

OPERANT CONDITIONING OF VERBAL SELF-DISCLOSURE
AND ITS EFFECTS ON GROUP COHESIVENESS AND
SUBSEQUENT SELF-DISCLOSURE

By

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PREFACE

This study is concerned with the operant group method of psychotherapy. Specifically, the study's primary objective is to clarify the relationship between self-disclosure and group cohesiveness. Secondary objectives are to determine the efficacy of operant conditioning techniques in increasing self-disclosing verbalizations and the tendency to self-disclose in the future. In addition, a new scheme to analyze self-disclosure is proposed.

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CHAPTER I

LITERATURE REVIEW

Definitions of Cohesiveness

Group 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 the group's existence and pressure is an external disruptive force. Gross and Martin's definition is similarly oriented toward a 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 cohesiveness 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 midwestern university had very low or negative linear intercorrelations. Similar evidence was forwarded for a multifaceted 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).

Importance of Cohesiveness

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 empathetic concern.

Other investigators have also concluded that 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. Rasmussen 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 (Rasmussen 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 cohesiveness. Without this powerful factor a therapy group is certain to be less efficient in achieving its therapeutic goals. It is questionable whether or not success in group therapy is possible without cohesiveness.

Variables Affecting Cohesiveness

In recent years there have been several studies concerning the variables affecting cohesiveness. For example, Donet (1969) studied the effect of videotape feedback on the cohesiveness of groups of college students. He measured cohesiveness by subjects' attendance, clinical observation, and interviews. These data clearly indicated that the videotape feedback significantly increased cohesiveness.

Another study (Dies and Hess, 1971) examined the differences in cohesiveness between the marathon method of group therapy with drug addicts and the conventional method with these subjects. Cohesiveness was measured by the semantic differential and by rating taped segments of the group. Results indicated that both types of groups increased in cohesiveness but the marathon method enhanced cohesiveness significantly more.

Liberman (1971) studied the effect of verbal reinforcement of expressions of cohesiveness in groups of non-psychiatric outpatients. Cohesiveness was measured by Interaction Process Analysis, Learn Multi-level Measurement of Interpersonal Behavior, Interpersonal Checklist, and sociometric data. It was found that verbal reinforcement of expressions of cohesiveness significantly enhanced the level of cohesiveness as measured by each of these operations.

Snortum and Myers (1971) studied the effect of the frequency of group interaction in volunteer church groups on cohesiveness. Cohesiveness was measured by specific and overall peer ratings. Results indicated that cohesiveness increased steadily over the seven meetings and that it increased faster in small groups than in large groups. Also, individual ratings of peers were greatly influenced by individual

participation. This latter finding suggests that the more a subject participates, the greater his feeling of cohesiveness with the group.

Self-disclosure as Related to Cohesiveness

There are many modes of participation in a group interaction, but one of the most important seems to be self-disclosure. Several studies have shown that the self-disclosing mode of interaction is related to group cohesiveness. Ribner (1974) studied twenty-four groups consisting of four unmarried undergraduate students. Subjects responded to Jourard's Self-disclosure Questionnaire (Jourard and Lasakow, 1958) and were assigned to groups such that groups had either a high, low, or moderate total self-disclosure score. Half of the groups received an explicit self-disclosure contract that defined self-disclosure and asked the group to engage in this behavior. The other groups received no such contract. The cohesiveness of each group was measured by a questionnaire devised by the author. Results indicated that the contract for self-disclosure produced significantly more cohesiveness than did the no contract condition, supporting the contention that self-disclosure in a group setting increases cohesiveness.

Other studies buttress the finding that self-disclosure and cohesiveness are positively related. Granoff (1971) used sixty-four university students who had participated in semester-long counseling groups as subjects. He measured satisfaction in group interpersonal relationships and self-disclosure by group leader ratings, an interpersonal behavior scale, and self report. Results indicated a strong positive linear relationship between satisfaction in group interpersonal relations and self-disclosure. Also, Kahn and Rudestein (1971) studied

perceived self-disclosure and liking in groups of graduate students. Liking and self-disclosure were measured by subject rankings. Results showed that liking and perceived self-disclosure were highly positively related. Another investigator (D'Augelli, 1973) used sixty-eight male and seventy female undergraduates to study interpersonal skills in the small leaderless group setting. Subjects were divided into highly skilled or lowly skilled groups on the basis of an assessment of interpersonal traits and an assessment of dyadic interactions. Results indicated that members of highly skilled groups were more open with their feelings, more willing to discuss matters of personal concern, performed at a more effective level in terms of personal self-disclosure, and saw their group as more cohesive than members of the lowly skilled groups. A final study concerning self-disclosure and cohesiveness in groups was reported by Frank (1957). It indicated that non-defensive expression of feelings leads to cohesion in therapy groups. While the studies reported here do not deal with the relation of self-disclosure to cohesiveness as explicitly as Ribner (1974) did, they have obtained results that are consistent with and support the hypothesis of a positive relationship between self-disclosure and cohesiveness in group settings.

Two other studies (Fitzgerald, 1963; Jourard, 1959), not done in a group setting, have lent support to the relationship between self-disclosure and cohesiveness. Fitzgerald used three hundred college women as subjects to examine the relationship between self-disclosure to another and closeness to that other person. Closeness was manipulated by instructing the subjects to respond to a self-disclosure questionnaire (Jourard and Lasakow, 1958) in regard to the girl the

subject liked best, to the average girl, and to the girl the subject liked least. Results indicated a strong positive linear relationship between self-disclosure and the degree of closeness to the other person. Jourard studied liking, self-disclosing output, and self-disclosing input in the eight members of a nursing faculty and their dean. The author listed fifteen possible self-disclosure categories. Disclosing output was measured by the number of categories a subject had communicated to another subject. Similarly, disclosing input was measured by the number of categories that a subject had received information about from other subjects. Liking was measured by each subject's ordering of the other subjects in terms of their desirability as a best friend. It was found that disclosing output varied with liking.

While the majority of the work in this area has supported the relationship between cohesiveness and self-disclosure, a study by Gilbert (1972) obtained results contradicting this. This investigator predicted that high disclosure by a confederate would cause her female undergraduate subjects to be more highly attracted to the confederate than would low disclosure. This prediction was not supported by the data. Instead, the data indicated that subjects were more attracted to the confederate in the low disclosing condition. Gilbert explained this atypical finding by asserting that subjects in this experiment felt that the confederate's high disclosure was inappropriate and caused them considerable uncomfortable feelings. These results tentatively suggest that self-disclosure must be considered appropriate before it will enhance cohesiveness.

Importance of Self-disclosure

Besides being very important for the development of cohesiveness, self-disclosure is a very important variable in its own right. 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).

Jourard and Lasakow (1958) developed a commonly used measure of self-disclosure as Jourard defines it. This Self-disclosure Questionnaire has proven to be a useful tool. For example, split-half reliability for the Self-disclosure Questionnaire has been shown to be .94 (Jourard and Lasakow, 1958). Concurrent validity coefficients for the scale were found to be highly significant. A coefficient of .53 was found between father cathexis and disclosure to father and a coefficient of .63 was found between mother cathexis and disclosure to mother (Jourard and Lasakow, 1958). Predictive validity coefficients were found to range between .65 and .99 in seven of nine subjects when liking of several others was predicted from disclosure to those others (Jourard, 1959). Similarly, predictive validity coefficients ranged from .65 to .89 in six of nine subjects when disclosure from another was predicted by disclosure to another (Jourard, 1959). Contrary to these findings, nonsignificant validity coefficients have been found by Himelstein and Lubin (1965). Thus, it seems that a reasonably reliable and valid measure exists for Jourard's conception of self-disclosure.

Jourard has indicated throughout his writings that lack of self-disclosure is the source of psychopathology, that all psychopathology

may be cured by appropriate self-disclosure, and that appropriate self-disclosure is a symptom of mental health. Jourard's position on the importance of self-disclosure is best illustrated by his own words.

It would appear . . . that self-disclosure is a factor in the process of effective counseling or psychotherapy. Would it be too arbitrary an assumption to propose that people become clients because they have not disclosed themselves in some optimum degree to the people in their life (Jourard, 1964, p. 19)?

Every maladjusted person is a person who has not made himself known to another human being and in consequence does not know himself (Jourard, 1964, p. 26).

The operational analysis of what goes on in counseling and therapy shows that patients and clients discover themselves through self-disclosure to the counselor (Jourard, 1964, p. 24).

Self-disclosure is a symptom of personality health and at the same time a means of ultimately achieving a healthy personality (Jourard, 1958, p. 122).

These quotations clearly assert Jourard's position on the tremendous importance of self-disclosure for psychotherapy and for everyday life.

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). The non-disclosure rule is a norm that people acquire through experience, according to Jourard.

As children we are, and we act, our real selves. We say what we think, we scream for what we want, we tell what we did . . . some disclosures are ignored, some rewarded, and some punished

. . . very soon, then, the growing child learns to display a highly expurgated version of his self to others . . . the public self . . . the concept of oneself which one wants others to believe (Jourard, 1964, p. 10).

Other writers agree that disclosure is a rarity. Laing (1967) indicated 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.

Some Findings Concerning Self-disclosure

Sex differences have been found 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. These findings are attributed to the lethal aspects of the male role (Jourard, 1964) that are extremely repressive and restrictive of the male self and thus cause a marked lack of self-disclosing behavior.

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 difference 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 Resnick, 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.

Besides findings concerning sex differences and reciprocity, other generalities concerning self-disclosure may be found in the literature. 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.

Analytical Schemes Used With Self-disclosure

It has been shown that well documented findings have been reported in the literature concerning self-disclosure. The literature also contains 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 disclosed (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; Himelstein and Kimbrough, 1963; Pederson and Breglio,

1968; Jourard and Lasakow, 1958). Both of these schemes for the analysis of self-disclosure seem to have basic problems. For instance, the intimacy dimension is not only very difficult to measure but it is a continuous dimension so that any category system based on it must have arbitrarily chosen limits. A content category analysis also has a basic problem since anyone devising such a scale needs to predict all the possible content areas in which one might self-disclose. This, it would seem, involves knowing a priori all the content areas of each subject's true self.

It seems then that a better way to analyze self-disclosure might be devised. Perhaps a scheme dividing self-disclosure on the basis of time might be appropriate. For example, any self referred statement might be categorized on the basis of concerning the "here and now" or the "there and then." A further analysis might be made concerning the valence of the self referred statement. That is, the statement might be categorized as showing positive feelings, negative feelings, or no feelings such as in objective reporting about the self. This type of analysis would avoid the objections forwarded against the two most used analytic schemes and might provide a more clear-cut and useful tool to study self-disclosure.

Actually part of the valence dimension of this analytic scheme has already been used by Jacobs, Jacobs, Cavior, and Burke (1974) and by Jacobs, Jacobs, Feldman, and Cavior (1973) to study the effect of feedback on group cohesiveness. These investigators used groups of undergraduates who selected feedback statements for the other members of their group. These statements were selected from a pool of statements provided by the authors. Available feedback statements were classified

as positive or negative as well as being divided into behavioral or emotional categories. In general, positive feedback enhanced group cohesiveness significantly more than negative feedback. These studies have provided evidence that at least part of the analytic scheme suggested above has proven useful in studying the disclosing of feelings for others. Also, the studies indicate that disclosing positive feelings about other members of a group should enhance cohesiveness more than disclosing negative feelings.

Self-disclosure is a Verbal Phenomenon

Although self-disclosure can be any behavior revealing a portion of the self to another person, it is primarily a verbal phenomenon. Jourard (1964, p. 19) said, "talking about oneself to another person is what I call self-disclosure." Jourard's reference to talking clearly emphasizes the verbal mode of self-disclosure. Watzlawick, Beavin, and Jackson (1967) indicated that all messages contain information about the speaker's perception of the relationship between himself and his auditors. The authors' use of the word "speaker's" again emphasizes the verbal mode of self-disclosure. While other modes of self-disclosure are possible, the most important and most frequently emphasized is the verbal mode.

Verbal Conditioning

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 Sjolholm, 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 non-verbal 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 literature (Williams, 1966; Krasner, 1958; Kanfer, 1968; Salzinger, 1959;

Greenspoon, 1962; Holz and Azrin, 1966; Hersen, 1968) have been done elsewhere. For the purposes of this paper, it is well to leave the general consideration of verbal conditioning for topics more pertinent to the present study.

Two studies of particular relevance to the present study have reinforced the verbal response category of self-disclosure with differing results. Mann (1972) used eighteen white and eighteen black subjects to analyze the effects of race and reinforcement on verbal self-disclosure. Subjects were divided into three groups as follows: group one was composed of twelve black subjects who received continuous reinforcement for each instance of self-disclosure; group two was composed of twelve white subjects who also received continuous reinforcement; and group three was composed of six white and six black subjects who received no reinforcement. Reinforcement in this study was reflection of feeling concerning the subject's self-disclosure. Results indicated that self-disclosure increased in frequency in both the reinforced groups and that this frequency decreased during an extinction period. Thus, this study suggests that self-disclosure may be increased through simple verbal conditioning techniques.

Olson (1972), however, obtained results that contradicted Mann's results. In this study, sixty undergraduate volunteers were placed in three groups. In the first group an interviewer asked a question, disclosed for sixty seconds concerning this question, and then listened unresponsively to the subject's response. In the second group the interviewer asked a question and verbally reinforced any self-disclosures on the part of the subject. In the third group, a control, the interviewer asked a question and listened unresponsively to the subject's

answer. It was found that the first group differed significantly from the control in rate of self-disclosures, but the second group did not. This, of course, indicated that reinforcement of self-disclosure does not increase its level of emission. Thus, the question of the efficacy of verbal conditioning of self-disclosure is completely open.

Verbal Conditioning in Groups

Several studies have been reported concerning verbal conditioning in groups. 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 insight. Results showed that 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 psychological 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, Zwebach, 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 and the greatest total of responses. However, the experimenter reinforced group also showed significant gains in rate of response and 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) and Fromme and Close (in press). 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 (in press) 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

reinforcement procedures enhance the number of affective verbalizations significantly.

The Present Study

Cohesiveness has been shown to be a very important parameter for the formation and maintenance of groups. The variables affecting this parameter are manifold. However, one of the most important of these variables seems to be self-disclosure. Self-disclosure is not only important because of its relation to cohesiveness but it has been shown to be of extreme importance in its own right. Self-disclosure has been studied by use of many diverse analytic schemes. A new analytic scheme has been suggested earlier in this paper.

Since self-disclosure and cohesiveness have been found to be related and since self-disclosure is a primarily verbal phenomenon, verbal conditioning of self-disclosure might be a useful way to influence both cohesiveness and self-disclosure. Specifically, the present study attempts to condition positive here and now, negative here and now, positive there and then, negative there and then, and content statements. Also, the study proposes to evaluate the effect of these procedures on group cohesion and on the tendency to disclose in the future.

To delineate further, the purpose of the present study was four-fold:

1. To determine the effects of the operant group method of Fromme, et al. (1974) on five types of self-disclosing verbalizations.
2. To determine any differences in the levels of emission of five types of self-disclosure.

3. To determine the effect of the reinforcement of five types of self-disclosure on scores on a commonly used self-disclosure questionnaire.

4. To analyze the effect of reinforcement of self-disclosure on cohesiveness.

Two important characteristics of any group therapeutic mode are the level of cohesiveness and the level of self-disclosure in the group. The present study utilizes an innovative analytic scheme to study self-disclosure and its effects on cohesiveness. The effectiveness of the operant procedures on these variables has considerable meaning for the usefulness of the technique as a therapeutic mode.

CHAPTER II

METHOD

Subjects

Subjects were 72 white undergraduate students enrolled in an introductory psychology course at Oklahoma State University. Subjects volunteered for the experiment 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. Because of possible sex differences in self-disclosing behavior (Jourard and Lasakow, 1958; Jourard, 1971), sex was held constant over all groups by composing each group of two males and two females. Race was also kept constant because racial effects in self-disclosure have been reported (Jourard and Lasakow, 1958).

Eighteen groups were formed by this method. Three of the groups were assigned randomly to each of five experimental conditions which were labeled in accordance with the verbal target behavior used in each condition. These labels included positive here and now feelings, negative here and now feelings, positive there and then feelings, negative there and then feelings, and neutral content concerning the

self. The remaining three groups were assigned to a control condition. These control subjects received minimal instructions and no reinforcement.

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 in a semicircular arrangement around a small table, facing the one-way mirror. 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. This feedback was deemed necessary to keep all subjects' levels of self-disclosure approximately equal, which has been found to enhance personal attraction among self-disclosers (Sote and Good, 1974; Lawless and Norwicki, 1972; Sermat and Smyth, 1973). A difference of ten counts was allowed without administration of the red light since this enabled a subject to respond at a high rate, thereby influencing others to self-disclose. This, of course, assumes that self-disclosure by one subject leads to self-disclosure by others. This assumption has been supported by a number of studies (Derlega, Walmer, and Furman, 1973; Cozby, 1972; Jourard and Landsman, 1960; Jourard and Resnick, 1970; Jourard and Jaffee, 1970; Ehrlich and Graeven, 1971; Levinger and Senn, 1967).

Response Categories

A set of five mutually exclusive response categories was chosen such that the entire set of categories included any possible instance of self-disclosing behavior. One of these five response categories comprised the reinforceable target behavior for each experimental group. The five categories are defined as follows:

1. Positive here and now was defined as any verbal expression of pleasant current feelings if the source of these feelings is in the current situation.

2. Negative here and now was defined as any verbal expression of unpleasant current feelings if the source of these feelings is in the current situation.

3. Positive there and then was defined as any verbal expression of pleasant feelings that has occurred in the past, might occur in the

future, or pleasant feelings about the past or future even if they are experienced in the current situation.

4. Negative there and then was defined as any verbal expression of unpleasant feelings that has occurred in the past, might occur in the future, or unpleasant feelings about the past or future even if they are experienced in the current situation.

5. Content was defined as any verbal expression of objective historical data concerning the self or objective facts concerning the self in the present situation. These verbalizations must be devoid of an overt affective component.

It may be noticed that the fifth category could be logically divided into two parts by the time dimension used in the other categories. However, the here and now content category seemed so trivial and indeed so meaningless that it was combined with there and then content.

It may be discerned from the above definitions that any verbalization concerning feeling is classified as self-disclosure even if that feeling concerns something other than the self. It is not possible to express feelings about anything and remain completely undisclosed.

Here and now or current situation was defined as including the hour of interaction in each session. There and then was defined as anything not concerning the current session.

Instruction cards (Appendix A) summarizing the appropriate response category were taped to the discussion table in front of each subject.

Intersubjective reliability of the response categories was determined prior to the experiment proper by independent ratings of statements issued by the twelve members of three groups instructed to

verbalize statements in a particular category. This task was fulfilled in the context of a normal conversation. The group continued its conversation until it had issued at least 100 total statements and 20 statements judged to fit the response category by at least one of the two judges. When these two criteria were reached, the verbal response category was changed and the process was repeated. The percentage of agreement between the judges is reported in Table I.

TABLE I
PERCENT OF AGREEMENT BETWEEN TWO JUDGES
USING THE RESPONSE CATEGORIES

Category	Percent Agreement on First 100 Statements	Percent Agreement on First 20 Reinforceable Statements
Positive Here and Now	96	90
Negative Here and Now	92	90
Positive There and Then	96	90
Negative There and Then	99	85
Content	94	90

As can be seen by inspection of Table I, reliability of the response categories was acceptable in all categories. Of course, the percentage of agreement on the first 100 statements would be high due to the high level of emission of verbalizations that are clearly not an

instance of a particular verbal category. A more critical test of reliability comes when only the responses judged to be reinforceable by at least one judge are considered. The percentages of agreement on these statements are also high, which indicates that this verbal categorization system has a high level of intersubjective reliability.

Procedure

Each experimental group met separately for two fifty-minute sessions. Subjects were given verbal instructions (Appendix B). The general procedure was explained as a method designed to study how people get to know each other. For this purpose, it was explained that it was desirable for each subject to express as many statements as he could in the particular response category. The explicit instructions to verbalize in the response category were used to help the subjects feel that the behavior was appropriate as was suggested by the findings of Gilbert (1972). 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. Explicit explanations of the lights and the counters were given because the understanding of the meanings of the reinforcers has been reported to be extremely important in verbal conditioning (Oakes, Droge, and August, 1960; Mandler and Kaplan, 1966; Oakes, 1962). The reinforcement contingency was explicitly stated in accordance with the findings of Spielberger and DeNike (1962). Before session two subjects were given brief instructions and the experimenter asked for questions before the session started. Any questions were answered briefly, but the detailed instructions were not given.

The procedure for the control subjects was identical to the procedure for experimental subjects except that no explicit directions to verbalize a particular category were given and there was no reinforcement procedure. The apparatus was present in the control condition but it was not used.

At the end of each session the experimenter recorded the number of reinforceable responses emitted by each subject. After session two subjects responded to Jourard and Lasakow's (1958) Self-disclosure Questionnaire (Appendix C). In addition to the Self-disclosure Questionnaire, a cohesiveness measure designed by the author was administered. This seven point rating scale was anchored on one end by a definition of a very cohesive group and on the other by a definition for a non-cohesive group. This rating scale may be found in Appendix D.

CHAPTER III

RESULTS

Analysis of Reinforcement Data

Five separate three factor analyses of variance were performed to analyze the effect of reinforcement on the level of emission of responses in each of the five verbal response categories (positive here and now, negative here and now, positive there and then, negative there and then, and content). The factors in each of these analyses were reinforcement (use of the operant conditioning apparatus versus the control condition), sessions crossed with reinforcement, and groups nested under reinforcement. Both reinforcement and sessions are fixed factors while groups is a random factor. The data used in each of these analyses were the number of reinforcements for subjects in a particular response category along with the control level of emission of that category (Appendix E).

Results of the analysis of variance in the positive here and now data are found in Table II. Inspection of Table II and Table III clearly shows a strong reinforcement effect ($F_{1,4} = 12.17, p = .05$). Thus, the operant group procedures had a markedly positive effect on the level of emission of positive here and now statements. Table II also provides evidence of a significant group effect ($F_{4,18} = 63.43, p = .01$). This effect may be readily interpreted by consideration of the levels of emission of positive here and now statements in the control groups.

TABLE II
ANALYSIS OF VARIANCE FOR REINFORCEABLE STATEMENTS
IN POSITIVE HERE AND NOW VERSUS THE CONTROL

Source	Error Term	Degrees of Freedom	Mean Square	F
Reinforcement	Group	1	12545.33	12.17*
Session	Group by Session	1	1976.33	2.67
Group	Subjects	4	1030.76	63.43**
Reinforcement by Session	Group by Session	1	2002.09	2.70
Subjects		18	16.25	
Group by Session	Subject by Session	4	741.01	91.09**
Subject by Session		18	8.13	

*p = .05

**p = .01

TABLE III
MEAN REINFORCEABLE RESPONSES WITH AND WITHOUT REINFORCEMENT

Response Category	Reinforcement	Control
Here and Now Positive	32.38	.04
Here and Now Negative	76.29	.17
There and Then Positive	28.46	9.63
There and Then Negative	30.17	9.71
Content	51.29	33.71

Inspection of Table XIV in Appendix E shows that positive here and now responses were indeed very rare in the control groups. In fact, most control subjects never issued a positive here and now statement. This, of course, drastically reduced the between subjects variability which in turn drastically increases the F ratio for the groups factor. Another factor would also tend to reduce between subject variability. The red lights used in the experiment tended to keep subjects within ten reinforcements of one another. Thus, between subject variability would be reduced further. In other words, the red lights accentuated the group effect by making subject effects into group effects. One individual responding at a high rate influenced others to respond rapidly to keep their red lights from coming on. On the other hand, one individual responding at a slow rate tended to influence the others to stop responding to allow the slow subject to catch up and thereby turn off his red light.

Not only were group effects found, but the group by session interaction was also significant ($F_{4,18} = 91.09, p = .01$). This effect can also be explained due to the low level of emission of positive here and now statements in the control condition and to reduced subject by session variability resulting from the use of the red lights. Again, if a subject in one of the sessions responded atypically the group tended to follow this lead to try to keep the red lights on or to turn them off if they were already on. Inspection of Table XIII in Appendix E clearly shows that group two in the positive here and now condition responded at a strikingly high rate in session two. This kind of atypical response in one session is the reason for the significant group by sessions interaction.

The analysis for the negative here and now data also yielded significant results as is evident in Table IV. However, no reinforcement effect was found in the negative here and now data ($F_{1,4} = 3.53$, $p = .25$) despite a difference of 76.12 responses between the mean level of reinforcements in the experimental condition and the mean number of negative here and now statements issued in the control condition. This nonsignificant statistic is greatly misleading, however. Inspection of Table XIII in Appendix E readily indicates that group three in the negative here and now condition responded at an amazingly high rate. Their rate of response was so high that their response totals were much greater than any other group. These atypical response totals were so extreme that they greatly increased the between group variability which greatly decreased the reinforcement F ratio. Of course, these extreme scores did increase reinforcement variability but this effect was not large enough to offset the increase in the error term. Since the atypical scores of the negative here and now group greatly affected the reinforcement F ratio, a more appropriate test of the reinforcement effect is a t-test for unequal sample sizes between the mean number of responses found in the two typical negative here and now experimental groups and the mean number of negative here and now statements used in the three control groups. The result of this procedure is highly significant ($t_3 = 6.55$, $p = .005$) providing firm evidence of a strong reinforcement effect on the level of emission of negative here and now statements.

Just as a strong group effect was found in the positive here and now condition, a similar effect is found in the negative here and now condition ($F_{4,18} = 39.81$, $p = .01$). This effect is readily interpreted

TABLE IV
ANALYSIS OF VARIANCE FOR REINFORCEABLE RESPONSES IN
NEGATIVE HERE AND NOW VERSUS THE CONTROL

Source	Error Term	Degrees of Freedom	Mean Square	F
Reinforcement	Group	1	69540.12	3.53
Session	Group by Session	1	609.19	3.34
Group	Subjects	4	19721.22	39.81**
Reinforcement by Session	Group by Session	1	609.25	3.34
Subjects		18	495.42	
Group by Session	Subject by Session	4	182.41	6.21**
Subject by Session		18	29.35	

**p = .01.

in a manner similar to the interpretation of the group effect in the positive here and now condition. Negative here and now statements were rarely used in the control groups and the red lights used in the negative here and now experimental groups tended to keep subjects within ten reinforcements of one another. Thus, between subject variability was reduced and subject effects became group effects. A group by session interaction was also noted ($F_{4,18} = 6.21, p = .01$). Again, the interpretation is analogous to the one used for the positive here and now condition's subject by session interaction. The low level of emission of negative here and now statements in the control groups coupled with the use of the red lights reduced subject by session

variability. Also, inspection of Table XIII shows that group one in this condition responded at a higher rate in session two than it did in session one contributing further to the group by sessions effect.

Inspection of Table V shows that a large reinforcement effect is found in the positive there and then data ($F_{1,4} = 16.56, p = .05$). This result coupled with inspection of Table III provides evidence that the operant group method significantly increased the level of emission of positive there and then statements when compared to a nonreinforced control.

TABLE V
ANALYSIS OF VARIANCE FOR REINFORCEABLE RESPONSES IN
POSITIVE THERE AND THEN VERSUS THE CONTROL

Source	Error Term	Degrees of Freedom	Mean Square	F
Reinforcement	Group	1	4256.33	16.56*
Session	Group by Session	1	225.33	5.54
Group	Subjects	4	256.96	2.81
Reinforcement by Session	Group by Session	1	200.08	4.91
Subjects		18	91.37	
Group by Session	Subject by Session	4	40.71	4.05*
Subject by Session		18	10.04	

*p = .05

No significant group effect was found in the positive there and then condition. This is seemingly inconsistent with the group effects reported above in the here and now conditions. This contradiction is resolved, however, when control levels of emission of positive there and then statements are considered (see Appendix E, Table XIV). Many positive there and then statements were issued in the control groups. This increases between-subject variability in this condition when compared to between-subject variability in the here and now conditions. Thus, group effects are not found regardless of the use of the red lights. Also, inspection of the data in Table XIII shows that no group in the positive there and then experimental condition responded in an extreme fashion.

In the positive there and then data, a significant group by session interaction was found ($F_{4,18} = 4.05, p = .05$). This result seems largely due to the red lights. The red lights, of course, have no effect in keeping a group's level of response nearly the same in both sessions. The lights only tend to keep each subject's response total close to other subjects' response totals within a single session. Thus, the group's level of responding is allowed to vary between sessions. Also, subject effects become group effects so that one subject responding atypically for one session would contribute to a group by session interaction. Inspection of Table XIII shows that group two in the positive there and then experimental condition responded at a very high rate in session two and group one in this condition responded below the norm in session one.

In the negative there and then analysis found in Table VI a large reinforcement effect was found ($F_{1,4} = 89.82, p = .01$). This finding

and inspection of the experimental and control response means for the negative here and now data in Table III provide evidence that the operant group method greatly enhances that number of statements of this type used when compared to the level of emission of these statements in a nonreinforced control condition.

TABLE VI
ANALYSIS OF VARIANCE FOR REINFORCEABLE RESPONSES IN
NEGATIVE THERE AND THEN VERSUS THE CONTROL

Source	Error Term	Degrees of Freedom	Mean Square	F
Reinforcement	Group	1	5022.52	89.82**
Session	Group by Session	1	38.52	0.88
Group	Subject	4	55.91	0.73
Reinforcement by Session	Group by Session	1	6.02	0.14
Subjects		18	76.45	
Group by Session	Subject by Session	4	43.46	3.26*
Subject by Session		18	13.34	

*p = .05

**p = .01

Like the positive there and then data, the negative there and then data provides no significant evidence of a group effect. Again, this is partly due to the increased level of emission of this response category in the control groups. Also, no group in the negative there and

then conditions showed an atypical level of response.

Table VI provides evidence of a group by sessions effect ($F_{4,18} = 3.26, p = .05$). Of course, this effect is largely due to the use of the red lights. Group two in the negative there and then experimental condition responded at a less than average rate in session two while group three responded at a less than average rate in session one. This can be seen in Table XIII.

The analysis of the content category is found in Table VII. The only significant effect evident in this data is a powerful reinforcement effect ($F_{1,4} = 16.20, p = .05$). This result and inspection of Table III indicates that the operant group method has a powerful positive effect on the rate of emission of content statements when compared to a nonreinforced control condition.

It is mildly surprising that no group by sessions interaction was in evidence. This is partially due to the increased between subject by session variability in the use of content statements in the control groups. With no red lights, the differences between talkative and quiet subjects were accentuated in this often used category.

The results of the five analyses found in Tables II, IV, V, VI and VII are clear. Perhaps the most important of these findings is the evidence that the operant group method has a significant statistical and practical effect in increasing the level of emission of each response category. The indication is that this method can provide the experimenter with a large degree of control over the kinds of statements issued in these operant groups. A secondary finding found in these analyses is the effectiveness of the red lights. These lights clearly make subject effects into group effects. They allow an

TABLE VII
ANALYSIS OF VARIANCE FOR REINFORCEABLE RESPONSES
IN CONTENT VERSUS THE CONTROL

Source	Error Term	Degrees of Freedom	Mean Square	F
Reinforcement	Group	1	3710.08	16.20*
Session	Group by Session	1	30.08	4.20
Group	Subjects	4	229.04	0.69
Reinforcement by Session	Group by Session	1	27.00	3.77
Subjects		18	330.43	
Group by Session	Subject by Session	4	7.17	0.11
Subject by Session		18	62.56	

*p = .05

atypical subject to alter the other members' rates of response to a level close to his/her own.

Another three factor analysis of variance for response category (positive here and now, negative here and now, positive there and then, negative there and then, and content), groups nested under response category, and sessions was applied to reinforcement data from all experimental subjects (see Table XIII). Response category and sessions are fixed factors while groups is a random factor. The results of this procedure are found in Table VIII.

TABLE VIII
ANALYSIS OF VARIANCE FOR REINFORCEABLE RESPONSES
IN ALL EXPERIMENTAL CONDITIONS

Source	Error Term	Degrees of Freedom	Mean Square	F
Response Category	Group	4	9981.38	1.18
Sessions	Group by Session	1	3499.20	8.68*
Groups	Subjects	10	8471.27	36.48**
Response Category by Sessions	Group by Session	4	554.28	1.38
Subjects		45	232.22	
Groups by Sessions	Subject by Session	10	403.04	15.82**
Subjects by Sessions		45	25.48	

*p = .05

**p = .01

A nonsignificant F ratio was found for the response category factor. This, of course, indicates that no response category was significantly easier to use than any other category in the reinforced condition. This is a striking contrast to evidence obtained in the control group where some categories were rarely used (see Table XIV).

A session effect is supported by Table VIII ($F_{1,4} = 8.68$, $p = .05$). The positive direction of this effect is clearly evident by inspection of Table XIII (Appendix E). This is in contrast to the nonsignificant sessions effects reported earlier. The contradiction, however, is resolved by the realization that control group data are not analyzed

with this particular F ratio. It seems that practice aids emission of statements in a response category only when reinforcement was used. Thus, information provided by the digital counters engendered a sessions effect. When the control groups were analyzed along with the experimental groups this effect was masked.

Evidence for a significant group effect is found in the experimental data ($F_{10,45} = 36.48, p = .01$). This highly significant result again results largely from the reduced between subject variability due to the use of the red lights. Also, there were atypical groups responding atypically across both sessions. One such group is group three in the negative here and now condition (see Table XIII, Appendix E).

The groups by sessions interaction was also significant in the experimental group data ($F_{10,45} = 15.82, p = .01$). Again, this result is partially due to reduced between subject by session variability resulting from the use of the red lights. Also, there are groups such as group two in the positive here and now category that responded atypically in only one session (see Table XIII, Appendix E).

Analysis of the experimental group data showed no evidence of a response category by sessions interaction.

Analysis of Self-disclosure Data

The mean tendency to disclose in the future as measured by the Self-disclosure Questionnaire (Jourard and Lasakow, 1958) for each experimental condition and the control are as follows: positive here and now, 79.75; negative here and now, 53.17; positive there and then, 72.83; negative there and then, 78.92; content, 78.67; and control, 79.42. These means may be compared to the self-disclosure means found

by Jourard and Lasakow (1958). These investigators found that the mean self-disclosure score for white subjects was 67.76. This mean is much lower than all but one of the means presented above. However, no strong conclusion can be drawn from this since the means for the present study are not directly comparable to Jourard and Lasakow's mean. This is the case for two reasons. First, the present study measured the tendency to disclose in the future while Jourard and Lasakow measured the amount of disclosure in the past. Secondly, the present study used a group of people with whom each subject had only minimal class contact as the target for disclosing. Jourard and Lasakow used their subjects' mother, father, male friend, and female friend as the targets of disclosure.

Although these means are not directly comparable, two tentative explanations for the difference in Jourard and Lasakow's mean and the means presented in this study may be offered. First, students may be more open today than in 1958. Second, disclosure in the future may be less threatening than actual self-disclosure since it is removed from the present situation. Thus, reporting of actual self-disclosure may produce lower scores than reporting less threatening intended self-disclosure.

A two factor analysis of variance for response category (positive here and now, negative here and now, positive there and then, negative there and then, content, and control) and groups nested under response category was completed for all scores on the self-disclosure questionnaire (Appendix F). The results of this procedure are found in Table IX.

This analysis provides evidence of a response category effect on the tendency to disclose in the future as measured by the self-

TABLE IX
ANALYSIS OF VARIANCE FOR ALL SELF-DISCLOSURE DATA

Source	Error Term	Degrees of Freedom	Mean Square	F
Response Category	Pooled Group and Subject	5	1304.35	3.48**
Group	Subject	12	470.32	1.33
Subject		54	353.22	

**p = .01

disclosure questionnaire ($F_{5,66} = 3.48, p = .01$). To further analyze this effect, the Newman-Keuls method of making all pair-wise comparisons among treatment means and the control mean was instituted (Winer, 1971). This procedure indicated that the negative here and now disclosure mean was significantly different from the positive there and then mean ($q_{2,66} = 3.52, p = .05$), from the content mean ($q_{3,66} = 4.56, p = .01$), from the negative there and then mean ($q_{4,66} = 4.61, p = .01$), and the positive here and now mean ($q_{6,66} = 4.75, p = .05$). Also, the negative here and now mean is significantly different from the control ($q_{5,66} = 4.69, p = .05$). Inspection of Table XV clearly shows that the negative here and now disclosure mean is far less than any other self-disclosure mean.

To analyze for any possible interaction effects of here and now versus there and then statements and positive versus negative feeling statements, a three factor analysis of variance for time (here and now

versus there and then), valence (positive versus negative), and groups nested under valence and time was performed on the data from the positive here and now, negative here and now, positive there and then, and negative there and then experimental groups. The results of this procedure are found in Table X. The only significant effect indicated here is the time by valence interaction ($F_{1,44} = 7.62, p = .01$). Again, the Newman-Keuls method for pair-wise comparisons (Winer, 1971) was used to analyze this interaction. The procedure indicated that the negative here and now mean was significantly different from the positive there and then mean ($q_{2,44} = 3.32, p = .05$), the negative there and then mean ($q_{3,44} = 4.35, p = .01$), and the positive here and now mean ($q_{4,44} = 4.49, p = .05$). A graphic representation of this interaction is found in Figure 1.

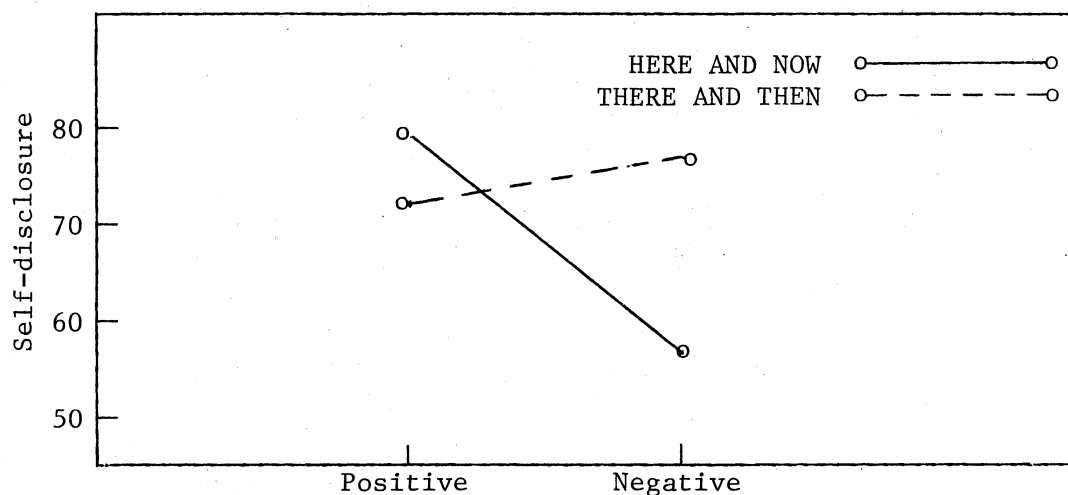


Figure 1. Graphic Representation of Time-Valence Interaction for Self-disclosure

TABLE X
ANALYSIS OF VARIANCE FOR TIME-VALENCE INTERACTION
IN SELF-DISCLOSURE DATA

Source	Error Term	Degrees of Freedom	Mean Square	F
Time	Pooled Group and Subjects	1	1064.08	2.53
Valence	Pooled Group and Subjects	1	1260.75	3.00
Time by Valence	Pooled Group and Subjects	1	3201.33	7.62**
Groups	Subjects	8	617.44	1.64
Subjects		36	376.36	

**p = .01

Each of the self-disclosure analyses above provides evidence that the negative here and now condition is significantly different from each of the experimental conditions and the control in the tendency to self-disclose in the future. Thus, the self-disclosure data provide a readily interpretable picture. The negative here and now verbal response category is severely detrimental to the tendency to self-disclose to other group members in the future. No other verbal response category seems to enhance or detract from the tendency to self-disclose when compared to the control. If the negative here and now mean is kept absent from consideration, no other self-disclosure mean is significantly different from any other mean including the control. Thus, each of the other verbal response categories are essentially similar to each other and to the control in the level of self-disclosure.

Analysis of Cohesiveness Data

A two factor analysis of variance for response category (positive here and now, negative here and now, positive there and then, negative there and then, content, and control) and groups nested under response category was completed for all cohesiveness data (Appendix G). These results are found in Table XI.

TABLE XI
ANALYSIS OF VARIANCE FOR ALL COHESIVENESS DATA

Source	Error Term	Degrees of Freedom	Mean Square	F
Response Category	Pooled Group and Subject	5	7.02	4.13**
Group	Subject	12	2.31	1.47
Subject		54	1.56	

**p = .01

The cohesiveness data provide evidence for a highly significant response category effect ($F_{5,66} = 4.13, p = .01$). To further analyze this effect, the Newman-Keuls method was instituted (Winer, 1971). This procedure indicated that the positive here and now mean is significantly higher than the content mean ($q_{2,66} = 3.32, p = .05$), the negative there and then mean ($q_{3,66} = 3.14, p = .05$), the positive there and then mean ($q_{5,66} = 4.39, p = .05$), and the negative here and now mean ($q_{6,66} =$

6.16, $p = .01$). Also, the positive here and now mean differs significantly from the control ($q_{4,66} = 3.95$, $p = .05$). Inspection of Table XVI shows that these significant differences are in the positive direction. No other comparisons in the Newman-Keuls procedure were significant and no group effect was in evidence.

To analyze for any possible interaction effects of time and valence, a three factor analysis of variance for time, valence, and groups nested under time and valence was performed on the data from the positive here and now, the negative here and now, the positive there and then, and the negative there and then groups. The results of this procedure are found in Table XII.

It is evident that a valence effect is found in the cohesiveness data ($F_{1,44} = 7.68$, $p = .01$). Inspection of the cohesiveness data in Table XVI shows that this effect results from higher cohesiveness in the group using positive statements when compared to groups using negative statements. In addition to the valence effect, strong evidence for a time-valence interaction exists ($F_{1,44} = 11.85$, $p = .01$). The Newman-Keuls procedure (Winer, 1971) was instituted to analyze the time-valence interaction. This procedure yielded significant differences between the positive here and now cohesiveness mean and the negative there and then mean ($q_{2,44} = 3.74$, $p = .05$), the positive there and then mean ($q_{3,44} = 4.39$, $p = .01$), and the negative here and now mean ($q_{4,44} = 6.16$, $p = .01$). The positive direction of these effects on cohesiveness may be seen in the graphic representation of the time-valence interaction in Figure 2. No other significant differences were found among the treatment cohesiveness means and no group effect was in evidence.

TABLE XII
ANALYSIS OF VARIANCE FOR TIME-VALENCE INTERACTION
IN COHESIVENESS DATA

Source	Error Term	Degrees of Freedom	Mean Square	F
Time	Pooled Group and Subjects	1	1.69	1.00
Valence	Pooled Group and Subjects	1	13.02	7.68**
Time by Valence	Pooled Group and Subjects	1	20.02	11.85**
Groups	Subjects	8	2.79	1.92
Subjects		36	1.45	

**p = .01

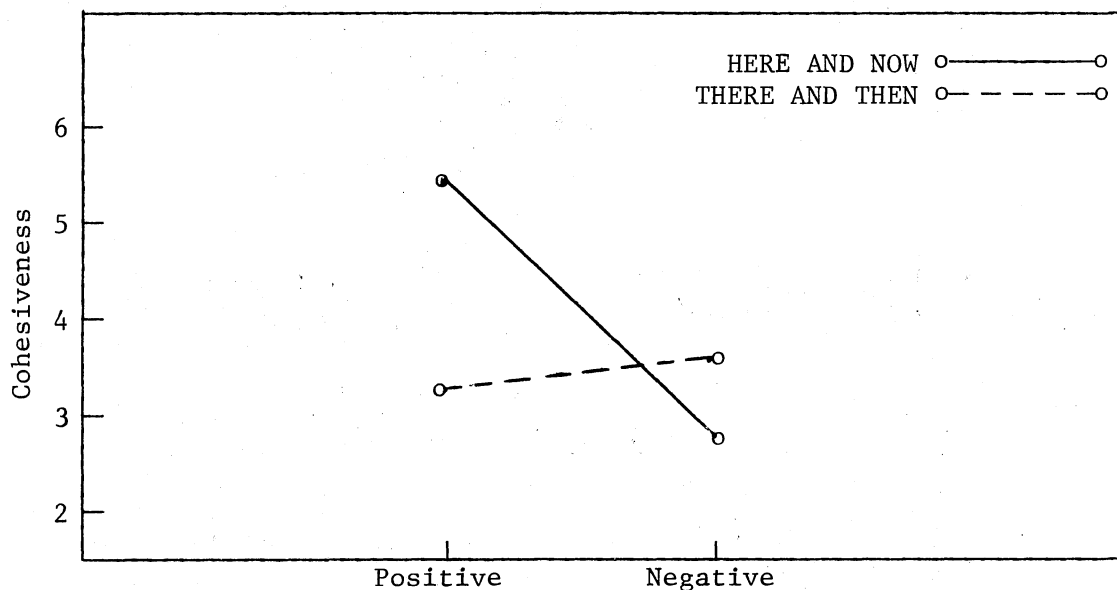


Figure 2. Graphic Representation of Time-Valence Interaction for Cohesiveness

The cohesiveness results provide a clear indication that the positive here and now condition enhances cohesiveness when compared to all other experimental conditions and the control. Also, each of the other experimental conditions and the control are essentially equal in the level of cohesiveness they engender. The cohesiveness data also provide evidence for a valence effect on cohesiveness with positive statements enhancing cohesiveness more than negative statements.

CHAPTER IV

DISCUSSION

Response Category Findings

The reliability results for the analytic scheme proposed for self-disclosing verbalizations is indeed encouraging. These data provide preliminary evidence that this scheme may be used with a high degree of intersubjective reliability. Of course, the data presented in this study are limited in scope due to the use of only two independent judges. More research must be done and more data must be collected to insure that the reliability of this categorization system is as high as it would seem from the present data.

Using the reinforcement of the response categories (positive here and now statements, negative here and now statements, positive there and then statements, negative there and then statements, and content statements) as the independent variable, the present study obtained an increase in cohesiveness in the positive here and now condition and a decrease in self-disclosure in the negative here and now condition. These results point to the possible fruitful application of these response categories in research to determine their effect on other dependent measures. Specifically it would be useful to assess the effects of a therapist's use of these verbal categories on a variety of outcome measures such as client satisfaction, improvement measures,

missed sessions, and time in therapy. This could be done in either the group or individual therapeutic setting. It would also be interesting to use these verbal categories in analyzing the client's verbalizations throughout therapy to determine any meaningful changes as therapy proceeds. The possibilities for research using this analytic scheme seem manifold.

In sum, preliminary results indicate the simple five category analytic scheme for self-disclosure presented in this paper seems to be useful both because of its high reliability and for its effects on two important group therapy parameters. Further research with this tool seems warranted.

The Efficacy of the Operant Group Method
in Changing Levels of Emission of
Verbal Response Categories

The operant group method of Fromme has been shown to be effective in increasing the levels 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 (Fromme, et al., 1974). The present study adds to the generality of these findings by providing evidence that these methods are effective in increasing the levels of emission of positive here and now feelings, negative here and now feelings, positive there and then feelings, negative there and then feelings, and content statements about the self. Thus, it seems that the operant group method affords the therapist a high level of control over the types of verbalizations issued in these groups. This control would be of utmost importance if research were

done to determine the relationship between types of verbalizations and outcome in therapy. Of course, the present study is a first attempt to do this.

Besides the effect of the reinforcement procedure, other more unexpected results concerning the number of statements issued were found. Group effects and group by sessions interaction effects appeared to be experimental artifacts due largely to the use of the red lights. The red lights tend to turn subject effects into group effects as has been discussed above. However, even considering the group effects as partly experimental artifacts, these effects do provide evidence that group variables must be looked at very closely. In fact, some work has already been done in this area. For instance, Fromme and Close (in press) studied group compatibility and its effects on some types of verbalizations. More studies of this type are needed to make clear the underlying causes of any possible group effects or group by sessions interactions. It seems clear to the author at this point that some groups tend to be very task oriented while others are not. This may be a possible direction in which to look for clarification of group effects. It is possible that task orientation is an escape from more personal aspects of the operant group situation. In other words, subjects may issue reinforceable statements not as "true" interpersonal interaction but rather to get points on their counter. While some groups became very task oriented, others showed atypical disregard for the digital counters and the rest of the apparatus. These groups tended to score many less reinforcements than the average experimental group. Reasons for this disregard are not readily apparent. However, it seems that these groups flee the task orientation that other groups relish.

The author would suggest a search for group variables that would cause some members to flee the "true" interpersonal situation into task orientation while others would flee the task to find security in "true" interaction. Interpersonal anxiety or fear of failure would seem to be two plausible starting points.

A session effect was evident in the experimental groups. This effect indicates that although the operant group method shows marked effects in only one session, these effects are greater after two sessions. Practice in the operant group situation thus aids the subjects' ability to emit reinforceable responses. It seems then that familiarity with the apparatus and the verbal target response must aid subjects in the second session. These practice effects certainly would diminish after only a few sessions. This would be the case due simply to subjects reaching a maximum reinforcement rate because sessions are of limited time.

An interesting finding comes to light if one compares the level of responding in each category for the control groups with the nonsignificant response category effect in the experimental groups. With reinforcement, subjects find no category significantly easier to use than any other category. Without reinforcement in the quasi natural setting of the control groups, extremely few here and now statements were emitted. This indicates that people naturally spend their time in the there and then but are able to interact in the here and now if they are experimentally influenced to do so. The power of the operant group method comes to light with this finding. It can actually bring subjects from strictly there and then interaction to the here and now. Such an effect can hardly be trivial. Further research may be

necessary to illucidate the effects of the switch from the there and then to the here and now. However, the present study contains findings that indicate some effects of this switch. These will be discussed below.

Tendency to Self-disclose

The effects of the operant group conditioning of five categories of self-disclosing verbalizations had a strong effect on the tendency to disclose to the group in the future as measured by the Self-disclosure Questionnaire (Jourard and Lasakow, 1958). This result was found to be due to a marked lowering of the tendency to self-disclose in the here and now negative condition. Further support for the detrimental effect of negative here and now statements came from a significant time-valence interaction. Inspection of Figure 1 indicates that in the time-valence disclosure data only the negative here and now statements affected the scores on the Self-disclosure Questionnaire.

The detrimental effect of negative here and now statements on the tendency to disclose in the future seems to be an indirect one. By this it is meant that the conditioning procedure used did not affect the self-disclosure score per se. Instead, the conditioning procedure used in the negative here and now condition produced a high level of these statements which in turn produced negative feelings among group members. Evidence for this, a significant difference between the negative here and now cohesiveness mean and the positive here and now cohesiveness mean, is reported above in the cohesiveness results. It is a possibility that these negative feelings for the group are related to the detriment to the tendency to disclose in the future.

The conditioning procedure may have had an indirect effect on the self-disclosure scores.

It is mildly surprising that there was no effect on self-disclosure in the positive here and now condition. As is evident from the cohesiveness results above, good feelings were engendered in the positive here and now condition and cohesiveness was high. It would seem intuitively that these good feelings would have an effect opposite to the effect that the bad feelings seem to have had in the negative here and now category. In fact, the positive here and now condition did result in the highest self-disclosure of any treatment. However, this effect was not statistically significant. A tentative explanation for this comes to light when one considers the self-disclosure means found by Jourard and Lasakow (1958). The means which are most directly compared to the means in the present study are in general much lower than the present means. This tentatively suggests that a possible positive effect on self-disclosure in the positive here and now condition might have to overcome ceiling effects. Thus, the operant group method may generally produce high disclosure which may mask any possible effect due to the positive here and now category.

It is no way surprising that no effects on self-disclosure were found in the there and then categories, the content category, or the control condition. Inspection of Table XIV shows that there and then statements (positive and negative) and content statements were used at a high rate in the control condition. Thus, these four conditions are similar in the statements used by group members. For this reason, no differential effects on self-disclosure would be expected.

Cohesiveness

The cohesiveness effects that were evident in the present study were partly due to differences between the two here and now conditions. Positive here and now groups, without exception, used at least a few statements expressing positive feelings toward each other. These statements ranged from expressions of a subject's liking for another subject's attire to expressions of pleasure with an interaction. Negative here and now groups, without exception, used a large number of statements expressing negative feelings toward each other. Surprisingly, each of the negative here and now groups interpreted this verbal response category to involve hostile feelings. Sadness, anxiety in the experiment, and sorrow for hostile remarks were rarely expressed. Rather expressions of hating the experiment, disliking each other's attire, name calling, and statements expressing dislike for each other predominated. These differences between the type of verbalizations used in the two here and now groups surely is partly the basis for the cohesiveness effects found.

Beside the effects on cohesiveness due to differences between the here and now categories, significant differences appear between the positive here and now condition and each other experimental condition and the control. These results indicate that cohesiveness effects are related to a fostering of cohesiveness in the positive here and now condition relative to the other treatments. Further evidence for the positive effect on cohesiveness in the positive here and now condition, is found in a significant time-valence interaction and Figure 2.

A valence effect was also indicated in the cohesiveness data. This

result implies that positive statements produce more cohesiveness than do negative statements. This finding is consistent with the finding of Jacobs, et al. (1974) and Jacobs, et al. (1973). These studies found positive feedback to enhance group cohesiveness more than negative feedback. Thus, it seems clear that positive statements foster group cohesiveness when compared to negative statements.

It is mildly surprising that no cohesiveness effects were found between the negative here and now condition and each of the other conditions except positive here and now. The negative here and now condition did provide markedly different kinds of statements from the there and then conditions, the content condition, and the control. Thus, an effect on group cohesiveness might have been expected. In fact, inspection of the cohesiveness means indicates that the negative here and now cohesiveness mean is clearly the lowest found in any condition. This effect, however, does not reach statistical significance.

That other cohesiveness effects were not found among the there and then categories, the content category, and the control is not surprising. If one considers the level of emission of the different response categories in the control groups, it is clear that there and then statements and content statements predominate. Thus, when reinforcement techniques were instituted to increase the level of emission of there and then and content statements, verbalizations very much like those used in the quasi natural control condition could be used. Because of this, these particular experimental conditions were not very dissimilar to the control. Only the here and now groups provided markedly different types of verbalizations from those found in the control conditions. Thus, significant differences among the there and then, the

content, and the control cohesiveness means would not be expected.

Before leaving the cohesiveness area a word of caution must be expressed in evaluating these results. With the cohesiveness measure used, only a simple rating of group cohesiveness was required of each subject. The simplicity of this measure makes it very clear to the subject what is being measured. Because of this, any possible demand characteristics in the experiment pertaining to this measure could have marked effects. Reinforcing positive statements in the here and now could have clear implications for the rating of the group's cohesiveness as could the reinforcement of negative here and now statements. However, the author is not inclined to think the cohesiveness effects noted above are the result of these demand characteristics. It would seem that if these effects were due to demand characteristics, the effects would also show themselves in the there and then conditions. By inspection of the cell means for the there and then conditions found in Figure 2, it is evident that the difference between these means is in a direction that would not be predicted because of demand characteristics.

A Final Comment

The operant group method of psychotherapy has extreme power in influencing what is said in the group situation. Since psychotherapy is primarily a verbal phenomenon, the power of operant groups may result in more efficient therapy when all the verbal parameters affecting therapeutic change are clearly understood. Thus, the possibility of using the operant method in a clinical setting might be explored fruitfully.

The present study indicates that the categories of verbalizations used indeed have significant effects on one important group parameter. Cohesiveness has been shown to be markedly better in groups using the positive here and now category than in groups using the negative here and now category, the positive there and then category, the negative there and then category, and the content category. Also, the positive here and now category produced more cohesiveness than the control. Thus, when the operant group method is used in a clinical setting an initial emphasis on positive here and now feelings would be well advised until sufficient cohesiveness has been fostered. It would be well to compare traditional group psychotherapy with the operant group method in speed of developing cohesiveness. A tendency toward a detrimental effect to future self-disclosure was found in the negative here and now groups. This is an indication that free expression of one's self is hurt by initial negative here and now statements. This effect surely would be a detriment to therapeutic progress.

In sum, it seems that the operant group method has definite possibilities as a therapeutic tool. These possibilities must be explored further to determine the as yet unknown potentialities of this type of therapeutic group.

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APPENDIX A

BASIC INSTRUCTION CARDS

Card for Positive Here and Now Group

Any verbal expression of your current pleasant feelings resulting from interaction with the group. It may be pleasant feelings about yourself, the other group members, the current situation, etc.

PLEASANT FEELINGS ABOUT WHAT'S HAPPENING NOW

Card for Negative Here and Now Group

Any verbal expression of your current unpleasant feelings resulting from interaction with the group. It may be unpleasant feelings about yourself, the other group members, the current situation, etc.

UNPLEASANT FEELINGS ABOUT WHAT'S HAPPENING NOW

Card for Positive There and Then Group

Any verbal expression of pleasant feelings you've had in the past, or pleasant feelings you have now about the past or future. It may be pleasant feelings about yourself, your acquaintances, events of the past or future, etc.

PLEASANT FEELINGS YOU HAD IN THE PAST OR
HAVE NOW ABOUT THE PAST OR FUTURE

Card for Negative There and Then Group

Any verbal expression or unpleasant feelings you've had in the past, or unpleasant feelings you have now about the past or future. It may be unpleasant feelings about yourself, your acquaintances, events of the past or future, etc.

UNPLEASANT FEELINGS YOU HAD IN THE PAST OR
HAVE NOW ABOUT THE PAST OR FUTURE

Card for Content Group

Any verbal statement of facts about you. It may be physical facts, what you did or are doing, what you thought or are thinking, etc. The category is not what you felt or feel.

FACTS ABOUT YOU

APPENDIX B

VERBAL INSTRUCTIONS GIVEN TO SUBJECTS

This experiment is designed to study the way people get to know each other. As you know, people can talk about many things in order to get to know one another. For example, they could talk about positive feelings like love, happiness, gladness, or joy. They can also talk about such negative feelings as hate, sadness, anxiety, or sorrow. Not only can people talk about feelings, they can also talk about matters of content. What I mean by content is factual material like a scientist would use. Some types of content statements would be talking about the weather, baseball results, T. V. show ratings, or results of a chemistry laboratory experiment as long as no feelings are expressed.

O. K., so I've said that people can talk about good feelings, bad feelings, and content to get to know one another. Not only can people talk about good feelings, bad feelings, and content but they can talk about these three things in at least two different ways. What I mean is that you can talk about good feelings, bad feelings, or content in either the present situation, right here and right now, or you can talk about things outside the present situation, there and then.

Verbal Instructions Given to Experimental Subjects

These cards (experimenter points to the cards in front of 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 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).

Positive Here and Now Examples

1. I feel very content here with each of you.
2. It makes me very happy when people get together like this.
3. I really enjoy your company now.

Negative Here and Now Examples

1. I feel very angry at your stupid remark.
2. I hate having all you people around me.
3. I really feel sad that you aren't talking.

Positive There and Then Examples

1. This group session reminds me of how content I was when my family used to sit around the dinner table.
2. I was proud of my grades last semester.
3. I like it when my brother writes to me.

Negative There and Then Examples

1. I hated that article in the paper.
2. I feel guilty about not remembering my mother's birthday.
3. I was angry when my brother tore my shirt.

Content Examples

1. I grew up in Oklahoma.
2. I used to play basketball in high school.
3. I understand what you are saying.

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.

Instructions Concerning Reinforcement

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 too far behind, the red light on his 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.

Final Instructions

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

APPENDIX C

JOURARD AND LASAKOW'S (1958) SELF-DISCLOSURE

QUESTIONNAIRE

Verbal Instructions

The answer-sheet which you have been given has a column with the heading "the group." You are to read each item on the questionnaire, and then indicate on the answer-sheet the extent that you would feel comfortable talking about that item to the group; that is, the extent to which you would make yourself known to the group. Use the rating-scale that you see on the answer-sheet to describe the extent that you would talk about each item.

Answer-sheet

0: Would tell the group nothing about this aspect of me.

1: Would talk in general terms about this item. The group would have only a general idea about this aspect of me.

2: Would talk in full and complete detail about this item to the group. It would know me fully in this respect, and could describe me accurately.

X: Would lie or misrepresent myself to the group so that it would have a false picture of me. (The numerical entries were summed and X's were counted as zero.)

Attitudes and opinions

"the group"

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

2. My personal opinions and feelings about other religious groups than my own, e.g., Protestants, Catholics, Jews, atheists.

3. My views on communism.

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

5. My views on the question of racial integration in schools, transportation, etc.

6. My personal views on drinking.

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

8. My personal standards of beauty and attractiveness in women - what I consider to be an attractive woman.

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

10. My feelings about how parents ought to deal with children.

Tastes and interests

1. My favorite foods, the ways I like food prepared, and my food dislikes.

2. My favorite beverages, and the ones I don't like.

3. My likes and dislikes in music.

4. My favorite reading matter.

5. The kinds of movies that I like to see best; the T. V. shows that are my favorites.

6. My tastes in clothing.

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

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

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

10. What I would appreciate most for a present. _____

Work (or studies)

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

2. What I find to be the most boring and unenjoyable aspects of my work. _____

3. What I enjoy most, and get the most satisfaction from in my present work. _____

4. What I feel are my shortcomings and handicaps that prevent me from working as I'd like to, or what prevents me from getting further ahead in my work. _____

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

6. How I feel that my work is appreciated by others (e.g., boss, fellow workers, teacher, husband, etc.) _____

7. My ambitions and goals in my work. _____

8. My feelings about the salary or rewards that I get for my work. _____

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

10. How I really feel about the people that I work for, or work with. _____

Money

1. How much money I make at work, or get as an allowance. _____

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

3. Whom I owe money to at present; or whom I have borrowed from in the past. _____

4. Whether or not I have savings, and the amount. _____

5. Whether or not others owe me money; the amount, and who owes it to me. _____

6. Whether or not I gamble; if so, the way I gamble, and the extent of it. _____

7. All of my present sources of income - wages, fees, allowance, dividends, etc.

8. My total financial worth, including property, savings, bonds, insurance, etc.

9. My most pressing need for money right now, e.g., outstanding bills, some major purchase that is desired or needed.

10. How I budget my money - the proportion that goes to necessities, luxuries, etc.

Personality

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

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

3. 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.

4. 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.

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

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

7. What it takes to get me feeling real depressed and blue.

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

9. What it takes to hurt my feelings deeply.

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

Body

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

2. How I wished I looked; my ideals for overall appearance. _____
3. My feelings about different parts of my body - legs, hips, waist, chest, or bust, etc. _____
4. Any problems and worries that I had with my appearance in the past. _____
5. Whether or not I now have any health problems - e.g., trouble with sleep, digestion, female complaints, heart condition, allergies, headaches, piles, etc. _____
6. Whether or not I have any long-range worries or concerns about my health, e.g., cancer, ulcers, heart trouble. _____
7. My past record of illness and treatment. _____
8. Whether or not I now make special efforts to keep fit, healthy, and attractive, e.g., calisthenics, diet. _____
9. My present physical measurements, e.g., height, weight, waist, etc. _____
10. My feelings about my adequacy in sexual behaviors. _____

APPENDIX D

THE COHESIVENESS MEASURE

On the seven point scale 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 as follows. Read both definitions carefully so you are able to make the best choice.

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

6 means, "I see this group as composed of extremely attractive people. The group as a whole is also extremely attractive. I have received very much satisfaction from my interactions with this group and I would very much like to continue to have contact with this group of people even when the experiment is over."

0 means, "I see this group as composed of average people. The group as a whole is average. I have received little satisfaction from my interactions with this group of people and wouldn't care to continue contact with this group of people when the experiment is over."

APPENDIX E

REINFORCEABLE RESPONSES

TABLE XIII

REINFORCEABLE RESPONSES IN EXPERIMENTAL GROUPS

Subject		Response Category and Session									
		Positive Here and Now		Negative Here and Now		Positive There and Then		Negative There and Then		Content	
		1	2	1	2	1	2	1	2	1	2
GROUP 1	S1	19	21	22	62	17	26	26	32	43	55
	S2	13	26	31	53	27	31	37	36	51	52
	S3	21	23	24	54	19	25	26	39	54	47
	S4	11	17	22	49	18	22	31	38	43	61
GROUP 2	S1	21	75	33	37	25	43	29	25	41	40
	S2	21	76	26	22	29	42	31	28	42	40
	S3	26	84	32	39	28	43	39	37	42	54
	S4	19	79	27	40	34	50	28	18	51	48
GROUP 3	S1	24	47	108	137	21	24	18	31	54	56
	S2	17	34	171	180	32	33	32	41	61	59
	S3	22	26	128	130	26	26	18	18	53	61
	S4	20	35	206	198	15	27	32	34	62	61

TABLE XIV
INDIVIDUAL RESPONSES IN CONTROL GROUP

Subject	Response Category and Session										
	Positive Here and Now		Negative Here and Now		Positive There and Then		Negative There and Then		Content		
	1	2	1	2	1	2	1	2	1	2	
GROUP 1	S1	0	0	0	0	4	5	5	6	13	15
	S2	0	0	0	0	9	6	6	16	32	23
	S3	0	0	0	0	14	10	18	15	81	61
	S4	0	0	0	0	1	4	1	5	10	41
GROUP 2	S1	0	0	0	0	17	26	17	16	37	41
	S2	0	0	0	0	5	2	11	16	16	11
	S3	0	0	0	0	10	12	9	3	37	40
	S4	1	0	0	0	0	0	11	18	32	27
GROUP 3	S1	0	0	0	1	26	30	9	5	41	37
	S2	0	0	2	1	9	15	19	16	44	51
	S3	0	0	0	0	5	1	1	0	14	19
	S4	0	0	0	0	14	6	3	7	47	39

APPENDIX F

SELF-DISCLOSURE DATA

TABLE XV
 SELF-DISCLOSURE QUESTIONNAIRE RESPONSES

Subject	Treatment				Content	Control	
	Positive Here and Now	Negative Here and Now	Positive There and Then	Negative There and Then			
GROUP 1	S1	99	77	89	97	79	46
	S2	75	62	53	89	67	89
	S3	114	64	41	68	89	71
	S4	72	88	90	77	107	87
GROUP 2	S1	38	42	37	83	72	58
	S2	70	55	59	90	79	102
	S3	74	50	58	65	61	81
	S4	110	33	88	79	75	103
GROUP 3	S1	71	40	98	81	71	93
	S2	95	60	114	72	67	87
	S3	78	33	37	75	89	45
	S4	61	34	110	71	88	91

APPENDIX G

COHESIVENESS DATA

TABLE XVI

INDIVIDUAL COHESIVENESS RESPONSES

Subject	Treatment				Content	Control	
	Positive Here and Now	Negative Here and Now	Positive There and Then	Negative There and Then			
GROUP 1	S1	5	3	6	2	3	3
	S2	5	4	4	5	3	5
	S3	5	5	5	3	3	1
	S4	4	2	5	5	4	4
GROUP 2	S1	5	4	1	5	5	5
	S2	6	3	4	1	3	4
	S3	6	2	2	5	6	2
	S4	6	3	2	4	4	6
GROUP 3	S1	5	2	2	4	5	4
	S2	5	4	5	5	3	2
	S3	5	2	2	2	5	3
	S4	5	0	4	4	3	5

VITA

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