CONDITIONING OF AFFECTIVE VERBALIZATIONS IN

GROUPS AND ITS EFFECTS ON GROUP

COHESIVENESS, EMPATHY,

SELF-DISCLOSURE,

AND PERSON

PERCEPTION

By

MICHAEL ROBERT MARCY

Bachelor of Science
University of Wisconsin-Stevens Point
Stevens Point, Wisconsin
1973

Master of Science
Oklahoma State University
Stillwater, Oklahoma
1975

Submitted to the Faculty of the Graduate College
of the Oklahoma State University
in partial fulfillment of the requirements
for the Degree of
DOCTOR OF PHILOSOPHY
December, 1977

CONDITIONING OF AFFECTIVE VERBALIZATIONS IN GROUPS

AND ITS EFFECTS ON GROUP COHESIVENESS, EMPATHY,

SELF-DISCLOSURE, AND PERSON PERCEPTION

Thesis Approved:

Donald K Fromme
Thesis Adviser

Kenneth D. Sandvold

Edgar L. Webster

Larry T. Brown

Norman N Durham
Dean of the Graduate College

PREFACE

This study is concerned with conditioning of three types of self-disclosure, feedback, and two types of empathy statements in four member groups. The objective of the present study was to determine the effects of conditioning these affective verbalizations on group cohesiveness, empathy, tendency to self-disclose, and fourteen person perception variables.

The author wishes to thank Dr. Donald Fromme, Dr. Kenneth Sandvold, Dr. Larry Brown, and Dr. Edgar Webster for their help in completing this project. Special gratitude is also expressed to my wife, Jane, for her understanding and encouragement. Finally, I wish to dedicate this paper to the memory of Donald V. Casey whose enthusiasm in living has greatly influenced me.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

LITERATURE REVIEW

Introduction

The most important question to be asked about group psychotherapy
is "What elements in the process produce constructive personality
change in clients?" It seems clear that a complete answer of this
question must take into account the most obvious aspect of the group
phenomenon, the verbal exchange among group participants. To date, at
least three kinds of statements have been suggested to be of thera-
peutic importance in the psychological literature. These are self-
disclosure, interpersonal feedback, and empathic expression.

Self-disclosure is a type of statement that seems to be of great
therapeutic value in the group setting. When a person discloses him-
self to another group member it may have several significant effects.
First, the person who disclosed has taken an important interpersonal
risk. The individual has clearly indicated a willingness to take this
risk in the context of the relationship with the other person. This,
of course, is an indication of trust in the other person. It is im-
possible to communicate trust in another more clearly than to disclose
significant affect laden information to the other. A second signifi-
cant effect of self-disclosure is that it may greatly aid a person's
interpersonal relations since others can truly know him/her. It is
impossible to relate effectively to another person if you know nothing

1

of importance about him/her. The best source of important information about a person is that person. Thus, a prerequisite to an effective interpersonal relationship is self-disclosure among the parties of that relationship. A third effect of self-disclosure is that persons who disclose are likely to know themselves better. Persons may have vague feelings about their past actions, beliefs, or other aspects of self which come clearly into focus when they are expressed to another. This is the case since self-disclosure requires a successful effort at clear contact with the aspect of self to be verbalized. People can't verbally communicate something about themselves to others if they don't have communion with that aspect of self.

Interpersonal feedback, telling others how you see them, is also a type of statement that seems to have therapeutic value in the group setting. This type of statement appears to have at least two beneficial effects. First, when group members give another member feedback, they are communicating to the other that they care enough about the relationship to discuss it. Even when the feedback given is a negative evaluation, it still communicates that the relationship is important and of at least enough value to merit feedback. Thus, interpersonal feedback communicates a concern about an important interpersonal relationship. Secondly, interpersonal feedback helps to define a relationship as one in which important aspects are not hidden or overlooked. Instead, feedback communicates an openness and a willingness to deal with the negative aspects of the relationship and also to discuss the positive aspects. Thus, feedback can be the basis of an open relationship.

Empathic expression is the final type of therapeutic statement to

be discussed here. Empathic expression is a verbal attempt to understand the feelings of another. In the group setting, this type of statement has essentially two beneficial effects. Empathic expression clearly and effectively demonstrates caring for and understanding of another. Perhaps the most important thing that people can give others is their empathic understanding. Empathic understanding requires a great deal of effort expended only for the purpose of knowing another. Thus, when a group member uses an empathic expression it creates a feeling of being cared for and of being understood in the target of the empathic statement.

In self-disclosure, interpersonal feedback, and empathic expression we find three types of seemingly therapeutic statements each playing a possible role in group psychotherapy. However, the relative efficacy of these statements in achieving therapeutic gains is not known. Understanding of the relative efficacy of these three important types of statements could greatly enhance the efficiency of group psychotherapy. Such understanding would also, in part, answer the important question delineated above.

The present study is an attempt to determine the relative efficacy of three levels of self-disclosure, one type of interpersonal feedback, and one type of empathic expression in fostering group cohesiveness, group enjoyment, and group meaning by utilization of an operant group method to be discussed later in this chapter. In addition, the effect of these types of statements on person perception, tendency to self-disclose, and empathy will also be examined. Research pertinent to the major factors used in the present study is found below.

Self-disclosure

Perhaps the most notable of those who write about the importance of self-disclosure is Sidney Jourard. Jourard defines self-disclosure as "talking about oneself to another person" (Jourard, 1964, p. 19) or as the process of making the self known to other persons (Jourard and Lasakow, 1958). Self-disclosure is the most important mode of inter-personal interaction, according to Jourard. Self-disclosure is not only a therapeutic factor in the treatment of psychopathology, but lack of disclosure is the prime etiological mechanism. All psychopathology is due to a lack of self-disclosure since a person who fails to dis-close to some optimal degree fails to truly know him/herself (Jourard, 1964). Jourard (1958) also indicated that self-disclosure is also a symptom of mental health.

Despite the importance of self-disclosure, disclosing behavior is very rare in most relationships. Jourard (1964) indicated that people play social roles in so many of their transactions that there are almost no real person to person transactions. The reason that there are so few self-disclosures according to Jourard is that non-disclosure is a rule broken only "when we experience it is safe to be known and when we believe that vital values will be gained if we are known in our authentic being or lost if we are not" (Jourard, 1967, p. 28).

Other writers agree that disclosure is a rarity. Laing (1967) in-dicated that people present an edited version of the self in most transactions. Similarly, Pearce and Sharp (1973) indicated that very little disclosure occurs in most communication. Thus, it seems that in self-disclosure we have a very important but very rare phenomenon.

Before I discuss some of the important research findings concern-
ing self-disclosure I will consider some of the many ways in which the
concept of self-disclosure has been analyzed into smaller components
for the purpose of more rigorous study. The most used analysis of
self-disclosure has been based on the intimacy of the material dis-
closed (Edelman and Snead, 1972; Charkin and Derlega, 1974; Taylor,
1968; Ellison and Firestone, 1974; Jourard and Resnick, 1970; Vondracek
and Marshall, 1971; Fitzgerald, 1963; Ribner, 1974). Perhaps the
second most utilized scheme for analyzing self-disclosure is one using
different categories of content (Chittick and Himelstein, 1967; Himel-
stein and Kimbrough, 1963; Pederson and Breglio, 1968; Jourard and
Lasakow, 1958). Another way in which self-disclosure has been analyzed
was developed by Lazarus (1969). This author used the conceptual
scheme of five concentric circles where the innermost circle repre-
sented the aspects of self that were disclosed to no one; the next
larger circle represented the aspects of self that were disclosed only
to very intimate friends; the third largest circle represented aspects
of self that were disclosed to several good friends; the fourth largest
circle represented aspects of self that were disclosed to acquaintances;
and the largest circle represented a person's superficial contact with
the world at large. This scheme is closely related to the intimacy
dimension mentioned above.

The analytic scheme to be used in the present study is closely re-
lated to all three analytic schemes mentioned above. On the face of it,
a content analytic scheme is used. Three categories of content, non-
affective or demographic disclosure, externally referred affective dis-
closure, and self-referred affective disclosure, are used. These cate-
gories of content appear to be strongly related to the intimacy

dimension. It would seem that nonaffective or demographic disclosure

is least intimate while self-referred affective disclosure is the most

intimate.

It is well now to consider some of the important research findings

concerning disclosure. Adesso, et al. (1974) studied disclosure in

growth groups and discussion groups composed of college students. Re-

sults showed that after five two hour sessions, positive affective

self-disclosure was greater in the growth groups than in the discus-

sion groups. No significant difference in negative affective self-

disclosure was apparent between the two types of groups after the five

sessions. This study shows that growth groups cause an increase in

positive self-disclosure but don't significantly affect negative dis-

closure. This result is meaningful since it indicates that growth

groups indeed affect self-disclosing behavior. This may be a key in

looking for the effective aspects of this particular type of group.

In another study (Cravens, 1975) college females were divided into

those with a high need for social approval and those with a low need

for social approval. The disclosure of these subjects was observed in

interviews with the experimenter in two types of situations. In one

situation, the subject was told that the interview data would be used

in a textbook. This situation was devised to make the subjects believe

their statements were open to the public. In a second situation, sub-

jects were told their statements were private and that there would be

complete confidentiality. Results showed that low social approval sub-

jects exhibited more instances of self-disclosing in the private con-

dition than in the public condition. Just the opposite was found for

the high social approval subjects. These results indicate that social

approval and level of confidentiality are important factors in determining self-disclosing behavior. It is especially pertinent to psychotherapy groups which usually adhere to the rule of strict confidentiality. If self-disclosure is truly therapeutic, low social approval clients will be helped by the confidentiality rule. High social approval clients may not be too greatly hindered in self-disclosure by the confidentiality rule due to the social context provided by the group.

Several studies have found sex differences in disclosing behavior. Jourard and Lasakow (1958) found that female undergraduates were consistently higher self-disclosers than were males. Jourard (1971) also found his female subjects consistently more self-disclosing than men. A recent study (Kraft and Vraa, 1975) found that high school females disclosed more than high school males. These findings are attributed by Jourard (1964) to the lethal aspects of the male role that are extremely repressive and restrictive of the male self and thus cause a marked lack of self-disclosing behavior.

Chelune (1975) also studied sex differences in self-disclosing behavior. This investigator looked at disclosure in repressors and sensitizers of both sexes. No significant difference was found between the sexes in the repressor group. However, male sensitizers proved to be lower disclosers than female sensitizers. Chelune explained his results as being due to differences between the sex roles. Females learn to gain control over noxious stimulation or threat of it by disclosing fully to elicit help from others. Males, of course, are unable to take this approach since the male role has no room for this type of extreme dependency. Males, then, must protect themselves from noxious

stimulation or interpersonal threat by controlling disclosure to main-
tain a safe interpersonal distance.

Although sex differences have been found by some investigators,
others have failed to find them. For example, Zief (1962) and Rickers-
Ovsiankina and Kusmin (1958) both failed to find any significant dif-
ference between males and females in amount of self-disclosing behavior.
These findings raise questions about the validity of Jourard's (1964)
analysis of the differences between the male and the female roles.

Perhaps the best documented finding concerning self-disclosure is
its property of reciprocity. Self-disclosure by an individual to a
second party is usually accompanied by a reciprocal disclosure from the
second party to the first (Jourard and Landsman, 1960; Jourard and Res-
nick, 1970; Jourard and Jaffee, 1970; Ehrlich and Graeven, 1971;
Levinger and Senn, 1967; Cozby, 1972; Derlega, Walmer, and Furman,
1973). This property of reciprocity suggests that self-disclosure,
once started, may have a "snow-balling" effect such that its frequency
increases rapidly after the first disclosure. In an attempt to explain
the snow-balling effect seen with self-disclosing behavior, Higbee
(1973) applied the well documented risky shift concept to self-disclo-
sure. In the risky shift, people are seen as valuing risk. When a
person is informed that others are as risky or more so than he/she is,
he/she tends to adopt a greater level of this valued attribute. Thus,
groups adopt riskier solutions to problems than the average individual
in that group would have if he/she were left alone. It would seem then
that this phenomenon might generalize to self-disclosure which might be
thought of as interpersonal risk. Higbee found evidence that self-
disclosure was indeed a valued thing. His subjects, on the average,

rated themselves as more disclosing than their peers. Higbee also found that his subjects increased their willingness to disclose when they received information that others were of equal or greater willingness to disclose. Thus, it is possible that the reciprocity effects seen in self-disclosure may be due to the fact that the first instance of disclosure to others shows others that the discloser is high on this valued trait. If the other's want to be seen as high on this trait they must disclose themselves. In this way the snowballing effect is started and perpetuated.

Although the literature supports the concept of reciprocity in general, not all disclosures are equally effective in producing the effect. Three recent studies have dealt with this problem. Simonson (1976) used a psychotherapy analogue with female college students to study the effect of therapist disclosure on subsequent client disclosure. Three levels of therapist disclosure were explored. In one condition, the therapist disclosed demographic information. In another, the therapist disclosed personal information. In the third condition, there was no therapist disclosure. Results indicated that demographic disclosure was superior in producing subsequent subject disclosure when compared with the other two conditions. It is true that some disclosure is necessary for the reciprocity effect to occur. This accounts for the superiority of demographic disclosure over no disclosure. Perhaps the most important finding, however, is that demographic disclosure produced greater reciprocity than personal disclosure. This may be due to subjects perceiving personal disclosure as being inappropriately intimate. Two other studies are related to this finding. Banikiotes and Daher (1974) and Daher and Banikiotes (1974) concluded that the amount of

interpersonal attraction to another was positively related to the level of self-disclosure to that other. A second major finding of these studies was that individuals are more attracted to persons who are similar to them in both the content and the level of self-disclosure than those who are dissimilar. The direct implication of these findings is that disclosures must be of appropriate content and frequency for any snow-balling effect to occur. This is consistent with the interpretation of demographic disclosure producing more reciprocity than personal disclosure used above. Disclosures that are too personal, not personal enough, irrelevant to others, too frequent, or not frequent enough will limit any reciprocity tendency. In light of these findings it is likely that in the Simonson study, the personal disclosure was not similar enough to the subject's intended disclosure while demographic disclosure was. Thus, reciprocity was hindered in the personal condition but enhanced in the demographic condition. In the no disclosure condition, no reciprocity effects were possible.

Besides findings concerning sex differences and reciprocity, other generalities concerning self-disclosure may be found in the literature. For example, Pearce and Sharp (1973) list four such generalities that may be justified on the basis of their extensive literature review. These generalities are as follows: self-disclosure occurs incrementally as a relationship stabilizes; self-disclosure occurs in the context of positive social relationships; self-disclosure in a dyad is usually symmetrical; and few communications involve self-disclosure.

Interpersonal Feedback

The second of the important therapeutic statements, interpersonal feedback, has been defined by Ruesch and Kees (1959). These authors

assert that feedback refers to the process of correction through incor-
poration of information concerning effects. When a person perceives
the results produced by his own actions, the information so derived in-
fluences subsequent action. Thus, feedback information is a steering
device upon which learning and the correction of misunderstandings are
based. The importance of interpersonal feedback in group settings has
been affirmed by Cambell and Dunnette (1968). These investigators
stated that feedback was perhaps the most important aspect of the
T-group technology. Psychologists studying groups are not the only
people that assert that interpersonal feedback is important. Group
members also acknowledge the significance of feedback. This finding
was reported by Lieberman, Yalom, and Miles (1973) in an extensive study
of encounter groups. Subjects in this study ranked feedback, the
process of receiving information about oneself from others, as the most
important factor promoting change in their group. The authors analyzed
this result more closely by looking at the outcome variable. They sep-
arated the group participants in their study into three outcome cate-
gories (negative outcome, unchanged, and positive outcome). The result
of this categorization was the finding that significantly more unchanged
and negative outcome subjects indicated that feedback producing a cog-
nitive change was important for them than did the group that improved.
Also, more negative outcome subjects indicated that feedback involving
a negative feeling response was important to them than did either of the
other categories. When these results are taken together it seems highly
plausible that negative affective feedback may produce negative outcomes.
It is interesting to note that positive feeling responses were not in-
dicated to be of importance more frequently in the positive outcome

category. Thus, it is clear that although feedback is an important interpersonal process it can have negative effects and that these negative effects are especially likely when feedback involves a negative feeling response.

Yalom (1970) also discussed the possible effects of feedback in group psychotherapy. This author, however, dealt mainly with positive or growth effects that might be related to feedback. For example, Yalom indicated that feedback facilitates interpersonal learning and therapeutic change. It also enables people to restructure their self-image and helps them to see the **universality of their problems**. Feedback helps people challenge previously cherished beliefs about themselves and to experiment with new modes of behavior. Positive feedback especially encourages group members to take risks and change. Yalom also reported that feedback occurring in the context of ongoing here and now interactions is the most effective and important type of feedback.

Watson (1969) also found many positive results of feedback behavior. On the basis of his extensive review of the literature, this author listed seven positive effects that may result from the use of feedback; first, feedback is related to increased awareness of self in interaction with others; secondly, feedback increases the accuracy of perception of the feelings and overt behavior of others; thirdly, feedback increases openness in interpersonal relations; fourth, feedback increases acceptance of differences in others; fifth, feedback decreases extreme interpersonal need in the areas of control, inclusion, and affection; sixth, feedback increases understanding of group behavior; and lastly, feedback increases self-confidence in interpersonal interaction.

Another author who has taken an extensive look at interpersonal feedback is Dyer (1972). Dyer defined interpersonal feedback as a process of information sharing in which a person receives information from others about his/her behavioral performance. This information sharing process can be divided into two components. The first component that is present in most instances of feedback is a description of what behavior a person sees in another. This is strictly an informational component. The second component of feedback, which may or may not be present, is the communication of how a person feels about the behavior he sees in another. In his analysis of the feedback concept, Dyer delineates eight specific types. First is objective-descriptive feedback which consists entirely of a description of the behavior of another with no feeling component. This type of feedback simply gives the receiver a mirror image of himself. A second type of feedback is assumed or guessed impact. Here, person A tells person B what impact he thinks B's behavior has had on person C. This is related to a third type of feedback called second party report of impact. In this type, person A tells person B that person C told A what impact B's behavior had on C. A fourth type of feedback, direct descriptive impact, consists of person A telling person B what B's behavior is like and what feelings A has about it. Dyer indicated that direct descriptive impact was the most important and most effective form of feedback. Direct evaluation is a fifth feedback type that occurs when person B's behavior has an impact on person A and A tells B only what his/her feelings are but not which of B's behaviors he/she is reacting to. Dyer's sixth type of feedback is called direct expressive and like direct evaluative, is composed entirely of the feeling component. Here person A expresses

a feeling he/she has toward person B but he/she does not react to a particular behavior in B but rather to B's total being. The seventh type of feedback is called interpretation where person A tells person B what his/her actions mean. The last type discussed by Dyer is nonverbal feedback where person B receives information about his behavior by watching person A's nonverbal reactions to his/her behavior. Dyer indicated that these forms of feedback can be used by people to make appropriate behavioral and perceptual changes and to improve relationships. Dyer also indicated that feedback can be used to hurt or punish people. Thus, it is probable that the results of feedback are not always positive.

Thibault and Coules (1952) report a study that definitely indicated that not all feedback produces positive results. These investigators paid a stooge to communicate hostile feedback to their subjects. The stooge called the subject a liar, deceitful, and egotistical. Finally, the stooge stated that the subject wasn't the kind of person that the stooge would care to associate with. It must be mentioned here that the use of the term feedback in this study is questionable since feedback is usually reserved for instances where the "feedback" statement is dependent on actions. Half of the subjects in this experiment were allowed to respond to this instigation and half were not. Those that were not showed heightened hostility toward the stooge when compared with those that were allowed to respond. Thus, hostile negative instigation can produce hositility and if the person receiving the hostile instigation is able to give his own feedback the hostility is not as strong. This suggests that hostile feedback may create hostility and that feedback may not always have positive results.

Jacobs, Jacobs, Gatz, and Schiable (1973) examined the credibility of positive and negative feedback. This study resulted in what the authors termed the credibility gap. This term refers to the fact that the subjects in this experiment rated positive feedback as being much more credible than negative feedback. Jacobs, Jacobs, Feldman, and Cavior (1973) studied the credibility gap in groups. Three types of feedback were delineated. These three were closely related to the components of feedback discussed by Dyer (1972). The first type of feedback was termed behavioral. This type dealt entirely with a description of overt behavior. A second type of feedback was termed emotional and dealt entirely with a description of the emotions a person's behavior creates in one. The third type of feedback was a mixture of the first two. By using this categorization the study attempted to further analyze the credibility gap. Results indicated that positive feedback was not only more credible but also more desirable and more meaningful in terms of impact than negative feedback. In addition, negative feedback that is behavioral is more credible than negative emotional feedback. Group cohesion was also related to these feedback types. Negative feedback resulted in less cohesion than positive feedback. Also, behavioral/emotional feedback created less cohesion than did behavioral or emotional feedback. Lastly, this study found that behavioral feedback was most effective for promoting change.

Several studies have looked specifically at the effectiveness of feedback for promoting change. The results of Stoller (1968) indicated that behavioral feedback that is discrepant from one's self-image is effective in promoting change. A study by Bach (1969) resulted in the finding that feedback is of highest effectiveness when it is maximally

informative and minimally evaluative. Thus, these two studies and Jacobs, Jacobs, Feldman, and Cavior (1973) each conclude that behavioral rather than emotional feedback is most effective.

Empathic Expression

The third type of therapeutic statement to be dealt with in this paper is empathic expression. A definition of empathy is offered by Truax and Carkhuff (1967). These authors indicated that empathy involves the sensitivity to current feelings of others and the verbal facility to communicate this sensitivity. This definition is illustrative of the way in which most psychologists think about the concept. Empathy, then, is an understanding of the feelings of another. A definitional study was done by Greif and Hogan (1973). These authors used the factor analytic method to derive three definitional components of empathy; tolerance or even-temperedness, sociable interpersonal style, and humanistic sociopolitical attitudes.

Several articles have asserted the importance of empathy for everyday living (Greif and Hogan, 1973; Aspy, 1970; Goodman and Ofshe, 1968). In fact, one study (Borke, 1971) indicated that empathy is an important interpersonal developmental task that is accomplished by children as young as three years old. Thus, our empathic ability importantly influences our interpersonal functioning throughout most of our life.

Many studies have dealt with the attributes of high empathic versus low empathic subjects. For example, Mehrabian and Epstein (1972) found that high empathy subjects were less likely to engage in aggressive behavior than were low empathy subjects. High empathy subjects in this study were also more likely to engage in helping behavior than their

less empathic counterparts. Pierce and Zark (1972) indicated that high empathy subjects had significantly better interpersonal effectiveness than did subjects with low empathic ability. Also, the high empathy subjects in this study attended to the feelings of others much more than low empathy subjects. Schoen (1970) also looked at differences between high empathy and low empathy subjects and found that high empathy subjects are much better in predicting the behavior of others. Thus, the results of Mehrabian and Epstein (1972), Pierce and Zark (1972) and Schoen (1970) clearly assert that empathy is related to a constellation of adaptive interpersonal skills. In a study of interpersonal attraction, Phares and Wilson (1971) indicated that high empathy subjects were attracted to other high empathy subjects while low empathy subjects were attracted to other low empathy subjects. This may be due to subjects feeling more comfortable with people of comparable interpersonal skills. A study by Vespiani (1969) concerning empathy and the depression and psychasthenia scales of the M.M.P.I. resulted in the finding that high empathy subjects were likely to have lower scores on each of these scales when compared to low empathy subjects. Thus, low empathy has been shown to be related to two measures of psychopathology while high empathy is related to a relative absence of these traits.

Empathy has long been considered to have great importance in psychotherapy. This idea was most strongly promoted by Carl Rogers (1957) who indicated that empathy was a necessary condition for therapeutic improvement. Rogers also affirmed that when empathy was coupled with what he called warmth and genuineness in therapy, sufficient conditions for therapeutic change were present. Thus, all that is needed to insure

therapeutic change is empathy, warmth, and genuineness. Several studies related to this idea that empathy is related to positive therapeutic outcome have been done. Truax, Wittner, and Wargo (1971), Truax (1970), Mullen and Abeles (1971), and Shapiro (1969) all agree that their data are indicative of the relationship between high empathy and positive therapeutic outcome. Mullen and Abeles (1971) also found that more experienced therapists were more empathic than were less experienced therapists.

The relationship between empathy and therapeutic outcome is not entirely clear, however. Some investigators have failed to find the relationship reported above. For example, Garfield and Bergin (1971) found no relation between outcome and empathy.

Finally, in my consideration of empathy it is well to include the work of Smith (1973) since his work is divergent from the mainstream. As was indicated above, most of those who study empathy think of the concept as the ability to understand the feelings of another. Smith, however, rejects this definition. He defines empathy as the degree of similarity that persons assume exists between themselves and another person. To achieve empathic accuracy persons must learn the ways in which they are unlike another. To do this they must receive feedback concerning the accuracy of their assumptions of similarity. Empathy, assumed similarity, is the basis of understanding another but it is also the basis of misunderstanding. In sensitivity training, Smith does not want to establish more empathy, assumed similarity, but rather wants to improve the trainee's ability to predict the feelings, thoughts, and behavior of other people. In order to do this trainees must be sensitive to differences between individuals and themselves. This

precludes the automatic assumption of similarity since the trainee must consider the important ways in which each of us differ to be truly sensitive.

Smith has indicated that highly empathic persons see themselves as conservative, conforming, religious, emotional but inhibited, gregarious but quiet and acquiescent, and practical. They empathize because they want to see similarities between themselves and others in order to feel close to others. Smith indicated that empathy creates goodness. The more similarities we see between others and ourselves, the better we tend to perceive them to be. Not only does empathy cause the perception of goodness in others, it also causes us to look at and listen to others. When someone is seen as like us we attend to them. If someone is perceived as unlike us, we fail to give them attention.

Person Perception

The next major area of literature to be reviewed concerns the perceptual process related to interpersonal functioning. The concept of person perception concerns the way in which we "read" each other in our interpersonal interactions. It would seem possible that one way in which group therapy has effectiveness in changing clients' personalities is in changing their person perceptual processes. This is precisely what Smith (1973) attempts to do in sensitivity training.

The concept of person perception may be split into six basic types. The first type of person perception and perhaps the most basic is the perception of self. The second type of person perception is the perception of another. The third type of person perception is the perception of a third party. Each of these types of person perceptions are

truly perceptions in the sense that they have a referent in the perceptual field. The last three types of person perception might better be called metaperceptions since they are really perceptions of the first three types of person perceptions. Specifically, the fourth type of person perception is one's perception of how other persons see one. The fifth type of person perception to be considered is one's perception of how other persons see themselves. The final type of person perception is perception of how other's see third parties. To further clarify this analytic scheme and the terminology used in the present study see Table I.

TABLE I

ANALYTIC SCHEME FOR PERSON PERCEPTION
AND THE TERMINOLOGY USED TO SPECIFY
VERBALIZATIONS OF SUCH PERCEPTIONS

	Perception	Metaperception
First Person	Self-disclosure	Self-empathy
Second Person	Other Disclosure (Feedback)	Other Empathy
Third Person	Impersonal Disclosure	Impersonal Empathy

The first area of literature to be reviewed here concerns the first type of person perception, how a person sees himself. Several determinants of self-perception have been delineated in the literature. One of the most studied determinants of a person's self-concept is others'

perceptions of him/her. Backman, Secord, and Peirce (1963) studied the resistance to change of aspects of a person's self-concept as a function of the consensus among significant others concerning those aspects of self. Subjects in this study were required to choose an aspect of themselves that they believed their significant others generally attributed to them. They were also required to choose an aspect of themselves that they believed significant others did not generally attribute to them. After these aspects were chosen, the investigators presented the subjects with a false personality assessment that denied the subject's possession of both of the traits the subjects had chosen. In this way, strong pressure was exerted on the subjects to change their self-conception. Results showed that subjects changed their conception of self in regard to the low consensus trait significantly more than in regard to the high consensus trait. Thus it is much more difficult to change aspects of one's self that one believes to be generally evident to others than it is to change what one believes are less evident traits. This clearly shows that a type of metaperception, one's perception of how others see one, is influential in determining perception of self.

Another study relevant to the effect of other's perception of a person on that person's self-perception was done by Janis (1955). This author, similar to Backman, Secord, and Peirce, found that one's self-perceptions were markedly influenced by others' perceptions. However, Janis found that self-perceptions did not influence others' perceptions of one. These results indicate the tendency to alter one's self-perception to be congruent with other's perception of one's self. However, people do not show the tendency to make the perception of others congruent to the other's self-perceptions.

Hass and Maehr (1965) studied the effects of another's perception of one and one's self-perception. These investigators concluded that not only were other's reactions of extreme importance to their subjects' self-conceptions, but the consistency of these reactions was important also. Experimentally induced changes in self-ratings were found to be long lived on a six week follow up after only one exposure to another's discrepant reaction. The authors found even stronger and longer lived effects when their subjects were exposed to another's reaction two times. Thus, it is clear that consistent reactions by others have a large effect on one's self-perception.

The studies done by Backman, Secord, and Peirce (1963), Janis (1965), and Hass and Maehr (1965) all clearly indicate that the perception of one's self is greatly influenced by what one perceives others to see in one. One's self-image surely has the tendency to be largely congruent with others' perceptions of one's self.

Another study that bears on the effect others can have on one's self-perception was completed by Gergen and Wishov (1965). This investigation does not deal specifically with the effect of another's perception of a person but rather with the characteristics of the other. Subjects in this study were told they would interact with either a self-enhancing person, a self-derogative person, or a person of average self-evaluation. Subjects then completed a self-rating. Results showed that subject self-perceptions emphasized positive aspects of self if they were going to interact with a self-enhancing person. Negative aspects of self were emphasized when the subject thought he/she would interact with either a self-derogating person or a person of average self-evaluation. This result is indicative of the effect of others' self-

evaluations on one's own self-evaluation.

Another much studied determinant of self-perception is a person's family, especially his/her parents. One study (Gecas, Calonico, and Thomas; 1974) explored the mirror theory and the modeling theory of the development of the self-concept in children. Mirror theory states that a child's perception of self is most strongly influenced by his/her parents' perception of him/her while the modeling theory states that a child's self-perception is most strongly influenced by his/her parents' self-perceptions. In general, this study supported mirror theory. Another finding was that mirroring tended to be stronger in cross-sex parent-child relationships than in same-sex relationships. Also, both boys and girls tended to model their father more than their mother. Munns (1972) also studied self-perceptions of college males and how they are affected by parental and peer values. The results of this study indicate that males perceive themselves to be somewhat like their fathers in theoretical, social, political, and religious values. The major result of this study, however, was that the subjects perceived themselves as much closer to their peer group on all values studied than to either of their parents. Thus, in perception of one's values, peers have the strongest influence although the father also has some influence. Cava and Raush (1952) also studied self-perception. These investigators looked at the variables of personality conflict and their subjects' perceptions of their fathers' interests. Results of this study showed that boys with little personality conflict tended to see their own interests as similar to their father's interests. Boys with a high degree of personality conflict, on the other hand, tended to perceive their interests as dissimilar to their father's. Thus, not

only does it appear that fathers have an effect on a boy's self-percep-
tions, it also appears that this effect is related to personality con-
flict and the lack of it. Another study of familial effect on self-
perceptions was done by Helper (1955). The focus of this investigation
was to apply learning theory to the self-concept of boys and girls.
For boys, it was found that self-perceptions tended to be similar to
the perception of father when there was a high degree of parental
reward given to the child for modeling behavior. With less reward there
was less similarity between father and the boy's perception of himself.
It was also found with boys that a high degree of modeling was related
to a high degree of status among peers. None of these relationships
were found for girls. It was found, however, that girls who received
a high degree of parental reward for modeling mother had a low amount
of status among peers. Thus, there is evidence of important sex differ-
ences in the effect of modeling the same-sexed parent on self-perception.
A final study related to familial effects on self-perception has been
done by Luckey (1961). This study focused on marriage as it affected
perception of self. The marriages in this study were divided into two
groups, satisfied and less satisfied. Satisfied males' self-perceptions
were significantly closer to their wives' perceptions of them than were
less satisfied males' self-perceptions. Also, satisfied males tended
to see themselves as more like their ideal selves than did less satis-
fied males. Satisfied males saw themselves as very similar to their
fathers while less satisfied males saw themselves as different from
their fathers. Similar differences were not found between satisfied and
less satisfied females.

Another determinant of self-perceptions that has been investigated

is the concept of social anxiety (Clark and Arkowitz, 1975). High and low socially anxious men participated in two brief conversations with a female confederate. Each subject rated himself on social skills and anxiety. A rating of the female confederate was also obtained. Results indicated that high anxious males rated themselves as more anxious and more deficient in social skills than low anxious subjects. No difference was found in the subjects' ratings of the female confederate. Trained judges also made ratings of the subjects. These judges rated the high anxious subjects higher in social skills and lower in anxiety than the high anxious subjects rated themselves. Judges rated low anxious subjects lower in social skills than they rated themselves. Thus, a high level of anxiety appears to affect the perception of one's social skills and interpersonal anxiety adversely while low levels of anxiety appears to enhance the perception of interpersonal anxiety but not the perception of social skills. High anxiety causes lower self-perceptions of interpersonal skills and higher perceptions of social anxiety than others perceive. Low anxiety causes an inflated perception of social skills when compared to others' evaluations.

Social comparison and competition also has been studied as affecting self-perceptions (Morse and Gergen, 1970). This study presented job applicants with stimulus persons whose characteristics were either socially desirable or undesirable. Half of the subjects in this study were told that the stimulus person was competing with them for the same position and the others were not told this. It was found that subjects presented with a desirable stimulus person decreased their self-esteem while those presented with an undesirable stimulus person increased their self-esteem. This was in evidence regardless of competition.

Thus, the effect of social comparison was clearly supported but no competition effect was found.

Another determinant of self-perception that has been investigated is failure. Mischel and Ebbesen (1973) assigned their subjects to success, failure, or control groups. These groups of subjects were informed that they would perform a task measuring their intellectual ability. Half of the subjects in each group were told to expect further testing while the other half were not. After completion of the task and feedback from the experimenters, subjects were allowed to look at positive and negative personality information concerning themselves. Subjects who got success feedback concerning the intellectual task attended more to their personality assets and less to their liabilities than did subjects who failed or the controls. Subjects who failed did not differ significantly from the controls. Although these effects were found for the group of subjects who believed no further testing would be done, they were even stronger for those who believed further testing would be done. It was also found that sensitizers were more likely to attend to their liabilities while repressors were more likely to attend to their assets. These results are indicative of a tendency to perceive one's self in less favorable light after a failure experience than after a success experience. Another study (Collison, 1974) also corroborates this idea. Third grade subjects who were failed on a math test had a significantly lower self-concept than did those who succeeded on the test.

A final determinant of self-perceptions that has been investigated is race. Clark and Clark (1939) found that when three year old black boys were asked to identify themselves by choosing a line drawing of a

white boy, a black boy, a lion, a dog, a clown, and a hen the children

chose either the white boy or the black boy predominantly. The ratio of

choices of the black boy to choices of the white boy increased as a

function of age until about age five. Thus, in black children, race

conciousness is achieved by age five. Another investigation of race

effects on self-perception was done by Krate, Leventhal, and Silverstein

(1974). These authors measured the self-percepts of black college stu-

dents as recalled for two years before the study, four years before the

study, now, and the future. Results led the authors to conclude that

there is a distancing away from the "Negro" identity and a converging

toward the more contemporary "Black" identity. McDonald and Gunther

(1965) studied the differences between black and white adolescents'

self-perceptions. This investigation showed black adolescents to have

higher perceived dominance and love scores than white adolescents. The

three studies reported above clearly indicate that race is a factor in

the perception of self.

At this point it is important to note the relationship between

self-disclosing verbiage and perception of self. Self-disclosure is

nothing more than verbalizing information concerning one's self-percep-

tion. It might be thought of as direct perception of the first person

as is seen in Table I. Because these two concepts are so closely

united, it is not unjustified to expect to find self-perceptual effects

in therapy groups in which self-disclosure is used frequently.

Another type of person perception is the perception of others.

One way to look at variables affecting perception of others is to cate-

gorize these variables on the basis of locus. For example, variables

that affect perception of others are found within the perceiver while

others are found in the person being perceived. Still other pertinent variables may be found in the relationship between the perceiver and the perceived. A final locus for variables affecting perception of others is external to the perceiver, the perceived, and their relationship.

One variable within the perceiver that has been studied in relation to perception of others is authoritarianism. Crockett and Merdinger (1956) studied the relationship between authoritarianism and the accuracy of perception of others. Results from this study indicated that high authoritarian individuals tend to perceive their peers as having high authoritarianism regardless of their peer's actual authoritarianism. Low authoritarian subjects, on the other hand, were quite variable in their estimation of their peer's authoritarianism. In general, however, low authoritarianism subjects estimated their peers to be either moderate or high in authoritarianism. The results concerning the accuracy of the perception of others by low and high authoritarian subjects did not show a significant difference. Thus, high authoritarian subjects tend to perceive others as high authoritarian and low authoritarian subjects are variable in their perception of other's authoritarianism. Neither group of subjects appears to be more accurate than the other, however. Jones (1955) also studied authoritarianism and initial perceptions of others. The results of this investigation suggest that in the perception of others, authoritarian subjects are more insensitive to psychological or personality characteristics since they were less able to accurately perceive these characteristics than were nonauthoritarian subjects. This study found this type of insensitivity even in regard to the attribute of personal

power or forcefulness. Also, authoritarians show a greater tendency

than nonauthoritarians to differentiate the social environment in terms

of power related concepts in spite of their reduced sensitivity to

variations among people in personal power. In this study authoritar-

ians showed the tendency to be more positively evaluative of leaders

than nonauthoritarians regardless of the leader's specific character-

istics.

Other perceiver variables that have been investigated in relation

to their effects on perception of others are self-esteem and the feeling

of acceptance. Dittes (1959) separated his subjects into two conditions.

In one condition, subjects were warmly accepted by a group. In the

other condition, subjects were poorly accepted. Subjects in the warm

acceptance condition perceived the group to be more attractive than

poorly accepted subjects. When the concept of self-esteem was examined

it was evident that this effect was much stronger in persons with low

self-esteem than in persons with high self-esteem. Thus, it seems that

there is an interaction effect between self-esteem and acceptance by

others on perception of others. This may be the case since the degree

of lack of self-esteem may be precisely the degree of need for accept-

ance by others. When a person lacks self-esteem, he/she especially

needs acceptance from others. When he/she receives this acceptance,

those who offer the needed acceptance are perceived as attractive. The

opposite is true for those who do not offer acceptance.

A final perceiver variable to be discussed here is use of expres-

sive cues offered by the behavior of the perceived person. Gage (1952),

in part, studied the effect of the use of expressive cues versus the

perceiver's knowledge of the subculture of the perceived person in their

effects on the accuracy of other perception. Results indicated that accuracy of other perception is affected to a slight extent by the use of cues derived from another's expressive behavior. However, accuracy of other perception can result from accuracy of perception of individuals, from an accurate stereotype, or from a combination of both factors. Cronbach (1955) has also made this observation.

The first variable concerning the perceived person to be considered in its effect on the perception of others is conformity versus deviance. This variable was investigated by Streufert (1965) in its relationship to interpersonal distance. Interpersonal distance is a concept which combines spatial closeness and temporal lengths of interaction in groups. Results of this study indicate that the attitude toward conforming group members became more favorable as interpersonal distance decreased. In addition, it was found that attitudes toward a deviant group member became more unfavorable as interpersonal distance decreased. As people become closer to deviants they perceive them more negatively and as people become closer to conforming members, they perceive them more positively.

Another variable of the perceived person that affects others perception of him is wit. Goodchilds (1959) studied two types of humor, sarcastic wit and clowning wit, and their effects on perceived popularity and power. Several written fictional conversations were examined by college students to validate the degree of funniness and the clarity of the humor type. After this preliminary step, other students were asked to rate the power and the popularity of the fictional characters. It was found that sarcastic wits were perceived as unpopular but powerful while clowning wits were perceived as popular but relatively

powerless.

Jones, Hester, Farina, and Davis (1959) studied maladjustment versus adjustment in perceived persons. The study was designed such that two confederates evaluated the personality of one member of a subject pair. One confederate made derogatory remarks about the subject while the other was more noncommittal and mildly sympathetic. In one experimental condition the derogator was identified as maladjusted and the noncommittal confederate was identified as well adjusted. In another condition the identifications were reversed. Results indicate that the targets of the derogation perceived the maladjusted derogator to be more likable than the well adjusted derogator. The well adjusted derogator was perceived by the target of the derogation to be more credible than the maladjusted derogator. The subject who was essentially a bystander perceived the maladjusted derogator to be less likable than the target of the derogation did. Thus, it is evident that the label of maladjustment or adjustment affects the perception of one who is so labelled.

A final study concerning perceived person variables was focused on the perception of nonmembers of groups (Fishbein, 1963). Specifically, this study was concerned with group members' perceptions of threat from nonmembers. Fishbein's results made it evident that the orientation of the nonmembers toward the group and the eligibility of nonmembers for group membership each strongly influenced the perception of threat in nonmembers by members. A distinction between continued nonmembers and exmembers did not affect the group members' perceptions of threat. Thus, the orientation and the eligibility of nonmembers affected person perception but membership history did not. This finding, of course, is

only applicable to the limited area of the perception of threat from others.

Two factors concerning the relationship between the perceiver and the perceived have also been studied in the effects on other perception. The respect one person has for another has been investigated by Walster, Walster, Abrahams, and Brown (1966). This study looked specifically at the effect of erroneously given respect or disrespect on subsequent perceptions of respectability. Some subjects in this study discovered that they had accorded another more respect than the other deserved. Other subjects discovered that they had accorded another less respect than the other deserved. Each of these conditions produced a temporary overcompensation for the error in the subsequent perception of the other's respectability. If the subject had given the other too little respect initially, he/she temporarily underestimated the other's respectability. Thus, errors in respect given in a relationship with another cause subsequent over-correction in the form of an error in the opposite direction in perceived respectability. The second relationship variable to be considered here is compatibility. Spolsky (1965) investigated FIRO-B compatibility between a doctor and his patient. Evidence resulted suggesting that compatibility had an effect on the way the patient perceived the doctor which had implications for treatment outcome effects. The studies of Walster, et al. (1966) and Spolsky (1965) indicate that other perception is affected by the relation of perceiver to perceived.

Two other studies related to other perception but not specifically concerned with factors in the perceived person, the perceiver or their relationship have been done by Podell and Amster (1966) and Himmelfarb

(1972). Podell and Amster found that the more positive (or negative) information a subject had concerning a hypothetical other, the more polarized the subject's evaluation of the other became. Thus, the more consistently positive (or negative) information a person has about another the more his perception of the other will be polarized on the bad-good dimension. Himmelfarb also looked at the amount of information a perceiver had about another and at the source of this information. Two factors of the source of information proved to be important. First, for a given amount of information, the more sources that this information was compiled from, the greater its effects on other perception. Secondly, the more diverse the situations in which a source had observed another, the greater the effect the information had on the perception of another. These two studies combine to indicate that the volume of consistent information, the diversity of the sources, and the diversity of the sources' observations each strongly influences how much a given amount of information will affect the perceptions of others.

Before consideration of a third type of person perception, it should be noted that there is a very close relationship between other perception and feedback statements. In fact, feedback statements are merely a verbalization concerning a perception of a second party as seen in Table I. For this reason it is not unreasonable to entertain the hypothesis that therapy groups focusing on feedback statements may show person perceptual effects. One possible effect may be better accuracy.

No literature concerning the determinants of third party perception, impersonal disclosure, was found. However, if the third party perceived is a person, the other perception literature would apply.

A fourth type of person perception, one's perception of how others

perceive one, has been shown to be quite important for social inter-
action. Goslin (1962) indicated that adolescent boys and girls who
were unable to accurately predict how their peers' perceived them, tend-
ed to be isolated from their peers. Thus, the lack of the ability to
perceive how one is being perceived by others may cause one to be iso-
lated from others. It is possible, however, that isolates in this
study were unable to perceive how others perceived them since their
isolation tended to reduce the amount of information on which these per-
ceptions could be based. Not only has this type of person perception
been shown to be related to the level of interpersonal interaction, but
Kleinfeld (1972) found that it was also related to one's self-concept.
This investigator studied black and white school children's academic
self-concepts in relation to how they perceived their parents and
teachers to perceive the children's academic selves. Results indicated
that white children's self-concepts were more strongly related to their
perception of their parents' perception of them than to their percep-
tion of their teacher's perception of them. For blacks, exactly the
opposite was indicated except that this effect reached significance
only for females. From this study it is clear that one's perceptions
of others' perceptions of one is related to one's self-perception.
Another interesting study which is indicative of the importance of this
third type of person perception was completed by Broxton (1963). This
study investigated the level of interpersonal attraction in college
roommates. Results clearly indicated that interpersonal attraction is
more closely related to how one perceives another's perception of one
than to how another truly perceives one. Thus, one's perception of
interpersonal reality is much more important than reality itself. In

sum, the studies of Goslin (1962), Kleinfeld (1972), and Broxton (1963)
combine to indicate that this type of person perception is very impor-
tant for interpersonal interaction and for one's own self-perception.

Several other studies have been done yielding interesting results
pertinent for consideration here. Backman and Secord (1962) investi-
gated living groups and found that liked persons, to a significantly
greater extent than disliked persons, were perceived as perceiving a
person in a similar fashion as a person perceived him/herself. Thus,
if a person liked another, the other was perceived as attributing to
that person the same traits that he/she attributed to him/herself. In
addition to the results found for liking versus disliking, identical
results were found for frequent interaction versus infrequent inter-
action. Not only does one tend to see one's self-perception as con-
gruent to his/her perception of a liked (or frequently visited) person's
perception of one but Deutsch and Soloman (1959) found that if one's
self-perception is perceived to be congruent to another's perception of
one, one tends to like the other more. In addition, these investigators
found that when one's self-perception is perceived to be confirmed by
another, one tends to think more of him/herself. A final investigation
in this area (Sigall and Landy, 1973) studied the effects of having an
attractive romantic partner on college males' perceptions of how others
perceived them. Subjects in this study predicted the impressions that
raters would form of them. These subjects expected to be target per-
sons who, along with a female confederate (attractive or unattractive)
would be presented to a rater as associated (boyfriend of the confed-
erate) or as unassociated. Subjects believed they would be perceived
most favorably in the attractive-associated condition and believed they

would be perceived most unfavorably in the unattractive-associated con-
dition. Thus, it is likely that one's perceptions of others' percep-
tions of one is influenced by the attractiveness of one's associates.

Although the first two types of person perception have had analo-
gous therapeutic verbalizations, one's perception of others' percep-
tions of one does not. It is possible that this is simply an oversight
by those who study therapeutic verbiage. In pilot work for the present
study, subjects were instructed to verbalize this type of self-empathy
in an affective or evaluative manner. Eight subjects, four each in two
separate group meetings, were unable to do this. Through discussing
this inability with the subjects it was clear that although the task
was understood intellectually, it was too intimate to perform. One
subject indicated that he didn't even use this type of statement with
his best friends and certainly could not do it with strangers in a
psychology experiment. It may be that this pilot work has resulted in
defining a type of self-disclosing statement that is found at the
center of Lazarus' (1969) concentric circle conceptualization.

The final type of person perception to be discussed here is a
person's perception of another's self-perception, other empathy. Gray
and Gaier (1974) investigated parents' and friends' perceptions of
female high school seniors' self-perceptions. Single friends were
found to have the greatest accuracy in their perceptions of the girls'
self-perceptions but friends in general were more variable in their
accuracy than parents' perceptions were. Both parents and friends were
able to accurately accomplish this type of person perception but best
friends were more accurate while parents were more consistently
accurate than friends in general.

This type of person perception, a person's perception of another's self-perception, is related to one of the therapeutic verbalizations discussed above. Empathic expression is, at least in part, concerned with perceiving how another see's him/herself and with verbalizing this perception. This clearly involves an important type of empathic understanding. Since empathic expression is verbalization of a type of person perception, it is possible that therapy groups which focus on empathy may show evidence of person perceptual effects.

No literature on impersonal empathy was available. However, if the third party is a person the other empathy literature found above would apply.

Before I leave the area of person perception, an important article by Lorber (1973) should be considered. Lorber discussed three concepts important for person perception. Mutuality, the first concept considered by Lorber, concerns the question "Does a person perceive another as that other perceives him/her?" The author presented evidence that indeed social choice tends to be mutual which implies that both liking and disliking tend to be mutual. Lorber also presents evidence that mutuality is not always the case. For example, high status individuals are accepted by others more than they accept others; and social isolates accept others more than they are accepted.

The second concept discussed by Lorber is accuracy, the degree to which a person can predict how others perceive him/her. Concerning accuracy, the author indicated that accepted children feel socially integrated and rejected children feel less socially integrated; those who are accepted tend to be aware of it; those who perceive themselves as being accepted generally are; leaders tend to underestimate their

acceptance by others; and isolates tend to overestimate their acceptance. In general, people tend to accurately perceive their acceptance although persons at the extreme levels of acceptance are likely to make perceptual errors. Lorber also discussed the situation when accuracy does not exist. If a person underestimated the level of acceptance from others he/she was likely to expect to receive less acceptance than he/she was willing to give and he/she was also likely to perceive him/herself as not acceptable or accepting. If a person overestimates his/her level of acceptance from others he/she is likely to expect more received acceptance than they were willing to give; he/she is likely to perceive him/herself as acceptable and accepting; he/she is likely to perceive him/herself as more accepting than others thought them to be; and he/she tends to be less well adjusted than persons who underestimate their acceptance.

Congruence is the final concept discussed in the Lorber article. This concept is the tendency for individuals to feel the same way about others as they perceive others to feel about them. Some explanations for congruence have been discussed. For example, an individual may respond to a person who is perceived as liking him/her by reciprocating these feelings; an individual dislikes another and in an attempt to reduce guilt produced by this feeling, he/she tends to perceive the other as disliking him/her.

Lorber asserted that mutuality, accuracy, and congruence are not independent but are strongly related. If two of these concepts are present the third must also be. This is due to the nature of the definitions of the concepts. This is readily apparent on inspection of the definitions for these concepts found in Appendix A.

Verbal Conditioning and the Interpersonal Realm

Conditioning of verbal behavior has been studied for decades. The first studies concerning conditioning, extinction, and generalization of verbal behavior were done by Humphreys (1939) and Razran (1949). More recent experimentation (Greenspoon, 1951) concerning the conditioning of verbal behavior seems to have stimulated a great deal of interest in the area. In his study, Greenspoon was able to modify the probability of occurrence of a response class of plural nouns by using verbal approval in the form of "mmm-hmm," verbal disapproval in the form of "huh-uh," a light, and a tone as reinforcers. This early study led to other investigators studying the result of using a variety of reinforcers on a variety of verbal behaviors. Such approval responses as "mmm-hmm" (Ball, 1952; Greenspoon, 1951, 1955; Sarason, 1957; Mock, 1957; Krasner, 1955, Salzinger and Pisoni, 1957(a), 1957(b); Wilson and Verplank, 1956), "good" (Binder, McConnell, and Sjoholm, 1957; Cohen, Kalish, Thurston, and Cohen, 1954; Ekman, 1957; Hartman, 1955; Hildum and Brown, 1956; Nuthmann, 1957; Taffel, 1955; Tatz, 1956; Spivak and Papajohn, 1957; Fahmy, 1953), "that's accurate" (Kanfer, 1954), and paraphrasing the subject's response and agreeing with it with a smile (Verplank, 1955) have all been used to increase the frequency of a particular verbal response class. Other reinforcers such as a light (Greenspoon, 1951, 1955; Sidowski, 1954), a buzzer (Greenspoon, 1951), and a bell tone (McNair, 1957) have similarly been reported to yield increases in the frequency of usage of particular verbal response classes. Such nonverbal social reinforcers as head nods, smiles, and leaning forward (Wickes, 1956; Ekman, 1957) have also been used with positive results.

Although many verbal conditioning studies have obtained positive results, some negative results have been reported. Repetition of the subject's response (Fahmy, 1953), "mmm-hmm" (Daily, 1953; Hildum and Brown, 1956), "good" (Marion, 1956; Daily, 1953), and "give another one, please" (Fahmy, 1953) have each been used as verbal reinforcers with negative results. Ball (1952), Nuthmann (1957), and Taffel (1955) used lights as reinforcers with negative results and Ball (1952) found that using a buzzer as reinforcement caused no increase in his target response class. At least one nonverbal social reinforcer, the head nod, has been used with a population of schizophrenics with negative results (Hartmann, 1955). It seems then that the majority of research has obtained results illustrating the efficacy of simple reinforcement techniques in altering the frequency of a verbal response class. However, some negative results have also been reported.

Some explanations for negative results have been presented by Spielberger and DeNike (1962) and by Mandler and Kaplan (1956). Spielberger and DeNike concluded that their negative results were due to subjects being unaware of the reinforcement contingency. In fact, subjects lacking in awareness of the contingency did not differ significantly from controls in the frequency of usage of plural nouns. Mandler and Kaplan replicated the Greenspoon (1951) study obtaining negative results. These investigators concluded that subjects who increased the frequency of the target response class interpreted the reinforcer as a positive sanction, while subjects who decreased the frequency of the response class interpreted the reinforcer as a negative sanction. These studies suggest that awareness of the reinforcement contingency and awareness of the meaning of the reinforcer is essential

to effective verbal conditioning.

Extinction, schedules of reinforcement, generalization, subject variables, and other topics pertinent to verbal conditioning have been studied extensively. This literature is so voluminous as to preclude comprehensive review in this paper. However, reviews of this litera- ture (Williams, 1966; Krasner, 1958; Kanfer, 1968; Salzinger, 1959; Greenspoon, 1962; Holz and Azrin, 1966; Hersen, 1968) have been done elsewhere. Since the focus of this paper is the interpersonal realm, it is well to leave the general consideration of verbal conditioning.

Several studies have been reported concerning verbal conditioning in an interpersonal setting. Oakes, Droge, and August (1960) presented a light each time one of their discussion group subjects responded with verbal content related to the topic of discussion, a psychological case study. Half of the subjects were told that the light signified that their statement showed "psychological insight" while the other half were told that the light signified that their statement lacked this in- sight. Results showed the "psychological insight" condition produced a high rate of verbal responsivity while the lacking insight condition produced hesitancy to speak. This finding indicated that a light may be used as a reinforcer in the group setting to alter verbal behavior. It also corroborated the assertion of Mandler and Kaplan (1956) that the meaning of the reinforcer is of extreme importance.

Oakes, Droge, and August (1961) used a discussion setting similar to that used in their earlier study. Instead of discussing a psycholog- ical case study, however, subjects discussed solutions to a problem to which there were three possible solutions. Reinforcement consisted of a light which was contingent upon making a statement that the authors

felt was likely to arrive at one preselected solution of the three possible. This conditioning technique produced an increase in the rate of emission of reinforceable responses over the thirty minute session. More surprising, perhaps, is that the subjects tended to choose the predetermined solution to the problem. Again, it is clear that reinforcement contingent on a verbal response class greatly effects verbal behavior in the group setting.

Oakes (1962) again used a light as a reinforcer in a discussion group to attempt to increase the frequency of occurrence of verbalizations falling into Bales' (1950) categories. As in the Oakes, Droge, and August (1960) study, the light signified that a subject's verbalization had evidenced "psychological insight". Results were negative with the exception of a significant increase in emission of the "gives opinions" category. The author explained these results in terms of the extremely low operant rate of some of the categories prior to institution of the reinforcement contingency and in terms of many of the categories being obviously unrelated to the meaning of the reinforcer.

Another study, (McNair, 1957) used a bell tone as a reinforcer contingent on any verbalization of the subjects in his discussion group. A significant increase in the rate of verbalization was found asserting that verbal behavior can be modified in discussion groups by simple conditioning techniques.

In a seminar-type situation, Cieutat (1959) used attention in the form of looking at his subjects with an occasional head nod to socially reinforce verbal behavior. Results indicated the total time spent speaking varied directly with attention and inversely with inattention. This study suggested that social reinforcers are useful in a discussion

setting as well as mechanical reinforcement.

Not only has verbal behavior been modified by verbal conditioning in the discussion setting, it has been modified through similar methods in therapy groups. Hauserman, Zweback, and Plotkin (1972) used tokens to reward typically nonverbal hospitalized adolescents for verbalizations in a therapy group. Group members emitted a substantially higher rate of verbal interactions than prior to the institution of the token reinforcement. When awarding of tokens was stopped, the rate of verbal interaction decreased.

Another study corroborating the efficacy of verbal conditioning using token reinforcement was done by Kruger (1971) using three groups of male adolescent delinquents. Reinforcement consisted of the flash of a light. Each reinforcement was tallied and could be used as a token in exchange for back up reinforcers such as candy. In one of the two experimental groups, reinforcement was controlled by the experimenter and in the other group reinforcement was controlled by one of the subjects. In both groups reinforcement was contingent on verbalization. A control group received random reinforcement. The peer reinforcement condition showed the highest rate of response total when compared to the control. Thus, these results provide further evidence that a token system can have a great effect on verbalization in group therapy.

Studies have also indicated that social reinforcers can work in group therapy. Wagner (1966) studied one therapy group of hospitalized psychiatric patients. Half of the group's eight members were reinforced by "good," "uh-huh," or a head nod following every verbalization. The other patients were not reinforced. A significant difference in the rate of verbalization was found between the groups up until the

sixth session. The equalization of the response rate of the two conditions after the sixth session was explained by the author in terms of each experimental condition occurring within the same group. Nonreinforced subjects may have received vicarious reinforcement or they may have increased their verbalizations to limit the reinforcement the other patients could get. In any case, the study suggested that an increase in verbalization can be achieved using social reinforcers in the therapy group.

Another study indicating the effectiveness of verbal conditioning using social reinforcement in group therapy was done by Dinoff, Horner, Kurpiewski, Rickard, and Timmons (1960). These investigators reinforced two groups of hospitalized male schizophrenics for either group responses or for personal responses by attending to, reflecting, or approving of the subject's statement. Significant increases in the target responses were observed.

Heckel, Wiggins, and Salzberg (1962) also studied verbal conditioning in group psychotherapy. This study is of particular interest because of its use of negative reinforcement of verbalization. After any group silence of ten seconds or longer, these experimenters presented a noxious noise. With the first verbalization the noxious noise was terminated constituting negative reinforcement of verbal behavior. Verbalization was found to increase and silences were almost eliminated indicating the effectiveness of negative reinforcement.

A final technique of verbal conditioning in groups has been used by Fromme, Whisenant, Susky, and Tedesco (1974), Fromme and Close (1976), Fromme and Duvall (1977), and Fromme and Marcy (1976). These investigators seated four subjects in a semicircular arrangement around

a small table. Each subject faced a digital counter used to record the subject's verbalizations which fit one of five reinforceable categories. When reinforcement in the form of advancement of the digital counter was issued, an audible click was heard. In addition to the digital counters, red lights were used as negative reinforcers in a manner similar to the use of noxious noise by Heckel, Wiggins, and Salzberg (1962). Whenever any subject fell ten or more counts behind the subject with the highest count, his red light was turned on. When he emitted enough reinforceable responses such that he was less than ten counts behind, his red light was turned off. The lights were also used as an informational cue to alert the subjects whenever three minutes had elapsed with no member of the group emitting a reinforceable response. This was accomplished by a brief flash of all four lights.

By utilizing this technique Fromme, et al. (1974) were able to increase the level of emission of feeling statements, giving feedback, seeking feedback, clarifying the nature of another's affective state, and seeking information about another's current affective state in twelve groups of undergraduates. These investigators found that reinforcement techniques produced a level of response equal to that produced by therapists. The reinforcement technique, however, was viewed less positively by the subjects than was the therapist condition.

Fromme and Close (1976) studied the effect of Fundamental Interpersonal Relations Orientation – Behavior (Schutz, 1958) compatibility on the levels of occurrence of the same five verbal categories as in the Fromme, et al. study. In general, results indicated that compatible groups express more affective verbalizations than do incompatible groups. This study also corroborated the finding that these reinforce-

ment procedures enhance the number of affective verbalizations significantly.

Fromme and Marcy (1976) also utilized Fromme's method of verbal conditioning. The study indicated that the method could be used to investigate the effects of different modes of interpersonal interaction. Cohesiveness and self-disclosure were found to be related to the typical mode of interaction in groups.

Fromme and Duvall (1977) indicated that the reinforcement technique was more effective in producing high levels of verbal response than was a control condition that merely instructed subjects to respond. For this reason, no instruction only control group was deemed necessary in the present study.

Cohesiveness

Group cohesiveness is an important dependent measure in the present study. It has long been considered an important aspect of group psychotherapy. Cohesiveness has been defined in a variety of ways. Festinger (1950) defined cohesiveness as the resultant of all forces acting on the members to remain in the group. The emphasis of Festinger's definition is clearly on the degree to which the group tends to cohere or stick together. This emphasis is also apparent in the definitions for cohesiveness forwarded by Berne (1963) and by Gross and Martin (1952). However, in each of these definitions, cohesiveness is seen as existing in opposition to a disruptive force. Berne (1963, p. 97) defines cohesiveness as "The force that opposes both pressure and agitation. . ." He indicated that agitation is an internal threat to group existence. These writers define cohesiveness as the resistance

of a group to disruptive forces.

A second common emphasis for cohesiveness definitions is the idea of group attractiveness or social satisfaction properties. For example, Frank (1957) defined cohesiveness as the attractiveness of a group for its members. Similarly, Lieberman, Yalom, and Miles (1973) suggested that group cohesiveness could be defined as a sum of individual attraction measures across all group members.

The cohesiveness definition presented by Shaw (1971) combines both of the definitional components suggested above. His definition of the term is "the degree to which members of the group are attracted to each other, or the degree to which the group coheres or 'hangs together'" (Shaw, 1971, p. 192).

Shaw also has summarized the definitions that have been used commonly in the social psychology literature. These are resistance to leaving the group, morale or level of motivation of group members, and coordination of the efforts of group members. Although these definitions are seemingly related to the major ideas of social attractiveness and tendency to cohere, they are not identical. A final cohesiveness definition was presented by Landecker (1955). This study defined cohesiveness as the degree to which members conform to group norms.

The multiplicity of different definitions for cohesiveness comprises a basis for questioning the plausibility of cohesivenss being a unitary concept. Festinger, Schacter, and Back (1950) assumed that cohesiveness was a unitary concept and treated it as such. A study by Smith (1970) indicated that cohesiveness was merely interpersonal attraction. Thus, it gave support to the unitary conception of cohesiveness.

The unitary conception of cohesiveness was questioned, however, by Gross and Martin (1952) who found that the three indicators they used to measure cohesiveness in thirteen women's living groups at a mid-western university had very low or negative linear intercorrelations. Similar evidence was forwarded for a multifacited concept of cohesiveness in a study by Eisman (1959) who found that five indicators of cohesiveness also had very low or negative intercorrelations. The measures used in this study were the mean number of reasons for belonging to the group as reported on Eisman's 21 item checklist, the number of items on this checklist checked by more than half the group, the mean rating for a group on a five point scale measuring how attractive the group was for each member, a sociometric rating, and the degree of homogeneity of group values. Of course, the evidence forwarded by Eisman and Gross and Martin may be due to inadequate cohesiveness measures rather than being due to the concept's multifaceted quality. Thus, the evidence forwarded here is merely suggestive rather than conclusive.

Hagstrom and Selvin (1965) applied the factor analytic method to resolve the controversy between cohesiveness as a unitary concept and as a multifaceted one. Subjects were obtained from women's living groups at the University of California. Each subject responded to a nineteen-item questionnaire developed by the authors. When these data were analyzed, two orthogonal factors emerged. The factors were called social satisfaction and sociometric cohesion. Social satisfaction was related to social attraction to the group and satisfaction derived from social interaction in the group while sociometric cohesion was related to length of time in the group and a high number of group members as best friends. Hagstrom and Selvin's results tend to support definitions

of cohesiveness that include both the social attractiveness and the tendency to cohere dimensions. One such definition is the one offered by Shaw (1971). The cohesiveness measure in the present study taps both dimensions.

Cohesiveness, although not always identically defined, has generally been considered a very important group parameter. For example, Shaw (1971) indicated that it is clear that cohesiveness is related to the quantity and the quality of group interaction. Cohesiveness brings cooperation and friendship into the group interaction. It also is related to high group influence on the individual and to the individual's satisfaction derived from the group. Low cohesiveness, according to Shaw, is related to independent functioning among group members and to a mutual lack of empathic concern.

Other investigators have also concluded that cohesiveness plays other important roles in group interaction. Schacter (1951) found that high cohesiveness plays other important roles in group interaction. Schacter (1951) found that high cohesiveness is related to members striving to influence each other. Also, it has been reported by Cartwright and Zander (1962) that members of highly cohesive groups tend to be more influenced by the group than members of groups with low cohesiveness. Back (1951) learned that cohesive groups produce members who were more willing to listen to each other. Rassmussen and Zander (1954) reported that group members were more accepting of other group members in cohesive groups than members of non-cohesive groups. Members of highly cohesive groups were also found to experience more security and tension relief in their groups than members of groups without cohesiveness (Seashore, 1954). Members of cohesive groups participate readily

in group activities (Rassmussen and Zander, 1954; Goldstein, Heller, and Sechrest, 1966). Cohesive group norms are protected more readily than norms in less cohesive groups (Schachter, 1951; Zander and Havelin, 1962). The cohesive group is much less susceptible to disruption due to a member leaving the group than a group with low cohesiveness (Goldstein, Heller, and Sechrest, 1966). Each of the above studies clearly asserts that cohesiveness is a very pertinent factor in developing many positive qualities in group settings.

Besides its importance for groups in general, cohesiveness is especially important in group psychotherapy. Yalom (1970) indicated that cohesiveness is particularly important for attendance, participation, mutual helping, and maintenance of group therapy norms. He maintained that cohesiveness is a necessary precondition for effective group therapy, thereby indicating the tremendous importance he attaches to cohesiveness. Bednar and Lawlis (1971) concurred with Yalom's estimate of the significance of cohesiveness for group therapy. They indicated that cohesiveness represents a parameter of group atmosphere that is essential to effective treatment.

Yalom (1970, pp. 65-71) reported an unpublished study in which he collaborated with Tinklenberg and Gilula concerning group therapy patients' views of the importance of several curative factors. These investigators studied twenty well educated, middle class, outpatients with neurotic or characterological disorders. The subjects had all been rated successful cases after eight to twenty-two months of group therapy. All subjects were asked to rate the relative importance of altruism, cohesiveness, universality, interpersonal learning, guidance, catharsis, identification, family re-enactment, insight, instillation

of hope, and existential factors in their successful group experience. It was found that subjects chose cohesiveness as the third most important curative factor.

A second study (Dickoff and Lakin, 1963) corroborated the finding that patients view cohesiveness as a highly important part of the group therapy experience. Dickoff and Lakin used tapes of members of their therapy groups explaining the curative factors that they had experienced in their therapy groups. The authors classified each statement and found that their patients believed that cohesiveness was of major therapeutic importance. In the same study, results indicated that patients who experienced the group as cohesive attended more sessions, had more social contact with the other members, and judged the group as having offered a therapeutic experience. The authors concluded that cohesiveness is in itself of therapeutic value and is essential for the perpetuation of the group.

Miles (1965) measured the relationship between cohesiveness and outcome in group therapy. Subjects for this study were members of eighteen encounter groups composed of undergraduates. Cohesiveness was measured by a questionnaire and outcome was measured by a group yield score determined by summing each group member's change score, the resultant of summing the subject's change on a number of outcome measures. Miles' data indicated a strong association between high cohesiveness and high group yield. Thus, it would seem probable that group cohesiveness is important for therapeutic gain in the group setting.

The studies presented above point to the extreme importance of cohesiveness in groups in general and in therapy groups in particular. It seems that if a group therapy medium is to have efficacy it must

provide a way to encourage, enhance, and promote the development of co-
hesiveness. Without this powerful factor a therapy group is certain to
be less efficient in achieving its therapeutic goals. It is question-
able whether or not success in group therapy is possible without cohe-
siveness. Thus, in the study of groups it is always important to in-
vestigate cohesiveness.

The Present Study

The present study was an attempt to discover the relative efficacy
of six types of verbalizations on producing group cohesiveness, enjoy-
ment, meaningfulness, the tendency to self-disclose, and empathy. It
was felt that there might be relatively low levels of each of these
variables in the less intimate categories when compared to the more
intimate categories. It was assumed that the intimacy of the condi-
tions was ordered from least intimate to most intimate as follows:
nonaffective self-disclosure, impersonal disclosure, other disclosure
(feedback), self-disclosure, impersonal empathy, and other empathy. It
was predicted that the reinforcement data would make this assumption
tenable. Finally, several person perception variables were analyzed
in an exploratory spirit to guide future research in this area.

CHAPTER II

METHOD

Subjects

Subjects were 72 undergraduate students enrolled in an introductory psychology course at Oklahoma State University. Subjects volunteered for the experiment to receive minimal class credit by signing their name on a sheet of paper handed out by the course instructor. Each sheet had spaces for only four names so each sheet represented one group. Subjects were asked not to place their names on the sheet if they knew anyone whose name already appeared on that sheet. In this way groups with no previous acquaintanceship except minimal class contact were formed. Sex was held constant over all groups by composing each group of two males and two females.

Eighteen groups were formed by this method. Three of the groups were assigned randomly to each of six experimental conditions in which four types of disclosure and two types of empathy were the verbal response categories. These categories will be defined later in this chapter.

Each subject received a telephone call from the experimenter prior to his/her group meeting to remind him/her of the time and place of the experiment. This policy kept attendance at a high rate.

Apparatus

The experimental room was a reasonably comfortable eleven by twelve foot room with a one-way mirror situated in one of the twelve foot walls. Subjects were seated around a small table. Each session was monitored by the experimenter via the one-way mirror and a microphone on the small table. A four channel relay control panel was used to record those instances where the experimenter judged that a group member's statement fit one of the reinforceable categories. A digital counter was located on the table in front of each subject. When reinforcement was given, the digital counter placed in front of the appropriate subject was advanced producing an audible click. A red light located on top of each subject's counter was also used to provide two types of informational cues. First, all four lights were automatically flashed by an interval timer whenever no subject received a reinforcement for a period of three minutes. This feedback was used to help direct the group's attention toward the emission of the appropriate response category. Second, an individual's red light was turned on whenever that subject was more than ten counts behind the subject with the most counts. The light remained lit until that subject brought the difference between his count and the highest count to less than ten.

Response Categories

A set of six verbal response categories was defined as follows:

1. Nonaffective or demographic self-disclosure was defined as any statement providing information about the self if no feeling about the information is expressed.

2. Impersonal disclosure was defined as any statement expressing a feeling about or evaluating something external to the self.

3. Self-disclosure was defined as any statement expressing a feeling about or evaluating the self.

4. Other disclosure (feedback) was defined as any other-referred statement expressing feelings about or evaluating another group member.

5. Impersonal empathy was defined as any statement concerning what one thinks another group member feels about something external to the group member's self.

6. Other empathy was defined as any statement concerning what one thinks another group member feels about him/herself.

Intersubjective reliability of these response categories was determined prior to the experiment proper by independent ratings of statements issued by the 20 members of five groups. These subjects received the same treatment as used in the experiment proper. Each group session was tape recorded so that an independent judge could later determine which of the statements issued by these groups fit the appropriate category. In this way the percentage of agreement between the experimenter and the judge could be determined. These percentages of agreement are found in Table II.

Another type of reliability data was also collected concerning the response categories. This was the percent agreement between two judges using all the response categories simultaneously. This percentage was found to be 95.

TABLE II

PERCENT OF AGREEMENT BETWEEN TWO JUDGES
USING ONE RESPONSE CATEGORY

	Percent Agreement All Statements	Percent Agreement Reinforceable Statements
Nonaffective Self-disclosure	97	92
Impersonal Disclosure	96	86
Self-disclosure	96	81
Other Disclosure (Feedback)	99	96
Impersonal Empathy	99	92
Other Empathy	99	94

Procedure

Each group met separately for one seventy minute session. Each
session was divided into ten minutes of free conversation, ten minutes
of warm up and verbal instruction, and fifty minutes of verbal condi-
tioning. Before each session, subjects were told to engage in free con-
versation to allow the experimenter to see in what way free conversation
differs from conversation with the use of the experimental apparatus
(Appendix B). The experimenter then proceeded behind the one-way mirror
and monitored the group's conversation for ten minutes. After this
period, the experimenter re-entered the room in which the subjects were
conversing and proceeded to conduct a warm-up exercise and give them
more verbal instructions (Appendix B). At this time subjects were also

given a card on which a written statement concerning the appropriate verbal response category for their group was described (Appendix B). For the purpose of this experiment, it was explained that it was desirable for each subject to express as many statements of this type as he/she could. Illustrative examples of the appropriate verbal category were presented and discussed with the group (Appendix B). Subjects were also given an explanation of the apparatus.

At the end of each free conversation period the experimenter recorded the number of instances of the appropriate type of verbal response for each subject. During the verbal conditioning session the experimenter recorded the number of reinforceable responses issued by each subject in each of the five ten minute periods. Following each session, subjects responded to a cohesiveness measure (Appendix C), a meaningfulness measure (Appgendix C), an enjoyment measure (Appendix C), a group perceptions test (Appendix F), a self-disclosure measure (Appendix D), and an empathy measure (Appendix E). From the group perceptions test 14 measures were taken (Appendix A).

CHAPTER III

RESULTS

All the data collected in the present study is found in Appendix

G and the nonsignificant analyses are found in Appendix H.

Response Category Data

The first question that needed to be answered in the present study

was, "Does the conditioning procedure work?" This question was answered

in two ways. First, six planned comparisons were computed which com-

pared the mean of the six types of verbal responses in the free conver-

sation period with the mean of each type during the conditioning pro-

cedure. The F ratios resulting from these comparisons are found in

Table III.

Table III and inspection of the data in Appendix G makes it immedi-

ately clear that the reinforcement procedure used in this study produced

more verbal responses of the target category than were issued by the

subjects in the free conversation. In this sense, the conditioning pro-

cedure has significant effectiveness.

A second statistical method was used to answer the question of the

reinforcement procedure's efficacy. An analysis of variance procedure

was used on the number of responses of each of the six types issued.

The analysis of variance summary table for nonaffective self-disclosure

responses issued in each of the six treatments is found in Table IV.

TABLE III

COMPARISONS OF FREE CONVERSATION RESPONSES
WITH CONDITIONING RESPONSES

Category	$F_{1,60}$
Nonaffective Self-disclosure	16.70*
Impersonal Disclosure	106.65*
Self-disclosure	67.42*
Other Disclosure (Feedback)	25.27*
Impersonal Empathy	15.88*
Other Empathy	7.02*

*p $\leq$ .05

TABLE IV

ANALYSIS OF VARIANCE FOR NONAFFECTIVE
SELF-DISCLOSURE RESPONSES

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Treatments	5	1890.78	Pooled Groups and Subjects	4.84*
Groups	12	221.06	Subjects	.52
Subjects	54	428.1		

*p $\leq$ .05

The significance of the treatment F ratio was analyzed further by utilization of the Newman-Keuls method for making multiple pairwise comparisons. The results of this procedure and the mean number of nonaffective self-disclosure responses in each condition is found in the first row of Table V. Inspection of Table IV and the first row of Table V is indicative of the conditioning procedure's effectiveness in producing nonaffective self-disclosure responses. More of these responses were produced when the target category was the nonaffective self-disclosure response than in any other condition. Finally, no group effect was observed in the nonaffective self-disclosure condition.

An analysis of variance similar to the one above was computed for the impersonal disclosure responses. It is found in Table VI. The significance of the treatments F ratio was analyzed further by utilization of the Newman-Keuls method. These results are found in the second row of Table V. Thus, more impersonal disclosure responses were issued when the target category was impersonal disclosure than in any other condition. All other conditions were not essentially different. This again asserts that the conditioning procedure is effective. No significant group effect was found.

The analysis of variance for the other disclosure (feedback) responses is found in Table VII. The significance of the treatments F ratio was analyzed further by the Newman-Keuls method. The mean number of other disclosure (feedback) responses in each experimental condition are found in the third row of Table V. Significantly more other disclosure (feedback) responses were issued when other disclosure (feedback) was the target category than in any of the other conditions. All other conditions were not essentially different. Thus, the conditioning

TABLE V

MEAN VERBAL RESPONSES FOR EACH
REINFORCEMENT CONDITION

Reinforcement	Nonaffective Self-disclosure	Impersonal Disclosure	Other Disclosure (Feedback)	Self-disclosure	Impersonal Empathy	Other Empathy
Dependent Variables (Response Categories)						
1. Nonaffective Self-disclosure	73.75^a	45.83^b	41.75^b	38.42^b	48.17^b	48.17^b
2. Impersonal Disclosure	21.25^a	58.50^b	33.25^a	35.00^a	31.50^a	33.58^a
3. Other Disclosure (Feedback)	$.75^a$	2.08^a	19.33^b	2.67^a	2.00^a	3.83^a
4. Self-disclosure	1.42^a 1.42^c	2.92^a	3.58^a	10.58^b	1.33^a 1.33^c	6.67^a 6.67^d
5. Impersonal Empathy	2.08^a	3.25^a	3.42^a	2.08^a	9.25^b	3.25^a
6. Other Empathy	$.67^a$	$.25^a$	$.58^a$	$.08^a$	$.83^a$	4.00^b

a,b,c,d indicate, within each row, groups of means that are different from one another beyond the .05 level

TABLE VI

ANALYSIS OF VARIANCE FOR IMPERSONAL DISCLOSURE

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Treatments	5	1816.91	Pooled Groups and Subjects	7.10*
Groups	12	365.35	Subjects	1.57
Subjects	54	232.91		

*p $\leq$ .05

TABLE VII

ANALYSIS OF VARIANCE FOR OTHER DISCLOSURE
(FEEDBACK) RESPONSES

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Treatments	5	594.59	Groups	19.87*
Groups	12	29.93	Subjects	2.68*
Subjects	54	11.17		

*p $\leq$ .05

procedure has efficacy for increasing the rate of F responses.

The F ratio for groups in Table VII was also significant. For this reason no pooling of groups and subjects variance was possible. No further analysis was required since groups is a random factor. This F

ratio is indicative of one or more groups issuing significantly more other disclosure (feedback) responses than at least one other group. The probable cause for this groups effect is that one subject in a group had a marked effect in influencing the entire group's response rate. This is likely since the red lights used tended to keep subjects within ten counts of each other. The effect of one subject in a group "pulling" that group's rate of response to very high levels might be termed a "bootstrap" effect.

An analysis of variance table for self-disclosure responses is found in Table VIII.

TABLE VIII

ANALYSIS OF VARIANCE FOR SELF-DISCLOSURE

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Treatments	5	154.90	Groups	4.51*
Groups	12	34.37	Subjects	2.51*
Subjects	54	13.68		

*$p \leq .05$

The mean number of self-disclosure responses issued in each condition and the results of the Newman-Keuls procedure are found in row four of Table V. It is clear that the conditioning procedure, where self-disclosure is the response category, enhances the rate of self-

disclosure responses significantly more than any other condition. Again
we have evidence that the conditioning procedure is effective. However,
the other conditions were not equal in producing self-disclosure re-
sponses. The other empathy condition produced significantly more self-
disclosure responses than the nonaffective self-disclosure condition
and the impersonal empathy condition. A significant group effect was
noted indicating that the groups were not all equal in their feedback
production.

The analysis of variance for the impersonal empathy responses is
found in Table IX.

TABLE IX

ANALYSIS OF VARIANCE FOR IMPERSONAL EMPATHY

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Treatments	5	87.12	Pooled Groups and Subjects	7.91*
Groups	12	8.67	Subjects	.75
Subjects	54	11.55		

*p ≤ .05

The mean number of impersonal empathy responses in each condition and
the results of the Newman-Keuls procedure are found in row five of Table
V. Inspection of Table V is indicative of the conditioning procedure's

enhanced number of impersonal empathy responses when this verbal cate-
gory was the target response. None of the other conditions were sig-
nificantly different from one another in their level of impersonal
empathy responses. In addition, no significant group effect was found.

Finally, the analysis of variance for the other empathy responses
is found in Table X.

TABLE X

ANALYSIS OF VARIANCE FOR OTHER EMPATHY

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Treatments	5	25.65	Pooled Groups and Subjects	9.19*
Groups	12	1.97	Subjects	.66
Subjects	54	2.98		

*$p \leq .05$

The mean number of other empathy responses in each condition and the
results of the Newman-Keuls procedure is found in row six of Table V.
These results indicate that the conditioning procedure enhanced the num-
ber of other empathy responses when other empathy was the target cate-
gory more than any other condition. None of the other conditions were
different from one another in their level of other empathy production.
No significant group effect was found.

In sum, the results above clearly show that the reinforcement procedure increased the level of the target verbal category when compared to a free discussion condition and when compared to conditions reinforcing other verbal targets. Thus, the procedure is clearly effective.

Another analysis, found in Table XI was completed on the reinforcement data only. This analysis splits the 50 minute reinforcement period into five ten-minute periods as can be seen in Appendix G. The significant treatments F ratio was analyzed further by the Newman-Keuls procedure. The treatment means and the results of the Newman-Keuls procedure are found in Table XII.

TABLE XI

ANALYSIS OF VARIANCE FOR REINFORCED RESPONSES

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Treatments	5	2304.80	Groups	39.18*
Periods	5	123.50	Periods by Groups	9.35*
Groups	12	58.83	Subjects	6.13*
Treatments by Periods	25	28.76	Periods by Groups	2.18*
Subjects	54	9.60		
Period by Groups	60	13.21	Periods by Subjects	2.67*
Period by Subjects	270	4.95		

*p $\leq$ .05

TABLE XII

MEAN REINFORCED RESPONSES PER SUBJECT PER PERIOD IN EACH TREATMENT

Treatment	Nonaffective Self-disclosure	Impersonal Disclosure	Other Disclosure (Feedback)	Self-disclosure	Impersonal Empathy	Other Empathy
	14.57^a	10.50^b	3.24^c	2.49^c	1.60^c	$.67^c$

a, b, c indicate groups of means that are significantly different beyond the .05 level

These results indicate that nonaffective self-disclosure was used at a significantly higher rate during the conditioning procedure than each of the other categories. Impersonal disclosure was used at a higher rate than any other category except nonaffective self-disclosure. These results indicate that nonaffective self-disclosure and impersonal disclosure were easier categories to use than the others.

The significant periods F ratio found in Table XI was also analyzed with the Newman-Keuls method. The period means and the Newman-Keuls results are found in Table XIII.

·

TABLE XIII

MEAN REINFORCED RESPONSES PER SUBJECT AVERAGED
OVER THE RESPONSE CATEGORIES
IN EACH PERIOD

Free Conversation Period	First Ten Minutes	Second Ten Minutes	Third Ten Minutes	Fourth Ten Minutes	Fifth Ten Minutes
2.99^a	5.57^b	5.43^b	6.35^b	6.51^b	6.21^b

a, b indicate groups of means that are significantly different
beyond the .05 level

Table XIII and the treatments F ratio in Table XI provide evidence that the conditioning procedure is effective when considered generally over all the treatments. It generally increases the number of reinforceable statements when compared to the free conversation. No significant differences in response rate occurred among the five ten-minute reinforce-

ment periods.

A significant treatment by periods interaction is also found in Table XI. To analyze this effect the simple main effects of periods within treatments were computed. The F ratios for these simple main effects are found in Table XIV.

TABLE XIV

MEAN SQUARES AND F RATIOS FOR
PERIOD WITHIN TREATMENTS
SIMPLE MAIN EFFECTS

Treatment	Sum of Squares	$F_{5,60}$
Nonaffective Self-disclosure	73.05	5.50*
Impersonal Disclosure	122.45	9.27*
Other Disclosure (Feedback)	47.7	3.61*
Self-disclosure	14.53	1.10
Impersonal Empathy	1.83	0.14
Other Empathy	7.93	0.60

*$p \leq .05$

Inspection of Table XIV indicates that only three of the treatments show a period or a reinforcement effect. This at first seems to contradict the results of the planned comparisons listed earlier. This seeming contradiction may be explained as follows. When one considers the means in Table XII, it is clear that many more responses were

issued in the nonaffective disclosure condition, and the impersonal dis-

closure condition than were issued in the other categories. Since there

were more responses in these categories, there was the possibility for

much more variability. Thus, these two conditions contributed largely

to the mean square error for the simple main effects (periods by groups)

while the other conditions with less possible variability contributed

much less. This results in an inflated error term which makes any sig-

nificant results impossible to obtain in any treatment with a very low

rate of response. For this reason the planned comparisons above which

compare each treatment reinforcement effect against an error term de-

rived solely within that treatment is a more appropriate statistical

procedure.

Finally, Table XI contains a significant group effect and a signif-

icant period by group interaction. The first result indicates that one

or more groups produced significantly higher rates of response than

another group. The second result is similar except that the effect is

within one or more periods, not over the entire session. These effects

need not be analyzed further since each is a random factor. Again,

these group effects might be the result of the "boot strap" effect.

A final statistical procedure reanalyzed the response category

data from a slightly different vantage point. This particular analysis

looks at the other disclosure (feedback) condition, the other empathy

condition, the impersonal disclosure condition, and the impersonal

empathy condition as they relate to metaperception versus perception

and other referred versus third party referred (see Table I). Other

disclosure (feedback) responses are other referred statements of direct

perception while other empathy responses are other referred statements

of metaperception. Impersonal disclosure responses are third party re-
ferred statements of metaperception. Thus, the four treatments may be
seen as constituting a 2 X 2 factorial design where the two factors are
metaperception versus perception and other referred versus third party
referred. The analysis of variance table for this conceptualization
using nonaffective self-disclosure responses found no significant re-
sults. This analysis is found in Table XXXII in Appendix H.

This is evidence that the metaperception versus perception and the
other versus third party variables and their interaction do not signif-
icantly affect the rate of nonaffective self-disclosure responses.
This may be, in part, due to a ceiling effect caused by the high rate
of nonaffective self-disclosure responses. In addition, no group effect
was found.

The same conceptualization was also used for the self-disclosure
responses in Table XV. A significant group effect was in evidence
which indicated one or more groups produced significantly more self-
disclosure statements than did another group. This effect is not an
instance of the "boot strap" effect since self-disclosure was not rein-
forced in these data.

The reader may also note the strong, but nonsignificant other
versus third party factor F ratio. However, if one accepts the pool-
ing subjects and groups variance to form the error term for the other
versus third party F ratio, the F ratio reaches significance ($F_{1,66}$ =
5.64, $p \leq .05$). Pooling is at least marginally tenable since the
groups F ratio is not extremely large. This F ratio, the other mean
(5.13), and the third party mean (2.13), may be taken cautiously as
evidence that verbalizing concerning another group member produced more

self-disclosure than did verbalizing concerning a third party regardless of metaperception versus perception. No significant perceptual effect or significant interaction is found in Table XV.

TABLE XV

TWO FACTOR ANALYSIS OF VARIANCE
FOR SELF-DISCLOSURE

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Other Versus Third Party	1	108.00	Groups	2.94
			Pooled Groups and Subjects	5.64*
Metaperception Versus Perception	1	6.75	Groups	.18
			Pooled Groups and Subjects	.35
Interaction	1	65.33	Groups	1.77
			Pooled Groups and Subjects	3.41
Groups	8	36.77	Subjects	2.41*
Subjects	36	15.25		

*p ≤ .05

It would be possible to use this same conceptualization for each of the remaining four types of responses [other disclosure (feedback), other empathy, impersonal empathy, impersonal empathy] and in fact the author performed these analyses. The results, however, were strictly redundant information merely reconfirming the reinforcement effect seen

in Table V. For this reason, these analyses will be omitted.

Jourard's Self-disclosure Questionnaire Data

An analysis of variance for the Self-disclosure Questionnaire Data is found in Table XXXIII in Appendix H. As is readily ascertained from the F ratios in Table XXXIII no significant tendency for a treatment effect or a group effect is found. Thus, the experimental conditions of the present study did not affect subjects' responses to the self-disclosure measure.

The self-disclosure concept has often been related to intimacy as is reported in the literature review. It is the author's belief that the present response categories also vary on the intimacy dimension. Specifically the nonaffective self-disclosure and the impersonal disclosure categories appear to be lacking in intimacy while the self-disclosure, other disclosure (feedback), impersonal empathy and other empathy conditions appear more intimate. This is corroborated by the ease of use of the response categories data found in the treatments F ratio in Table XI. To analyze this intimacy effect planned comparisons were computed which are found in Table XVI.

The planned comparison data indicate that indeed the intimacy dimension has its effects on the subjects' responses to the self-disclosure questionnaire. This effect can be further analyzed by inspection of the self-disclosure questionnaire means in Table XVII. A significantly stronger tendency to self-disclose is found in the intimate treatments as compared to the nonaffective self-disclosure and the impersonal disclosure conditions but only when the intimate treatments are considered in aggregate. No significant difference in self-disclosure

is in evidence when the intimate treatments are considered separately.

TABLE XVI

PLANNED COMPARISONS FOR SELF-DISCLOSURE
QUESTIONNAIRE DATA

Comparison	$F_{1,66}$ Ratio
Nonaffective Self-disclosure and Impersonal Disclosure versus Self-disclosure, Other Disclosure (Feedback), Impersonal Empathy, and Other Empathy	4.56*
Nonaffective Self-disclosure and Impersonal Disclosure versus Self-disclosure	.63
Nonaffective Self-disclosure and Impersonal Disclosure versus Other Disclosure (Feedback)	3.26
Nonaffective Self-disclosure and Impersonal Disclosure versus Impersonal Empathy	2.59
Nonaffective Self-disclosure and Impersonal Disclosure versus Other Empathy	3.31

*$p \leq .05$

Finally, the conceptualization discussed above concerning the other versus third party referred factor, the metaperception versus perception factor, and their interaction was applied to the self-disclosure data in Table XVIII. Only a slight tendency is found in Table XVIII which may be interpreted only with the greatest of caution. The direct perception self-disclosure mean is 30.92 while the metaperception self-disclosure mean is 36.38. These means and the F ratio below imply the tendency for subjects to score higher on the self-

TABLE XVII

SELF-DISCLOSURE QUESTIONNAIRE MEANS

Treatment	Nonaffective Self-disclosure	Impersonal Disclosure	Other Disclosure (Feedback)	Self-disclosure	Impersonal Empathy	Other Empathy
	31.75	28.75	33.08	36.67	36.00	36.75

disclosure questionnaire in the metaperceptual conditions. No other

significant results were obtained.

TABLE XVIII

TWO FACTOR ANALYSIS OF VARIANCE FOR
SELF-DISCLOSURE QUESTIONNAIRE DATA

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Other Versus Third Party	1	77.52	Pooled Groups and Subjects	.70
Metaperception Versus Perception	1	357.52	Pooled Groups and Subjects	3.23[a]
Interaction	1	38.52	Pooled Groups and Subjects	.35
Groups	8	76.96	Subjects	.65
Subjects	36	117.99		

a $p \leq .10$

Elm's Empathy Data

All the analyses performed for the self-disclosure data were per-

formed for the rest of the Elm's empathy data and the other question-

naire data. These analyses for the Elm's empathy data are found in

Appendix H. Neither the treatments nor the groups factor accounted

for a significant portion of variance in the data (Table XXXIV). There

was no significant intimacy effect in the Elm's empathy data (Table

XXXV). The two factor reanalysis of the data provided evidence that none of the experimental sources of variance found account for a significant portion of the variance in the Elm's Empathy data (Table XXXVI).

Group Attractiveness Item

Inspection of the group attractiveness data in Appendix G indicates that in general all experimental conditions produced a high rating of attractiveness. The overall mean was 3.74. No differential treatment or group effects were found in the one factor analysis of the data (Table XXXVII, Appendix H).

Table XIX provides evidence that may be tentatively interpreted. The nonaffective self-disclosure attractiveness mean (3.67) coupled with the impersonal disclosure mean (3.50) were significantly different from the impersonal empathy condition mean (4.00) beyond the .10 level. No other planned comparisons were significant. The two factor analysis of the data (Table XXXVIII, Appendix H) provided no evidence that an experimental effect accounted for a significant portion of the variance in the attractiveness data.

Tendency to Cohere Item

No significant results were obtained in the tendency to cohere item data. The analyses performed are found in Appendix H, Tables XXXIX, XL, and XLI. Inspection of the tendency to cohere data indicates that all conditions produced moderately high levels of the tendency to cohere. The overall mean was 3.69.

TABLE XIX

PLANNED COMPARISONS FOR ATTRACTIVENESS ITEM

Comparison	$F_{1,66}$ Ratio
Nonaffective Self-disclosure and Impersonal Disclosure versus Self-disclosure, Other Disclosure (Feedback), Impersonal Empathy, and Other Empathy	1.76
Nonaffective Self-disclosure and Impersonal Disclosure versus Self-disclosure	.96
Nonaffective Self-disclosure and Impersonal Disclosure versus Other Disclosure (Feedback)	.002
Nonaffective Self-disclosure and Impersonal Disclosure versus Impersonal Empathy	2.80[a]
Nonaffective Self-disclosure and Impersonal Disclosure versus Other Empathy	.96

a $p \leq .10$

Meaningfulness Item

No significant results were obtained in the analyses of variance of the meaningfulness data found in Tables XLII and XLIII in Appendix H. Generally, all conditions were rated as quite meaningful. The overall mean rating was 3.67. The planned comparisons in Table XX suggest, at least tentatively, that the other empathy condition was thought to be more meaningful than the nonaffective self-disclosure condition coupled with the impersonal disclosure condition.

TABLE XX

PLANNED COMPARISONS FOR MEANINGFULNESS ITEM

Comparison	$F_{1,66}$ Ratio
Nonaffective Self-disclosure and Impersonal Disclosure versus Self-disclosure, Other Disclosure (Feedback), Impersonal Empathy, and Other Empathy	.10
Nonaffective Self-disclosure and Impersonal Disclosure versus Self-disclosure	.04
Nonaffective Self-disclosure and Impersonal Disclosure versus Other Disclosure (Feedback)	.24
Nonaffective Self-disclosure and Impersonal Disclosure versus Impersonal Empathy	.04
Nonaffective Self-disclosure and Impersonal Disclosure versus Other Empathy	2.89[a]

a $p \leq .10$

The Enjoyment Item

No significant results were obtained in any of the analyses per-
formed on the enjoyment data. The analyses are found in Tables XLIV,
XLV, and XLVI in Appendix H. Inspection of the enjoyment data in
Appendix G indicates that all conditions were generally rated very
positively. The mean enjoyment rating was 4.07.

Person Perception Data

The intercorrelation matrix for the 14 person perception variables
collected in the present study is found in Table XXI.

TABLE XXI

INTERCORRELATIONS OF PERSON PERCEPTION VARIABLES**

PERSON PERCEPTION VARIABLE	OSV	OV	SOV	SA	SE	CG	A	E	IO	N	CF	PO	FO	PS
OSV	1.00	.86*	.34*	-.03	.01	-.35*	-.05	.07	.04	-.22	-.15	.01	-.07	-.39*
OV		1.00	.38*	-.04	.10	-.35*	-.06	.17	-.02	-.21	-.10	-.00	-.10	-.29*
SOV			1.00	-.08	-.07	-.46*	-.10	.01	-.01	-.21	-.12	-.16	.02	-.24*
SA				1.00	.37*	.29*	.92*	.48*	.55*	.30*	.48*	.61*	.46*	.32*
SE					1.00	.03	.33*	.84*	.48*	.82*	.42*	.28*	.26*	.20*
CG						1.00	.34*	-.00	.12	.37*	.04	.18	.34*	.65*
A							1.00	.43*	.50*	.29*	.44*	.66*	.46*	.35*
E								1.00	.64*	.42*	.55*	.32*	.29*	.20*
IO									1.00	.41*	.69*	.36*	.51*	.11
N										1.00	.38*	.16	.16	.45*
CF											1.00	.27*	.31*	.04
PO												1.00	.54*	.31*
FO													1.00	.36*
PS														1.00

* $p \leq .05$
** The abbreviations in this table are found in Appendix A.

The person perception variables were analyzed with the analysis of variance procedure. The significant results are found in Table XXII and Table XXIV. Nonsignificant results are found in Table XLVII and Table XLVIII in Appendix H.

TABLE XXII

SIGNIFICANT ANALYSES OF VARIANCE FOR THE
PERSON PERCEPTION VARIABLES

Variable	Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Stereotype Accuracy	Treatments	5	.35	Groups Pooled Groups and Subjects	.58 1.51
	Groups	12	.60	Subjects	3.98*
	Subjects	54	.15		
Accuracy	Treatments	5	.21	Groups Pooled Groups and Subjects	.63 1.66
	Groups	12	.32	Subjects	4.10*
	Subjects	54	.79		
Empathy	Treatments	5	.18	Groups Pooled Groups and Subjects	.65 1.85
	Groups	12	.27	Subjects	4.87*
	Subjects	54	.56		

TABLE XXII (CONTINUED)

Variable	Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Interpersonal Openness	Treatments	5	.21	Groups	.63
				Pooled Groups and Subjects	2.09
	Groups	12	.32	Subjects	6.72*
	Subjects	54	.48		
Naivete	Treatments	5	.10	Groups	.23
				Pooled Groups and Subjects	.44
	Groups	12	.41	Subjects	2.31*
	Subjects	54	.18		
Conformity	Treatments	5	.43	Groups	2.67
				Pooled Groups and Subjects	8.52*
	Groups	12	.16	Subjects	6.21*
	Subjects	54	.03		
Personal Openness	Treatments	5	.18	Groups	.65
				Pooled Groups and Subjects	1.10
	Groups	12	.27	Subjects	1.98*
	Subjects	54	.14		
Felt Openness	Treatments	5	.02	Groups	.08
				Pooled Groups and Subjects	.22
	Groups	12	.28	Subjects	4.58*
	Subjects	54	.06		

*p ≤ .05

Inspection of Table XXII indicates that the groups factor account-
ed for a significant portion of the variance in the stereotype accuracy
data, the accuracy data, the empathy data, the interpersonal openness
data, the naivete data, the conformity data, the personal openness data,
and the felt openness data. No further analysis of this data need be
done since groups is a random factor. These results assert that some
groups scored significantly higher than other groups on the person per-
ception variables listed above.

The only other significant result in Table XXII is found for the
conformity data when pooled groups and subjects is the error term. For
this reason it must be interpreted cautiously. The Newman-Keuls pro-
cedure was utilized to further analyze this result. The z-score means
for the conformity data are found in Table XXIII.

It is clear that if one accepts the pooling of groups and subjects
variance, the nonaffective self-disclosure conformity mean is lower
than any other mean and the impersonal disclosure mean is lower than
any other mean but nonaffective self-disclosure. In addition, the con-
formity mean for the impersonal empathy condition is higher than any
other.

TABLE XXIII

CONFORMITY MEANS

Treatment	Nonaffective Self-disclosure	Impersonal Disclosure	Other Disclosure (Feedback)	Self-disclosure	Impersonal Empathy	Other Empathy
	$.32^a$	$.42^b$	$.63^c$	$.57^c$	$.87^d$	$.58^c$

a, b, c, d indicates groups of means that are significantly different at the .05 level

TABLE XXIV

SIGNIFICANT TWO FACTOR ANALYSES OF VARIANCE
FOR THE PERSON PERCEPTION DATA

Variable	Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Stereotype Accuracy	Other Versus Third Party	1	.12	Pooled Groups and Subjects	.42
				Groups	.15
	Metaperception Vs. Perception	1	.85	Pooled Groups and Subjects	3.02
				Groups	1.08
	Interaction	1	.37	Pooled Groups and Subjects	1.32
				Groups	.48
	Groups	8	.78	Subjects	4.61*
	Subjects	36	.17		
Stereotype Empathy	Other Versus Third Party	1	.08	Pooled Groups and Subjects	.69
	Metaperception Vs. Perception	1	.11	Pooled Groups and Subjects	.97
	Interaction	1	.65	Pooled Groups and Subjects	5.74*
	Groups	8	.12	Subjects	1.04
	Subjects	36	.11		
Accuracy	Other Versus Third Party	1	.02	Pooled Groups and Subjects	.11
				Groups	.04
	Metaperception Vs. Perception	1	.36	Pooled Groups and Subjects	2.39
				Groups	.85
	Interaction	1	.23	Pooled Groups and Subjects	1.54
				Groups	.55

TABLE XXIV (CONTINUED)

Variable	Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
	Groups	8	.42	Subjects	4.71*
	Subjects	36	.09		
Empathy	Other Versus Third Party	1	.001	Pooled Groups and Subjects Groups	.01 .004
	Metaperception Vs. Perception	1	.16	Pooled Groups and Subjects Groups	2.01 .68
	Interaction	1	.32	Pooled Groups and Subjects Groups	4.10* 1.41
	Groups	8	.23	Subjects	5.08*
	Subjects	36	.45		
Interpersonal Openness	Other Versus Third Party	1	.02	Pooled Groups and Subjects Groups	.09 .04
	Metaperception Vs. Perception	1	.36	Pooled Groups and Subjects Groups	1.73 .86
	Interaction	1	.24	Pooled Groups and Subjects Groups	1.13 .56
	Groups	8	.42	Subjects	8.38*
	Subjects	36	.05		

TABLE XXIV (CONTINUED)

Variable	Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Naivete	Other Versus Third Party	1	.005	Pooled Groups and Subjects Groups	.02 .01
	Metaperception Vs. Perception	1	.04	Pooled Groups and Subjects Groups	.16 .08
	Interaction	1	.0005	Pooled Groups and Subjects Groups	.001 .0005
	Groups	8	.53	Subjects	2.97*
	Subjects	36	.18		
Conformity	Other Versus Third Party	1	.05	Pooled Groups and Subjects Groups	.77 .23
	Metaperception Vs. Perception	1	.64	Pooled Groups and Subjects Groups	9.85* 2.89
	Interaction	1	.59	Pooled Groups and Subjects Groups	9.08* 2.66
	Groups	8	.22	Subjects	7.75*
	Subjects	36	.03		
Felt Openness	Other Versus Third Party	1	.05	Pooled Groups and Subjects Groups	.42 .12
	Metaperception Vs. Perception	1	.03	Pooled Groups and Subjects Groups	.24 .07
	Interaction	1	.03	Pooled Groups and Subjects Groups	.25 .07

TABLE XXIV (CONTINUED)

Variable	Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
	Groups	8	.38	Subjects	6.49*
	Subjects	36	.06		

Inspection of Table XXIV indicates that the group factor accounted for a significant portion of the variance in the stereotype accuracy data, the stereotype empathy data, the accuracy data, the empathy data, the interpersonal openness data, the naivete data, the conformity data, and the felt openness data. Some groups had significantly higher scores on these measures than other groups.

Table XXIV provides evidence of a significant interaction effect in the stereotype empathy data. The cell means for these data are found in Table XXV.

TABLE XXV

CELL MEANS FOR STEREOTYPE EMPATHY

	Perception	Metaperception
Other Referred	.97	.84
Third Party Referred	.82	1.15

To further analyze this interaction effect the simple main effects
of metaperception versus perception in other referred conditions and in
the third party referred condition were computed. The F ratio for the
metaperception versus perception effect in the other referred condition
was 1.02, p > .25. The F ratio for the perceptual effect in the third
party referred conditions was 5.04, significant beyond the .05 level.
Thus, the metaperception condition produced higher stereotype empathy
than the perceptual condition, but only within the third party referred
condition.

Another significant result in Table XXIV, if one accepts the pool-
ing of groups and subjects, is the interaction effect in the empathy
data. This result again must be interpreted with great caution. The
cell means for the empathy data are found in Table XXVI.

TABLE XXVI

CELL MEANS FOR EMPATHY DATA

	Perception	Metaperception
Other Referred	.68	.63
Third Party Referred	.51	.79

To analyze this interaction effect further, the simple main effects
of metaperception versus perception were computed. The F ratio for the
effect of metaperception versus perception in the other referred

condition was .19, p $>$ .25. The F ratio for the effect of metaperception versus perception in the third party referred condition was 5.92, significant beyond the .05 level. Thus, the metaperceptual condition produced higher empathy scores than the perceptual condition, but only within the third party referred condition. It is clear that both stereotype empathy and empathy show the same pattern of cell means. In fact we may be analyzing only one result since the correlation between stereotype empathy and empathy is .84 (see Table XXI).

The final significant results in Table XXVI are found in the conformity data. The interaction effect and the metaperception versus perception main effect each reached significance if one accepts the pooling of the groups and subjects variance. These results should be considered cautiously.

The conformity mean for the metaperceptual conditions was .72 while the perceptual mean was .49. These means and the significant F ratio indicate that the subjects in the metaperceptual conditions scored significantly higher on the conformity measure than did the subjects in the perceptual conditions. This main effect is entirely due to the interaction as can be seen by inspection of Table XXVII. To further analyze the interaction effect in the conformity data the simple main effects were computed. The cell means for the conformity data are found in Table XXVII.

TABLE XXVII

CELL MEANS FOR CONFORMITY DATA

	Perception	Metaperception
Other Referred	.57	.58
Third Party Referred	.42	.87

The F ratio for the effect of metaperception versus perception in the other referred condition was .002, p > .25. The F ratio for the metaperception versus perception effect in the third party referred condition was 18.92 significant beyond the .05 level. Thus, in the metaperceptual condition subjects scored higher on the conformity measure than in the perceptual condition, but only within the third party referred condition.

CHAPTER IV

DISCUSSION

The response category results make one point remarkably clear. The operant group method developed by Fromme has marked effects on the verbalizations issued in groups. It clearly has the power to elicit verbalizations that would not occur if subjects were in a free conversation situation. Since group psychotherapy is predominantly a verbal phenomenon, Fromme's operant group method should be able to create a therapeutic verbal atmosphere. The present study clearly indicates that the method is able to produce significant changes in several types of self-disclosing verbalizations, feedback, and two types of empathy statements. Each of these types of statements have been thought to have therapeutic importance. When the verbal parameters of the group therapeutic situation are more clearly specified through further research, Fromme's operant technique may become an important therapeutic modality.

The response category data also tend to corroborate the author's estimation of the degree of intimacy of the response categories. The nonaffective self-disclosure and impersonal disclosure categories were used much more frequently than the other categories. These less intimate categories were easier for subjects with no prior acquaintance to use. The more intimate categories (other disclosure [feedback], self-disclosure, impersonal empathy, and other empathy) were more difficult

to use.

The reinforcement data provided evidence of a "boot strap" effect where one subject influences the group's performance. This effect has been found frequently in research concerning the operant group technique. It appears that the red lights tend to keep subjects within ten points of one another. Thus, one highly responding subject can influence the other group members to respond at a high rate.

Another interesting result in the response category data was found in the analysis of the self-disclosure verbal response category. This analysis is unique in that a condition other than direct reinforcement of the response category created a high level of response. The other empathy category produced significantly higher levels of self-disclosing responses than did the nonaffective self-disclosure and the impersonal empathy condition. Recall that the other empathy condition involved a fairly intimate type of verbalization where a subject was required to state what he/she thought another group member felt about an aspect of themselves. When a group member made such a statement, the person to whom the other empathy statement was referred generally disclosed information about him/herself that indicated that the statement was either correct or incorrect. An example might be employed to illustrate this point. One group member in the other empathy condition said to a second member, "I bet you're proud of your grade point." This occurred after the second member had disclosed nonaffective information concerning his grade point average for the last semester. The second member responded with, "I feel pretty good about it." This response clearly fits the self-disclosure category. Thus, it appears that the other empathy and the self-disclosure categories naturally exist

together.   The self-disclosure category might be thought of as a re-
sponse to the other empathy category.

It is interesting to note that another pair of categories appear
to have a similar relationship.   It would seem that an impersonal dis-
closure response would naturally follow an impersonal empathy response.
No such tendency was found in the data, however.   This might possible
be due to the fact that the intimacy level of the impersonal empathy re-
sponse is much lower than the intimacy level of the other empathy re-
sponse.   When a group member responds with an other empathy statement,
the member to whom the statement is referred is immediately strongly
involved.   If the statement is inaccurate, the member to whom it is re-
ferred may feel the need to acknowledge it.   Since the impersonal
empathy statement is less intimate, the member to whom the statement is
referred is more likely to let inaccuracies go uncorrected.   Also,
correct impersonal empathy statements aren't highly intimate and hence
do not demand acknowledgement.

Another finding concerning the self-disclosure response category
data occurred in the analysis of the metaperception versus perception
and the other referred versus third party referred factors.   A signifi-
cant trend for a higher rate of self-disclosure responses in the other
referred categories as opposed to the third party referred category is
seen when groups and subjects variance are pooled.   One must be cautious
in interpreting this effect.   However, a possible explanation of this
effect might make use of the intimacy concept.   Other group member re-
ferred statements are clearly more intimate than third party referred
statements.   Also, intimate statements surely involve a higher degree of
interpersonal risk than less intimate statements.   If one accepts the

idea of self-disclosure's snowballing effect being analogous to the risky shift phenomenon (Higbee, 1973), one can see an explanation for self-disclosure being more frequent in an intimate condition as opposed to a less intimate one. Since intimacy is a type of valued interpersonal risk, group members in an intimate situation should respond with high levels of interpersonal risk. One way to do this would be frequent use of the self-disclosure category.

Analysis of the self-disclosure questionnaire data provided findings related to the discussion above. Self-disclosure again appeared to be at least moderately related to the intimacy dimension. The less intimate categories (nonaffective self-disclosure and impersonal disclosure) produced lower self-disclosure scores than did the more intimate categories (other disclosure [feedback], self-disclosure, impersonal empathy, and other empathy). Again, we see that self-disclosure is related to the intimacy of the interaction. This finding does not appear to be extremely potent since there was no significant treatment effect and only one overall planned comparison was significant. It is possible that the self-disclosure questionnaire is not actually as intimate a type of self-disclosure as is a self-disclosure response. If one looks at the items in the self-disclosure questionnaire it is clear that they are comprised of historical data and other types of information concerning the self. If this information were verbalized the statement would fit the nonaffective self-disclosure category predominantly. Thus, the Jourard measure of self-disclosure is not as intimate as are self-disclosure responses. It may be, for this reason, that stronger effects on self-disclosure questionnaire data were not observed.

This idea is further corroborated by the findings concerning the metaperception versus perception and the other referred versus third party referred factors in the self-disclosure questionnaire data. No significant third party versus other effect was found. Since this factor is strongly related to intimacy, as is discussed above, and since the self-disclosure questionnaire does not concern extremely intimate content, no effect would be expected. However, tendency toward a higher self-disclosure score in the metaperceptual conditions as compared to the direct perceptual conditions was observed. It is possible that when self-disclosure involves informational content, as the self-disclosure questionnaire does, the probability of being understood may influence disclosure. It is probable that one would feel more likely to be understood in the metaperceptual conditions than in the direct perceptual conditions. This is the case since in the metaperceptual conditions empathic statements are more frequent. Thus, the tendency to disclose information would be expected to be high since the empathic statements of others would make it seem highly probable that one would be heard and understood.

Analysis of the Elm's Empathy Scale provided no significant results. It is possible that this measure was not tapping the appropriate kind of empathy. The Elm's measures, on the face of it, the ability to mentally put one's self in another's place. In the present study, empathy involved the actual verbalization of an empathic thought. This, of course, is much more difficult to do than merely thinking how another must feel. Thus, the empathy scale is not strongly related to the empathy treatments in the present study.

The cohesiveness measures (the attractiveness item and the tendency to cohere item) provided only one significant result. The aspect of cohesiveness measured by the attractiveness item was slightly greater in the impersonal empathy condition than in the nonaffective self-disclosure and the impersonal disclosure condtions. Thus, impersonal empathy statements may foster group cohesiveness more than less intimate statements.

Only one result was obtained in the enjoyment and meaningfulness item data. The other empathy condition was rated as more meaningful than the nonaffective self-disclosure condition coupled with the impersonal disclosure condition. Although none of the other dependent variables were affected in this way, subjects still felt the category was meaningful. The intimacy of the condition may produce this high evaluation by subjects.

Significant effects were also found in the person perception data. First, the impersonal empathy subjects' conformity scores, a measure of the degree to which one's judgement of others conforms to the group's judgements of others, were significantly higher than the scores of other subjects' scores. This result was only seen when groups and subjects variability was pooled, however. For this reason, the result must be regarded as tentative. The finding, however, would seem quite logical since the impersonal empathy condition reinforced empathic statements. Specifically, this condition had a high level of statements where subjects verbalized what they thought other group members felt about third parties. This is essentially attempting to know how another group member feels. To the extent that group members are able to know how other group members feel, is exactly the extent to which

they are able to conform. This analysis raises one question, however. Why didn't the subjects in the other empathy condition conform? The answer may lie in the very small number of other empathy statements that were actually issued in the other empathy condition. Since few statements were issued, subjects were not able to actually know how other group members felt. Possibly, for this reason they were unable to conform. Another possibility is the intimacy of the other empathy condition. The intimacy of this condition may have resulted in a high level of emotional arousal. Extreme arousal has often been shown to decrease performance. In this case, emotional arousal may have resulted in poor formation of clear person percepts. Since subjects' percepts were not clear, there was no way to conform to those percepts.

The conformity scores were significantly lower in the nonaffective self-disclosure condition than in any other condition. This seems logical since subjects in this condition verbalized many nonaffective, somewhat trivial pieces of information. Thus, subjects were unable to conform since they knew little about each others' feelings.

The subjects in the impersonal disclosure condition scored significantly lower than any other condition except the nonaffective self-disclosure condition. Subjects in this condition were able to learn more about each others' feelings and hence were able to conform to a higher level than nonaffective self-disclosure subjects. However, they were able to learn only slightly more and they remained significantly lower than the more intimate conditions.

The conformity data analysis also found metaperceptual conditions to create more conformity than the direct perceptual conditions. Again, this is quite logical since metaperception is the perception of

the perceptions of others. If one can know the perceptions of another then he/she is able to conform to those perceptions. Direct perception does not focus on the perceptions of others and hence cannot foster conformity to those perceptions.

Two other person perception variables, stereotype empathy and empathy, also yielded significant results. Stereotype empathy, how accurately subjects predict how the "average other" sees him/herself, is strongly correlated (.84) with empathy, how accurately a subject predicted how others see themselves. For this reason, they will be considered together. Both variables yielded a similar pattern of results. In each, metaperception created higher scores than perception, but only when the referent was a third party. (This pattern also occurred in the conformity data. This, however, was not due solely to a correlation with the empathy and stereotype empathy measures since these correlations were not excessive, .55 and .42 respectively).

The patterns of empathy and stereotype empathy may be explained in a fashion similar to the one forwarded for conformity. Both the impersonal empathy condition and the other empathy condition essentially involved practice in knowing the feelings of others. The other disclosure (feedback), and impersonal disclosure conditions did not. If just this were considered one would expect the impersonal empathy and other empathy subjects to have higher empathy scores than the other disclosure (feedback) and the impersonal disclosure subjects. However, the other empathy condition was quite intimate and may have resulted in highly aroused emotions which may have decreased the formation of clear percepts. Also, the other empathy category was not used at a high rate and for this reason there was less practice in knowing the feelings of

others. Thus, only the impersonal empathy condition showed high levels of empathy and stereotype empathy.

It is well now to reflect on the possible mistakes made in the present study in order that future research may not make them again. Several problems may have limited the number of significant results. The first problem with the present study is large group effects in the data other than reinforceable responses. (Reinforceable response group effects are a result of the conditioning technique as is discussed above). Group effects, in part, comprise the error term for the more interesting experimental effects. For this reason, large group effects obscure experimental effects. In further research dealing with the operant group method, this problem might be dealt with in two ways. The first and perhaps the best way to deal with this problem is to form groups in such a way as to make them equivalent in terms of several personality variables. Perhaps forming groups on the basis of scores on such instruments as the MMPI, the 16-PF, or some other personality test might minimize group variance. Another similar method to reduce group variance would be to form groups on the basis of FIRO-B compatibility. This was actually done by Fromme and Close (1976). The second way to deal with the group variance might be to use group scores as a covariate.

A second problem with the present study was the subject population used. The experimental procedure required subjects to respond verbally in intimate and seemingly meaningful ways. This, of course, requires a high level of commitment on the part of the subjects. The author strongly doubts that the minimal class credit received for participation in this study provided sufficient incentive for subjects to make such a

commitment. This is especially true when receiving class credit was contingent on attendance, not on meaningful participation. At any rate, a more appropriate subject population might be chosen. Perhaps members of therapy or growth groups might possibly be enlisted as subjects. They would surely have a higher commitment because it is likely that they would receive personal gain for meaningful participation. This is certainly a more appropriate incentive in a group therapy analogue than is minimal class credit.

Thirdly, the present study may have failed to obtain more results because of the measures used. Aside from the Elm's Empathy Scale and the Jourard Self-disclosure Questionnaire, each of the measures used was unvalidated and of unproven reliability. Most had never been used before. This, of course, is not to say that the measures used are not good ones. It only means that the author was not certain from the out-set that they were adequate. This certainly would place the present study in the high risk category. It would be well to obtain validity and reliability data on these measures before they are utilized in further studies.

The fourth and perhaps most important mistake made in the present study is the use of only one group session. That tentative results were obtained with only one session points to the strength of the operant group method. It is probable that more striking, less tenta-tive results would be obtained by use of several group sessions. This author would recommend strongly that future research in the area use as many sessions as pragmatic concerns will allow.

In sum, the operant group method was shown to be effective in altering the verbal behavior of group members. High levels of the

reinforced verbal response categories were created when compared with free conversation. A behavioral measure of self-disclosure found other referred conditions to be superior to third party referred conditions in fostering self-disclosure. A pencil and paper questionnaire measure of self-disclosure found highly intimate conditions to produce higher levels of self-disclosure than less intimate conditions. Also, this measure found that metaperceptual conditions fostered self-disclosure more than perceptual conditions. Cohesiveness, as measured by an attractiveness item, was higher in the impersonal empathy condition than in less intimate conditions. Subjects saw the other empathy condition as more meaningful than the less intimate conditions. Finally, a pencil and paper questionnaire found conformity, empathy, and stereotype empathy to be higher in the externally referred empathy (or meta-perceptual) condition than in the external self-disclosure (or perceptual) condition.

Finally, the results tend to indicate in general that impersonal empathy statements are superior to other statements in the operant group setting. It may be, however, that use of a number of group sessions would result in different findings. In the author's view, other empathy might provide even stronger effects than impersonal empathy if the intial emotional arousal of subjects was reduced. This might occur over time through familiarity with group members and the response category. Reduced arousal might possibly allow for very clear formation of person percepts since it would be coupled with high intimacy. It is not only the author's opinion that other empathy may have meaningful effects. Subjects also tended to rate this condition as more meaningful than less intimate conditions. At any rate, it is

the author's firm subjective impression that the other empathy condition produced a meaningful and an intimate type of interaction. One theoretical position that might be of relevance to the present discussion was presented by Cozby (1973). Cozby suggested that self-disclosure was related to mental health in a curvilinear fashion. Specifically, both extremely high and extremely low disclosers were likely to exhibit low mental health while moderate disclosers were likely to exhibit high mental health. If mental health and the intimacy of interactions are related in the same way, a possible explanation for the lack of results in the other empathy condition comes to light. The other empathy condition is possibly too intimate for an initial group session. Other empathy would then be related to reduced mental health rather than greater mental health. This would be true only for initial sessions, however. As more intimate material became more acceptable to group members in later sessions, other empathy might possibly be more appropriate and thus be related to improved mental health.

REFERENCES

Adesso, V. J. et al. Effects of a personal growth group on positive and negative self-references. _Psychotherapy: Theory, Research and Practice_, 1974, _4_, 354-355.

Aspy, D. N. Empathy-congruence-caring are not singular. _Personnel and Guidance Journal_, 1970, _48_, 637-640.

Bach, G. R. Constructive aggression in growth groups. In A. Jacobs and W. W. Spradlin (Eds.) _Group as an agent of change_. New York Behavioral Publications, 1969.

Back, K. Influence through social communication. _Journal of Abnormal Social Psychology_, 1951, _46_, 398-405.

Backman, C. W. and Secord P. F. Liking, selective interaction, and misperception in congruent interpersonal relations. _Sociometry_, 1962, _25_, 321-332.

Backman, C. W., Secord, P. F. and Peirce, J. R. Resistance to change in the self-concept as a function of concensus among significant others. _Sociometry_, 1963, _26_, 102-111.

Bales, R. F. _Interaction Process Analysis: A Method for the Study of Small Groups_. Cambridge, Mass.: Addison-Wesley, 1950.

Ball, R. S. Reinforcement conditioning of verbal behavior by verbal and nonverbal stimuli in a situation resembling a clinical interview. Unpublished doctoral dissertation, Indiana University, 1952.

Banikiotes, P. G. and Daher, D. M. Similarity in level of disclosure and interpersonal attraction. _Personality and Social Psychology Bulletin_, 1974, _1_, 73-75.

Bednar, R. L. & Lawlis, B. F. Empirical research in group psychotherapy. In A. E. Bergin and S. L. Garfield (Eds.) _Handbook of Psychotherapy and Behavior Change_. New York: Wiley, 1971.

Berne, E. _The Structure and Dynamics of Organizations and Groups_. New York: Ballantine Books, 1963.

Binder, A., McConnell, D., and Sjoholm, N. A. Verbal conditioning as a function of experimenter characteristics. _Journal of Abnormal Social Psychology_, 1957, _55_, 309-314.

Borke, H. Interpersonal perception of young children: egocentrism versus empathy? Developmental Psychology, 1971, 5, 263-269.

Broxton, J. A. A test of interpersonal attraction predictions derived from balance theory. Journal of Abnormal and Social Psychology, 1963, 66, 394-397.

Cambell, H. P. and Dunnette, M. D. Effectiveness of T-group experiences in managerial training and development. Psychological Bulletin, 1968, 70, 73-104.

Cartwright, D. and Zander, A. Group Dynamics: Research and Theory. Evanston, Illinois: Row & Peterson, 1962.

Cava, E. L. and Rausch, H. L. Identification and the adolescent boys' perception of his father. Journal of Abnormal and Social Psychology, 1952, 47, 855-857.

Charkin, A. L. and Derlega, V. J. Liking for the norm-breaker in self-disclosure. Journal of Personality, 1974, 42, 117-129.

Chelune, G. J. Sex differences and relationship between repression-sensitization and self-disclosure. Psychological Reports, 1975, 37, 920.

Chittick, E. V. and Himelstein, D. The manipulation of self-disclosure. Journal of Psychology, 1967, 65, 117-121.

Clark, J. and Arkowitz, H. Social anxiety and self-evaluation of interpersonal performance. Psychology Review, 1975, 36, 211-221.

Clark, K. B. and Clark M. P. The development of consciousness of self and the emergence of racial identification in negro preschool children. Journal of Social Psychology, 1939, 10, 591-599.

Cohen, B. D., Kalish, H. I., Thurston, J. R. and Cohen, E. Experimental manipulation of verbal behavior. Journal of Experimental Psychology, 1954, 47, 106-110.

Collison, C. Experimental induction of self-concept. Psychology Report, 1974, 35, 1235-1238.

Cozby, P. Self-disclosure: A literature review. Psychological Bulletin, 1973, 79, 73-91.

Cozby, P. Self-disclosure, reciprocity, and liking. Sociometry, 1972, 35, 151-160.

Cravens, R. W. The need for approval and the private versus public disclosure of self. Journal of Personality, 1975, 43, 503-514.

Crocket, W. H. and Merdinger, T. Authoritarianism and interpersonal perception. Journal of Abnormal and Social Psychology, 1956, 53, 378-381.

Cronbach, L. J. Processes affecting scores on understanding of others and assumed similarity. Psychological Bulletin, 1955, 52, 97-107.

Daher, M. and Banikiotes, P. G. Disclosure content, disclosure level and interpersonal attraction. Personality and Social Psychology Bulletin, 1974, 1, 76-78.

Daily, J. M. Verbal conditioning without awareness. Unpublished doctoral dissertation, State University of Iowa, 1953.

Deutch, M. and Soloman, L. Reactions to evaluations by others as influenced by self-evaluations. Sociometry, 1959, 22, 92-113.

Derlega, V. J., Walmer, J., and Furman, G. Mutual disclosure in social interactions. Journal of Social Psychology, 1973, 90, 159-160.

Dittes, J. E. Group attractiveness, self-esteem, and acceptance by group. Journal of Abnormal and Social Psychology, 1959, 59, 77-81.

Dickoff, H. and Lakin, M. Patients' views of group psychotherapy: retrospections and interpretations. International Journal of Group Psychotherapy, 1963, 13, 61-73.

Dinoff, M., Horner, R. G., Kurpiewski, B. S., Rickard, H. C., and Timmons, E. O. Conditioning verbal behavior of a psychiatric population in a group therapy-like situation. Journal of Clinical Psychology, 1960, 16, 371-372.

Dyer, W. G. Forms of interpersonal feedback. Training and Development Journal, 1972, 26, 8-12.

Edelman, R. I. and Snead, R. Self-disclosure in a simulated psychiatric interview. Journal of Counseling and Consulting Psychology, 1972, 38, 354-358.

Eisman, B. Some operational measures of cohesiveness and their interrelations. Human Relations, 1959, 12, 183-189.

Ekman, P. A methodological discussion of nonverbal behavior. Journal of Psychology, 1957, 43, 141-149.

Ellison, C. W. and Firestone, I. J. Development of interpersonal trust as a function of self-esteem, target status, and target style. Journal of Personality and Social Psychology, 1974, 29, 655-663.

Erlich, H. and Graeven, D. Reciprocal self-disclosure in a dyad. Journal of Experimental Social Psychology, 1971, 7, 389-400.

Fahmy, A. Conditioning and extinction of referential verbal response class in a situation resembling a clinical diagnostic interview. Unpublished doctoral dissertation, Indiana University, 1953.

Festinger, L. Informal social communication. Psychological Review, 1950, 57, 271-282.

Festinger, L., Schacter, S. and Back, K. Social Pressures in Informal Groups. New York: Harper, 1950.

Fishbein, M. The perception of nonmembers: A test of Merton's reference group theory. Sociometry, 1963, 26, 271-286.

Fitzgerald, M. P. Self-disclosure and expressed self esteem, social distance, and areas of self revealed. Journal of Psychology, 1963, 56, 405-412.

Frank, J. D. Some determinants, manifestations and effects of cohesion in therapy groups. International Journal of Group Psychotherapy, 1957, 7, 53-62.

Fromme, D. K. and Close, S. R. Group compatibility and the modification of affective verbalizations. British Journal of Social and Clinical Psychology, 1976.

Fromme, D. K. and Marcy, M. R. Operant conditioning of verbal self-disclosure and its effects on group cohesiveness and subsequent self-disclosure. Unpublished master's thesis, Oklahoma State University, 1976.

Fromme, D. K., Whisenant, W. F., Susky, H. H., and Tedesco, J. F. Group modification of affective verbalizations. Journal of Consulting and Clinical Psychology, 1974, 42, 866-871.

Gage, N. L. Judging interests from expressive behavior. Psychological Monographs, 1952, 66, 18.

Garfield, S. L. and Bergin, A. E. Therapeutic conditions and outcome. Journal of Abnormal Psychology, 1971, 77, 108-114.

Gecas, V., Calonico, J. M., and Thomas, D. L. The development of self-concept in the child: Mirror theory versus model theory. Journal of Social Psychology, 1974, 92, 67-76.

Gergen, K. J. and Wishov, B. Others' self-evaluations and interaction anticipation as determinants of self-presentation. Journal of Personality and Social Psychology, 1965, 2, 348-358.

Goldstein, A., Heller, K., and Sechrest, L. Psychotherapy and the Psychology of Behavior Change. New York: John Wiley and Sons, 1966.

Goodchilds, J. Effects of being witty on position in social structure of a small group. Sociometry, 1959, 22, 261-272.

Goodman, N. and Ofshe, R. Empathy, communication, efficiency and marital status. Journal of Marriage and the Family, 1968, 30, 597-603.

Goslin, D. A. Accuracy of self perception and social acceptance. Sociometry, 1962, 25, 283-285.

Gray, D. F. and Gaier, E. L. The congruency of adolescent self-perceptions with those of parents and best friends. Adolescence, 1974, 9, 299-303.

Greenspoon, J. The effect of verbal and nonverbal stimuli on the frequency of members of two verbal response classes. Unpublished doctoral dissertation, Indiana University, 1951.

Greenspoon, J. The reinforcing effect of two spoken sounds on the frequency of two responses. American Journal of Psychology, 1955, 68, 409-416.

Greenspoon, J. Verbal conditioning. In A. V. Bachrach (Ed.) Experimental Foundations of Clinical Psychology. New York: Basic Books, 1962.

Greif, E. B. and Hogan, R. The theory and measurement of empathy. Journal of Counseling Psychology, 1973, 20, 280-284.

Gross, N. and Martin, W. E. On group cohesiveness. American Journal of Sociology, 1952, 57, 546-554.

Hagstrom, W. O. and Selvin, H. C. Two dimensions of cohesiveness in small groups. Sociometry, 1965, 28, 30-43.

Hartman, C. H. Verbal behavior of schizophrenic and normal subjects as a function of types of social reinforcements. Unpublished doctoral dissertation, State University of Iowa, 1955.

Hass, H. I. and Haehr, M. L. Two experiments on the concept of self and the reactions of others. Journal of Personality and Social Psychology, 1965, 1, 100-105.

Hauserman, N., Zweback, S., and Plotkin, A. Use of concrete reinforcement to facilitate verbal initiations in adolescent group therapy. Journal of Consulting and Clinical Psychology, 1972, 38, 90-96.

Heckle, R. V., Wiggins, S. L., and Salzberg, H. C. Conditioning against silences in group therapy. Journal of Clinical Psychology, 1962, 18, 216-217.

Helper, M. Learning theory and the self-concept. Journal of Abnormal and Social Psychology, 1955, 51, 184-194.

Hersen, M. Awareness in verbal operant conditioning: some comments. Journal of General Psychology, 1968, 78, 287-296.

Higbee, K. L. Group influence on self-disclosure. Psychological Reports, 1973, 32, 903-909.

Hildum, D. C. and Brown, R. W. Verbal reinforcement and interviewer bias. Journal of Abnormal Social Psychology, 1956, 53, 108-111.

Himelstein, P. and Kimbrough, W. W. Relationship of the MMPI K-scale and a measure of self-disclosure in a normal population. Psychological Reports, 1963, 19, 166.

Himelstein, P. and Lubin, B. Attempted validation of the self-disclosure inventory by the Peer Nomination Technique. Journal of Psychology, 1965, 61, 13-16.

Himmelfarb, S. Integration and attribution theories in personality impression formation. Journal of Personality and Social Psychology, 1972, 23, 309-313.

Holz, W. C. and Azrin, N. H. Conditioning human verbal behavior. In W. K. Honig (Ed.) Operant Behavior. New York: Appleton, 1966.

Humphreys, L. G. Acquisition and extinction of verbal expectations in a situation analogous to conditioning. Journal of Experimental Psychology, 1939, 25, 294-301.

Jacobs, M., Jacobs, A., Feldman, G., and Cavior, N. Feedback II. The credibility gap: delivery of positive and negative and emotional and behavioral feedback in groups. Journal of Consulting and Clinical Psychology, 1973, 41, 215-223.

Jacobs, M., Jacobs, A., Gatz, M. and Schiable, T. Credibility and desirability of positive and negative structured feedback in groups. Journal of Consulting and Clinical Psychology, 1973, 40, 244-252.

Janis, M. Social interaction and the self concept. Journal of Abnormal and Social Psychology, 1955, 51, 362-370.

Jones, E. E. Authoritarianism and first impressions. Journal of Personality, 1954-55, 23, 105-125.

Jones, E. E., Hester, S. L., Farina, A. and Davis, K. E. Reactions to unfavorable personal evaluation as a function of the evaluators perceived adjustment. Journal of Abnormal and Social Psychology, 1959, 59, 363-370.

Jourard, S. Personal Adjustment: An Approach Through the Study of Healthy Personality. New York: Macmillan, 1958.

Jourard, S. Self-disclosure and other-cathexis. Journal of Abnormal Social Psychology, 1959, 59, 428-431.

Jourard, S. Self-disclosure: An Experimental Analysis of the Transparent Self. New York: Wiley, 1971.

Jourard, S. The Transparent Self. New York: Van Nostrand, 1964.

Jourard, S. (Ed.) To Be or Not to Be - Existential Psychological Perspectives on the Self. Monograph from University of Florida Monographs, Gainesville, 1967.

Jourard, S. and Jaffee, P. Influence of an interviewer's disclosure on the self-disclosing behavior of interviewees. Journal of Counseling Psychology, 1970, 17, 252-297.

Jourard, S. and Landsman, M. J. Cognition, cathexis, and the "dyadic effect" in men's self-disclosing behavior. Merrill-Palmer Quarterly of Behavior and Development, 1960, 9, 141-148.

Jourard, S. and Lasakow, P. Some factors in self-disclosure. Journal of Abnormal Social Psychology, 1958, 56, 91-98.

Jourard, S. and Resnick, J. L. Some effects of disclosing among college women. Journal of Humanistic Psychology, 1970, 10, 84-93.

Kanfer, F. H. The effect of partial reinforcement on acquisition and extinction of a class of verbal response. Journal of Experimental Psychology, 1954, 48, 424-432.

Kanfer, F. H. Verbal conditioning: a review of its current status. In T. R. Dixon and D. L. Horton (Eds.) Verbal Behavior and General Behavior Theory. New York: Prentice-Hall, 1968.

Kleinfeld, J. The relative importance of teachers and parents in the formation of Negro and white students' academic self-concept. Journal of Educational Research, 1972, 65, 211-212.

Kraft, L. W. and Vraa, C. W. Sex composition of groups and pattern of self-disclosure by high school females. Psychological Reports, 1975, 37, 733-734.

Krasner, L. Studies of the conditioning of verbal behavior. Psychological Bulletin, 1958, 55, 148-170.

Krasner, L. The use of generalized reinforcers in psychotherapy research. Psychological Reports, 1955, 1, 19-25.

Krate, R., Leventhal, G., and Silverstein, B. Self-perceived transformation of negro-to-black identities. Psychology Report, 1974, 35, 1071-1075.

Kruger, D. Operant group therapy with delinquent boys using therapist's versus peer's reinforcement. Unpublished doctoral dissertation, University of Miami, 1970.

Laing, R. D. The Politics of Experience. New York: Pantheon, 1967.

Landecker, W. S. Types of integration and their measurement. In P. F. Lazarfeld and M. Rosenberg (Eds.) The Language of Social Research. Glencoe: The Free Press, 1955.

Lazarus, A. A. The "inner circle" strategy identifying crucial problems. In John D. Krumboltz and Carl E. Thoreson (Eds.) Behavioral Counseling Cases and Techniques. New York: Holt, Rinehart and Winston,, Inc., 1969.

Leiberman, M. A., Yalom, I. D., and Miles, M. B. Encounter Groups: First Facts. New York: Basic Books, 1973.

Levinger, G. and Senn, D. Disclosure of feelings in marriage. Merrill-Palmer Quarterly for Behavior and Development, 1967, 13, 237-249.

Lorber, N. M. Interpersonal feelings and their perception. In Handbook of International Sociometry, 1973.

Luckey, E. B. Perceptual congruence of self and family concepts as related to marital interaction. Sociometry, 1961, 24, 234-249.

Mandler, G. and Kaplan, W. K. Subjective evaluation and reinforcing effect of a verbal stimulus. Science, 1956, 124, 582-583.

Marion, A. J. The influence of experimenter status upon verbal conditioning. Unpublished doctoral dissertation, University of California, Los Angeles, 1956.

McDonald, R. L. and Gunther, M. D. Relationship of self and ideal self descriptions with sex, race, and class in southern adolescents. Journal of Personality and Social Psychology, 1965, 1, 85-88.

McNair, D. M. Reinforcement of verbal behavior. Journal of Experimental Psychology, 1957, 53, 40-46.

Mehrabian, A. and Epstein, N. A measure of emotional empathy. Journal of Personality, 1972, 40, 525-543.

Miles, M. B. Changes during and following laboratory training: a clinical-experimental study. Journal of Applied Behavioral Science, 1965, 1, 215-242.

Mischel, W. and Ebbesen, E. B. Selective attention to the self: situational and dispositional determinants. Journal of Personality and Social Psychology, 1973, 27, 129-142.

Mock, J. F. The influence of verbal and behavioral cues of a listener on the verbal productions of the speaker. Unpublished doctoral dissertation, University of Kentucky, 1957.

Morse, S. and Gergen, K. Social comparison, self-consistency, and the concept of self. Journal of Personality and Social Psychology, 1970, 16, 148-156.

Mullen, J. and Abeles, N. Relationship of liking, empathy, and therapist's experience to outcome of therapy. Journal of Counseling Psychology, 1971, 18, 39-43.

Munns, M. The values of adolescents compared with parents and peers. *Adolescence*, 1972, 7, 519-524.

Nuthemann, A. M. Conditioning of a response class on a personality test. *Journal of Abnormal Social Psychology*, 1957, 54, 19-23.

Oakes, W. F. Reinforcement of Bale's categories in group discussion. *Psychological Reports*, 1962, 11, 427-435.

Oakes, W. F., Droge, A. E., and August, B. Reinforcement effects on conclusions reached in a group discussion. *Psychological Reports*, 1961, 9, 27-34.

Oakes, W. F., Droge, A. E., and August, B. Reinforcement effects on participation in group discussion. *Psychological Reports*, 1960, 7, 503-512.

Pearce, W. and Sharp, S. M. Self-disclosing communication. *Journal of Communication*, 1973, 23, 409-425.

Pederson, D. M. and Breglio, V. J. Personality correlates of actual self-disclosure. *Psychological Reports*, 1968, 22, 495-501.

Phares, E. J. and Wilson, K. G. Internal-external control, interpersonal attraction, and empathy. *Psychological Reports*, 1971, 28, 543-549.

Pierce, R. M. and Zark, T. H. Differential referal to significant others as a function of interpersonal effectiveness. *Journal of Clinical Psychology*, 1972, 28, 230-232.

Podell, J., and Amster, H. Evaluative concept of a person as a function of the number of stimulus traits. *Journal of Personality and Social Psychology*, 1966, 4, 333-336.

Rassmussen, G. and Zander, A. Group membership and self evaluation. *Human Relations*, 1954, 7, 239-251.

Razran, G. Stimulus generalization of conditioned responses. *Psychological Bulletin*, 1949, 46, 337-365.

Ribner, N. G. Effects of an explicit group contract on self-disclosure and group cohesiveness. *Journal of Counseling Psychology*, 1974, 21, 116-120.

Rickers-Ovsiankina, M. and Kusmin, A. A. Individual differences in social accessibility. *Psychological Reports*, 1958, 4, 391-406.

Rogers, C. R. The necessary and sufficient conditions of therapeutic personality change. *Journal of Consulting Psychology*, 1957, 21, 95-103.

Ruesch, J. and Kees, W. Nonverbal communication. Berkeley: University of California Press, 1959.

Salzinger, K. Experimental manipulation of verbal behavior: a review. Journal of Genetic Psychology, 1959, 61, 65-94.

Salzinger, K. and Pisoni, S. Reinforcement of affect responses of schizophrenics during the clinical interview. Paper read at Eastern Psychological Association, New York, April, 1957(a).

Salzinger, K. and Pisoni, S. Reinforcement of verbal affect responses of schizophrenics during the clinical interview: the effect on the conditioning of placement of a period of reinforcment. Paper read at American Psychological Association, New York, August, 1957(b).

Sarason, I. G. Interrelations among individual difference variable, behavior in psychotherapy, and verbal conditioning. Paper read at Western Psychological Association, Eugene, Oregon, May, 1957.

Schacter, S. Deviation, rejection, and communication. Journal of Abnormal Social Psychology, 1951, 46, 190-207.

Schoen, K. Communicate with predictability. American Journal of Occupational Therapy, 1970, 24, 19-23.

Schutz, William C. FIRO: A three-dimensional theory of interpersonal behavior. New York: Holt, Rinehart, and Winston, Inc., 1958.

Seashore, S. Group Cohesiveness in the Industrial Work Group. Monograph from the Institute for Social Research, Ann Arbor, Michigan, 1954.

Shapiro, D. A. Empathy, worth, and genuineness in psychotherapy. British Journal of Social and Clinical Psychology, 1969, 8, 350-361.

Shaw, M. E. Group Dynamics: The Psychology of Small Group Behavior. New York: McGraw-Hill, 1971.

Sidowski, J. B. Influence of awareness of reinforcement on verbal conditioning, Journal of Experimental Psychology, 1954, 48, 355-360.

Sigull, H. and Landy, D. Radiating beauty: effects of having a physically attractive partner on person perception. Journal of Personality and Social Psychology, 1973, 28, 218-224.

Simonson, N. R. The impact of therapist disclosure on patient disclosure. Journal of Counseling Psychology, 1976, 23, 3-6.

Smith, H. C. Sensitivity Training. The Scientific Understanding of Individuals. New York: McGraw-Hill, 1973.

Smith, J. E. The relationship of encounter group interaction, certain process variables, and cohesiveness. Unpublished doctoral dissertation, West Virginia University, 1970.

Spielberger, C. D. and DeNike, L. D. Operant conditioning of plural nouns: a failure to replicate the Greenspoon effect. Psychological Reports, 1962, 11, 355-366.

Spivak, M. and Papajohn, J. The effect of the schedule of reinforcement on operant conditioning of a verbal response in the autokinetic situation. Journal of Abnormal Social Psychology, 1957, 54, 213-217.

Spolsky, A. Relationship between patient-doctor compatibility, mutual perceptions and outcome of treatment. Journal of Abnormal Psychology, 1969, 70, 70-76.

Stoller, F. H. Marathon group therapy. In G. M. Gazda (Ed.), Innovations to group psychotherapy. Springfield, Ill. Charles C. Thomas, 1968.

Strassberg, R. S., Roback, H. B., Anchor, K. N. and Abramowitz, S. I. Self-disclosure in group therapy with schizophrenics. Archives of General Psychiatry, 1975, 32, 1259-1261.

Streufert, S. Communicator importance and interpersonal attitudes towards conforming and deviant group members. Journal of Personality and Social Psychology, 1965, 2, 242-246.

Taffel, C. Anxiety and the conditioning of verbal behavior. Journal of Abnormal Social Psychology, 1955, 51, 496-501.

Tatz, S. J. Symbolic mediation in "learning without awareness". Paper read at Eastern Psychological Association, Atlantic City, March, 1956.

Taylor, D. A. The development of interpersonal relationship social penetration process. Journal of Social Psychology, 1968, 75, 79-90.

Thibault, J. W. and Coules, J. The role of communication in the reduction of interpersonal hostility. Journal of Abnormal and Social Psychology, 1952, 47, 770-777.

Truax, C. B. Length of therapist response, accurate empathy, and patient improvement. Journal of Clinical Psychology, 1970, 26, 539-541.

Truax, C. B. and Carkhuff, R. R. Toward effective counseling and psychotherapy. Chicago: Aldine, 1967.

Truax, C. B., Wittner, J., Wargo, D. G. Effects of the therapeutic conditions of accurate empathy, nonpossessive warmth, and genuineness on hospitalized mental patients during group therapy. Journal of Clinical Psychology, 1971, 27, 137-142.

Verplank, W. S. The control of the content of conversation: reinforcement of statements of opinion. Journal of Abnormal Social Psychology, 1955, 51, 668-676.

Vesprani, G. J. Personality correlates of accurate empathy in a college companion program. Journal of Consulting and Clinical Psychology, 1969, 33, 722-727.

Vondracek, F. W. and Marshall, J. J. Self-disclosure and interpersonal trust: an exploratory study. Psychological Reports, 1971, 28, 235-240.

Wagner, M. Reinforcement of verbal productivity in group therapy. Psychological Reports, 1966, 19, 1217-1218.

Walster, E., Walster, B., Abrahams, D., and Brown, Z. The effect on liking of underrating or overrating another. Journal of Experimental Social Psychology, 1966, 2, 70-84.

Watson, E. R. Interpersonal changes through immediate feedback approaches. Adult Education, 1969, 19, 251-267.

Watzlawick, P., Beavin, J., and Jackson, D. Pragmatics of Human Communication. New York: Norton, 1967.

Wickes, T. A., Jr. Examiner influence in a testing situation. Journal of Consulting Psychology, 1956, 20, 23-26.

Williams, J. H. Conditioning of verbalization: a review. Psychological Bulletin, 1966, 62, 383-393.

Wilson, W. C. and Verplank, W. S. Some observations on the reinforcement of verbal operants. American Journal of Psychology, 1956, 69, 448-451.

Yalom, I. D. The Theory and Practice of Group Psychotherapy. New York: Basic Books, 1970.

Zander, A. and Havelin, A. Social Comparisons and intergroup attraction. In D. Cartwright and A. Zander (Eds.) Group Dynamics: Research and Theory. Evanston, Illinois: Row and Pederson, 1962.

Zief, R. M. Values and self-disclosure. Unpublished thesis, Harvard University, 1962.

APPENDIX A

Outline of Measures of Person
Perceptions in Groups

1. Congruence (CG): degree to which one rates others as they are
   perceived rating oneself (perceived behavior exchange).

2. Accuracy (A): degree to which a person can predict how others
   perceive him (self accuracy).

3. Empathy (E): degree to which a person can predict how others see
   themselves (other accuracy).

4. Interpersonal Openness (IO): degree to which others can predict
   your rating of them (reflects degree to which one is understood).

5. Personal Openness (PO): degree to which others can predict one's
   self concept (reflects degree to which one is understood).

6. Felt Openness (FO): degree to which one predicts that others
   agree with one's self perception (reflects degree to which one
   feels understood).

7. Perceived Similarity (PS): degree to which one rates oneself
   similar to others.

8. Naivete (N): degree to which one rates others as they are per-
   ceived rating themselves (reflects acceptance of others self
   presentations).

9. Conformity (CF): degree to which ones' judgement of others con-
   forms to the group's judgements (encompasses empathy; low CF
   requires other accuracy, plus conformity).

10. Other Variance (OV): the variance in a person's other ratings.

11. Self as Other Variance (SOV): the variance in a person's self as
    other ratings.

12. Other's Self Variance (OSV): the variance in a person's other's
    self ratings.

13. <u>Stereotype Accuracy</u> (SA): degree to which a person can predict how "average other" perceives him/her.

14. <u>Stereotype Empathy</u> (SE): how accurately subjects predict how "average other" sees him/herself.

APPENDIX B

VERBAL INSTRUCTIONS

Verbal Instructions Given Prior to Free Conversation

This experiment is designed to study the way people get to know each other. In previous experiemnts we've found that the types of statements people use to get to know one another can greatly effect the way they feel about one another. This experiment will study several important types of statements.

Before I explain about the equipment on the table and the type of statement I'd like you to use, I want you to spend ten minutes talking in the same way you would if this group were to meet outside this experiment. I need to find out how your normal way of getting to know one another differs from the way you will use later in the experiment. I'll be monitoring your conversation through the microphone from behind the one-way mirror. I want you to get to know each other as you would normally. Are there any questions? (Experimenter answers any questions briefly). O.K., for the next ten minutes try to get to know each other in the way you would if you had met outside the experiment.

Verbal Instructions Given After the Free Conversation

These cards (experimenter gives verbal response category cards to each subject) are specific statements of just one of the types of expressions that people can use to get to know each other. Read your

118

card silently while I read it aloud (experimenter reads appropriate card). Now I would like to give you some examples of this category so that you can understand exactly what the category is like (experimenter reads and discusses appropriate examples).

Nonaffective Self-disclosure Condition

1. I am from Enid.

2. I played basketball in high school.

3. I went skiing over Christmas break.

4. My grade point was 3.00 last semester.

This type of statement can be helpful in getting to know one another in intimate and important ways. When you express information about yourself people are better able to relate to you since they really know who you are. You should avoid expressing feelings about this information, however. When a person expresses poisitive feelings about him/herself, he/she is bragging. When someone expresses negative feelings about him/herself, he/she is putting him/herself down. When you express information about yourself in a noncommittal fashion people tend to like you better because you trust them enough to let them make their own decisions about you. Because of this, expressing information about yourself without expressing feelings can be the basis of a trusting relationship.

Impersonal Disclosure Condition

1. I feel happy about being here with you.

2. I enjoyed my instructor's comments.

3. I hate spinach.

4. Math isn't my favorite subject.

This type of statement can be very useful in getting to know one another in intimate and important ways. When you tell people how you feel about things you are showing that you trust them with these important feelings. This can be the start of a trsuting relationship. Also, this kind of disclosure helps people know who you are, what you like, and what you dislike. When others know these things about you, they are better able to relate to you. They can better appreciate your positive feelings. They can also help you with negative feelings. Finally, expressing feelings can help you to learn more about these feelings. By verbalizing them you may heighten your awareness of them.

Self-disclosure Condition

1. I like my ability to relate well with others.

2. I'm confident with my academic ability.

3. I wish I were better looking.

4. I hate the fact that I lied to my friend.

This type of statement can be very useful in getting to know one another in intimate and important ways. When you tell people how you feel about yourself, you are showing that you trust them with these important feelings. This can be the start of a trusting relationship. Also, this kind of disclosure helps people know who you are, what you like about yourself, and what you dislike about yourself. When others know these things about you, they are better able to relate to you. They can better appreciate your positive aspects and your positive feelings about yourself. They can also help you with the negative

aspects of yourself and your feelings about them. Finally, expressing

feelings about yourself can help you to learn more about yourself. By

verbalizing these feelings, you may heighten your awareness of these

feelings.

Other Disclosure (Feedback) Condition

1. I like you.

2. You look very nice today.

3. You aren't a very friendly person.

4. I think you're a loud mouth.

This type of statement can be very useful in getting to know one

another in intimate and important ways. When you tell other people how

you feel about them, you are clearly communicating important information

about your relationship with them. If something about another is annoy-

ing to you, it is important to communicate this to that person. Unless

the person knows you're annoyed about something, he can do nothing

about it. On the other hand, if another person is doing something very

pleasing to you, it is also important for him/her to know. By communi-

cating your positive feelings to the other person, you have rewarded the

person and made him/her feel good. In this way it becomes extremely

likely that the person will continue to behave in the same pleasing

way. Finally, expressing your feelings about a person directly to that

person shows that you are able to openly communicate about your rela-

tionship with him/her. This type of verbalization fosters an open

relationship where things are not hidden but are brought out in the open

and worked through.

Impersonal Empathy Condition

1. I think you like most people.

2. I think you dislike your home town.

3. I think you're happy to be part of the group.

4. You look nervous.

This type of statement can be very helpful in getting to know one another in intimate and important ways. Using this type of verbalization is an attempt to know how a person feels, to really try to get into his/her shoes for a time. The effort to understand another person's feelings is perhaps the most important thing we have to give another person. This type of statement shows the other person that you care for him/her. The person who uses this kind of statement is certain to be a nice person to be around since it is extremely unlikely that such a person would hurt another. He/she is unlikely to hurt someone intentionally since he/she is a caring person. Also, he/she is unlikely to hurt someone unintentionally since he/she is a person who tries to understand the feelings of others. Finally, the use of this type of statement is likely to cause others to use them also. When a person shows he cares about the feelings of another person, the other is more likely to care about his/her feelings.

Other Empathy Condition

1. I think you really like yourself.

2. I think you're getting down on yourself.

3. You must feel very good about your ability to make people like you.

4. I think you have confidence in yourself.

This type of statement can be very helpful in getting to know one another in intimate and important ways. Using this type of verbalization is an attempt to know how a person feels about himself, to really try to get into his/her shoes for a time. The effort to understand another person's feelings is perhaps the most important thing we have to give another person. This type of statement shows the other person that you care for him/her. The person who uses this kind of statement is certain to be a nice person to be around since it is extremely unlikely that such a person would hurt another. He/she is unlikely to hurt someone intentionally since he/she is a caring person. Also, he/she is unlikely to hurt someone unintentionally since he/she is a person who tries to understand the feelings of others. Finally, the use of this type of statement is likely to cause others to use them also. When a person shows he cares about the feelings of another person, the other is more likely to care about his/her feelings.

I know that using statements in this category may be difficult for some of you but your efforts in using the category can have beneficial results. You may come to know the members of this group better and you may also increase your own social skills. Because of these possible benefits, your attempts to use this category sincerely can really pay off. To make sure that each of you understands the type of statement that I'm talking about I want to go through a short exercise. First, I want you to gaze into the eyes of the person next to you. I know that this is not the normal way of getting acquainted but we've found it is a very good way to start these groups. The two people on the

right side of the table should turn your chairs toward one another and gaze into one anothers' eyes (experimenter waits until subjects comply). The two people on the left side of the table should also turn your chairs toward each other and gaze into one anothers' eyes (experimenter waits until subjects comply). Focus on the feelings that you and your partner are having as you go through this exercise. (For experimental groups only) think about how you can verbalize these feelings by use of one of the types of statements we've talked about. (Exercise continues for ten seconds. After this time with subjects still gazing into one anothers' eyes each person is asked to verbalize an appropriate statement. If any subject is unable to make an appropriate statement the experimenter prompts the subject until he/she is able to do so. If prompting does not elicit a response, an appropriate statement is supplied by the experimenter).

For the purpose of this experiment it would be helpful if you could each use as many statements of the type we've just talked about as you can in your conversation in the next fifty minutes. I realize that it is impossible to have every statement you make fit the category and still maintain a good conversation. I don't expect you to use the category all the time. Also, don't say something just to fit the category if you don't mean it. Try very hard to use the category in a sincere way. The beneficial effects of the use of this category can only be obtained if you use the category honestly and sincerely.

Whenever someone makes a statement fitting this category, I will activate the counter in front of that person. It makes a click which will let you know that you are in fact using an appropriate kind of statement in your interaction. The counter registers your total and if

anyone falls ten points behind the person with the most counts, the red light on his/her counter will be turned on. This will be a sign that either this person may need assistance in using the appropriate statements, or that someone is dominating the conversation. If no one gets a click for three minutes, all the lights will flash on; and they will do so every three-minute period until a click is registered. This will be a sign that the group as a whole is not using appropriate statements and that you should change the nature of your interaction.

I realize that the apparatus makes for an artificial situation, but it's the least distracting non-disruptive way we have found to give you information concerning your interactions while those interactions are taking place.

Finally, I want to tell you that I will again be monitoring the group through the one-way mirror and the microphone. What you say will be used only for the purpose of this study and will be kept strictly confidential.

APPENDIX C

COHESIVENESS, ENJOYMENT AND MEANINGFULNESS ITEMS

On the four seven point scales found below you should rate the way you see the group. Give the group a rating of 0, 1, 2, 3, 4, 5, or 6 by making an "X" in the appropriate blank. To help you make your decision about the rating, 0 and 6 have been defined below.

6_____   5_____   4_____   3_____   2_____   1_____   0_____

6 means, "The people in this group are extremely attractive to me."

0 means, "The people in this group are not very attractive to me."

6_____   5_____   4_____   3_____   2_____   1_____   0_____

6 means, "I would very much like to continue contact with this group of people when the experiment is over."

0 means, "I wouldn't care to continue contact with these people when the experiment is over."

6_____   5_____   4_____   3_____   2_____   1_____   0_____

6 means, "The group interaction has been meaningful to me personally."

0 means, "The group interaction has not been meaningful to me personally."

6_____   5_____   4_____   3_____   2_____   1_____   0_____

6 means, "This group experience has been enjoyable to me."

0 means, "This group experience has not been enjoyable to me."

APPENDIX D

SELF-DISCLOSURE QUESTIONNAIRE

Rate each statement. A rating of 0 means "I would tell this group nothing about this aspect of me or I would lie to them." One means "I would talk in general terms about this aspect." Two means "I would talk in full and complete detail about this aspect."

1. What I think and feel about religion; my personal religious views.

2. My views on the present government--the president, government, policies, etc.

3. My personal views on sexual morality - how I feel that I and others ought to behave in sexual matters.

4. The things that I regard as desirable for a man to be - what I look for in a man.

5. My favorite reading matter.

6. The style of house, and the kinds of furnishings that I like best.

7. The kind of party, or social gathering that I like best, and the kind that would bore me, or that I wouldn't enjoy.

8. My favorite ways of spending spare time, e.g., hunting, reading, cards, sports events, parties, dancing, etc.

9. What I would appreciate most for a present.

10. What I find to be the worst pressures and strains in my work.

11. What I feel are my shortcomings and handicaps that prevent me from getting further ahead in my work.

12. What I feel are my special strong points and qualifications for my work.

13. My ambitions and goals in my work.

14. How I feel about the choice of career that I have made - whether or not I'm satisfied with it.

15. Whether or not I owe money; if so, how much.

16. The aspects of my personality that I dislike, worry about, that I regard as a handicap to me.

17. What feelings, if any, that I have trouble expressing or controlling.

18. The facts of my present sex life - including knowledge of how I get sexual gratification; any problems that I might have; with whom I have relations, if anybody.

19. Whether or not I feel that I am attractive to the opposite sex; my problems, if any, about getting favorable attention from the opposite sex.

20. Things in the past or present that I feel ashamed and guilty about.

21. The kinds of things that make me just furious.

22. What it takes to get me feeling real depressed or blue.

23. What it takes to get me real worried, anxious, and afraid.

24. What it takes to hurt my feelings deeply.

25. The kinds of things that make me especially proud of myself, elated, full of self-esteem or self-respect.

26. My feelings about the appearance of my face - things I don't like, and things that I might like about my face and head - eyes, nose, hair, teeth, etc.

27. How I wish I looked: my ideals for overall appearance.

28. Whether or not I now have any health problems - e.g., trouble with sleep, digestion, female complaints, heart condition, allergies, headaches, piles, etc.

29. Whether or not I have any long-range worries or concerns about my health, e.g., cancer, ulcers, heart trouble.

30. My feelings about my adequacy in sexual behavior - whether or not I feel able to perform adequately in sex relationships.

ELM'S EMPATHIC FANTASY SCALE

1. When I read an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.
                                (circle one number)

extremely true	moderately true	neutral	moderately false	extremely false
1	2	3	4	5

2. When I see strangers, I almost never try to imagine what they are thinking.

    1   2   3   4   5

3. I like to imagine myself as being various different types of persons.

    1   2   3   4   5

4. I usually feel that I know exactly what mood my friends are in, even when nothing is said in words.

    1   2   3   4   5

5. I find it hard to imagine how a poor southern negro feels about white people.

    1   2   3   4   5

6. It's hard for me to act as if I'm a different kind of person than I really am.

    1   2   3   4   5

7. After acting in a play myself, or seeing a play or movie, I have felt partly as though I were one of the characters.

    1   2   3   4   5

8. When I disagree with a person, I do not try to feel in my own mind the reason why the person holds an opinion different from mine.

    1   2   3   4   5

9. I often try to guess what people are thinking, before they tell
    me.

    1   2   3   4   5

10. A person can't really know what is going on inside someone else's
    head.

    1   2   3   4   5

APPENDIX F

GROUP PERCEPTIONS TEST

On each of a number of areas, you are to make ratings describing:
1. how you see yourself; 2. how you see each of the other group members; 3. your prediction or guess about how each group member sees you; 4. your prediction or guess about how each group member sees him/herself. These last two tasks, predicting the others' ratings, can be rather difficult. They require you to put yourself in the other group members' shoes and imagine how you appear to them and how they see themselves. Please take your time and try your very best. This information can lead to a better understanding of how people come to know one another.

Your task is to rate the degree to which one of two adjectives, opposite in meaning, is descriptive of the person or viewpoint being rated. E.g., a sample item might be:

	Very		Moderately		Neutral		Moderately		Very		
KIND:	A	:	B	:	C	:	D	:	E		:CRUEL

You might see yourself as very kind and so should mark the "A" column on the IBM card. You might see the person sitting in Chair 2 as moderately cruel and mark the "D" column for the appropriate item. If you predict that the person in Chair 3 sees you neutral on this scale, mark the appropriate "C". All marks must be made with number 2 pencils and should be a single, dark line through the center of the "circle".

131

You have been provided with a card, listing each group members' name and the number of the chair in which he/she was sitting. Please refer to this card so that you will know to whom each item refers. The items below describe the person for whom ratings or predictions are made only by the Chair Number. Items which refer to your own chair number have been marked out and should be skipped.

Please keep your answers confidential and discuss the test only with the experimenter. Please do not mark on this booklet. Do you have any questions?

	Very	Moderately	Neutral	Moderately	Very	
STRONG:	A :	B	: C	: D	: E	:WEAK

1. How strong/weak do you see yourself?

2. How strong/weak do you see the person in Chair 1?

3. How strong/weak do you see the person in Chair 2?

4. How strong/weak do you see the person in Chair 3?

5. How strong/weak do you see the person in Chair 4?

6. How strong/weak does the person in Chair 1 see you?

7. How strong/weak does the person in Chair 2 see you?

8. How strong/weak does the person in Chair 3 see you?

9. How strong/weak does the person in Chair 4 see you?

10. How strong/weak does the person in Chair 1 see him/herself?

11. How strong/weak does the person in Chair 2 see him/herself?

12. How strong/weak does the person in Chair 3 see him/herself?

13. How strong/weak does the person in Chair 4 see him/herself?

	Very	Moderately	Neutral	Moderately	Very	
FRIENDLY:	A :	B :	C :	D :	E	:HOSTILE

14. How friendly/hostile do you see yourself?

15. How friendly/hostile do you see the person in Chair 1?

16. How friendly/hostile do you see the person in Chair 2?

17. How friendly/hostile do you see the person in Chair 3?

18. How friendly/hostile do you see the person in Chair 4?

19. How friendly/hostile does the person in Chair 1 see you?

20. How friendly/hostile does the person in Chair 2 see you?

21. How friendly/hostile does the person in Chair 3 see you?

22. How friendly/hostile does the person in Chair 4 see you?

23. How friendly/hostile does the person in Chair 1 see him/herself?

24. How friendly/hostile does the person in Chair 2 see him/herself?

25. How friendly/hostile does the person in Chair 3 see him/herself?

26. How friendly/hostile does the person in Chair 4 see him/herself?

	Very	Moderately	Neutral	Moderately	Very	
PASSIVE:	A :	B :	C :	D :	E	:ACTIVE

27. How passive/active do you see yourself?

28. How passive/active do you see the person in Chair 1?

29. How passive/active do you see the person in Chair 2?

30. How passive/active do you see the person in Chair 3?

31. How passive/active do you see the person in Chair 4?

32. How passive/active does the person in Chair 1 see you?

33. How passive/active does the person in Chair 2 see you?

34. How passive/active does the person in Chair 3 see you?

35. How passive/active does the person in Chair 4 see you?

36. How passive/active does the person in <u>Chair 1</u> see <u>him/herself</u>?

37. How passive/active does the person in <u>Chair 2</u> see <u>him/herself</u>?

38. How passive/active does the person in <u>Chair 3</u> see <u>him/herself</u>?

39. How passive/acitve does the person in <u>Chair 4</u> see <u>him/herself</u>?

	Very	Moderately	Neutral	Moderately	Very	
<u>GOOD</u>:	A :	B :	C :	D :	E	:<u>BAD</u>

40. How good/bad do you see <u>yourself</u>?

41. How good/bad do you see the person in <u>Chair 1</u>?

42. How good/bad do you see the person in <u>Chair 2</u>?

43. How good/bad do you see the person in <u>Chair 3</u>?

44. How good/bad do you see the person in <u>Chair 4</u>?

45. How good/bad does the person in <u>Chair 1</u> see <u>you</u>?

46. How good/bad does the person in <u>Chair 2</u> see <u>you</u>?

47. How good/bad does the person in <u>Chair 3</u> see <u>you</u>?

48. How good/bad does the person in <u>Chair 4</u> see <u>you</u>?

49. How good/bad does the person in <u>Chair 1</u> see <u>him/herself</u>?

50. How good/bad does the person in <u>Chair 2</u> see <u>him/herself</u>?

51. How good/bad does the person in <u>Chair 3</u> see <u>him/herself</u>?

52. How good/bad does the person in <u>Chair 4</u> see <u>him/herself</u>?

	Very	Moderately	Neutral	Moderately	Very	
<u>DOMINANT</u>:	A :	B :	C :	D :	E	:<u>SUBMISSIVE</u>

53. How dominant/submissive do you see <u>yourself</u>?

54. How dominant/submissive do you see the person in <u>Chair 1</u>?

55. How dominant/submissive do you see the person in <u>Chair 2</u>?

56. How dominant/submissive do you see the person in <u>Chair 3</u>?

57. How dominant/submissive do you see the person in <u>Chair 4</u>?

58. How dominant/submissive does the person in Chair 1 see you?

59. How dominant/submissive does the person in Chair 2 see you?

60. How dominant/submissive does the person in Chair 3 see you?

61. How dominant/submissive does the person in Chair 4 see you?

62. How dominant/submissive does the person in Chair 1 see him/herself?

63 How dominant/submissive does the person in Chair 2 see him/herself?

64. How dominant/submissive does the person in Chair 3 see him/herself?

65. How dominant/submissive does the person in Chair 4 see him/herself?

	Very	Moderately	Neutral	Moderately	Very	
COLD:	A :	B :	C :	D :	E	:WARM

66. How cold/warm do you see yourself?

67. How cold/warm do you see the person in Chair 1?

68. How cold/warm do you see the person in Chair 2?

69. How cold/warm do you see the person in Chair 3?

70. How cold/warm do you see the person in Chair 4?

71. How cold/warm does the person in Chair 1 see you?

72. How cold/warm does the person in Chair 2 see you?

73. How cold/warm does the person in Chair 3 see you?

74. How cold/warm does the person in Chair 4 see you?

75. How cold/warm does the person in Chair 1 see him/herself?

76. How cold/warm does the person in Chair 2 see him/herself?

77. How cold/warm does the person in Chair 3 see him/herself?

78. How cold/warm does the person in Chair 4 see him/herself?

	Very	Moderately	Neutral	Moderately	Very	
IMPULSIVE:	A :	B :	C :	D :	E	:CAUTIOUS

79. How impulsive/cautious do you see yourself?

80. How impulsive/cautious do you see the person in Chair 1?

81. How impulsive/cautious do you see the person in Chair 2?

82. How impulsive/cautious do you see the person in Chair 3?

83. How impulsive/cautious do you see the person in Chair 4?

84. How impulsive/cautious does the person in Chair 1 see you?

85. How impulsive/cautious does the person in Chair 2 see you?

86. How impulsive/cautious does the person in Chair 3 see you?

87. How impulsive/cautious does the person in Chair 4 see you?

88. How impulsive/cautious does the person in Chair 1 see him/herself?

89. How impulsive/cautious does the person in Chair 2 see him/herself?

90. How impulsive/cautious does the person in Chair 3 see him/herself?

91. How impulsive/cautious does the person in Chair 4 see him/herself?

	Very	Moderately	Neutral	Moderately	Very	
DULL:	A :	B :	C :	D :	E	:INTELLIGENT

92. How dull/intelligent do you see yourself?

93. How dull/intelligent do you see the person in Chair 1?

94. How dull/intelligent do you see the person in Chair 2?

95. How dull/intelligent do you see the person in Chair 3?

96. How dull/intelligent do you see the person in Chair 4?

97. How dull/intelligent does the person in Chair 1 see you?

98. How dull/intelligent does the person in Chair 2 see you?

99. How dull/intelligent does the person in Chair 3 see you?

100. How dull/intelligent does the person in Chair 4 see you?

101. How dull/intelligent does the person in Chair 1 see him/herself?

102. How dull/intelligent does the person in Chair 2 see him/herself?

103. How dull/intelligent does the person in Chair 3 see him/herself?

104. How dull/intelligent does the person in Chair 4 see him/herself?

	Very	Moderately	Neutral	Moderately	Very	
HOMELY:	A :	B	: C :	D	: E	:ATTRACTIVE

105. How homely/attractive do you see yourself?

106. How homely/attractive do you see the person in Chair 1?

107. How homely/attractive do you see the person in Chair 2?

108. How homely/attractive do you see the person in Chair 3?

109. How homely/attractive do you see the person in Chair 4?

110. How homely/attractive does the person in Chair 1 see you?

111. How homely/attractive does the person in Chair 2 see you?

112. How homely/attractive does the person in Chair 3 see you?

113. How homely/attractive does the person in Chair 4 see you?

114. How homely/attractive does the person in Chair 1 see him/herself?

115. How homely/attractive does the person in Chair 2 see him/herself?

116. How homely/attractive does the person in Chair 3 see him/herself?

117. How homely/attractive does the person in Chair 4 see him/herself?

	Very	Moderately	Neutral	Moderately	Very	
OPEN:	A :	B	: C :	D	: E	:CLOSED

118. How open/closed do you see yourself?

119. How open/closed do you see the person in Chair 1?

120. How open/closed do you see the person in Chair 2?

121. How open/closed do you see the person in Chair 3?

122. How open/closed do you see the person in Chair 4?

123. How open/closed does the person in Chair 1 see you?

124. How open/closed does the person in Chair 2 see you?

125. How open/closed does the person in Chair 3 see you?

126. How open/closed does the person in Chair 4 see you?

127. How open/closed does the person in <u>Chair 1</u> see <u>him/herself</u>?

128. How open/closed does the person in <u>Chair 2</u> see <u>him/herself</u>?

129. How open/closed does the person in <u>Chair 3</u> see <u>him/herself</u>?

130. How open/closed does the person in <u>Chair 4</u> see <u>him/herself</u>?

APPENDIX G

THE DATA

TABLE XXVIII

REINFORCEMENT DATA

Condition	Group	Subject	Free Conversation	First Ten Minutes	Second Ten Minutes	Third Ten Minutes	Fourth Ten Minutes	Fifth Ten Minutes
Nonaffective	1	1	16	13	14	11	13	16
Self-	1	2	9	7	12	17	16	17
disclosure	1	3	10	9	9	22	14	13
	1	4	16	9	16	20	9	17
	2	1	8	8	10	15	15	10
	2	2	8	13	18	20	14	14
	2	3	12	7	20	15	16	7
	2	4	13	16	15	21	17	12
	3	1	13	13	19	23	17	11
	3	2	7	20	20	18	18	15
	3	3	10	13	21	16	21	16
	3	4	27	15	19	17	19	19

TABLE XXVIII (CONTINUED)

Condition	Group	Subject	Free Conversation	First Ten Minutes	Second Ten Minutes	Third Ten Minutes	Fourth Ten Minutes	Fifth Ten Minutes
Impersonal	1	1	3	11	9	13	13	12
Disclosure	1	2	6	8	11	10	13	6
	1	3	1	8	3	11	16	9
	1	4	8	11	1	14	12	9
	2	1	0	11	11	11	21	21
	2	2	3	9	14	17	13	20
	2	3	14	19	11	10	21	20
	2	4	8	15	9	16	16	25
	3	1	2	10	10	11	11	5
	3	2	7	14	13	7	11	11
	3	3	0	9	9	2	6	2
	3	4	3	17	12	14	9	8
Other	1	1	0	3	6	4	13	3
Disclosure	1	2	0	2	5	2	6	8
(Feedback)	1	3	0	2	4	3	6	6
	1	4	0	4	0	1	7	9
	2	1	0	5	2	6	7	10
	2	2	0	6	3	6	7	8
	2	3	0	2	1	2	3	3
	2	4	0	2	1	3	3	5
	3	1	1	4	2	6	4	3
	3	2	0	1	1	4	2	5
	3	3	0	1	1	1	2	3
	3	4	0	2	2	4	2	3

TABLE XXVIII (CONTINUED)

Condition	Group	Subject	Free Conversation	First Ten Minutes	Second Ten Minutes	Third Ten Minutes	Fourth Ten Minutes	Fifth Ten Minutes
Self-disclosure	1	1	0	3	3	3	5	5
	1	2	1	1	3	4	8	11
	1	3	1	1	1	3	5	5
	1	4	0	1	1	1	3	6
	2	1	1	5	0	2	2	0
	2	2	0	12	2	1	3	2
	2	3	0	2	3	1	1	1
	2	4	0	3	1	2	1	0
	3	1	0	2	3	3	1	2
	3	2	0	4	4	3	0	2
	3	3	0	2	3	2	2	3
	3	4	3	8	6	2	2	2
Impersonal Empathy	1	1	0	3	1	1	2	1
	1	2	0	1	1	0	1	0
	1	3	0	2	1	2	1	1
	1	4	0	2	2	2	1	3
	2	1	0	5	1	2	0	1
	2	2	0	1	0	1	0	2
	2	3	0	3	1	3	2	3
	2	4	3	6	2	2	2	2
	3	1	0	2	0	5	0	1
	3	2	0	6	6	4	3	3
	3	3	0	0	0	0	0	0
	3	4	1	2	4	2	2	4

TABLE XXVIII (CONTINUED)

Condition	Group	Subject	Free Conversation	First Ten Minutes	Second Ten Minutes	Third Ten Minutes	Fourth Ten Minutes	Fifth Ten Minutes
Other Empathy	1	1	0	0	0	1	1	0
	1	2	0	0	0	0	1	0
	1	3	0	1	1	1	1	1
	1	4	0	2	2	3	3	3
	2	1	0	1	0	3	0	0
	2	2	0	0	0	0	2	0
	2	3	0	3	0	2	0	1
	2	4	0	2	0	0	0	0
	3	1	0	0	1	1	0	0
	3	2	0	0	1	0	0	0
	3	3	0	2	3	1	1	1
	3	4	0	1	0	1	0	0

TABLE XXIX

QUESTIONNAIRE DATA

Condition	Group	Subject	Self-disclosure Score	Empathy Score	Attractiveness	Tendency to Cohere	Meaning	Enjoyment
Nonaffective	1	1	24	39	2	4	4	4
Self-	1	2	22	35	3	4	3	5
disclosure	1	3	34	30	4	4	3	4
	1	4	39	40	5	4	4	4
	2	1	31	25	4	3	2	4
	2	2	22	39	4	3	3	4
	2	3	59	35	3	4	4	4
	2	4	38	34	3	4	4	4
	3	1	26	32	3	4	4	4
	3	2	23	34	4	4	4	4
	3	3	35	37	4	5	4	5
	3	4	28	40	4	4	4	4
Impersonal	1	1	32	33	4	4	4	4
Disclosure	1	2	38	34	4	4	4	4
	1	3	30	37	3	3	3	4
	1	4	28	29	4	4	3	4
	2	1	30	29	3	3	2	2
	2	2	38	41	3	4	5	5
	2	3	22	42	3	2	3	3
	2	4	29	35	3	3	4	4
	3	1	27	34	4	4	4	4
	3	2	28	38	4	4	4	4
	3	3	24	32	3	3	4	4
	3	4	19	34	4	4	4	4

TABLE XXIX (CONTINUED)

Condition	Group	Subject	Self-disclosure Score	Empathy Score	Attractiveness	Tendency to Cohere	Meaning	Enjoyment
Other	1	1	29	35	4	4	4	5
Disclosure	1	2	42	36	5	5	3	5
(Feedback)	1	3	12	33	4	5	4	5
	1	4	22	31	5	4	5	4
	2	1	41	43	4	3	3	4
	2	2	43	31	4	4	3	3
	2	3	14	46	3	3	2	4
	2	4	37	32	3	4	2	3
	3	1	39	31	4	5	5	5
	3	2	32	29	2	2	4	4
	3	3	26	37	4	3	4	4
	3	4	60	36	4	5	4	5
Self-	1	1	38	38	3	3	3	3
disclosure	1	2	34	31	4	4	4	5
	1	3	26	42	4	3	4	4
	1	4	41	29	2	3	4	4
	2	1	25	30	4	4	3	5
	2	2	40	34	4	4	4	5
	2	3	43	37	3	3	4	4
	2	4	29	40	4	2	2	2
	3	1	33	37	4	3	4	2
	3	2	37	36	3	3	4	4
	3	3	49	29	4	3	3	3
	3	4	45	25	4	4	3	3

TABLE XXIX (CONTINUED)

Condition	Group	Subject	Self-disclosure Score	Empathy Score	Attractiveness	Tendency to Cohere	Meaning	Enjoyment
Impersonal Empathy	1	1	21	34	4	4	4	4
	1	2	46	44	3	3	2	4
	1	3	46	37	5	4	5	5
	1	4	39	38	3	2	3	4
	2	1	42	41	4	4	4	4
	2	2	40	36	4	4	4	4
	2	3	23	39	4	4	3	5
	2	4	29	37	5	5	3	5
	3	1	28	38	4	4	3	4
	3	2	39	31	4	4	5	4
	3	3	40	37	4	4	3	4
	3	4	39	31	4	4	4	5
Other Empathy	1	1	41	42	5	5	5	5
	1	2	21	38	4	4	4	4
	1	3	41	25	4	2	4	4
	1	4	32	29	4	3	4	4
	2	1	30	32	4	4	4	4
	2	2	50	40	5	5	4	5
	2	3	32	32	3	4	4	3
	2	4	30	32	3	3	4	5
	3	1	25	36	3	4	4	4
	3	2	56	31	4	4	4	4
	3	3	58	32	4	5	4	4
	3	4	25	32	3	4	4	4

TABLE XXX

CATEGORY USE DATA

Condition	Group	Subject	Nonaffective Self-disclosure	Impersonal Disclosure	Other Disclosure (Feedback)	Self-disclosure	Impersonal Empathy	Other Empathy
Nonaffective Self-disclosure	1	1	67	18	1	1	1	0
	1	2	69	23	0	3	4	3
	1	3	72	18	0	2	2	1
	1	4	71	14	0	2	1	2
	2	1	58	14	0	0	0	0
	2	2	68	26	1	0	2	0
	2	3	65	19	0	0	0	0
	2	4	65	32	0	0	3	2
	3	1	83	9	0	3	3	0
	3	2	91	46	7	3	7	0
	3	3	87	11	0	1	0	0
	3	4	89	25	0	2	2	0
Impersonal Disclosure	1	1	27	47	5	2	3	0
	1	2	54	57	5	5	2	3
	1	3	34	28	1	3	0	0
	1	4	61	60	2	3	6	0
	2	1	39	75	0	1	3	0
	2	2	24	73	0	1	1	0
	2	3	53	81	5	8	7	0
	2	4	49	81	2	1	11	0
	3	1	50	58	1	2	0	0
	3	2	74	48	1	8	1	0
	3	3	41	47	2	1	3	0
	3	4	44	47	1	0	2	0

TABLE XXX (CONTINUED)

Condition	Group	Subject	Nonaffective Self-disclosure	Impersonal Disclosure	Other Disclosure (Feedback)	Self-disclosure	Impersonal Empathy	Other Empathy
Other	1	1	64	40	29	1	3	1
Disclosure	1	2	34	20	23	1	2	0
(Feedback)	1	3	35	28	21	3	0	0
	1	4	25	15	21	0	3	0
	2	1	54	44	30	4	4	1
	2	2	33	46	30	1	5	4
	2	3	42	21	11	0	3	0
	2	4	22	38	14	5	4	0
	3	1	28	22	19	1	7	0
	3	2	56	32	13	8	8	0
	3	3	9	11	8	0	0	0
	3	4	99	82	13	19	2	1
Self-disclosure	1	1	25	6	0	5	2	0
	1	2	33	31	0	11	1	0
	1	3	54	43	0	5	1	0
	1	4	23	19	0	6	1	0
	2	1	38	35	5	9	2	0
	2	2	57	71	2	20	3	0
	2	3	24	41	4	8	3	0
	2	4	42	24	7	7	3	0
	3	1	40	28	3	11	3	0
	3	2	26	33	0	13	1	0
	3	3	31	20	1	12	0	0
	3	4	68	69	10	20	5	1

TABLE XXX (CONTINUED)

Condition	Group	Subject	Nonaffective Self-disclosure	Impersonal Disclosure	Other Disclosure (Feedback)	Self-disclosure	Impersonal Empathy	Other Empathy
Impersonal	1	1	17	12	0	0	8	1
Empathy	1	2	88	55	0	1	3	2
	1	3	38	19	0	4	7	2
	1	4	81	40	0	3	10	2
	2	1	48	35	0	4	9	0
	2	2	22	19	1	1	4	0
	2	3	71	53	1	0	12	0
	2	4	53	39	1	2	14	1
	3	1	26	29	6	0	8	1
	3	2	25	18	5	0	22	1
	3	3	30	35	3	0	0	0
	3	4	79	24	7	1	14	0
Other	1	1	50	53	1	0	0	2
Empathy	1	2	46	46	5	2	4	1
	1	3	26	22	3	1	0	5
	1	4	99	54	6	0	3	13
	2	1	41	23	2	6	3	4
	2	2	37	21	5	4	5	2
	2	3	67	28	5	14	1	6
	2	4	31	17	6	12	8	2
	3	1	28	21	1	11	0	2
	3	2	18	17	2	1	1	1
	3	3	53	52	5	16	5	8
	3	4	82	49	5	13	9	2

TABLE XXXI

PERSON PERCEPTION DATA*

Condition	Group	Subject	OSV	OV	SOV	SA	SE	CG	A	E	IO	N	CF	PO	FO	PS
Impersonal Empathy	1	1	1.23	.13	.63	.80	.99	.66	.82	.82	.63	1.65	1.10	.87	.25	1.19
	1	2	.40	.10	.33	.78	.75	.84	.76	.56	.30	1.18	.43	.84	.37	1.09
	1	3	.23	.00	.30	.52	1.54	-.61	.37	1.17	.94	2.02	1.23	.34	-.16	-.29
	1	4	1.10	.20	.83	1.44	1.28	.40	1.03	.93	1.13	1.34	1.06	1.43	.23	.89
	2	1	.36	.03	.16	.50	1.08	.28	.44	.46	.18	.27	.43	1.10	.14	.83
	2	2	.43	.26	.36	.89	.85	-.22	.43	.57	.18	.17	.66	-.22	-.27	.20
	2	3	1.30	.00	.93	.67	.69	.54	.47	.25	.57	.44	.90	.34	.30	.28
	2	4	1.00	.40	.46	.51	.83	.38	.18	.14	.58	.29	.76	.21	.22	.15
	3	1	.70	.00	.63	.84	1.67	1.24	.71	1.26	1.28	2.05	1.03	.91	.76	1.14
	3	2	.63	.20	.40	1.27	1.43	.31	.95	1.40	.83	.77	1.08	1.13	1.23	.95
	3	3	.36	.13	.46	1.05	1.24	1.40	.73	1.14	1.15	1.49	.99	.80	1.08	.69
	3	4	1.20	.13	.33	2.10	1.53	.68	1.68	1.10	.81	.89	.79	1.70	.90	1.16
Self-disclosure	1	1	.53	.13	.80	.25	.50	.43	.33	.01	.31	.38	.41	.04	.26	.24
	1	2	.56	.20	.40	.48	.58	.85	.41	.35	.27	1.14	.65	.37	.45	1.47
	1	3	.23	.06	.10	.43	.54	1.06	.38	.40	.47	1.14	.52	.23	.30	1.14
	1	4	.10	.03	.23	.67	.22	1.93	.53	.12	.61	.21	.44	.25	.55	.28
	2	1	1.30	.30	.73	.36	1.10	.54	.41	.91	.68	1.29	.77	.42	.14	.58
	2	2	.66	.16	.53	.70	.88	.91	.61	.62	.30	.95	.74	.74	.18	.96
	2	3	.96	.03	.86	1.08	.56	.86	.87	.31	.38	1.24	.87	1.63	.80	.52
	2	4	.96	.40	.43	.41	1.38	.03	.25	1.18	.77	.93	.65	.24	.12	.54
	3	1	1.10	.16	.83	.49	.87	-.16	.43	.81	.62	.80	.47	.49	.32	.26
	3	2	.50	.00	.63	1.38	1.34	1.06	1.08	.74	.95	1.12	.58	1.55	.74	1.04
	3	3	.90	.10	.53	1.05	1.34	.96	.60	1.27	1.00	1.65	.99	.12	.77	1.37
	3	4	.40	.16	.43	1.18	1.13	.34	.95	.68	.48	.99	.50	.88	.28	1.01

TABLE XXXI (CONTINUED)

Condition	Group	Subject	OSV	OV	SOV	SA	SE	CG	A	E	IO	N	CF	PO	FO	PS
Other	1	1	1.13	.16	.80	1.02	1.44	.50	.74	.88	.72	1.03	.79	.55	.47	.63
Disclosure	1	2	1.53	.43	1.26	.91	.70	.36	.62	.60	.77	.50	.56	1.21	.67	.37
(Feedback)	1	3	.66	.06	.56	.73	1.13	.38	.67	.90	.79	1.53	.75	.67	.22	.52
	1	4	.43	.13	.23	1.56	1.07	1.23	1.02	.94	.77	1.63	.61	.89	.30	1.51
	2	1	.36	.13	.30	-.19	1.22	.07	-.14	.49	-.01	.02	.11	.12	.12	.28
	2	2	.56	.03	.43	.49	.52	.68	.34	.31	-.20	1.16	.13	.85	.10	1.06
	2	3	2.70	.30	1.66	-.07	.71	.18	.08	.52	.19	.64	.19	.33	.28	.34
	2	4	.76	.30	.33	-.72	.69	.85	-.43	.30	-.13	.60	.12	.31	.26	.81
	3	1	.13	.20	.20	1.69	.93	1.58	1.21	.78	1.25	1.98	1.01	1.20	.93	1.84
	3	2	.83	.16	.23	1.71	1.21	1.05	1.33	.87	.93	1.39	.89	.52	.53	.82
	3	3	.36	.13	.26	.92	.77	1.27	.85	.64	.73	1.56	.59	.67	.58	1.28
	3	4	.43	.16	.16	1.32	1.28	1.12	.65	.96	1.14	1.69	1.12	.85	.78	1.44
Impersonal	1	1	1.13	.13	1.13	.38	1.18	.64	.33	.69	.53	1.56	.59	.66	.49	.58
Disclosure	1	2	2.16	.00	.83	.47	.76	1.34	.38	.58	.28	1.21	.49	.55	.27	1.36
	1	3	.43	.06	.03	.21	.61	.68	.26	.45	.26	1.49	.44	.35	.44	.28
	1	4	.43	.10	.36	.78	.95	1.17	.65	.63	.54	1.76	.41	.78	.53	1.55
	2	1	1.16	.23	.80	1.13	1.10	.23	.39	.68	.83	1.01	.39	.52	.41	.82
	2	2	1.20	.56	.56	.59	1.00	.63	.80	.56	.43	.87	.43	.48	.69	.86
	2	3	.50	.03	.10	.95	.85	.87	.62	.65	.50	.89	.31	1.00	.28	2.11
	2	4	1.66	.53	1.10	-.01	.42	-.25	.24	.30	.28	1.01	.10	.19	.00	.72
	3	1	.23	.16	.30	.50	1.00	1.17	.48	.56	.04	.91	.25	.61	.39	1.34
	3	2	.06	.00	.00	.21	.43	.34	.13	.13	.65	.25	.55	.93	.46	.30
	3	3	.23	.10	.13	-.02	.29	.59	-.05	.19	.15	1.51	.35	-.44	-.52	.42
	3	4	.23	.16	.03	.88	1.25	1.55	.58	.66	.29	1.44	.68	.49	.43	1.75

TABLE XXXI (CONTINUED)

Condition	Group	Subject	OSV	OV	SOV	SA	SE	CG	A	E	IO	N	CF	PO	FO	PS
Nonaffective	1	1	.40	.13	.26	.54	.40	1.37	.31	.22	.37	1.80	.34	.21	.29	.98
Self-	1	2	.86	.16	.33	.27	.14	.05	.07	-.05	-.13	.95	.29	.41	.25	.40
disclosure	1	3	.30	.06	.03	.35	1.13	1.43	.20	.57	.41	1.56	.36	.32	.54	2.41
	1	4	.30	.20	.33	.27	.13	-.07	.12	.15	.05	.27	.50	-.05	-.02	.34
	2	1	.83	.63	.50	.43	.82	.44	.30	.60	.37	1.32	.49	.31	.16	.43
	2	2	1.00	.10	1.23	.18	.21	.38	.25	.21	.71	.85	.26	.06	.25	.26
	2	3	.13	.03	.20	.99	1.72	1.47	.74	.47	.46	1.40	.31	.51	.45	1.32
	2	4	.43	.03	.36	.90	.41	.82	.61	.36	.35	1.20	.28	.77	.83	1.08
	3	1	1.96	.66	1.70	.82	.45	-.05	.69	.40	.24	.31	.15	.79	.37	.63
	3	2	1.46	.23	.93	.37	1.54	.37	.26	.67	.53	.95	.25	.52	.80	.77
	3	3	.53	.30	.46	1.38	1.65	.51	.79	1.22	.60	1.15	.35	.86	.66	.98
	3	4	1.10	.10	1.31	.35	.84	.56	.13	.54	.52	.98	.27	.65	.38	.58
Other	1	1	3.26	.30	2.33	1.15	1.58	.17	.51	1.20	.67	1.03	.44	.28	-.04	-.04
Empathy	1	2	.70	.23	.20	.18	.93	.06	.16	.54	.49	.35	.49	.48	.01	.09
	1	3	.33	.06	.33	.60	.57	1.46	.45	.48	.49	2.15	.20	.84	.25	1.40
	1	4	.50	.26	.60	1.47	.17	.50	1.04	.29	.50	1.18	.37	.90	.43	.57
	2	1	.36	.13	.26	1.15	.78	1.06	.92	.50	.47	.80	.64	.61	.45	.55
	2	2	.66	.16	.70	.50	.88	.63	.43	.54	.90	1.19	.73	.48	.67	.98
	2	3	1.00	.63	.80	.83	.44	-.49	.22	.40	.66	1.26	.73	.49	.77	.14
	2	4	1.23	.13	.70	1.06	1.37	.62	.72	.91	.27	.97	.75	.78	.36	1.27
	3	1	.40	.33	.70	1.13	.48	1.26	1.02	.39	.63	1.24	.46	.55	.54	1.25
	3	2	1.13	.23	.56	1.23	.97	.75	1.04	.70	.62	1.29	.64	.93	.41	1.12
	3	3	.40	.56	.13	.36	1.20	-.18	.29	.98	1.09	1.58	.78	.63	.95	1.14
	3	4	.20	.06	.06	.79	.71	.96	.55	.66	.56	1.33	.75	.61	.42	2.00

* The abbreviations in this table are found in Appendix A.

APPENDIX H

NONSIGNIFICANT ANALYSES

TABLE XXXII

TWO FACTOR ANALYSIS OF VARIANCE FOR
NONAFFECTIVE SELF-DISCLOSURE

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Other Versus Third Party	1	50.02	Pooled Groups and Subjects	.18
Metaperception Versus Perception	1	229.69	Pooled Groups and Subjects	.46
Interaction	1	50.02	Pooled Groups and Subjects	.10
Groups	8	164.94	Subjects	.29
Subjects	36	577.93		

TABLE XXXIII

ANALYSIS OF VARIANCE FOR SELF-DISCLOSURE
QUESTIONNAIRE

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Treatments	5	124.73	Pooled Groups and Subjects	1.22
Groups	12	77.78	Subjects	.73
Subjects	54	106.98		

TABLE XXXIV

ANALYSIS OF VARIANCE FOR EMPATHY
QUESTIONNAIRE

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Treatments	5	6.13	Pooled Groups and Subjects	.27
Groups	12	15.65	Subjects	.66
Subjects	54	23.87		

TABLE XXXV

PLANNED COMPARISONS FOR EMPATHY QUESTIONNAIRE

Comparison	$F_{1,66}$ Ratio
Nonaffective Self-disclosure and Impersonal Disclosure versus Self-disclosure, Other Disclosure (Feedback), Impersonal Empathy, and Other Empathy	.18
Nonaffective Self-disclosure and Impersonal Disclosure versus Self-disclosure	.002
Nonaffective Self-disclosure and Impersonal Disclosure versus Other Disclosure (Feedback)	.30
Nonaffective Self-disclosure and Impersonal Disclosure versus Impersonal Empathy	.04
Nonaffective Self-disclosure and Impersonal Disclosure versus Other Empathy	.80

TABLE XXXVI

TWO FACTOR ANALYSIS OF VARIANCE FOR
EMPATHY QUESTIONNAIRE

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Other Versus Third Party	1	8.33	Pooled Groups and Subjects	.38
Metaperception Versus Perception	1	4.08	Pooled Groups and Subjects	.19
Interaction	1	12.00	Pooled Groups and Subjects	.55
Groups	8	17.35	Subjects	.76
Subjects	36	22.83		

TABLE XXXVII

ANALYSIS OF VARIANCE FOR THE
GROUP ATTRACTIVENESS ITEM

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Treatments	5	.41	Pooled Groups and Subjects	.86
Groups	12	.56	Subjects	1.19
Subjects	54	.47		

TABLE XXXVIII

TWO FACTOR ANALYSIS OF VARIANCE FOR
ATTRACTIVENESS ITEM

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Other Versus Third Party	1	.08	Pooled Groups and Subjects	.18
Metaperception Versus Perception	1	.75	Pooled Groups and Subjects	1.62
Interaction	1	.75	Pooled Groups and Subjects	1.62
Groups	8	.73	Subjects	1.81
Subjects	36	.40		

TABLE XXXIX

ANALYSIS OF VARIANCE FOR THE TENDENCY
TO COHERE ITEM

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Treatments	5	.99	Pooled Groups and Subjects	1.70
Groups	12	.86	Subjects	1.66
Subjects	54	.52		

TABLE XL

PLANNED COMPARISONS FOR TENDENCY TO
COHERE ITEM

Comparison	$F_{1,66}$ Ratio
Nonaffective Self-disclosure and Impersonal Disclosure versus Self-disclosure, Other Disclosure (Feedback), Impersonal Empathy, and Other Empathy	.67
Nonaffective Self-disclosure and Impersonal Disclosure versus Self-disclosure	1.16
Nonaffective Self-disclosure and Impersonal Disclosure versus Other Disclosure (Feedback)	1.99
Nonaffective Self-disclosure and Impersonal Disclosure versus Impersonal Empathy	.55
Nonaffective Self-disclosure and Impersonal Disclosure versus Other Empathy	1.16

TABLE XLI

TWO FACTOR ANALYSIS OF VARIANCE FOR
TENDENCY TO COHERE ITEM

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Other Versus Third Party	1	.75	Pooled Groups and Subjects	1.08
Metaperception Versus Perception	1	.33	Pooled Groups and Subjects	.48
Interaction	1	.33	Pooled Groups and Subjects	.48
Groups	8	.87	Subjects	1.34
Subjects	36	.65		

TABLE XLII

ANALYSIS OF VARIANCE FOR
MEANINGFULNESS ITEM

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Treatments	5	.53	Pooled Groups and Subjects	.95
Groups	12	.82	Subjects	1.61
Subjects	54	.51		

TABLE XLIII

TWO FACTOR ANALYSIS OF VARIANCE FOR
MEANINGFULNESS ITEM

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Other Versus Third Party	1	.52	Pooled Groups and Subjects	.84
Metaperception Versus Perception	1	.52	Pooled Groups and Subjects	.84
Interaction	1	1.02	Pooled Groups and Subjects	1.64
Groups	8	1.02	Subjects	1.91
Subjects	36	.53		

TABLE XLIV

ANALYSIS OF VARIANCE FOR THE ENJOYMENT ITEM

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Treatments	5	.81	Pooled Groups and Subjects	1.65
Groups	12	.61	Subjects	1.31
Subjects	54	.47		

TABLE XLV

PLANNED COMPARISONS FOR ENJOYMENT ITEM

Comparison	$F_{1,66}$ Ratio
Nonaffective Self-disclosure and Impersonal Disclosure versus Self-disclosure, Other Disclosure (Feedback), Impersonal Empathy, and Other Empathy	.43
Nonaffective Self-disclosure and Impersonal Disclosure versus Self-disclosure	.94
Nonaffective Self-disclosure and Impersonal Disclosure versus Other Disclosure (Feedback)	1.89
Nonaffective Self-disclosure and Impersonal Disclosure versus Impersonal Empathy	1.67
Nonaffective Self-disclosure and Impersonal Disclosure versus Other Empathy	.42

TABLE XLVI

TWO FACTOR ANALYSIS OF VARIANCE FOR
THE ENJOYMENT ITEM

Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Other Versus Third Party	1	.19	Pooled Groups and Subjects	.45
Metaperception Versus Perception	1	.52	Pooled Groups and Subjects	1.26
Interaction	1	1.02	Pooled Groups and Subjects	2.46
Groups	8	.56	Subjects	1.47
Subjects	36	.38		

TABLE XLVII

NONSIGNIFICANT ANALYSIS OF VARIANCE FOR
PERSON PERCEPTION VARIABLES

Variable	Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Other's Self Variance	Treatments	5	.06	Pooled Groups and Subjects	.33
	Groups	12	.29	Subjects	1.72
	Subjects	54	.17		
Other Variance	Treatments	5	.04	Pooled Groups and Subjects	.11
	Groups	12	.52	Subjects	1.55
	Subjects	54	.33		
Self as Other Variance	Treatments	5	.026	Pooled Groups and Subjects	1.02
	Groups	12	.025	Subjects	.98
	Subjects	54	.026		
Stereotype Empathy	Treatments	5	.22	Pooled Groups and Subjects	1.38
	Groups	12	.24	Subjects	1.72
	Subjects	54	.14		
Congruence	Treatments	5	.16	Pooled Groups and Subjects	.69
	Groups	12	.39	Subjects	1.41
	Subjects	54	.27		
Perceived Similarity	Treatments	5	.14	Pooled Groups and Subjects	.48
	Groups	12	.34	Subjects	1.16
	Subjects	54	.29		

TABLE XLVIII

NONSIGNIFICANT TWO FACTOR ANALYSES OF VARIANCE
FOR PERSON PERCEPTION VARIABLES

Variable	Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Other's Self Variance	Other Versus Third Party	1	.14	Pooled Groups and Subjects	.69
	Metaperception Vs. Perception	1	.04	Pooled Groups and Subjects	.20
	Interaction	1	.005	Pooled Groups and Subjects	.03
	Groups	8	.23	Subjects	1.14
	Subjects	36	.20		
Other Variance	Other Versus Third Party	1	.06	Pooled Groups and Subjects	.13
	Metaperception Vs. Perception	1	.0007	Pooled Groups and Subjects	.002
	Interaction	1	.01	Pooled Groups and Subjects	.03
	Groups	8	.50	Subjects	1.15
	Subjects	36	.43		
Self As Other Variance	Other Versus Third Party	1	.06	Pooled Groups and Subjects	2.33
	Metaperception Vs. Perception	1	.004	Pooled Groups and Subjects	.15
	Interaction	1	.04	Pooled Groups and Subjects	1.65
	Groups	8	.02	Subjects	1.02
	Subjects	36	.02		

TABLE XLVIII (CONTINUED)

Variable	Source	Degrees of Freedom	Mean Square	Error Term	F Ratio
Congruence	Other Versus Third Party	1	.03	Pooled Groups and Subjects	.11
	Metaperception Vs. Perception	1	.64	Pooled Groups and Subjects	2.22
	Interaction	1	.007	Pooled Groups and Subjects	.03
	Groups	8	.44	Subjects	1.71
	Subjects	36	.25		
Personal Openness	Other Versus Third Party	1	.0007	Pooled Groups and Subjects	.005
	Metaperception Vs. Perception	1	.16	Pooled Groups and Subjects	1.06
	Interaction	1	.32	Pooled Groups and Subjects	2.17
	Groups	8	.23	Subjects	1.74
	Subjects	36	.13		
Perceived Similarity	Other Versus Third Party	1	.02	Pooled Groups and Subjects	.07
	Metaperception Vs. Perception	1	.37	Pooled Groups and Subjects	1.15
	Interaction	1	.24	Pooled Groups and Subjects	.76
	Groups	8	.46	Subjects	1.64
	Subjects	36	.28		

VITA

Michael Robert Marcy

Candidate for the Degree of

Doctor of Philosophy

Thesis: CONDITIONING OF AFFECTIVE VERBALIZATIONS IN GROUPS AND ITS
EFFECTS ON GROUP COHESIVENESS, EMPATHY, SELF-DISCLOSURE,
AND PERSON PERCEPTION

Major Field: Psychology

Biographical:

Personal Data: Born in Corona, California, August 4, 1951, the
son of Mr. and Mrs. Robert Marcy.

Education: Graduated from Little Wolf High School, Manawa,
Wisconsin, in May 1969; received Bachelor of Science degree
in Mathematics and Psychology from the University of Wiscon-
sin-Stevens Point in 1973; received Master of Science degree
in Psychology from Oklahoma State University in 1975.

Professional Experience: Graduate teaching assistant, Oklahoma
State Department of Psychology, 1974-1977.