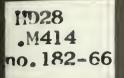




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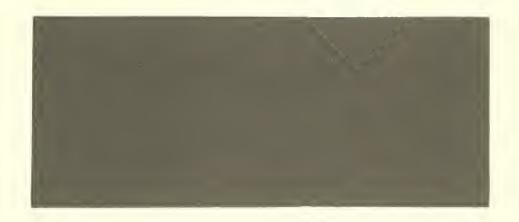
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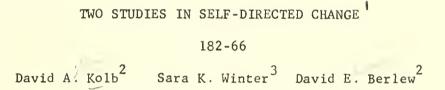
# TWO STUDIES IN SELF-DIRECTED CHANGE

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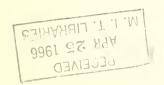
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1. The authors are indebted to the M.I.T. students who devoted time and energy to reporting their self-directed change projects and to Douglas T. Hall, William McKelvey, David Meredith, and Irwin Rubin who served as T-Group trainers. The statements made and views expressed are solely the responsibility of the authors. This paper is not to be cited, quoted, or reproduced prior to publication.

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4235 Mj - 14 Nj - 14 For several years, the authors have been working to develop and test a simple method for self-directed behavior change. In more than fifty individual case studies we have found that most individuals report some degree of success in their efforts to change with this method. Schwitzgebel (1964) has analyzed a group of these case studies to determine factors important in producing change. Zachs (1965) used an adaptation of the method to test its effectiveness with college students who were trying to reduce cigarette smoking. The group of students who used the method showed a 53% decrease in the number of cigarettes smoked (compared to control students who showed a 17% decrease). A 51 day follow-up indicated only a slight regression in these figures.

In the present paper we report a further application of this method for self directed change. Subjects in the two experiments described in the paper were members of laboratory training groups (T-groups), who undertook individual self-directed change projects in order to attain personal goals relevant to their behavior in the T-group.<sup>4</sup> These experiments assess the effectiveness of the self-directed change method in this setting, and investigate which aspects of the method are important in producing change.

## A Method for Self-Directed Change

In self-directed change projects, an individual works to change his own behavior, thoughts, or feelings to bring them closer to a goal he has set for himself. The specific techniques we use to assist individuals in

<sup>&</sup>lt;sup>4</sup>For a complete definition and discussion of T-Groups see Schein and Bennis (1965).

this task will be outlined below, but first we should mention some of the theoretical assumptions which underlie our work with this change method.

Our first assumption is that under proper conditions, proactive forces emerge in individuals, permitting experimentation with new behavior and striving toward ideals. White (1959), Harlow (1953), Rogers (1951) and others have convincingly documented the case for the existence of proactive motivation in human beings. Maslow (1954) has suggested that motives for personal growth and self-actualization emerge when lower-order physiological, safety, relatedness, and ego needs are satisfied to a reasonable degree. We assume, therefore, that conditions can be created whereby many individuals will be able to set goals for themselves and will be able to achieve these goals. Under such conditions, we assume that individuals will be able to make increasingly realistic appraisals of their goals and inadequacies, and that they will become motivated to change themselves.

Our second assumption is that changes in behavior are most likely to be permanent if the process of changing is seen by the individual to be under his own control. The most effective change method is one in which the individual feels that he, and not some external agent of change, is responsible for the change that occur. It is a commonplace fact that true psychotherapeutic change does not occur until the patient works through his dependence upon the therapist and achieves self-direction. The literature on cognitive dissonance gives experimental evidence for the importance of self-direction in attitude change. These experiments show that attitude change is greatest and most enduring when the person feels that he has freely chosen

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to alter his point of view. (Secord and Backman 1964). Recognizing the importance of self-direction in personality change, self-help societies like Alcoholics Anonymous and Synanon (for narcotics addicts) have made the principles of personal responsibility and voluntary commitment to change a central part of their ideology.

Our method for self-directed change gives the individual responsibility for "diagnosing" his own problem, setting his own goal and accomplishing change by his own efforts. Change which is achieved by this method should be maximally "owned" by the individual and thus most likely to endure after the project is completed.

The method employed in a self-directed change project is very simple. The major emphasis is on self-research. Each subject is encouraged to reflect on his own behavior, and to select a limited and well-defined goal which he would like to achieve. The next step is to undertake a continuing and accurate assessment of his behavior in the area related to his change goal. He keeps an objective record of his behavior in this area, generally in the form of a graph which measures progress toward the goal from day to day. The subject decides for himself how long the project should continue and when his goal is attained.

The following is a typical project. This person wanted to become less shy, and feel more at ease when speaking with people he did not know well. After reflecting on his behavior with others, he decided that a reasonable goal would be to feel comfortable, in place of his usual tense feeling,

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in the conversations he held with people he had recently met. He committed himself to continuing self-research in this area. He decided to keep a count of all encounters with new people in which he felt at ease, and of all encounters in which he felt uncomfortable, nervous and shy. A mechanical counter, such as those used to record golf shots, helped him to keep an accurate tally throughout the day. At the end of each day, his percentage of "comfortable" encounters was entered on a graph. After a period of fifteen weeks, he decided that he had successfully changed and that he could discontinue the project.

Although change projects using this method share the same general format, details can vary widely according to the way a person decides to conduct his own self-research. Assessments can be made hourly, daily, or less frequently. Graph entries can consist of behavior counts as in the example above, or of more global self-ratings on the change dimension. Sometimes self-assessments are supplemented with ratings by friends or associates. The result, in any case, is a graph which records the individual's progress toward his goal.

We feel that two aspects of the method are especially important in producing change: goal-setting and feedback. Goal-setting is important in change primarily because it represents a disruption of equilibrium within the personality. Lewin calls this initial phase of the change process "unfreezing". Schein (Bennis <u>et. al</u>. 1964) has elaborated Lewin's model by specifying the important external factors that act on the individual to stimulate the unfreezing process. The goal-setting process in our change method, on

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the other hand, emphasizes the <u>internal</u>, psychological aspects of unfreezing: the process whereby a new goal comes to be sufficiently valued so that the person is motivated to change his behavior to achieve this goal. In this emphasis we follow the change theory developed by McClelland (1965).

When an individual commits himself to a goal he values, he is recognizing a discrepancy between his actual behavior and what he desires to be. As we know from the attitude change literature (Brown 1965), this kind of discrepancy is motivating, i.e. the person will try to reduce this discrepancy either by changing his behavior or his ideal. We hypothesize that commitment to a goal leads to changes in behavior because this commitment (1) increases motivation to change by emphasizing in consciousness the discrepancy between current behavior and ideal behavior and (2) increases the probability the behavior rather than the goal will be changed since conscious commitment to a goal reinforces the value and stability of that goal.

In this research, we propose two hypotheses relevant to the goal-setting phase of the self-directed change process: (1) There will be a positive relationship between the amount of initial commitment to a change goal, and the degree of subsequent change in behavior; (2) We can, by alteration of experimental conditions increase commitment to a goal and thereby increase subsequent behavior change.

The second aspect of the change method which we hypothesize to be important in producing change is feedback of information relevant to one's change project. This hypothesis is derived from information theory (cf. Frick, 1959) and more specifically from the feedback model of learning developed by

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Miller, Galanter, and Pribram (1960). Stated generally, our hypothesis is: The more an individual can effectively utilize the feedback of information appropriate to his change project, the more he will be successful in attaining his change goal.

Two kinds of feedback are important here. The first is feedback which the individual gives himself through conscious reflection about his progress. We have found in our previous research that the graphed record is particularly useful in stimulating this self generated feedback (Zachs 1965, McClelland 1965). By making a continuing evaluation of his progress toward the goal the individual is constantly reminded of his change effort and how he is doing. The systematic nature of the graphing process helps assure that the project will not be discontinued during a particularly difficult period. By plotting his behavior over time the person gets feedback about general trends and he can thus place momentary difficulties in the context of gradual success.

The second kind of feedback available to the person is that which he receives from others. While in our previous research with this method feedback of this type has been random and unsystematic, T-Groups develop norms which encourage systematic interpersonal feedback (cf. Schein and Bennis 1965). In the experiments reported here we want to test the effectiveness of this type of feedback on change. We predict that change will vary directly with the quantity of feedback a person receives about his change project from members of his T-Group. It should be noted that in making this prediction we are assuming that effectiveness of utilization and the appropriateness of feedback are constant for different quantitities of feedback.

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#### Two Experiments with Self-Directed Change in T-Groups

The setting for the two experiments described here was a semester-long course in Psychology and Human Organization, required of Master's degree candidates in Industrial Management at Massachusetts Institute of Technology. As part of the course, students participated in 15-man T-Groups. Most of the students in the experiments were Master's candidates, although there were a few undergraduates in the group. All were male except for 2 females in Experiment 2. About 10% of the students were foreign nationals with varying degrees of fluency in the English language. Subjects ranged in age from 20 to 35.

The first experiment (N = 53) was carried out in four T-Groups during the fall semester, and the second experiment took place with different subjects (N = 54) in four T-Groups during the spring semester of the course. The change method employed in previous individual case studies was adapted somewhat to be appropriate to the T-Group setting. Students were encouraged to choose change goals related to their behavior in the group sessions. Instead of making daily ratings of their progress, students evaluated themselves during or after each T-Group meeting. Thus the students' efforts were focussed on changing their behavior within the T-Group itself.

Experiment 1. In the first experiment, the students learned of the change projects during the fifth week of classes, when they heard a lecture on self-directed change given by the course instructor. The lecture included a discussion of factors influencing behavior change (following McClelland 1965)

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and the presentation of case studies describing individuals who had successfully used our method for self-directed change. The lecture was designed: a) to emphasize the possibility of self-directed change by showing theoretical models and empirical data; b) to depict the change process as a delimited task that could be undertaken by the individual -- the task of studying and working on some single aspect of behavior; c) to stress the importance of commitment to the change goal.

Immediately after the lecture, the students were given fifteen minutes to choose change projects relevant to their behavior in the T-Group. After choosing his change goal, each person was asked to indicate on a 1 to 10 scale how committed he was to attaining this goal.

Each T-Group member received a graph on which he wrote a description of his personal change goal. On this graph the student recorded his meetingby-meeting evaluation of his progress toward this goal throughout the semester. These meeting-by-meeting ratings were made in 10 weekly T-Group sessions which followed the lecture on change.

In the first experiment one experimental manipulation was performed. To test the effect of feedback on change, two of the T-Groups in Experiment I were assigned to a "feedback" experimental condition in which group members were encouraged to give one another feedback about their change projects. The other two T-Groups were assigned to a "no-feedback" condition: they were told that change projects were to be carried out independently. In these groups, when someone brought his project up, the group leader changed the topic of conversation. Subjects were assigned to trainers on a random basis, with

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some adjustments made to balance foreign students evenly throughout the four groups. Since there were two highly experienced and two relatively inexperienced T-Group trainers, a coin toss assigned one experienced and one less experienced trainer to each condition.

Experiment II. The second experiment was much like the first except for two important additions that were made to the procedure to emphasize goalsetting and to increase students' commitment to the projects.

The first of these additions occured in the first week of the course, before the lecture on the change method, and before students had heard of the self-directed change projects. Students were asked to write a brief paper describing how they would ideally like to be in a group. This "ideal-self paper" was followed in the third week of the course by a second paper, in which students described how they felt they actually were perceived by others in their T-Group. In this "real-self paper" they were also asked to discuss discrepancies between their ideal and real selves in the group. These two papers were assigned in order to increase students' thoughtfulness about themselves and their goals.

The second addition to the procedure occured after the fifth week lecture on self-directed change. Instead of choosing their change projects immediately after the lecture, students were asked to spend two T-Group meetings discussing possible choices of projects with one another. At the end of the second of these two meetings, students chose their projects and filled out graph sheets just as they had done in experiment I.

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Meeting-by-meeting ratings were made the same way as in Experiment I. As in the first experiment, there were 10 T-Group meeting following the choice of change project. In Experiment II, however, T-Groups were held twice weekly so that the ten meetings took place over a shorter period of time than in Experiment I.

All T-Groups in the second experiment were allowed to discuss change projects. Feedback in this experiment was measured by the T-Group trainers' meeting-by-meeting ratings of how much each individual's project was discussed in the group.

The self-research report. Members of both experiments concluded their change projects by writing a report on their efforts at self-directed change. These reports followed a format suggested by the course instructor including discussion of: 1) the amount of change, if any; 2) factors contributing to change or lack of change; 3) degree of involvement in the project; 4) discussion of changes in the student's definition of his change goal, or new insights about the change project, if any; and 5) suggestions for improving the change project procedure. These reports were required as a part of the course, but played no part in determining students' course grades.

### Results

<u>Types of Change Projects.</u> Subjects were free to undertake change projects of any type they wished, although the course instructor encouraged the choice of projects that could be carried out within the T-Group sessions. Reports on 90 completed change projects were received, 46 from Experiment I

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(87% of students in that semester) and 44 from Experiment II (85% of students in that semester). The remaining students failed to hand in reports of their projects or, in a few cases, did not undertake projects at all.

Though students phrased their change goals individualistically, we were able to classify the projects into groups representing five major types of goals. In Table I we present descriptions of these goals with the number of projects of each type which were carried out in Experiments I and II.

<u>Assessment of Change</u>. In assessing individuals' success in attaining their change goals we have placed major emphasis on <u>subjective</u> and <u>idiographic</u> criteria of change; i.e., the student's own ideas about how much he has changed in relation to his individual goal.

Our idiographic emphasis follows the work of Shapiro (1961) who developed a method for gauging the progress of disturbed mental patients on a hospital ward. Shapiro, by means of a personal interview, created a different scale for each patient, constructed around his individual symptoms. The scale ranged from from his very disturbed behavior to his most improved behavior. Although each patient was measured on his own idiographic change dimension, numerical ratings could be compared and summarized across the whole patient group. Similarly, in the present self-change projects, degree of change is measured in terms of the person's own choice of goal. A student's numerical ratings represent his degree of success in attaining whatever goal he set for himself at the start of the project.

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## TABLE 1

## Types of Change Goals

## Number of Projects

Experiment I

Experiment II

- Goal is to talk more in the T-Group; to pay closer attention; to be more involved in the group.
- Goal is to become more sensitive, perceptive, empathetic, or understanding of others' feelings and comments; to become more open to feelings.
- Goal is to become more outgoing; to take a greater leadership role; to become less shy; to increase self control.
- 4. Goal is to become less dominant and less intolerant of others' points of view; to be a better listener; refrain from stereotyping others.
- Goal is to improve the technical aspects of one's communication -e.g. to speak more clearly, to organize thoughts better.

9	11
17	12
4	10
11	5
5	6

$$N = 46$$
  $N = 44$ 

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There are two reasons for emphasizing subjective criteria of change. First, we think that subjective feelings are important in and of of themself as a criterion for successful change. Rogers and Dymond (1954) for example, have used self concept ratings as their central criterion measure in assessing the effects of pscyhotherapy and have demonstrated lasting changes in these subjective self evaluations. If a person can improve his evaluation of himself and maintain this feeling over time then it seems difficult to argue that this does not represent a significant change in his life.

Furthermore, it seems that for some problems, a "subjective" criterion is the only one that is conceivably appropriate. For example, in many of the self-directed change projects the person is trying to effect change in his thoughts or feelings. In these cases success is achieved only when the person perceives that he feels different. An observer's evaluation of change in these projects is thus likely to be more inferential, and inaccurate than the person's own evaluation.

These considerations lead us to take seriously students' subjective reports of their degree of change. We also recognize however, the importance of investigating to what degree subjectively experienced personal change is accompanied by behavioral changes which are recognizable to independent observers. Although we would not expect a perfect correlation between a student's own judgement of change and an observer rating, some investigation of the relationship between these two types of criterion is important.

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In Experiment II we took a first step in this investigation by collecting ratings of change as perceived by the subject and also ratings of change as perceived by the subject's T-Group trainer. Differences between these two change measures will be noted below.

How change was measured. Each student's assessment of his degree of change ("self-perceived change" rating) was measured by a content analysis of his final change project report. These reports were in most cases quite comprehensive and sincere, giving us little reason to doubt that they were an accurate representation of the person's feelings about his progress. Two independent raters rated each subject's report on the following five-point scale:

## Change Rating Criteria

5.	Great Success	The student showed significant change and has for the most part achieved his goals. He seems comfortable with his new behavior.
4.	Success with some negative elements	The student showed substantial change but was not comfortable with it. He showed change but not consistently.
3.	Some success Some failure	The student managed to act in accordance with his goals some of the time but there was no integration of these behaviors into his personality.
2.	Generally failure A few successful elements	There was occasional trying of new behaviors but for the most part no change.
1.	Utter failure	There was no change. The project was a complete failure.

In most cases the raters were in perfect agreement on which scale point to assign. In cases with a difference of greater than 1 point in ratings, the raters conferred with each other and agreed on a common rating. The same 1 to 5 point scale was used by the T-Group trainers in Experiment II for their ratings of their group members' degree of change.

In Table 2 are reported the percentages of high (> 3) self-perceived change ratings recorded in three experimental conditions: the no-feedback condition of Experiment I; the feedback condition of Experiment I; and Experiment II, which allowed feedback and emphasized commitment. These data are presented to give an indication of how successful individuals were in attaining their change goals. The main point to be emphasized initially is that over all conditions 43% of the subjects were rated as high changers. The variations in degree of change by experimental condition will be discussed in detail later.

The percentage of subjects who were given high change ratings by the T-Group trainers is also reported in Table 2. (Experiment II only). It is interesting to note that the trainers placed fewer people in the high change categories. Trainers assigned only 45% of the Experiment II students high change ratings, while 61% of the subjects received high self-perceived change ratings ( $\chi^2 = 2.23 \text{ p} < .15$ ).

In spite of this difference between objective and subjective ratings of change, 80% of the pairs of subjective and objective ratings were within one point of each other. The correlation between the two ratings was .36 (p < .05).

### TABLE 2

Personal Change by Experimental Condition as Perceived by Subjects and T-Group Trainers

Condition

Percent of High Changers
(Scale score > 3)

Self-perceived Change Rating of

T-Group Trainers' Rating of Change

Experiment I No feedback (n = 21)	5%	
Experiment I Feedback (n = 25)	44%	
Experiment II Feedback plus Emphasis on Commitment (n = 44)	61%	45%
All Conditions (n = 90)	43%	

### NOTES

- 1.  $X^2$  between student's perception of change in Experiment I No feedback condition and Experiment I feedback condition equals 5.26 (p < .03)
- 2.  $X^2$  between subject's perception of change in Experiment I feedback condition and Experiment II condition equals 1.94 (p < .15)
- 3.  $X^2$  between student's perception of change Experiment II and T-Group Trainers rating of change Experiment II equals 2.23 (p < .15)

In interpreting Table 2, the reader should note that these percentages include only those 90 students who completed self-change projects. The 17 students who did not complete the projects were evenly scattered (percentagewise) in the three conditions presented in Table II. If we assume that those who did not complete projects failed to change, we would expect the percentage of high changers to decrease in all three conditions, but the relationships among the three conditions should remain essentially unchanged. We do not include the 17 students who did not complete projects in our data analysis because we are primarily interested in the effectiveness of the method for self-directed change. Individuals who do not choose to carry out self change projects are thus not cases to be studied.

We were surprised, incidentally, to discover that neither objective nor subjective change scores was related to the type of change project the person chose. We compared change scores with the goal types shown in Table 1 and also examined the change goal definitions of high and low change subjects for any obvious differences in the types of goals selected. Neither attempt produced any significant differentiation.

In order to interpret the meaning of these changes and to discover the factors influencing them, we now turn to the results bearing on the role of commitment and feedback in self-directed change.

<u>Commitment results.</u> To test our hypothesis that a person's initial commitment to his change project is positively related to the amount of change he shows, we applied median tests between commitment ratings and self-perceived and trainer-rated change scores. In Table 3 we see that the relationship

between initial commitment and self-perceived change in Experiments I and II is as predicted (p < .015 2 tail). Table 4 shows that a similar relationship exists between initial commitment and trainer rated change in Experiment II (p < .01, 2 tail). From these results we can conclude that the highly committed subjects not only felt as though they changed more, but also showed more observable changes in behavior than did low-commitment subjects.

Furthermore, we find that our attempt to increase commitment in Experiment II was successful. The mean commitment rating of 5.71 in Experiment I rose to 8.10 in Experiment II. (This difference is significant by Mann Whitney U Test - p < .01 2tail). That this increase in commitment in Experiment II produced a corresponding increase in self-perceived change can be seen by comparing the degree of self-perceived change in the feedback condition of Experiment I with the degree of change in Experiment II. (See Table 2, note 2). The results here, while not statistically significant, suggest that the attempts to increase initial commitment resulted in greater self-perceived change.

<u>Feedback results.</u> As has already been mentioned, we have limited ourselves in these experiment to an investigation of the relationship between degree of change and quantity of interpersonal feedback available. In Experiment I the change scores of the subjects in the feedback-condition groups were compared with change scores from the no-feedback groups. The percentages of high change scores in these two conditions have already been reported in Table 2 (See note 1). In the no-feedback groups, only 5%<sup>(1/21)</sup>

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TABLE 3. Initial Commitment and Self-perceived Change: Experiments I and II

# Self-perceived Change

Low (3 or <) High (> 3)

High (> 7)	18	26	
Commitment			n = 80 $x^2 = 6.47$ p < .015 2 tail
Low (7 or <)	25	11	

ABLE 3. Initial Commitment and Self-purchived Charges Superiments I and II

-perceived Change

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# TABLE 4. Initial Commitment and Trainer-rated change: Experiment II

	Low (3 or <)	High (> 3)	
High (9 or 10)	6	12	
Commitment			N = 41 $X^2 = 8.39$ P < .01.2 tail
Low (< 9)	18	5	

# Trainer-rated Change

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Low (1 or <) ILLgh (> 1)

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of the subjects were high changers. In the feedback condition 44% (11/25) of the subjects were high changers. The  $X^2$  value for difference between the two conditions was 5.26 (p < .03). Thus it would appear that T-Group feedback relevant to an individual's change project facilitates self-perceived change.

Yet we felt that this test of our hypothesis had some possible shortcomings. First of all we wondered whether differences between the conditions might not be caused by feelings of deprivation in the no-feedback condition. Subjects here might have felt that they were not getting the "full treatment" and thus did not expect to change. Second, there was some question about how much the feedback-condition groups actually discussed the change projects during the semester.

To over come these problems, we decided in the second experiment to assign all groups to a feedback condition and to measure, by means of a group leader's rating, how much each individual's change project was discussed in each T-Group meeting. These feedback ratings were made on the following 5 point scale:

- 1 = No mention of project.
- 2 = Brief mention or reference to project by self or others.
- 3 = Discussion of project by self or others at a superficial level.
- 4 = Discussion of project by self or others with some personal involvement.
- 5 = Intensive, meaningful discussion of change project by self and others with higher personal involvement.

Each individual's average feedback rating was compared with his selfperceived and trainer-rated change scores by a median test. In table 5 are reported the comparisons between the average feedback ratings and these change scores. The top  $X^2$  tables show the relationship between self-perceived change and the average feedback rating computed for the full ten sessions of the T-Group. Contrary to our original prediction, there is no significant relationship between these variables. However, when self-perceived change and trainer rated change are compared with the average feedback rating in the first half of the T-Group (sessions 1-5) and with the average feedback rating in the second half of the T-Group (sessions 6-10); a significant pattern emerges (see the lower  $x^2$  tables in Table 5). While degree of change is not related to feedback in the first half of the T-Group it appears to be positively related to the amount of feedback given in the second half of the T-Group (p < .015).

We will examine the implications of these and other results in the next section.

## TABLE 5

Relation of T-Group Feedback to Self-perceived and Trainer-rated Change (N = 42)

		Self-percei	ved Change	Trainer rated Change	
		Low (3 or <)	High (> 3)	Low (3 or <)	High (> 3)
Average feedback Score Session 1-10 (Total)	High (1.8 or >)	6	14	9	11
	Low (< 1.8)	10	12	16	6
		$x^2 = NS$		$x^2 = NS$	
Average feedback Score Session 1-5 (1st. half)	High (> 1.9)	7	13	10	10
	Low (< 1.9)	9	13	15	7
		$x^2 = NS$		$x^2 = ns$	
Average feedback Score Session 6-10 (2nd. half)	(1.7 or >)	۷.	17	8	12
	Low (< 1.7)	12	9	17	5
		$x^2 = 6.4 P < .015$ 2 tail		$x^2 = 6.14$ 2 ta	

#### Discussion

The experimental results offer some encouraging evidence for the effectiveness of our method for self-directed change. Furthermore, they confirm our hypotheses about the role of commitment and feedback in the change process.

The fact that initial commitment to one's change project was positively related to degree of success in changing lends credulity to our ideas about the effectiveness of self-directed change efforts. This result suggests that one important factor determining success in change is the degree to which the person consciously feels it is important for him to change. The more a person wants to change the more he is likely to do so.

While the experiment I feedback results give support for our hypothesis about the role of interpersonal feedback in change, a question is raised by the feedback results in Experiment II. The fact that only feedback given in the second half of the T-Group related to change suggests that <u>quantity</u> of feedback is not the only important element in the feedback process.

In our hypothesis about feedback we stated, "The more an individual can <u>effectively utilize</u> the feedback of information <u>appropriate</u> to his change project, the more successful he will be in obtaining his change goal."

We might look more closely at the undefined terms, "effective utilization" of feedback and "appropriate" information. Is there reason to believe that feedback in the second half of the T-Group would be more appropriate and more effectively utilized? Perhaps so. Writers who have attempted to describe the process of group development (c.f. Bennis 1964) agree that the early

stages of a group are fraught with struggle and anxiety. As the group develops, however, a climate of psychological safety is gradually established. Members begin to trust one another and to develop a common frame of reference for evaluating ideas and actions. It seems reasonable to assume that feedback given under these latter conditions should be more effectively utilized since the members trust one another more and would feel safe to explore the implications of remarks. In addition, feedback in later group sessions should be more appropriate since the members of the group know one another better than they did initially. These ideas should be tested more formally in a future study.

The results raise a final important question. Is self-direction a fixed personality trait or can the ability to change oneself be learned and/or modified by environmental conditions? This is of course, the question with which we began this research. We sought to develop a method which would aid the process of self-directed change. To prove that the method does help, we need to demonstrate that our experimental manipulations of the feedback and goal-setting aspects of the method do in fact increase the amount of change measured. Our results here are suggestive but not conclusive. The attempt to increase goal-setting and commitment in Experiment II did increase the amount of change reported, but the increment over the feedback condition of Experiment I was significant at only the 15% level. The differences between the feedback and no-feedback condition of Experiment I were significant, but we wonder about a deprivation effect in the no-feedback group. We were, nonethe less, encouraged by the fact that overall we were able, through improve-

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ments in the method, to increase the percentage of high self-perceived change scores from 5% in the no-feedback condition of Experiment I to 61% in Experiment II. Results like this with such crude manipulations suggest that with refined knowledge and techniques the number of individuals who are highly successful in changing themselves with this method can be increased still further. mante in the method. Co increase the personange of sigh self-percentee change scotes from 5% in the average avoidable evolution of Experiment I to 61% in Experiment II Results. Like this with pack stude manimulations suggest that with reliad knowledge and techniques the number of individuals was are highly successful in there increases its with the billy sources of individuals was are highly successful in

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- Bennis, W. Patterns and vicissitudes in T-Group development. In L. Bradford et. al. T-Group Theory and Laboratory Method. New York: John Wiley, 1964.
- Bennis W., E. Schein, D. Berlew, F. Steele. <u>Interpersonal Dynamics</u>. Illinois: Dorsey Press, 1964.

Brown, Roger. Social Psychology. Glencoe: Free Press, 1965.

- Frick, F.C. "Information theory". In S. Koch (Ed.), Psychology a Study of a Science. Vol. 2., 1959.
- Harlow, H.F. Mice, monkeys, men, and motives. Psychol. Rev. 60, p.23-32, 1953.

Maslow, A.H. Motivation and Personality. New York: Harper, 1954.

- McClelland, D.C. Toward a theory of motive acquisition. <u>Amer. Psychologist 20</u>, p. 321-333, 1965.
- Miller, G., E. Galanter and K.H. Pribram. <u>Plans and the Structure of Behavior</u>. New York: Holt, 1965.

Rogers, Carl. Client-centered Therapy. Boston: Houghton Mifflin Co., 1951.

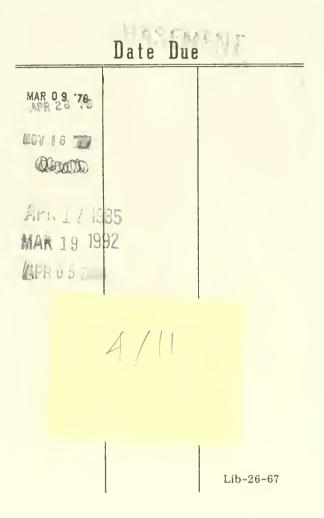
- Rogers, Carl and Rosalind Dymond. <u>Psychotherapy and Personality Change</u>. Chicago: University of Chicago Press, 1954.
- Schein, E.H. and W.G. Bennis. <u>Personal and Organizational Change Through</u> Group Methods. New York: Wiley, 1965.
- Schwitzgebel, R. A simple behavioral system for recording and implementing change in natural settings. Unpublished Doctoral thesis Harvard School of Education, 1964.

- Secord, Paul F. and Carl W.Backman. <u>Social Psychology</u>. New York: McGraw Hill, 1964.
- Shapiro, M.B. The single case in fundamental clinical psychological research. Brit. J. Med. Psychol. 34, p.255-262, 1961.
- White, Robert. Motivation reconsidered: the concept of competence. <u>Psycho-logical Review</u>, <u>66</u>, pp. 297-333, 1959.
- Zacks, Jerry. Collaborative therapy for smokers. unpublished A.B. thesis, Harvard University, 1965.



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