over time. The null hypotheses involving group, time, and group/time interaction (If, IIf, and IIIf) were accepted.

Others' Perceptions/Projected Self Discrepancy

The analysis of variance yielded a significant F for the group and time variables. The mean scores of experimental group 3 were significantly different from those of the Hawthorne group on the discrepancy variable between the others' perceptions scores and the projected self scores as
### Table 11

**Analysis of Variance on the Discrepancy Score Between the Others' Perceptions Scores and the Ideal Self Scores**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
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<td>3492.53</td>
<td>1164.18</td>
<td>7.40</td>
</tr>
<tr>
<td>Time</td>
<td>3</td>
<td>487.32</td>
<td>162.44</td>
<td>1.03</td>
</tr>
<tr>
<td>Group X Time</td>
<td>9</td>
<td>944.07</td>
<td>104.90</td>
<td>0.67</td>
</tr>
<tr>
<td>Within</td>
<td>184</td>
<td>28949.30</td>
<td>157.33</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>63343.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[
F (.01, 3, 184) = 3.78
\]

\[
F (.05, 3, 184) = 4.28
\]

#### Figure 13

Duncan's Multiple-Range for the Discrepancy Score Between the Others' Perceptions Scores and the Ideal Self Scores on the Group Variable

<table>
<thead>
<tr>
<th>3</th>
<th>1</th>
<th>2</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.70</td>
<td>6.13</td>
<td>7.25</td>
<td>14.94</td>
</tr>
</tbody>
</table>

\(\alpha = p > .01\)
GROUP/TIME INTERACTION ON THE OTHERS'/IDEAL DISCREPANCY VARIABLE
TABLE 12

ANALYSIS OF VARIANCE ON THE DISCREPANCY SCORE BETWEEN THE PROJECTED SELF SCORES AND THE PERCEIVED SELF SCORES

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
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<td>114.36</td>
<td>38.12</td>
<td>0.73</td>
</tr>
<tr>
<td>Time</td>
<td>3</td>
<td>432.19</td>
<td>144.06</td>
<td>2.75</td>
</tr>
<tr>
<td>Group X Time</td>
<td>9</td>
<td>425.89</td>
<td>47.32</td>
<td>0.90</td>
</tr>
<tr>
<td>Within</td>
<td>184</td>
<td>9628.39</td>
<td>52.33</td>
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<tr>
<td>Total</td>
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<td>82210.00</td>
<td></td>
<td></td>
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</table>

\[ F (.01, 3, 184) = 3.93 \]
\[ F (.05, 3, 184) = 2.67 \]
Mean

1 Oct. 15  2 Oct. 18  3 Oct. 21  4 Dec. 21

Time

Group 1  Group 2  Group 3  Group 4

GRAPH 8

GROUP/TIME INTERACTION ON THE PROJECTED/PERCEIVED DISCREPANCY VARIABLE
shown by the Duncan's Multiple-range test. (See Figure 14, page 92.) The Duncan's Multiple-range test on the time variable indicated a significant difference in the mean scores between testing time one and testing times three and four on the discrepancy scores between the others' perceptions scores and the projected self scores.

Summary of the Others' Perceptions/Projected Self Discrepancy Variable

The discrepancy score is the difference between the projected self score and the others' perceptions score. One of the measures of accurate self-perception is to know how others perceive me. The results indicate that experimental group 3 was significantly different from the Hawthorne group, however, it is unclear whether this is due to the treatment because Group 3 was significantly different on a pretest on the self-perception variable. Experimental group 1 and the Hawthorne group were the only ones that changed significantly over time. The results further indicated that there was a significant decrease in the discrepancies over time. Testing times three and four were significantly lower than the first testing. Thus it was not until the end of the T-group experience that this discrepancy score was really reduced. The discrepancies were lowest at the end of the T-group.

The null hypotheses dealing with group and time,
TABLE 13
ANALYSIS OF VARIANCE ON THE DISCREPANCY SCORE BETWEEN THE OTHERS' PERCEPTIONS SCORES AND THE PROJECTED SELF SCORES

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>3</td>
<td>683.76</td>
<td>227.92</td>
<td>3.66</td>
</tr>
<tr>
<td>Time</td>
<td>3</td>
<td>1636.17</td>
<td>545.39</td>
<td>8.75</td>
</tr>
<tr>
<td>Group X Time</td>
<td>9</td>
<td>946.02</td>
<td>105.11</td>
<td>1.69</td>
</tr>
<tr>
<td>Within</td>
<td>184</td>
<td>11465.30</td>
<td>62.31</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>65530.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F (.01, 3, 184) = 3.78
F (.05, 3, 184) = 4.28

\[
\begin{array}{cccc}
3 & 2 & 1 & 4 \\
1.83 & 3.27 & 4.38 & 6.92 \\
\end{array}
\]

Alpha = p > .01

FIGURE 14
DUNCAN'S MULTIPLE-RANGE FOR THE DISCREPANCY SCORE BETWEEN THE OTHERS' PERCEPTIONS SCORES AND THE PROJECTED SELF SCORES ON THE GROUP VARIABLE
Alpha = $p > 0.01$

**Figure 15**

DUNCAN'S MULTIPLE-RANGE FOR THE DISCREPANCY SCORE BETWEEN THE OTHERS' PERCEPTIONS SCORES AND THE PROJECTED SELF SCORES ON THE TIME VARIABLE

**Graph 9**

GROUP/TIME INTERACTION FOR THE OTHERS'/PROJECTED DISCREPANCY VARIABLE
IIi and IIIi respectively, were rejected. The null hypothesis involving the group/time variable (IIIi) was accepted.

Despite the random sample of participants into four groups, the groups did not score similarly at the initial testing. Experimental group 3 began significantly higher than the other two experimental groups on a pretest score for the perceived self variable. The reasons for this are unknown. With this evidence, it made interpretation of the data unclear in spots. For this reason, further analysis was done for each group separately. Only the change scores were analyzed. The results of that analysis are reported in the next section.

II. ANALYSIS OF INDIVIDUAL GROUPS

To make interpretation easier, simple main effects were computed on each of the dependent variables. The results are presented in this section.

In Groups 1 and 2 there was a significant difference between time one and time four on the discrepancies for ideal/perceived, others' perceptions/perceived, and others' perceptions/projected (only Group 1). This was not true for the Hawthorne group or Group 3. Lack of significant decrease in discrepancies in Group 3 may be due to the fact that Group 3 saw themselves differently in the beginning.
TABLE 14
VARIANCE OVER TIME FOR GROUP 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal/Perceived</td>
<td>3</td>
<td>1203.00</td>
<td>401.00</td>
<td>3.882</td>
</tr>
<tr>
<td>Projected/Perceived</td>
<td>3</td>
<td>346.50</td>
<td>115.50</td>
<td>2.118</td>
</tr>
<tr>
<td>Others'/Perceived</td>
<td>3</td>
<td>849.34</td>
<td>283.11</td>
<td>4.485</td>
</tr>
<tr>
<td>Others'/Ideal</td>
<td>3</td>
<td>469.63</td>
<td>156.54</td>
<td>1.475</td>
</tr>
<tr>
<td>Others'/Projected</td>
<td>3</td>
<td>1393.34</td>
<td>464.45</td>
<td>11.458</td>
</tr>
</tbody>
</table>

F (.01, 3, 52) = 4.21
F (.05, 3, 52) = 2.29

TABLE 15
VARIANCE OVER TIME FOR GROUP 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal/Perceived</td>
<td>3</td>
<td>1953.16</td>
<td>651.05</td>
<td>7.545</td>
</tr>
<tr>
<td>Projected/Perceived</td>
<td>3</td>
<td>75.10</td>
<td>25.03</td>
<td>0.673</td>
</tr>
<tr>
<td>Others'/Perceived</td>
<td>3</td>
<td>920.55</td>
<td>306.85</td>
<td>5.907</td>
</tr>
<tr>
<td>Others'/Ideal</td>
<td>3</td>
<td>516.25</td>
<td>172.08</td>
<td>1.319</td>
</tr>
<tr>
<td>Others'/Projected</td>
<td>3</td>
<td>203.46</td>
<td>67.82</td>
<td>1.166</td>
</tr>
</tbody>
</table>

F (.01, 3, 40) = 4.31
F (.05, 3, 40) = 2.84
### TABLE 16
VARIANCE OVER TIME FOR GROUP 3

<table>
<thead>
<tr>
<th>Variable</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal/Perceived</td>
<td>3</td>
<td>322.93</td>
<td>107.64</td>
<td>2.157</td>
</tr>
<tr>
<td>Projected/Perceived</td>
<td>3</td>
<td>130.94</td>
<td>43.65</td>
<td>0.842</td>
</tr>
<tr>
<td>Others'/Perceived</td>
<td>3</td>
<td>418.21</td>
<td>139.40</td>
<td>1.889</td>
</tr>
<tr>
<td>Others'/Ideal</td>
<td>3</td>
<td>50.94</td>
<td>16.98</td>
<td>0.130</td>
</tr>
<tr>
<td>Others'/Projected</td>
<td>3</td>
<td>407.16</td>
<td>135.72</td>
<td>2.592</td>
</tr>
</tbody>
</table>

F (.01, 3, 45) = 4.27
F (.05, 3, 45) = 2.82

### TABLE 17
VARIANCE OVER TIME FOR GROUP 4

<table>
<thead>
<tr>
<th>Variable</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal/Perceived</td>
<td>3</td>
<td>231.08</td>
<td>77.03</td>
<td>1.424</td>
</tr>
<tr>
<td>Projected/Perceived</td>
<td>3</td>
<td>345.40</td>
<td>115.13</td>
<td>1.753</td>
</tr>
<tr>
<td>Others'/Perceived</td>
<td>3</td>
<td>244.06</td>
<td>81.35</td>
<td>0.758</td>
</tr>
<tr>
<td>Others'/Ideal</td>
<td>3</td>
<td>261.40</td>
<td>87.13</td>
<td>0.424</td>
</tr>
<tr>
<td>Others'/Projected</td>
<td>3</td>
<td>652.50</td>
<td>217.50</td>
<td>2.187</td>
</tr>
</tbody>
</table>

F (.01, 3, 44) = 4.27
F (.05, 3, 44) = 2.82
The following Duncan's report where the significant changes occur for each variable involving a significant F.

<table>
<thead>
<tr>
<th>3</th>
<th>4</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.29</td>
<td>4.36</td>
<td>8.71</td>
<td>15.07</td>
</tr>
</tbody>
</table>

Alpha = p > .05

FIGURE 16
DUNCAN'S MULTIPLE-RANGE FOR THE DISCREPANCY SCORE BETWEEN IDEAL AND PERCEIVED SELF SCORES FOR GROUP 1

The Duncan's indicated a significant difference in the discrepancy scores of the ideal/perceived self variable between testing time one and the other testing times. The discrepancy was lowest at testing time three (end of the experience) and had risen slightly at the follow-up session, however not significantly so.

<table>
<thead>
<tr>
<th>3</th>
<th>4</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1.07</td>
<td>-2.11</td>
<td>4.64</td>
<td>7.21</td>
</tr>
</tbody>
</table>

Alpha = p > .05

FIGURE 17
DUNCAN'S MULTIPLE-RANGE FOR THE DISCREPANCY BETWEEN OTHERS' PERCEPTIONS AND PERCEIVED SELF SCORES FOR GROUP 1

There was a significant lessening of discrepancies (as shown in Figure 17) between the first time and the third
and fourth time. The discrepancies rose slightly after the T-group experience, but not significantly so.

\[
\begin{array}{ccccc}
3 & 4 & 2 & 1 \\
0.36 & -1.29 & 7.71 & 10.71 \\
\end{array}
\]

\[\text{Alpha} = p > .01\]

**FIGURE 18**

DUNCAN'S MULTIPLE-RANGE TEST FOR THE DISCREPANCY BETWEEN OTHERS' PERCEPTIONS AND PROJECTED SELF SCORES FOR GROUP 1

There was a significant lessening in discrepancies on the others' perceptions/projected discrepancy between the second and third testing times. Despite a slight increase after the end of the T-group experience the results maintained themselves.

\[
\begin{array}{cccc}
3 & 2 & 4 & 1 \\
1.91 & 2.18 & 3.73 & 17.91 \\
\end{array}
\]

\[\text{Alpha} = p > .01\]

**FIGURE 19**

DUNCAN'S MULTIPLE-RANGE TEST FOR THE DISCREPANCY BETWEEN IDEAL AND PERCEIVED SELF SCORES FOR GROUP 2

The Duncan's (Figure 19) showed a significant decrease in discrepancies between the ideal and perceived self scores between testing time one and testing time two.
After this initial drop, differences in discrepancies between the other testing times were not significant. Once again, the lowest discrepancy score was at the end of the T-group experience.

\[
\begin{array}{cccc}
3 & 4 & 2 & 1 \\
-0.27 & -2.36 & 7.18 & 8.18 \\
\end{array}
\]

Alpha = p > .01

**FIGURE 20**

**DUNCAN'S MULTIPLE-RANGE TEST FOR THE DISCREPANCY BETWEEN THE OTHERS' PERCEPTIONS AND THE PERCEIVED SELF SCORES FOR GROUP 2**

The Duncan's indicates a significant decrease in the discrepancies between others' perceptions and perceived self scores after the second testing period. The discrepancies rose after the follow-up period but not significantly.

Generally, the discrepancies were lowest at the end of the treatment (time three). Discrepancies rose slightly after time three but not significantly so. The changes which occurred tended to maintain themselves even after an eight week period.
III. SUMMARY OF ANALYSIS OF VARIANCE

The initial high scoring on some variables by Group 3 made it difficult to interpret some of the results (e.g., perceived self scores, projected self scores, and others' perceptions/projected scores).

However, one may conclude from the results that the T-group does have an influence on a number of variables. Participants actually see a T-group member more positively as a result of the experience. Related to this is the significant increase in the congruence between the perceived self and others' perceptions. This is a critical variable in dealing with accurate self-perception.

The ideal self and the perceived self become more congruent as a result of the T-group. This is verified by the fact that others see a person more like his ideal self as time in the T-group goes on.

Finally, discrepancy between the perceived self and the projected self becomes significantly less as a result of the T-group experience. This is another critical variable in accurate self-perception.

The peak of learning seems to be at the very end of the T-group experience, but the changes which occur as a result of the T-group do seem to maintain themselves even after an eight week period. A summary of the results of
the Duncan's Multiple-range test is presented in Table 18, page 102 and Table 19, page 103.

The next section involves an analysis of the critical incident questionnaire. Attempts will be made to link the critical incident outcomes to the statistical outcomes of the perceived self scores and the others' perceptions/perceived discrepancy scores.

IV. CRITICAL INCIDENTS ANALYSIS

The critical incidents are presented in the following manner: (a) A synthesis of the critical incidents for each day is presented. This is followed by an analysis of each day, i.e., the relation of the critical incidents to the perceived self score mean for each group. (b) The critical incidents are then related to the over-all change curves of the perceived self variable and the discrepancy between others' perceptions of self and perceived self. Similarities, differences, and patterns in the curves are compared with hypotheses generated from the critical incident responses.

In order to analyze the data, each incident was examined in relation to the following six categories:

a. The number of incidents is the number of unrelated incidents reported by participants. For example, in the course of an evening one incident may be reported on by
<table>
<thead>
<tr>
<th>Variable</th>
<th>1 (Exp.)</th>
<th>2 (Exp.)</th>
<th>3 (Exp.)</th>
<th>4 (Hawthorne)</th>
<th>Significant Differences p &lt; .01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Self</td>
<td>83.02</td>
<td>78.75</td>
<td>76.29</td>
<td>83.02</td>
<td>Group 3 from 4</td>
</tr>
<tr>
<td>Ideal Self</td>
<td>90.88</td>
<td>84.64</td>
<td>93.67</td>
<td>89.58</td>
<td>Group 2 from 1, 3, and 4</td>
</tr>
<tr>
<td>Projected Self</td>
<td>80.98</td>
<td>76.75</td>
<td>86.12</td>
<td>71.56</td>
<td>Group 4 from 1, 2, and 3</td>
</tr>
<tr>
<td>Others' Perceptions</td>
<td>82.68</td>
<td>77.16</td>
<td>85.13</td>
<td>72.31</td>
<td>Group 4 from 1, 2, and 3; Group 2 from 1, 3, and 4</td>
</tr>
<tr>
<td>Ideal/Perceived Discrepancy</td>
<td>7.86</td>
<td>6.43</td>
<td>5.69</td>
<td>13.29</td>
<td>Group 4 from 1, 2, and 3</td>
</tr>
<tr>
<td>Others'/Perceived Discrepancy</td>
<td>2.16</td>
<td>3.18</td>
<td>2.77</td>
<td>8.86</td>
<td>Group 4 from 1, 2, and 3</td>
</tr>
<tr>
<td>Others'/Ideal Discrepancy</td>
<td>6.13</td>
<td>7.25</td>
<td>3.70</td>
<td>14.94</td>
<td>Group 4 from 1, 2, and 3</td>
</tr>
<tr>
<td>Others'/Projected Discrepancy</td>
<td>4.38</td>
<td>3.27</td>
<td>1.83</td>
<td>6.92</td>
<td>Group 3 from 4</td>
</tr>
<tr>
<td>Variable</td>
<td>1 (Exp.)</td>
<td>2 (Exp.)</td>
<td>3 (Exp.)</td>
<td>4 (Hawthorne)</td>
<td>Significant Differences</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>---------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Perceived Self</td>
<td>74.39</td>
<td>83.08</td>
<td>86.86</td>
<td>82.25</td>
<td>Time 1 from 2, 3, and 4</td>
</tr>
<tr>
<td>Projected Self</td>
<td>72.06</td>
<td>78.93</td>
<td>84.80</td>
<td>79.61</td>
<td>Time 1 from 2, 3, and 4</td>
</tr>
<tr>
<td>Others' Perceptions</td>
<td>74.70</td>
<td>80.11</td>
<td>82.51</td>
<td>79.96</td>
<td>Time 1 from 2, 3, and 4</td>
</tr>
<tr>
<td>Ideal/Perceived Discrepancy</td>
<td>14.74</td>
<td>7.09</td>
<td>4.74</td>
<td>6.70</td>
<td>Time 1 from 2, 3, and 4</td>
</tr>
<tr>
<td>Others'/Perceived Discrepancy</td>
<td>6.74</td>
<td>6.02</td>
<td>3.28</td>
<td>0.92</td>
<td>Time 1 from 4</td>
</tr>
<tr>
<td>Others'/Projected Discrepancy</td>
<td>8.59</td>
<td>4.61</td>
<td>1.44</td>
<td>1.76</td>
<td>Time 1 from 3 and 4</td>
</tr>
</tbody>
</table>
seven participants, another incident reported by three participants, and three separate incidents each reported by one participant.

b. The focus of incidents relates to where the participants concentrate their attention, i.e., here and now, intellectual discussion, outside problems, etc.

c. The nature of feedback relates to the kind of interaction engaged in during the group. Confrontation (to face boldly) and feedback (sharing the effects on the self of another member's behavior) are two examples of this category.

d. The group-leader interaction reflects the centrality of the leader in the group interaction. For example, a leader may be mentioned in several critical incidents, or may never be mentioned.

e. The mean importance of session is the average of all the participants' individual ratings of impact of their reported incidents. A participant may rate the personal impact of an incident on a scale of one to nine; one being of least importance.

f. The ratings of eight or above refers to the nature of the impact the incident had on the individuals who rated its importance eight or above, on a scale of nine. Examples may be self-insight, feelings of power, or feelings of acceptance.
October 15

Group 1

Number of incidents: One main issue reported by ten; one sub-issue reported by four

Focus of incidents: Here and now interpersonal focus by the group

Nature of feedback: Feedback regarding the effect of behavior on group members

Group-leader interaction: Leaders active in feedback

Mean importance of session: 6.07

Ratings of eight or above: The five who rated the incident as highly significant experienced some self-insight into behavior.

Content: One member was questioned about his behavior and the way he responded became the central issue for the session. The process of giving feedback led to self-insight for several members. A side issue involving cutting off the leader emerged. This was reported as the most critical incident by four members of the group. The group members seemed to be testing one another, themselves, and the situation. The beginnings of self-awareness led to a mixture of feelings. Three people reported feeling incompetent and left out; four reported feeling helpful and central; others left thinking about themselves.
Group 2

Number of incidents: One issue reported by three members; the remaining six members each reported a separate incident.

Focus of incidents: Here and now interpersonal focus.

Nature of feedback: Confrontive, reacting to others and others' behavior.

Group-leader interaction: Leaders active and central in the reported central incident.

Mean importance of session: 5.91

Ratings of eight or above: Two people felt central in the group process; giving reactions to others.

Content: In four critical incidents the leader was central although the incidents were not connected. In each of these situations it was an interaction between one member and one of the leaders. The one issue which was reported by three people as critical also involved a confrontation between a leader and one of the group members. The group seemed to move fast with dyadic interchanges involving reactions to other group members. Except for one incident which was reported as a critical interchange between two people, dyadic interactions were reported by one person and not the other. Two attempts were made by individuals to provide structure, but both were rejected. Both individuals felt left out. The leaders seemed
sensitive to one another, each mentioning the role both of them played. One leader felt inadequate, the other very good by the end of the session. The session seemed to be very fast moving and direct, leaving some people (five) anxious about where to go from there.

Group 3

Number of incidents: One main issue reported by eight; one sub-issue reported by three; two separate incidents each reported by one

Focus of incidents: Intellectual discussion

Nature of feedback: Little personal feedback

Group-leader interaction: Group level interaction; leaders not active

Mean importance of session: 5.00

Ratings of eight or above: Four who felt accepted and had begun self-disclosure by relating to the discussion personally

Content: The main focus of the group was a discussion of racism. Three people related to this with personal feelings, the rest in an abstract way. It began by one group member suggesting that the T-group was a white activity. The group reacted defensively. The initiator felt "closed up." The discussion ended with feelings of being misunderstood or unfinished.

The second reported issue was on roles in our society.
The bulk of the evening was spent in dealing with these two emotional issues in an intellectual way. There was no expressed interpersonal interaction. Two people mentioned being touched or impressed with another person. However, this was not dealt with in the group. One leader felt active, the other passive and unimportant. The evening seemed to leave most people introspective and accepting of one another.

Similarities on the groups: In all three groups people seemed to be testing each other and the situation. It appeared that many were dealing with the question of what the experience would be like and how they could act in it.

Differences in the groups: Groups 1 and 2 appeared more similar in a variety of ways. Group 3 appeared more different.

1. In Groups 1 and 2, there was a focus on here and now data generated within the group. Group 3 was involved in an intellectual discussion with an outside focus.

2. The leaders appeared more active and central in Groups 1 and 2. This is especially true of Group 2.

3. A good deal of interpersonal feedback existed in Groups 1 and 2. This was not true in Group 3.

4. Groups 1 and 2 rated the incidents higher than did Group 3.
5. Groups 1 and 3 were similar in the number of incidents, whereas Group 2's focus was more dispersed.

Relationship to growth curve: After this first session, the growth curves changed only slightly in all three groups from the pre-session testing. Group 2 dropped slightly (two points) and Groups 1 and 3 had a slight (one point) increase.

A major difference is that the mean self-perception score for Group 3 is ten points higher than the other two groups at the initial testing. This difference was maintained after the first session.

October 16

Group 1

Number of incidents: Two main issues both reported by six people

Focus of incidents: Here and now interpersonal focus

Nature of feedback: Self-disclosure and interpersonal feedback

Group-leader interaction: Leaders central in process

Mean importance of session: 7.07

Ratings of eight or above: Three members who were involved in emotional disclosure; two reported connection with others and self-insight

Content: Continuing with the feelings generated by yesterday's interaction, a chain of events occurred. A
group member was feeling lonely and withdrawn. Another group member was sensitive to this and began to cry. This touched the central person of yesterday's interaction. He made a confession of not being straight with the group. One of the leaders then initiated the first nonverbal contact by hugging him. A feeling of clarity and warmth was reported. The second major incident involved tears also. A member, upset with her behavior yesterday, shared her feelings. Both these emotional incidents led to self-insight among other members who realized they were holding back, afraid of feelings. The day was an emotional and significant one with a general feeling of warmth and concern. Two members received some negative feedback and felt withdrawn. There were two mentions of attempts to include the more silent members.

Group 2

Number of incidents: One issue reported by four; five separate incidents

Focus of incidents: The major issue was an outside personal problem; others were involved with here and now behavior

Nature of feedback: Problem solving, interpersonal feedback

Group-leader interaction: Leaders central, mentioned in five critical incidents
Mean importance of session: 6.90

Ratings of eight or above: Those taking risks with sharing feelings ended feeling fully accepted.

Content: The group continued with leftover feelings of the night before. The one issue which gathered group attention was an outside problem, brought up by a group member. The group was helpful in working with this. The discussion raised similar issues with two other members. There was a good deal of both positive and negative feedback generated in the group resulting in reports of self-insight. The leaders were mentioned as being involved in five independent interactions. The day was very active and important. A lot of interpersonal reactions of a dyadic nature took place. In general, people felt involved.

Group 3

Number of incidents: One main issue reported by nine; four separate incidents

Focus of incidents: Outside problems

Nature of feedback: Self-disclosure

Group-leader interaction: Leaders not mentioned

Mean importance of session: 6.30

Ratings of eight or above: Those who did something in response to others

Content: A highly emotional day with the main focus
on two men. Both related incidents outside the group involving family. The first man related an incident, the second, in empathy, related a powerful experience resulting in the first man walking out in tears and the second very sad. The group was "broken up" with the sadness. They did not know how to respond nor handle the heaviness. Many felt compassionate but they were unable to share this. There was little feedback. Everyone was emotionally involved. The leader involved herself in comforting others. There was some mention of frustration of unexpressed personal behavior. For example, one member was afraid she would be thought of as guilty. The group ended with all members totally involved. The two main characters felt fully involved and accepted.

Similarities in the groups: There was generally more emotionality and more risking on the part of the members. The climate of warmth and trust seems to be developing and people seem less fearful. There were still some people trying to find a place. In each group, the impact ratings were a full point higher than the previous day.

Differences in the groups:
1. Groups 1 and 3 appeared more focused than Group 2. (See number of incidents reported.)
2. Groups 1 and 2 seemed more similar in terms of content, i.e., more here and now focus in contrast to
Group 3's incidents of the past. However, Group 2 did deal with one outside problem.

3. In terms of the focus and amount of interpersonal feedback, Groups 1 and 2 were more alike.

4. Groups 1 and 2 were alike in kinds of incidents, i.e., clearing up feelings from the night before and in terms of average importance.

5. In terms of leadership, in Groups 1 and 2 the leaders were more active, but Groups 1 and 3 were similar in that the leaders were involved in group interaction, as opposed to dyadic interactions in Group 2.

6. Groups 1 and 2 rated the importance of incidents higher than Group 3.

7. The emotionality and cohesiveness were more evident in Groups 1 and 3 than in Group 2.

Relationship to growth curve: Although the perceived self score means increased for all three groups, there was a sharper increase in Groups 1 and 3 than in Group 2. The key issue in the groups at this point was struggling with identity and membership, therefore the sense of groupness resulting from the emotionally-laden issues might account for the more rapid increase in Groups 1 and 3. Both Groups 1 and 3 focused their energies on one or two emotionally involving issues resulting in feelings of connectedness and acceptance.
October 17

Group 1

Number of incidents: One main issue reported by ten; one sub-issue reported by three; one separate issue

Focus of incidents: Highly emotional personal struggle, inclusion, and support

Nature of feedback: Here and now responses and feedback

Group-leader interaction: Group interaction with leader very active

Mean importance of session: 6.71

Ratings of eight or above: Seven experienced full involvement, emotional closeness to others, and self-insight

Content: Another emotional day. One member let go and cried heavily. This had a great impact on the group. They rocked and stroked her. A genuine connection was felt for the first time. Other members identified emotionally and also cried. At the suggestion of one of the leaders, the group members rocked her and all were emotionally and physically involved. The incident served as a vehicle for bringing in members heretofore uninvolved and led to significant self-insight for many.

A side issue occurred. One man felt the women in the group were not strong enough to lean on. This led to confrontation by another male and much feedback. The result
seemed to be a freeing for the men to be sensitive. The feedback in the session appeared direct and honest. People were pulling together to face problems. Everyone felt involved with the exception of one member who asked for feedback and did not receive it.

Group 2

Number of incidents: One main issue reported by five; four separate incidents

Focus of incidents: Interpersonal conflict, leadership struggle

Nature of feedback: Here and now responses and confrontive interpersonal feedback

Group-leader interaction: Heavy leader-group interaction

Mean importance of session: 6.90

Ratings of eight or above: Those who rated such felt fully involved and experienced some self-awareness; one felt left out and misunderstood

Content: This was a very active, significant day with more focused energy. The most critical incident was an emotional and physical confrontation between two strong women, one of whom was the leader. The incident was not worked through because of the need to maintain a "tough image." It left both feeling less spontaneous for the remainder of the day. The group was nervous. Several
reported feeling inadequate in their ability to respond helpfully to the situation.

Another incident reported questioning the leader's behavior in the above incident. The group rejected this and the confronter felt left out. There were two other reports of dyadic confrontation with the leaders leading to confusion, then to self-insight. It seemed obvious that everyone was very involved in the here and now interaction in the group. There was a hint of a need to be strong and sure in the group in order to be accepted. A confrontive style of interaction seemed to be the norm. A number of dyadic interactions left people with a mixture of feelings. Although most felt involved, three were feeling left out. One had not exposed herself. Another had used a personal problem outside the group as a way of giving feedback and this was not accepted. The third was the participant who had questioned the leader.

Group 3

Number of incidents: One main issue reported by six; seven separate incidents

Focus of incidents: Interpersonal conflict, inclusion, and support; here and now behavior

Nature of feedback: Confrontation followed by listening to and supporting others' feelings

Group-leader interaction: Listening to and supporting
others' feelings and interpersonal feedback; group interaction—leaders not central

Mean importance of session: 7.15

Ratings of eight or above: High raters were those who had taken some personal risk, either in the form of self-disclosure (four persons) or contact with another person (five).

Content: The morning was focused on a heavy attack of one member by another causing a good deal of pain. The hostility generated a lot of concern for many of the members. Incidents reported feelings of discomfort, fear, and a wondering about how they were seen. One member refused to come back if this type of confrontation continued. The group then broke for lunch. As if in reaction, the group was very supportive for the rest of the day. Four members expressed their feelings of having been left out, afraid, and hesitant to expose their feelings. The group responded with acceptance. The first nonverbal contact was experienced (hugging a hurt person). People gave feedback on here and now behaviors, most (except for three) felt fully involved. The first questioning of leader roles occurred. The leader responded by sharing his feelings. The mood of the afternoon seemed to be disclosure followed by response and support. People left feeling generally satisfied.

Similarities in the groups: A lot more dealing with
emotionality and confrontation in each group. Membership issues were still present, but some people were starting to feel more connected. There was focused energy in all three groups centering on individuals in a here and now setting. The day was very significant for all three groups.

Differences in the groups: Groups 1 and 2 had more focused energy. (See number of incidents.) Group 3 seemed to react to the morning's hostility with increased support and acceptance. They appeared to be "skimming the surface" giving only the positive feedback.

Group 2 was highly confrontive and competitive. Group 1 was involved in an intense emotional experience. The groups were different in the leader interactions. In groups 1 and 3 there was more group interaction. In Group 2 there was more emphasis on leader-group interaction and the norm seemed to be more confrontive. In Groups 2 and 3, leadership was more confronted.

Relationship to growth curve: Group three took a large dip in the way they saw themselves. Their control issue came up in this group and the group never worked it through. They felt contained and frightened by not dealing with the conflict. The dip in mean perception scores may reflect this. By not dealing with the situation, they felt less effective, less able to be strong.

Group 2 continued to deal with control; they did not
back down or give up. They struggled with the situation. The increase in the perception scores may reflect this continued struggle and increased feeling of strength.

Group 1's perceived self scores also continued to increase. They dealt with inclusion and affection with a good deal of emotionality.

The dealing with issues at hand might be a key. Groups 1 and 2 struggled through or stuck with issues at hand. Group 3, however, seemed to move away from conflict and therefore, felt less adequate, less sure.

October 18

Group 1

Number of incidents: One main issue reported by ten; four separate issues.

Focus of incidents: Concern about group sensitivity

Nature of feedback: Here and now interpersonal feedback

Group-leader interaction: Group interaction; leaders active but not central

Mean importance of session: 7.15

Ratings of eight or above: Felt good and accepted; three of the five had asked for feedback and received it

Content: The group felt less confident in its sensitivity to others. One key member who had been active in giving support to others needed some herself. The group
missed this. She had to ask for support, then punished the group for its lack of sensitivity. Stemming from this incident was identification with her. For example, three males disclosed that they had had trouble asking for and giving help. Feedback was asked for by some members and received. The group seemed to be working at a deeper level—people were left wondering and pensive. Identification with others seemed prevalent. The main character was left wondering what people thought of her. This was an important, emotional, yet pensive evening.

Group 2

Number of incidents: One main issue reported by six; three separate incidents

Focus of incidents: Outside problem

Nature of feedback: Problem solving—analysis of behavior patterns

Group-leader interaction: Leader key in the main critical incident

Mean importance of session: 6.90

Ratings of eight or above: Self-insight and the feeling of acceptance account for the six who rated the incident very high.

Content: A focused evening involving a role-play incident of a problem held by one of the group members. The leader played the part of the member who was dealing
with a love relationship. The leader really identified and instead of playing the member, played out a similar problem he was having. The group was very helpful to both, providing insight into behavior. The group ended late with some frustration expressed in filling out the critical incident forms. Once again, the same member confronted the leadership. Again, it was rejected by the group. The confronter became angry and withdrew. Two members were still feeling left out. The group ended with people generally feeling they had worked hard and were pleased with their helpful behavior. This was an important problem solving evening.

Group 3

Number of incidents: One main issue reported by seven; six separate incidents

Focus of incidents: Outside relationship problem

Nature of feedback: Problem solving focus on problem

Group-leader interaction: Group interaction with one leader more active in the process than the other

Mean importance of session: 5.75

Ratings of eight or above: Four who rated the incident high felt they had been central in the problem solving process

Content: The main focus was a relationship problem which one member was having outside the group. The group was active in trying to work it out. They generally felt
good about their individual and collective problem solving capabilities, with the exception of one member who thought they were advice-giving. Four members stated their contributions made them feel important, needed, and central.

There was a challenge of norms by two people. It was felt there was a norm of comfort and politeness. This was rejected by the group. The confronter of yesterday morning was not dealt with; he felt ambiguous, left out, wanting to go home.

The general feeling of the group upon leaving was a light, happy feeling. There was a realization that what happens in the group is the responsibility of the members. However, three members felt people were afraid to be real.

Similarities in the groups: All three groups appeared focused, listening, and responsive to individuals. They seemed to stick with an issue raised by an individual. There was one major issue in each group.

Differences in the groups: The focus of Group 1 was on here and now issues. (They were concerned with how they responded to one of the members.) Groups 2 and 3 had an outside focus involving one member's problem with an outside relationship. In Group 2, the leader was much more critical in the interaction than in the other two groups.

Groups 1 and 2 rated incidents as more significant than did Group 3.
The nature of feedback was somewhat different in the three groups. Groups 2 and 3 did more interpretation and some advice-giving as opposed to Group 1 which looked at effects of behavior on others in the group.

Groups 2 and 3 felt generally good about themselves and their problem solving capacities. Group 1 finished in a pensive mood.

Relationship to growth curve: The mean of the perceived self scores decreased in Group 1. This may be due to the reflection and sensitiveness that was occurring, and to the realization that they were not as sensitive to others as they had given themselves credit for. This is contrasted to Groups 2 and 3 who ended the evening feeling generally pleased with their capacity to solve problems. This is reflected in the increase in perceived self scores in Groups 2 and 3.

October 19
Group 1

Number of incidents: Three reported cooperation issue; three reported leadership issues; eight separate issues

Focus of incidents: Leadership, cooperation

Nature of feedback: Here and now interpersonal feed-back

Group-leader interaction: Basically group level
interaction, but leader was key in three critical incidents.

Mean importance of session: 6.91

Ratings of eight or above: Those six who rated the incident as high experienced self-insight; three of them had the group's attention.

Content: It was harder to pin down the focus of the group. There seemed to be several incidents. One leader felt not dealt with, exploded, and therefore, the leadership was dealt with. The incident ended with good feelings. There was a good deal of feedback and identification with others. One member who had felt left out disclosed this and felt accepted.

The other issue mentioned by three was a discussion on the need to cooperate in a general session which a few had resisted. Feedback was continual. The process moved steadily, dealing with one issue after another.

Group 2

Number of incidents: One issue reported by four; five separate issues

Focus of incidents: Abstract, dealing with issues in the group and here and now events

Nature of feedback: Discussion and interpersonal feedback

Group-leader interaction: Leaders less central but still mentioned by four in critical incidents.
Mean importance of session: 6.00

Ratings of eight or above: One person reported feeling strong and central. She had received feedback from the group.

Content: The group was a lot less active and focused. There was a discussion of how the strong and competitive women in the group affected the men. Strength seemed to be a premium value in this group. Those who reported feeling strong (five people) felt good. The leadership was confronted again by the same member. This time it was heard. The confronter felt better. Feedback on behaviors in the group was asked for and received. One member felt left out as a result of the feedback. In general, the evening appeared less active, yet involving. The group seemed generally comfortable with its operation.

Group 3

Number of incidents: One reported by four; one reported by four; five separate issues

Focus of incidents: Membership

Nature of feedback: Here and now, self-disclosure followed by response to member

Group-leader interaction: Group interaction, leaders not mentioned

Mean importance of session: 7.45

Ratings of eight or above: The five who rated the
incident highly all experienced self-insight into behavior and acceptance by others

Content: The main events included the struggling of two members and their efforts to get involved. The group tried to respond and to make them feel accepted. They generally felt inadequate in doing so. The incident led to identification and the realization that group members were also struggling. Five people mentioned wanting to reach out to others, to share their feelings, and realized they were holding back. The two members asking for help felt accepted and felt they had "something to work on."

There was little direct feedback, but many seemed to feel a connectedness with others which was recognized. There was one incident of nonverbal contact which was important to those involved. Generally, people felt a bond with one another and the struggling of the evening was important for all. The confronter of October 17 still felt not dealt with and unsure.

Similarities in the groups: The focus of issues in the groups was much different than on the 15th. Rather than dealing with one issue, there seemed to be a flow to interactions. One issue led to another.

There were still some members feeling left out and seeking inclusion. All three groups were giving here and now personal feedback. The groups continued to work on
issues. The groups were not dominated by one problem or by the leaders.

Differences in the groups: There was a different nature of interactions in the groups. Groups 2 and 3 gave more abstract feedback while Group 1 concentrated more on the direct effects of member behavior on one another.

For Group 3, this was the most important session of the experience. There was a great deal of self-realization.

Groups 1 and 3 seemed more intense than Group 2. There seemed to be more emotionality and higher impact in relation to the incidents reported. Group 2 felt more comfortable with itself.

There were differences in the kinds of insights experienced. Group 3 had the realization of not being honest or congruent in their interactions.

Group 1 experienced new understanding of exhibited behavior.

Group 2 dealt with unfinished business and inclusion. There was some new awareness of self through identification with others, but this was less than in the other two groups.

Relationship to growth curve: There was a slow increase in Groups 1 and 3 and a leveling off in Group 2. The slight differences might be related to Groups 1 and 3
developing new insights while Group 2 maintained a more comfortable level of activity.

October 20
Group 1

Number of incidents: One reported by eleven; one reported by two; one separate issue

Focus of incidents: Closure, intimacy

Nature of feedback: Here and now interpersonal feedback and sharing of feelings

Group-leader interaction: Group interaction with leaders a part of the interaction

Mean importance of session: 6.85

Ratings of eight or above: Those who asked for feedback and received group attention; four out of five members

Content: The main issue was that of closure. It began with one member speaking of outside experiences and how much the group had helped him. This caused an emotional reaction in the group. Largely, the reaction involved sadness, but two members expressed anger. Three people expressed an ambivalence about the role they had been playing in the group and asked for feedback.

The group seemed committed and concerned with each other. The emotionality caused feelings of confusion and reflection. The holding hands at the end brought tears to at least one member's eyes. The group ended with a feeling
of closeness, but reflection on self and what had happened in the group thus far. Five members reported leaving with a mixture of feelings, a closeness and yet feeling pensive.

Group 2

Number of incidents: One issue reported by five; four separate issues

Focus of incidents: Affection and support

Nature of feedback: Here and now interpersonal feedback

Group-leader interaction: Group interaction with leaders active

Mean importance of session: 5.80

Ratings of eight or above: The four who rated the incident as most important were those who received feedback on how they were coming across.

Content: A new way of working was tried in this session. The group focused its attention on the member who had been in the fight on October 17th. She was termed "a hard nut to crack." Direct confrontation did not work. The group tried understanding and support, and ended up by hugging her. Three people reported feeling good that they could be strong and soft at the same time. The central member was emotionally touched and left feeling introspective. The leaders were again confronted leading to feedback to the confronter. This resulted in his feeling
"weak." There was a lot of interpersonal feedback (upon request) to other group members.

The group left generally satisfied, but there was some wondering if everyone had gotten what they wanted from the experience. This was expressed by two people.

Group 3

Number of incidents: One issue reported by three; one issue reported by three; seven separate issues

Focus of incidents: Personal issues involving distrust

Nature of feedback: Discussion and self-disclosure

Group-leader interaction: Group centered interaction

Mean importance of session: 5.09

Ratings of eight or above: Only one rated the incident as high. He felt finally understood.

Content: There seemed to be some frustration operating in the group. The two issues discussed were: (a) the T-group as a white activity, and (b) the value of one to one versus group interaction. Stemming from these were a variety of feelings which were not shared. Three felt racism was finally looked at and they felt understood. Two members identified with a preference for one to one as opposed to group interaction. Two members said nothing happened. Two members felt left out.

There were attempts at negative confrontation which
were cut off. The confronters also felt cut off. One reported not being able to break the norm against anything negative. Two members who expressed their personal feelings felt good.

An atmosphere of non-directness and lack of spontaneity seemed to be operating. There was a "feeling of alienation" as expressed by one member. One leader felt inadequate, the other close to the group, but frustrated. The frustration was not directly expressed. The questioning and self-realization of not making the experience what they wanted took the form of frustration and reflection.

Similarities in the groups: All the groups dealt with closure in some way and the nature of the interaction was group centered.

Differences in the groups: Group 1 and Group 3 were more clearly dealing with closure while Group 2 continued to work on the effect of individuals on one another.

Group 2 was trying new approaches to problem solving.

Group 3 dealt with closure by expressing frustration at not having made the most of their experience.

Group 1 was feeling some sadness that a valuable experience was coming to an end.

Group 2 dealt with a problem person, Group 3 dealt with a group issue, while Group 1 dealt with a combination of both. Groups 1 and 3 involved the sharing of feelings
but not much feedback.

Relationship to growth curve: Closure seems to be related to a drop in perceived self scores. All three groups dipped in scores, but Groups 1 and 3 dropped radically. This may be related to a tightening before saying good-bye. Group 2 was still working on a task of unfinished business. Group 1 was sad and reflective while Group 3 was frustrated with their lack of honesty. Reflection usually involves some questioning, and consequently some tightening which may explain the greater dips in scores of Groups 1 and 3.

October 21

Group 1

Number of incidents: One reported by four; one reported by two; eight separate issues

Focus of incidents: Closure

Nature of feedback: Interpersonal feedback and disclosure

Group-leader interaction: Group interaction with leaders active in the process

Mean importance of session: 7.20

Ratings of eight or above: The five who rated the incident high experienced self-awareness and strong feelings of connection with others

Content: Saying good-bye was a hard experience for
some. The evening involved angry feelings and disagreement with norms. The leaders were helpful in breaking through this. It was admitted by a key person that "pushing away" was a reaction to painful good-byes. This led to a somewhat important insight and new awareness for people as they examined their own behavior. Four people mentioned the value of good-bye but also an anxiousness to close in order to try out new behaviors outside.

The focus of the session was on people examining their own and others' behavior. All were involved until the very end. The group ended with a sad closeness and recognition of learnings. Members seemed to have a futuristic approach; this was the beginning, not the end.

Group 2

Number of incidents: One reported by seven; two separate issues

Focus of incidents: Closure, celebration and some feedback

Nature of feedback: Interpersonal feedback and social

Group-leader interaction: Group interaction with leaders active

Mean importance of session: 5.14

Ratings of eight or above: One got positive feedback; one felt the group saw a new side of him through social interaction.
Content: There was feedback to one trainer who requested it. Little other work was done. The group broke out wine and guitars. A couple of people were left hanging but the general warmth overtook them. The group ended in a hug with two people feeling left out. They were invited in and felt better.

Group 3

Number of incidents: One reported by five; one reported by two; six separate issues

Focus of incidents: Closure

Nature of feedback: Sharing feelings

Group-leader interaction: Group interaction

Mean importance of session: 5.80

Ratings of eight or above: The five who rated the incidents high were those who revealed themselves to the group.

Content: A realization that the group was ending brought mixed feelings. Three people expressed sadness and the desire to continue. They felt a closeness and were somewhat disappointed in themselves for not going deeply enough. Two people waited until this evening to express disappointment in themselves for not being open with their feelings until now. Two people testified how much the group had meant to them and how much they had learned. As a result of the group, one woman had called her mother to
say how much she appreciated her. This touched the group.

The group returned to a discussion of racism. One woman expressed feelings which she had avoided expressing since the beginning. This made her, as well as others, more open.

One member still felt unsure about how he was perceived. It was a confusing separation. People felt the potential of the group and what it could be and were disappointed at not going further or being completely honest. There was a good deal of support of one another's feelings. The group left with a general feeling of warmth and connection.

Similarities in the groups: All three groups dealt with closure. People left generally feeling warm and connected.

Differences in the groups: Groups 1 and 3 dealt directly with the issue of closure, while Group 2 closed with a party. Group 1 experienced a lot of new learnings. Group 3 shared feelings.

Relationship to growth curve: Groups 1 and 3 jumped back up in perceived self scores. This may be due to new awareness and honesty in owning feelings. Group 2 rose also, but not as much. In all three groups there was a feeling of warmth and connectedness.
V. SUMMARY OF CRITICAL INCIDENT ANALYSIS

An attempt was made to determine what kinds of incidents account for changes in self-perception. To this end critical incidents were collected every day in conjunction with scores on the perceived self variable. An attempt was made to relate these incidents to the changes in self-perception. The self-perception scores for each day of the experience are plotted on Graph 10.

The results of the testing evidenced a general increase in perceived self scores over time (people saw themselves more positively). There was also a general decrease in the discrepancy between perceived self and others' perceptions scores.

An examination of the critical incidents indicates that feedback was becoming more frequent and more honest as time went on in all three groups. The critical incidents also suggest that the groups became more cohesive over time. Tables 20 through 26, pages 138-144, summarize the results of the critical incident data.

It seems logical to connect changes in perceived self scores with an increase in frequency and honesty of feedback and with an increase in the feeling of belonging in the group (cohesiveness).

A similar pattern occurred in both the perceived self scores and the discrepancy between perceived self
and others' perceptions scores. Between testing times one and two, the groups vary differently. Looking at the time one group interaction for perceived self (Graph 10), Group 3 rose on the 15th, dropped on the 16th, and rose again on the 18th. Group 1 rose on the 16th and 17th, and dropped on the 18th, while Group 2 rose steadily over all four days. After the 18th, the growth patterns of the three groups varied in the same way.

![Graph 10](image)

**GRAPH 10**

GROUP/TIME INTERACTION FOR THE PERCEIVED SELF VARIABLE
### TABLE 20
SUMMARY OF CRITICAL INCIDENT DATA
OCTOBER 15

<table>
<thead>
<tr>
<th>Category</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of incidents</td>
<td>1 by 10; 1 by 4</td>
<td>1 by 3*; 6 by 1</td>
<td>1 by 8; 1 by 3; 2 by 1</td>
</tr>
<tr>
<td>Focus of incidents</td>
<td>Here and now</td>
<td>Here and now</td>
<td>Intellectual discussion</td>
</tr>
<tr>
<td>Nature of feedback</td>
<td>Here and now</td>
<td>Confrontation</td>
<td>Little personal feedback</td>
</tr>
<tr>
<td>Group-leader interaction</td>
<td>Group interaction-leaders active</td>
<td>Central in critical incidents</td>
<td>Group level-leaders not active</td>
</tr>
<tr>
<td>Mean importance of the incidents</td>
<td>6.07</td>
<td>5.91</td>
<td>5.00</td>
</tr>
<tr>
<td>Ratings of eight or above</td>
<td>Self-insight</td>
<td>Felt central in process</td>
<td>Felt accepted; self-disclosure</td>
</tr>
</tbody>
</table>

*Refers to the number of incidents reported and the number of people referring to that incident as the most critical. For example, in column 2, 3 people reported the same incident, and there were six other incidents, each reported by one person.
### TABLE 21
SUMMARY OF CRITICAL INCIDENT DATA
OCTOBER 16

<table>
<thead>
<tr>
<th>Category</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of incidents</td>
<td>2 by 6</td>
<td>1 by 4; 5 by 1</td>
<td>1 by 9; 4 by 1</td>
</tr>
<tr>
<td>Focus of incidents</td>
<td>Here and now</td>
<td>Outside problem</td>
<td>Outside problem</td>
</tr>
<tr>
<td>Nature of feedback</td>
<td>Self-disclosure feedback</td>
<td>Problem solving, feedback</td>
<td>Self-disclosure</td>
</tr>
<tr>
<td>Group-leader interaction</td>
<td>Group interaction-central in process</td>
<td>Central in critical incidents</td>
<td>Not mentioned</td>
</tr>
<tr>
<td>Mean importance of the incidents</td>
<td>7.07</td>
<td>6.90</td>
<td>6.30</td>
</tr>
<tr>
<td>Ratings of eight or above</td>
<td>Emotional disclosure</td>
<td>Taking risks and sharing feelings</td>
<td>Responding to others</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Table 22

**SUMMARY OF CRITICAL INCIDENT DATA**

**OCTOBER 17**

<table>
<thead>
<tr>
<th>Category</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of incidents</strong></td>
<td>1 by 10; 1 by 3; 1 by 1</td>
<td>1 by 5; 4 by 1</td>
<td>1 by 6; 7 by 1</td>
</tr>
<tr>
<td><strong>Focus of incidents</strong></td>
<td>Support; Inclusion</td>
<td>Conflict; leadership struggle</td>
<td>Conflict; inclusion and support</td>
</tr>
<tr>
<td><strong>Nature of feedback</strong></td>
<td>Here and now</td>
<td>Here and now; confrontive</td>
<td>Here and now; confrontive then supportive</td>
</tr>
<tr>
<td><strong>Group-leader interaction</strong></td>
<td>In group interaction; very active</td>
<td>Central in group critical incidents</td>
<td>Not mentioned</td>
</tr>
<tr>
<td><strong>Mean importance of the incidents</strong></td>
<td>6.71</td>
<td>6.90</td>
<td>7.15</td>
</tr>
<tr>
<td><strong>Ratings of eight or above</strong></td>
<td>Emotional closeness; self-insight</td>
<td>Felt fully involved</td>
<td>Personal risk</td>
</tr>
<tr>
<td>Category</td>
<td>Group 1</td>
<td>Group 2</td>
<td>Group 3</td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------------------------</td>
<td>----------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>Number of incidents</td>
<td>1 by 10; 4 by 4</td>
<td>1 by 6; 3 by 3</td>
<td>1 by 7; 6 by 6</td>
</tr>
<tr>
<td>Focus of incidents</td>
<td>Concern about sensitivity</td>
<td>Outside problem</td>
<td>Outside problem</td>
</tr>
<tr>
<td>Nature of feedback</td>
<td>Here and now</td>
<td>Problem solving</td>
<td>Problem solving</td>
</tr>
<tr>
<td>Group-leader interaction</td>
<td>Group interaction-</td>
<td>Key in critical</td>
<td>Group interaction-</td>
</tr>
<tr>
<td></td>
<td>active, not central</td>
<td>incidents</td>
<td>one leader was more active</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>in process than other</td>
</tr>
<tr>
<td>Mean importance of the</td>
<td>7.15</td>
<td>6.90</td>
<td>5.75</td>
</tr>
<tr>
<td>incidents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratings of eight or</td>
<td>Accepted; received</td>
<td>Self-insight</td>
<td>Central in problem solving</td>
</tr>
<tr>
<td>above</td>
<td>feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Group 1</td>
<td>Group 2</td>
<td>Group 3</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------------------</td>
<td>-----------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Number of incidents</td>
<td>1 by 3;</td>
<td>1 by 4;</td>
<td>1 by 4;</td>
</tr>
<tr>
<td></td>
<td>1 by 3;</td>
<td>5 by 5</td>
<td>1 by 4;</td>
</tr>
<tr>
<td></td>
<td>8 by 8</td>
<td></td>
<td>5 by 5</td>
</tr>
<tr>
<td>Focus of incidents</td>
<td>Leadership; cooperation</td>
<td>Abstract</td>
<td>Membership</td>
</tr>
<tr>
<td>Nature of feedback</td>
<td>Here and now</td>
<td>Discussion and feedback</td>
<td>Here and now; disclosure</td>
</tr>
<tr>
<td>Group-leader interaction</td>
<td>Leader key in critical</td>
<td>Group interaction-</td>
<td>Not mentioned</td>
</tr>
<tr>
<td></td>
<td>incidents</td>
<td>central but less so</td>
<td></td>
</tr>
<tr>
<td>Mean importance of the</td>
<td>6.91</td>
<td>6.00</td>
<td>7.45</td>
</tr>
<tr>
<td>incidents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratings of eight or above</td>
<td>Self-insight; received</td>
<td>Felt strong; central</td>
<td>Self-insight; felt accepted</td>
</tr>
<tr>
<td></td>
<td>group attention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Group 1</td>
<td>Group 2</td>
<td>Group 3</td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------------------------</td>
<td>----------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>Number of incidents</td>
<td>1 by 11;</td>
<td>1 by 5;</td>
<td>1 by 3;</td>
</tr>
<tr>
<td></td>
<td>1 by 2;</td>
<td>4 by 4</td>
<td>1 by 3;</td>
</tr>
<tr>
<td></td>
<td>1 by 1</td>
<td></td>
<td>7 by 7</td>
</tr>
<tr>
<td>Focus of incidents</td>
<td>Closure;</td>
<td>Affection and support</td>
<td>Personal issues</td>
</tr>
<tr>
<td></td>
<td>intimacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature of feedback</td>
<td>Here and now</td>
<td>Here and now</td>
<td>Discussion; Self-disclosure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group-leader interaction</td>
<td>Group interaction-</td>
<td>Group interaction-</td>
<td>Group interaction-</td>
</tr>
<tr>
<td></td>
<td>active not central</td>
<td>active not central</td>
<td>one leader active</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean importance of the</td>
<td>6.85</td>
<td>5.80</td>
<td>5.09</td>
</tr>
<tr>
<td>incidents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratings of eight or</td>
<td>Received group attention</td>
<td>Received feedback</td>
<td>Felt understood</td>
</tr>
<tr>
<td>above</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# TABLE 26

**SUMMARY OF CRITICAL INCIDENT DATA**

**OCTOBER 21**

<table>
<thead>
<tr>
<th>Category</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of incidents</strong></td>
<td>1 by 4;</td>
<td>1 by 7;</td>
<td>1 by 5;</td>
</tr>
<tr>
<td></td>
<td>1 by 2;</td>
<td>2 by 2</td>
<td>1 by 2;</td>
</tr>
<tr>
<td></td>
<td>8 by 8</td>
<td></td>
<td>6 by 6</td>
</tr>
<tr>
<td><strong>Focus of incidents</strong></td>
<td>Closure</td>
<td>Closure; celebration</td>
<td>Closure</td>
</tr>
<tr>
<td><strong>Nature of feedback</strong></td>
<td>Feedback; disclosure</td>
<td>Feedback; social</td>
<td>Sharing feelings</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Group-leader interaction</strong></td>
<td>Group interaction- leaders active</td>
<td>Group interaction- leaders active</td>
<td>Group interaction- one leader active</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mean importance of the incidents</strong></td>
<td>7.20</td>
<td>5.14</td>
<td>5.80</td>
</tr>
<tr>
<td><strong>Ratings of eight or above</strong></td>
<td>Self-awareness; high degree of connectedness</td>
<td>Seeing a new side of others</td>
<td>Revealed self to group</td>
</tr>
</tbody>
</table>
This is true also in the others' perceptions/perceived self discrepancy results. Group 1 and 2's discrepancy lessened between October 15th and 18th, while Group 3's rose. After this point all three groups lessened in discrepancy.

The critical incidents indicated a number of things which may explain this. Over the weekend all three groups seemed to be struggling with inclusion and control. Norms were being established, people were seeking identity, and directions were being set. After the 18th, there seemed to be more of a group sense of connectedness among members. People settled in to work on tasks. There was more steady involvement and interpersonal feedback was more evident in all three groups. Also true was the fact that the members began to work collectively on problems.

The growth curve for Group 3 was the most erratic. This may be explained by the fact that when an issue was touched upon and not worked through, they felt less good, less effective, and less able. This was reflected in a dip. The norm against conflict may have produced less direct feedback, therefore the susceptibility to drops in scores where conflict evidenced itself in the group. The group did not work the conflict through. Looking at the discrepancy between others' perceptions and self-perceptions in Group 3, there is an increase between testing
times one and two. This may be explained by the group starting on an abstract intellectual level and the avoidance of directly dealing with emotionally-laden issues. When abstraction moved to feedback, the discrepancy score began to fall. By the end of the experience, the scores were identical to those at the beginning of the group.

Group 2 rose continuously in their perceived self scores between testings one and two, then seemed to level off until the end of the experience. The critical incidents gave the impression that Group 2 was active, fast moving and dramatic between testing times one and two. The average of the mean impact of incidents was almost a point higher (6.67) for the first four days as opposed to the last three days (5.86) of the experience. After the 18th, the group settled in to work on its task in a seemingly systematic way, i.e., feedback continued steadily but the incidents did not seem as emotional. The increase in systematic interpersonal feedback is reflected in the more dramatic lessening of discrepancies between testing times two and three in the others' perceptions/perceived self variable.

The perceived self scores in Group 1 dipped below the previous session at two points during the experience. On both of these days, the critical incidents indicate feelings of disappointment in members' sensitivity and a
pensive questioning of self. The group showed a rise in perceived self scores between October 15th and 17th. The critical incidents suggested a satisfaction among group members of the group's problem solving capacities and sensitivity to others. On the 18th, however, the group realized it had not been as sensitive as members had assumed. A similar reflective incident occurred on the 20th of October. However, due to the fact that here and now feedback and the willingness to deal with issues was present from the beginning, the perceived self scores never dropped below the initial scorings.

Group 1 and Group 2 had followed a similar configuration in the discrepancies between others' perceptions and self-perceptions. Group 1 dropped a point more than Group 2 in discrepancies on this variable between testing times one and two. From the beginning, there was not only a here and now focus in feedback for Group 1, but also there was more agreement on the critical incidents. Group 1 focused on one or two issues whereas Group 2 focused on several. This may explain the slight discrepancy between the two groups.

An attempt to relate the growth curves to data from the critical incidents suggests a number of hypotheses.

Dips in perceived self scores seem to be related to periods of questioning or feelings of inadequacy. This is
evidenced by the critical incidents of both Groups 1 and 3. When Group 1 discovered they were less effective than they thought, their scores dropped. Group 3's scores dropped when they did not know how to respond to a situation. Another hypothesis is that failure to deal with an issue results in drops in perceived self scores (Group 3). This also may lead to a wondering about adequacy and a questioning of self.

Another interesting hypothesis is that as trust in the group builds "failure" on the part of a group member is not reflected in his perceived self score or the way others see him. The perceived self scores continue to rise and the discrepancies between others' perceptions scores and perceived self scores lessen, despite the fact that the person or group may feel inadequate, left out, or controlled.

On an individual basis, it was found that those who rated the impact of the incidents eight or above were those who had new insights into their behavior, were significant or central in helping someone else, or had group attention, i.e., feedback or self-disclosure.
CHAPTER V

DISCUSSION

The purpose of this chapter is to further discuss and examine the conclusions and implications of this study. To this end, the chapter is organized in the following way: 
(a) rationale and summary of the study, (b) conclusions and implications of the study dealing first with the empirical, then the critical incident results, and (c) limitations of the study and suggestions for further research.

I. RATIONALE AND SUMMARY

According to the perceptual psychologists (Combs & Snygg, 1959; Jourard, 1968), the way a person sees himself is the key factor in the way he perceives the world. It is a person's self-perception and perceptions of his environment that are the determinants of his behavior. To be effective one must be accurate in his perceptions of others and self; most certainly of self. Accurate knowledge of self and one's effect on others permits more precise behavior. To be fully open to accurate perceptions one must experience an environment where one is challenged but not threatened, and where one can receive undistorted feedback on the results of his actions. The T-group seems to meet these requirements.
The research done on accurate self-perception in the T-group has proven equivocal. Much of this is due to methodological difficulties. For example, Burke and Bennis (1961) and Peters (1966) have shown the T-group to be effective in increasing self-perception (shown by movement of the perceived self toward the ideal self), and the development of accurate self-perception (self-perception validated by others). On the other hand, Gassner et al. (1964) and Carson and Lakin (1963) have shown no difference between experimental and control groups on the self-perception variables.

It was the intent of this study to investigate accurate self-perception. The second intent was to gain further insight into the changes in self-perception through analysis of the critical incidents which occur in the T-group.

The population was made up of graduate students at the University of Massachusetts who wished to be enrolled in an intensive group course. The students were stratified according to sex and randomly assigned to the four groups (three experimental and one Hawthorne). The Hawthorne group was promised enrollment in the course the following semester. The Hawthorne group met on the four testing dates for a leader centered discussion on group issues. The same instruments to measure changes were used in all
four groups.

A time trend design was used to trace learnings throughout the experience. Measures were taken the first day, after an intensive weekend, the last day, and after eight weeks. The experience itself lasted seven days. The majority of time was spent in small unstructured groups with large group meetings for theory and skill sessions. The focus of the experience was on the individual and his interaction with others.

The semantic differential and critical incident forms were developed particularly for this study. These forms took into consideration simplicity, shortness of time to administer, applicability to the situation, and sensitivity to change.

An analysis of variance was done on the data collected with the SD for each of the nine dependent variables. Additional analysis was done on each group separately to help clear the confusion caused by the initial high scorings of experimental group 3. Reasons for the difference at the initial testing are unknown. The F values derived from the analysis of variance for each of the nine variables are presented in Table 27. Where the F values were significant at the .01 level a Duncan's Multiple-range test was used to determine the source of the difference.

The critical incidents were categorized and analyzed
in relation to scores on the perceived self variable and the discrepancy variable between others' perceptions and perceived self scores. The results of both the critical incidents and semantic differential are discussed in the following section.

TABLE 27
F VALUES FOR THE ANALYSIS OF VARIANCE ON THE NINE DEPENDENT VARIABLES

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Time</th>
<th>Group X Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Self</td>
<td>14.97</td>
<td>14.21</td>
<td>1.16</td>
</tr>
<tr>
<td>Ideal Self</td>
<td>10.36</td>
<td>1.71</td>
<td>0.61</td>
</tr>
<tr>
<td>Projected Self</td>
<td>19.16</td>
<td>13.62</td>
<td>1.02</td>
</tr>
<tr>
<td>Others' Perceptions</td>
<td>28.25</td>
<td>9.24</td>
<td>0.80</td>
</tr>
<tr>
<td>Ideal/Perceived</td>
<td>7.75</td>
<td>13.04</td>
<td>1.27</td>
</tr>
<tr>
<td>Others' Perceptions/Perceived</td>
<td>5.17</td>
<td>3.85</td>
<td>1.36</td>
</tr>
<tr>
<td>Others' Perceptions/Ideal</td>
<td>7.40</td>
<td>1.03</td>
<td>0.67</td>
</tr>
<tr>
<td>Projected/Perceived</td>
<td>0.73</td>
<td>2.75</td>
<td>0.90</td>
</tr>
<tr>
<td>Others' Perceptions/Projected</td>
<td>3.66</td>
<td>8.75</td>
<td>1.69</td>
</tr>
</tbody>
</table>

F (.01, 3, 184) = 3.78
F (.05, 3, 184) = 4.28
II. CONCLUSIONS AND IMPLICATIONS

This section includes a discussion of the results of the statistical analysis. It seemed helpful to summarize and explore implications of the empirical data apart from the critical incident findings. The implications of the empirical data suggest outcomes as a result of the T-group experience, while the critical incidents give some notion of the process of the experience and how it might be related to change in perceptions.

**Semantic Differential Data**

Although the specific focus was on the accuracy of self-perception, this study also measured changes in self-perception. It was hoped that as a result of the T-group experience, self-perception scores would increase. (The increase is based on values commonly held for T-groups.) The scales were weighted one to five, with five being more positive. Examples of weightings are: Controlled (rated one) vs. spontaneous (rated five); cold (rated one) vs. warm (rated five); and rigid (rated one) vs. flexible (rated five). Results on the perceived self variable were unclear due to the fact that Group 3 began significantly higher (pretest score) than did the other groups. Group 3 gained relatively little over time (three points) in comparison to Groups 1 and 2 (17 and 13 points respectively).
One possible explanation for this may be that they also learned, i.e., their perceptions became more accurate as time went on, thus resulting in proportionately less gain. All the experimental groups ended in similar places. The groups did change significantly after time one, thus being significantly higher at the end of the experience.

This change over time is verified by the changes in the discrepancies between others' perceptions of self and self-perceptions (perceived self). Accuracy in self-perception increased as shown by the decreases in the discrepancy between the way others saw an individual and the way he saw himself. Group 3 increased in discrepancy while Groups 1 and 2 decreased between time one and time two. Here again, the initial inflated scores may be becoming more realistic over time.

The discrepancy between the ideal self and the perceived self lessened. It is the perceived self which moved closer to the ideal self. A pretesting of the ideal self indicated that people entered the T-group experience with an image or a goal toward which they wished to work. This ideal image maintained itself throughout the experience, while the perceived image became more like the ideal. Here again Group 3 started with lower discrepancies but ended in a similar place to the other two experimental groups. Thus one may assume their perceptions became more accurate.
The fact that T-group members move closer to their ideal selves was verified by the significant lessening of discrepancies between others' ratings and ideal self ratings. The changes involving the projected self variable were slight. Although discrepancies between the way a person thought most other T-group members saw him and the way they actually did see him did go down some over time, the differences between groups was not significant. There was no difference in the discrepancies between the projected self scores and the perceived self scores. This is to be expected, because as self-perception increases so does projected self. The way one thinks others see him is a product of the way he sees himself.

Learnings were generally at their peak by the end of the experience. They tended to fall slightly after the experience, but the differences remained significant even after an eight week period.

This study supports the findings of Burke and Bennis (1961), Peters (1966), and others that the T-group was effective in lessening the discrepancies between others' perceptions and self-perceptions of its members. The study supports the hypothesis that perceptions of self become more accurate as a result of a T-group experience. Since accurate self-perception is a key variable in effective behavior, these findings have broad implications.
Generally the T-group helps people experiment with behaving in a manner more consistent with what they feel, i.e., behave in a less guarded way. The T-group also brings intensive contact with people producing a rich rewarding life experience (Euber, 1958) in which the individual clearly establishes his identity. This is critical in a society characterized by alienation and anxiety (Jourard, 1964). In striving to protect himself in an alienated environment, man becomes isolated and frightened to risk unknown relationships and unknown behaviors. His perceptions are narrow and subject to distortion (Jourard, 1968). The environment is not conducive to new learnings that depend on a non-threatening atmosphere and undistorted supportive feedback. If common experiences were more like those in a T-group we would likely not have as great a need for therapy. Accurate self-perceptions lead to a feeling of adequacy with the person feeling equipped to face life effectively.

Also of critical importance, are the results which suggest that the T-group is effective in helping participants view themselves more positively. If one feels positively about himself, he is more likely to behave in positive ways, more likely to be open to new experiences, and more likely to perceive events in an undistorted accurate way. If one agrees that people are striving to grow, it is
important that the opportunities for growth are available. The T-group seems to provide such opportunities for growth in self-perceptions. The fact that the ideal self did not change, suggests that we want to see ourselves positively. The T-group seems to enable this to happen. The fact that the ideal self did not change also suggests that people share values of openness, support, and warmth. The T-group gives an experience which incorporates and stresses these values.

A wider use of T-groups and groups using T-group elements such as non-evaluative feedback, freedom to experiment, etc. may be an instrument in changing societal norms of human interaction. The use of elements of the T-group is important in schools (student centered learning) as an educational strategy. The aim is to provide an atmosphere where youngsters view themselves as valuable beings with the freedom to experiment, make mistakes and learn from them. The most effective learning takes place where one feels safe to risk and where information is undistorted. In such an environment, a student may learn to see himself and his world more accurately, thus providing him with a powerful tool with which to face the world—himself.

The study supports the assumption that the T-group may be used as an effective training tool for those in the helping professions. The helping professions include such
positions as physician, teacher, counselor, and therapist. The helping relationship is dependent on a sensitivity to self and others, authenticity, and congruence between behavior and feelings. It is critical for those in the fields to know the effects of their behavior on others (Rogers, 1954). It is also critical for those in the helping professions to be able to create a non-threatening learning environment which encourages others to grow. Those who have experienced such an environment (as in a T-group) and know its effects, are better able to recreate it for others. The creation of a supportive environment is critical in every helping profession. The teacher must know his effects on his students, the therapist on his patient, and the counselor on his client.

The T-group may also be an effective training tool for leaders. Bennis (1964) and Argyris (1962) stress the need for leaders to be sensitive to self and others. Effective leadership requires one to be able to diagnose situations and act accordingly. This is dependent on accurate information or perceptions. Unless a leader feels adequate and secure and willing to test, he will generate little faith in his followers. He must feel free to test his perceptions. Inaccurate or distorted perceptions produce inaccurate or ineffective behaviors. A leader must have an accurate view of himself and his effect on others.
Critical Incidents Data

The critical incidents were organized into six categories:

(a) Number of incidents
(b) Focus of incidents
(c) Nature of feedback
(d) Group-leader interaction
(e) Mean importance of session
(f) Ratings of eight or above

The reports for each group were synthesized and compared each day. Similarities and differences between groups were analyzed and related to the growth curves of the perceived self variable. Critical incidents were also related to the discrepancy curve on the others' perceptions/perceived self variable. General learnings included the following:

(a) Drops in the perceived self scores were related to feelings of inadequacy or questioning or with the failure to deal with issues which arose;

(b) As time went on "failure" was less likely to result in decrease in perceived self scores of a T-group member;

(c) As group cohesiveness and trust grew, feedback became more systematic. The growth curves on the perceived self variable and the discrepancy between others'
perceptions and perceived self became less erratic;

(d) The feedback process generated new insights into behavior which led to more accurate self-perceptions. The importance of this feedback was illustrated by the fact that those who received feedback tended to rate the incident eight or above;

(e) The impact was greater when the problems dealt with were those focused on the here and now.

The purpose of the Critical Incident Questionnaire was to shed some light on the events surrounding changes in self-perception. The results suggest some implications for T-group trainers and members as well as for group situations in general. Once a sense of trust and identity with the group was established, a member was more likely to risk new behaviors. Negative feedback did not result in a need to withdraw and protect oneself. Trust and a supportive climate seem to have been the key issues here. Until trust was established, scores on self-perception were erratic. The implication for training is the need for the trainer to concentrate on building a safe, yet authentic environment. Modeling behavior by the trainer may be the key. This is suggested by the sensitivity of the T-group members to trainer behaviors (as reported by the critical incidents).

After periods of intensity the scores of the perceived self variable tended to decrease. These decreases seem to
approximate those of any normal activity curve. Periods of intensity are generally followed by a slowing down or relaxation. There may be a tendency among inexperienced trainers to be concerned during these periods, however, the results of this study suggest this is a normal process.

The critical incidents indicate that failure to deal with difficult or painful issues may lead to feelings of frustration and inadequacy. The trainer would do well to be aware of this and urge the group to deal with issues as they arise. The trainer must be willing to take a stand and model risk taking behavior.

Finally, the use of the Critical Incident Questionnaire itself seems to have been a beneficial intervention. Several group members reported that in filling out the critical incident form they focused on the significant personal learnings of the sessions and were able to explore feelings they were not in touch with during the experience. Several expressed a desire and later did share these learnings with the group. It seems to have been an opportunity to personally trace their development. The use of such forms which highlight personal processes may be a helpful tool in increasing accurate self-perception.

The critical incidents suggest that a warm and supportive climate is necessary for persons to experiment with their behavior. The study further suggests that a person
is more apt to experiment when he feels a part of the group, where he trusts the other people with whom he is involved. These results are especially applicable to the helping professions. For example, education is defined as a growth process, yet in the traditional classroom little attention is paid to these growth inducing conditions. Instead of helping one another, students are taught to compete. The strict rules on sharing answers and the competitive grading system are examples of possibly limiting rather than enhancing conditions.

Our educational system has not proven successful for many youngsters. Students "drop out" or fail in the system. Those who succeed (graduate) often have a limited view of themselves and their competence. Our society stresses the importance of education, yet the educational system itself may be guilty of creating conditions which impede rather than enhance growth.

The critical incidents suggest that feedback is crucial in the development of accurate self-perception. Undistorted, supportive feedback about the effects of one's behavior is critical for changing behavior. Yet outside the T-group it is difficult to find situations in which this is encouraged. In education, counseling, therapy, or any situation which strives to generate the growth of another individual, this is necessary.
The critical incident technique is a useful way to become aware of the focus of concerns. It is not only beneficial in the T-group, but may be useful in other settings as well. Their use in the classroom or in work situations would be invaluable.

The critical incidents illustrate that feelings of failure and inadequacy become less dramatic as the group becomes more cohesive. From this one may deduce that it is important not to back away from painful or difficult situations. This rule may apply for anyone in a helping or leadership position as well as more globally in everyday life.

III. LIMITATIONS OF THE STUDY AND SUGGESTIONS FOR FURTHER RESEARCH

Limitation:

A legitimate question posed to any change strategy is whether the learnings are transferable beyond the confines of the learning experience. The T-group does not escape this crucial question. This study made no attempt to answer it.

Suggestion:

A replication of the study may be done with follow-up of the participants in other groups to which they belong. The participants may be asked to choose a group which they are affiliated with and report how they see themselves
operating in that group. This may be cross validated by others. The participants may also collect the above information from groups to which they concurrently belong.

Limitation:

This study indicates that learnings persist eight weeks after the end of the experience. However, it is unknown whether the decreasing impact of the experience will eventually result in scores which would approximate the initial testing scores of the individuals.

Suggestion:

A follow-up done six-eight months after the end of the experience may give a more accurate picture of the learnings actually internalized as a result of the T-group.

Limitation:

For unknown reasons, Group 3 scored higher than the other groups on a pretest of the perceived self variable. This made interpretation unclear in some cases.

Suggestion:

A replication of the study with pretests on all variables and a larger sample may eliminate some confusion in interpretation. Another way to deal with the problem would be to use an analysis of covariance. This was not possible in this study because there was no pretest data available for the Hawthorne group.
Limitation:
The sample was drawn from a particular population (graduate students), therefore it is unfair to generalize the results beyond this particular group.

Suggestion:
A duplication of the study involving a different population would allow for more generalization of results.

Limitation:
The analysis of the critical incidents was based on the clinical judgement of two persons.

Suggestion:
A refinement of the Critical Incident Questionnaire to enable one to quantify more of the data and correlate it with changes in the dependent variables would limit the subjectivity inevitably involved.

Further research may also involve a factor analysis of the semantic differential data in relation to the critical incident results. This would further clarify the process operating in the group. In addition, the leaders may be analyzed separately with a factor analysis of their scores studied in relation to those of the rest of the group. This would help determine more specifically the influence of the trainers on the participants.

In conclusion, it seems safe to urge that educators, counselors and others in the helping professions take
seriously the potential of the T-group as an important tool. The process which seems to be effective in promoting self growth is characterized by collaborative, supportive values. These are often contradictory to the operation of many of our social systems, yet they seem to have a powerful influence on encouraging positive growth.

The values and the process of the T-group therefore, may help us move not only toward our ideal self, but also toward our ideal society.
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APPENDIXES
APPENDIX A
Course Description and Goals

This course is primarily intended to be a laboratory training experience which will focus on personal and group development. The major part of the classroom time will be devoted to T-group sessions which will provide an opportunity for each participant to: develop a greater insight into himself and his personal value system and an awareness of his impact on other people; increase his sensitivity to the feelings of others and his understanding of the behavior of others and how this affects him; examine and experience the forces that operate in a group as well as his own effectiveness in assuming roles that are needed in building and maintaining a group; and to relate the small group experiences to the process of change, motivation, leadership, organization and larger social systems. Outside reading, theory and skill sessions in class, and observation of other groups, hopefully will contribute to an understanding of group dynamics theory and practice as well as to individual development.

Expectations. The following list represents our ideas about reasonable and purposeful activities which should be minimum expectations from all class members. If you intend to deviate from these, please suggest your alternatives in writing by Monday, October 18. Otherwise we will assume that everyone intends to follow these suggestions.

1. Involvement in class.

2. Maintain a group log. (This should be written immediately after each group session and should include your perceptions about yourself, others, and the dynamics operating in the group.) Good examples of group logs can be found in Lifton, Working with Groups.

3. Lab reports. These should be relatively short (approximately 3 pages) focusing on your personal experience related to the group. Be sure to complete them on the due dates: (a) Report #1--due Wednesday, October 20. This report should focus on your personal growth in the group up to this point. How, what, when, and why might be helpful questions to ask yourself. (b) Report #2--due Wednesday, October 29. This report should focus on relating your group experience and learnings to your relationships and activities outside of the group.

4. Reading program. Everyone should read the materials handed out in class and the text books. It is hoped that everyone will develop an extensive reading program
beyond these minimums. One of the major purposes of the reading is to try to relate it to classroom experiences, observations of other groups, and to develop some understanding of the theory and research related to group dynamics.

5. Final paper. Due Monday, December 6. This should be a relatively extensive paper relating your class experience to the theory and research in group dynamics. What happened in your group to you, others, and to the group as a whole? How does that fit with the literature, how deviate, etc.?

Grades. Because of the nature of this course it would be preferable if everyone could operate with the pass-fail system, however, for those of you who must have a grade (regular masters students only) please indicate in writing by October 18 that you do need a letter grade and the suggestions you have for determining what that grade should be.

Class schedule. The schedule for 915, section 1, 2, and 3 will be: First class meeting as scheduled on Wednesday, September 15 from 1:25 to 5:00 p.m. The schedule for the remainder of the course is:

(Room 904-908--Campus Center)

October 15 (Friday)--7:00 to 11:00 p.m.

October 16 (Saturday)--all day and evening
October 17 (Sunday)—9:00 a.m. to 5:00 p.m.
October 18 (Monday)—7:00 to 11:00 p.m.
October 19 (Tuesday)—7:00 to 11:00 p.m.
October 20 (Wednesday)—7:00 to 11:00 p.m.
October 21 (Thursday)—7:00 to 11:00 p.m.
October 22 (Friday)—7:00 to 11:00 p.m. (party)

Follow-up sessions

November 3 (Wednesday)—1:25 to 5:00 p.m.
December 15 (Wednesday)—7:00 to 11:00 p.m.

Lab fee. In order to cover cost of rooms of the campus center and reading materials there is a lab fee of $5.00. It is important that everyone pay this fee at the Student Union prior to October 8th. Please turn in the receipt to Karen (secretary in Wysocki House) on or before that date.

Research. As part of the course design, we are conducting some research which will require all of us to fill out some questionnaires regularly.
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* The way I actually am in this T-group.
   The way I would like to be in this T-group.
   The way I think most others in this T-group see me.
   Name of another person (six other persons rated each time)

** The scales of the semantic differential are weighted on a continuum from one to five with one being the least desirable. The loadings are based on desired outcomes of T-group learnings.
APPENDIX C
CRITICAL INCIDENT QUESTIONNAIRE

Think of the incident in today's sessions that had the most impact on the way you see yourself in this group. Please be as specific and objective as possible in your descriptions.

1. Describe the incident as specifically as you can.

2. What did you do/not do?

3. What do you wish you had done?

4. How did your behaviors effect the way you see yourself in this group?

5. How did the behavior of others effect the way you see yourself in this group?

6. Please indicate how important this incident was in your perception of yourself in this group.

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It may be difficult to decide on such an incident, but please try to do so. Even lack of participation may be significant.

Confidentiality will be honored.