

AN INTEGRATIVE MODEL OF THE  
PERSONAL GROWTH PROCESS IN A T-GROUP

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Abstract

The purpose of this study was to construct and test a model of the process of personal growth. In order to investigate this process, we chose the T-Group as the appropriate setting for our research. Drawing on previous theory and research on T-Group growth, we built an original, integrative model of the personal growth process.

The model begins with an individual's four identity concepts, these being real self, self-image, ideal self, and public image. An incongruity between any of these concepts provides the stimulus for growth, which is defined as a reduction in the incongruity, when the individual goes through the first half of the model, the unfreezing process. Unfreezing may occur internally (the individual recognizes the incongruity himself) or externally (the incongruity is pointed out by communication from another group member). After unfreezing, the individual decides on a course of action (chooses a change method), which may be either internal (through introspection) or external (through public risk-taking and feedback reception), which leads to an updated set of identity concepts, hopefully containing less of an incongruity than before.

The most important contribution of the model is the inclusion of two possible methods of unfreezing and of change--internal and public. The model emphasizes the importance for growth of stress, safety, and the willingness to take a risk in order to grow. Finally, the model represents a continuous cycling process rather than a process of discrete transitions.

Research was done through questionnaires given to participants in seven four-day T-Groups, both before the laboratories started and on the last day of the sessions. The research supported the importance of risk-taking and feedback for growth by the external method and the importance of a person's role in the group for his choice of change method. The importance of group-provided safety and of internal safety for growth were partially supported by the research, and learning style provided no significant results in terms of effect on growth.

Although the model was primarily designed for T-Groups, we feel that it is generally applicable to all situations in which personal growth may occur.

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## TABLE OF CONTENTS

	<u>Page</u>
Title Page.....	1
Abstract.....	2
Acknowledgments.....	4
Table of Contents.....	5
List of Tables.....	6
List of Figures.....	6
 Chapter 1	
Introduction.....	7
 Chapter 2	
Relevant Past T-Group Research.....	12
 Chapter 3 The Model	
3.1 The Basic Model.....	17
3.2 Examples.....	19
3.3 The Micro-Models.....	20
3.4 Emphases and Implications of the Model.....	33
 Chapter 4 The Research	
4.1 The Hypotheses.....	40
4.2 The Method and the Results.....	43
4.3 Conclusions.....	53
4.4 Recommendations for Further Study.....	55
 Chapter 5 Further Implications of the Model.....	59
5.1 Implications for Management.....	59
5.2 Implications for T-Groups.....	61
5.3 A Model of Organizational Growth.....	62
 Chapter 6 Summary and Conclusions	
6.1 The Model.....	65
6.2 Significant Research Results.....	66
6.3 Applications of the Model.....	67
6.4 Conclusions.....	67
 Footnotes.....	69
Bibliography.....	72
 Appendix. The Questionnaires.....	75
A. "Before".....	76
B. "Last Day".....	85

LIST OF TABLES

	<u>Page</u>
Table 1. Hypothesis 1 Results.....	47
Table 2. Hypothesis 2 Results.....	49
Table 3. Hypothesis 3 Results.....	50
Table 4. Hypothesis 4 Results.....	51
Table 5. Hypothesis 5 Results.....	52

LIST OF FIGURES

Figure 1. The Basic Model.....	17
Figure 2. The Manifestation of the Incongruity.....	24
Figure 3. Internal Unfreezing.....	25
Figure 4. Publicly-Induced Unfreezing.....	27
Figure 5. The Decision to Act on the Incongruity.....	29
Figure 6. Introspective Change.....	30
Figure 7. External Risk-Taking Change.....	32
Figure 8. Hypothesized Relation Between External and Internal Safety and Growth by External and Internal Methods.....	57

## Chapter 1. Introduction.

The developing assumptions about man--McGregor's "Theory Y",<sup>1</sup> Rogers' "general hypothesis",<sup>2</sup> and Maslow's "self-actualizing man"<sup>3</sup>-- contend that man seeks to realize his potential for pleasure and productivity. This "growth drive" moves man to seek new experience and to make new sense out of old experience. It moves man away from self-defeating, repetitive, unproductive behavior toward self-enriching, innovative, productive behavior. To help this drive emerge requires changes on the part of the person. People in the course of their lives have acquired modes of thinking and behaving which hinder their ability to realize their potential. Personal patterns of functioning establish themselves over the years; they are not easily changed. An example of the difficulty growth may entail and the benefits that may result is given by Athos:

The executive should lean back and ask himself whether, and in what ways, he needs and wants to learn more, to grow as a person in his role...

Acceptance of the idea that one needs to grow personally may not be easy for men who have "arrived" after a long and arduous trip. To be told that one should set out on still another voyage (an uncharted one) may sound disrespectful of past accomplishments, and threatening to boot. And yet, for some executives, the excitement of personally growing and searching may find new meaning to the rest of their lives.

Let me state plainly the reason for my suggestion. The challenge posed to corporations by the ideas that are taking hold can be met only by individuals--men who have executive position and power and who care enough about themselves as persons, about their companies and about the world around them to invest heavily in their growing and their organization's renewal.<sup>4</sup>

The untapped potential within man for greater joy and achievement offers an opportunity he can not afford to overlook.

What is meant by growth in this thesis is a change in the self which allows the person to more realistically incorporate and use his emotional and cognitive experience. The self consists of four identity concepts--self-image, ideal self, real self, and public image. Self-image is how a person sees and thinks of himself. Brouwer describes self-image as follows:

Each of us, whether we realize it or not, has a self-image. We see ourselves in some way--smart, slow, kindly, well-intentioned, lazy, misunderstood, meticulous, or shrewd; we all can pick adjectives that describe ourselves. This is the "I" behind the face in the mirror, the "I" that thinks, dreams, talks, feels, and believes, the "I" that no one knows fully. <sup>5</sup>

The ideal self is how the person wants to be. The real self is the objective description of the person. The public self is other people's perceptions of him.

The self-image, ideal self, and public image act as filters for the real self. These filters can negate and distort experience. For example, a man that sees himself as uncreative (self-image) does not spend time in free thought trying to devise innovations. Since he does not try to be creative, he is not, and he and others experience him as uncreative (self-image and public image). To grow, he must begin to see himself as having the potential for creativity (real self). In other words, his self-image must change. Brouwer explores another example of a man growing:

The manager who once was unreliable in his judgement or who lacked drive grows toward reliability in judgement or toward stronger drive. Growth in this sense brings observable changes in outward behavior, because each person is now inwardly different, for example, in his perception of himself, in his attitude toward his job and his company as both relate to his own life, or in his feeling of responsibility for others...

The point is clear that the growing person examines himself;

and as he does, he emerges with new depths of motivation, a sharper sense of direction, and a more vital awareness of how he wants to live on the job. Growth in this sense is personalized and vital. And such growth in self-concept is at the heart of real manager development. 6

How growth takes place and what facilitates it are the subjects of this thesis. In order to conduct this type of investigation, it was necessary to find a context, setting, or structure in which growth occurs. One way to limit the search was to identify settings where growth is a primary goal. Psychotherapy is one such setting. Psychotherapy, however, is a healing relationship. The "client-patient" is "sick" and needs to be made "well." We wanted a more general setting designed for the growth of "normal" people.

The setting we chose was the sensitivity training (T-group) laboratory. Besides its being a setting where growth is an important goal, there were four reasons for choosing this setting:

- 1) the T-group has been shown to promote growth;
- 2) the processes have been intensively studied so that further study is easier;
- 3) T-groups were easily available for study;
- 4) during the past decade, there has been wide-spread interest in and application of T-groups on the part of management.

These points will be further explained in the following chapters.

In the course of investigating growth in a T-group, we found that what was needed was a comprehensive model of the growth process in a T-group and methodology for testing that model. Many models of growth exist but these models are general rather than detailed. Many of the

processes of growth and of the interrelationships between variables go unexplored.

A detailed specific model integrates past research and provides a framework for future study. Past research has identified key variables in the growth process. This is not enough. Until the links between variables are found and fit into some consistent framework, each research study is all but independent of the rest. A comprehensive model would bring it all together. This integration would provide direction for future research by making evident which variables and interrelationships are not adequately understood. It would give social scientists a common framework so that future research could build on past research.

The comprehensive model can become a tool for learning. It can help trainers and participants, as well as others interested in growth, to make explicit vague feelings, impressions, assumptions, and insights about the growth process. So often after a T-group or other growth experience, a person feels that it was good but he cannot explain what happened or exactly what he learned. Providing a model links up the experience with a meaningful theory and, thereby, crystallizes the learning for the person.

The model can serve as an impetus for new growth. Experiencing growth and understanding the model helps one to find obstacles to further growth and to find ways to reduce or eliminate them. A person may find, for instance, that he does not get feedback from his environment. The model may indicate that risk-taking and having people around with the desire to communicate leads to feedback. By making clear the potential rewards, the model may serve as an impetus for the person to take more risks and actively seek people who can communicate to him about the

dimensions along which he wants to grow.

Lastly, our model may stimulate people to formulate their own model that will make sense for them and which they can test against reality. Our model is by no means complete or universally applicable. In fact, it may have to be modified for each person using it. People can extract from our model what is useful to them and go on from there.

## Chapter 2. Relevant Past T-Group Research.

In this chapter, we will present some of the relevant research about sensitivity training. Two types of research will be presented:

- 1) research that shows what types of growth occur in a T-group;
- 2) research that identifies the key process variables that are related to growth.

Before getting to the research, some further understanding of what constitutes a T-group is necessary. To give one explanation that covers the great diversity of styles and methods is quite difficult. At the most general level, there are common elements that run through T-groups, one of these being the goals. The learning goals of the group usually include increasing interpersonal competence, self-awareness, and understanding of group process. Another commonality is an orientation toward experiential learning. The content of study is the data that the members of the group generate. This data includes members' feelings, perceptions, and attitudes about themselves and the others in the group. The experience is designed to combine the seemingly contradictory elements of psychological safety and real confrontation with oneself and others.

T-groups have been shown to facilitate personal growth. In a paper entitled "Explorations in Human Relations Training and Research", Paul Buchanan reviewed a number of evaluative studies of T-groups from which he concluded that training is an effective means of facilitating change in individuals in the industrial setting. Two types of change were identified:

- 1) self-concept and cognitive changes that are internal to the person;

- 2) behavior changes that lead to development of the person.<sup>1</sup>

Gordon studied the first type of growth (internal change) using a nondirective interviewing technique. Interviews were conducted with participants before and after a T-group and the results were coded for different types of change. Gordon concluded from his study:

...with more and more certainty, we can predict that when people are faced with a non-threatening, non-evaluative, and accepting situation in which they gradually learn, they can take responsibility for their own development, they gradually begin to feel it is secure to explore themselves and to accept things about themselves which then lead to changes in their self-concept.<sup>2</sup>

Another study that reflects on internal change is Rubin's study of the effects of sensitivity training. He found that participants in a T-group increased their ability to accept self-generated, ego-threatening material (self-acceptance). Furthermore, his research demonstrated that the increase in self-acceptance had the indirect effect of reducing an individual's level of prejudice. Rubin's instruments for testing self-acceptance and prejudice were pencil and paper tests that did not measure behavioral change, so that this study also deals with the first type of change.<sup>3</sup>

Burke and Bennis hypothesized that laboratory training helped close the gaps between perceived actual self and perceived ideal self. This hypothesis was borne out by the research. They found, further that there was more movement in perceived actual self than in the perceived ideal self. From this research, Burke and Bennis concluded that laboratory

training provides a setting where significant change in members' perceptions can take place.<sup>4</sup>

Bunker conducted a study that tested the second type of change--behavior change. In the study, he used members of a T-group and a matched control group. He gave an open-ended perceived change questionnaire to be filled out by the subject and seven of his job associates a year after completion of the T-group. Three types of changes were identified:

- 1) increased openness, receptivity, tolerance of differences, and
- 2) increased operational skills in interpersonal relations, and
- 3) improved understanding and diagnostic awareness of self, others, and interactive processes in the group.

This study shows that people changed behaviorally as a result of a T-group and that the change was somewhat permanent.<sup>4A</sup>

The next area of relevant research investigates the variables and processes that promote the growth the T-group has been shown to produce. Much work has been done in this area; key variables and processes have been identified and related to different types of growth. The most prominent of these variables are feedback, safety, risk-taking, dissonance, and desire for change.

Kolb and Boyatzis investigated the effect of feedback on self-directed change in a T-group. The authors concluded "that the total amount of information that a person receives is directly related to his success in achieving his self-directed change goal."<sup>5</sup> In another study on feedback,

Sherwood and Bradford found that the amount of feedback (communicated public identity) was related to the extent of change in self-identity.<sup>6</sup> There is ample evidence--from these and other studies--that feedback is a key variable in the growth process.

The next key variables are safety and empathy. Carl R. Rogers has done extensive work in developing theories and practice in psychotherapy based on the importance of safety and empathy. Rogers believes that the feeling of safety comes from the therapist

- 1) understanding and feeling the client's world as he does;
- 2) having "unconditional positive regard" for the client no matter what his feelings or behavior are; and
- 3) being "congruent"--expressing his feelings accurately, not distorting, negating, or stuffing his feelings.<sup>7</sup>

In a T-group, the role of the "therapist" and "client" are not fixed. Many participants may take on either or both roles. Clark and Culbert tested Rogers' characteristics of good helping in a T-group by using what they called "mutually perceived therapeutic relationships." Rogers' hypotheses were confirmed. Safety and empathy were found to be important for growth.<sup>8</sup>

Risk-taking, or investment, is the central focus of C.M. Hampden-Turner's model of a person growing in a T-group. He says:

We have now come to the crux of our whole cycle. It is the act of investment, the act of offering our self-related

meaning to others, for acceptance or rejection, which is decisive for the achievement of growth...

The concept of "letting go" means that the subject risks the disconfirmation of his invested competence and "opens himself up" to feedback which could entail the rejection or modification of self-related meanings. I discover that I am valuable and meaningful to the Other only through risking that I am worthless and meaningless.<sup>9</sup>

Risk-taking, though relatively unexplored as far as key variables in the growth process are concerned, may be the most important variable for growth.

Roger Harrison in a study focused on dissonance as the impetus for learning in a T-group. The type of dissonance he thought important in the T-group occurs when "...events do not follow predictably from one another."<sup>10</sup> Winter and Griffith and Kolb also found dissonance to be an important impetus for self-directed growth; however, their type of dissonance that motivated growth was between present self and ideal self. The researchers' found that the high change subjects were able

...to create and maintain dissonance between his present self-concept and his goal; the low-change subject, in contrast, seems to be one who does not create dissonance for himself when he sets goals.<sup>11</sup>

These, then, are two distinct types of dissonance that serve as a stimulus for growth. Others will be discussed in succeeding chapters.

Chapter 3. The Model.

3.1 The Basic Model

We are now ready to present our model of the process of individual growth in a T-group, first in a simple, general framework and then in a more specific and detailed form. The basic model is the following:

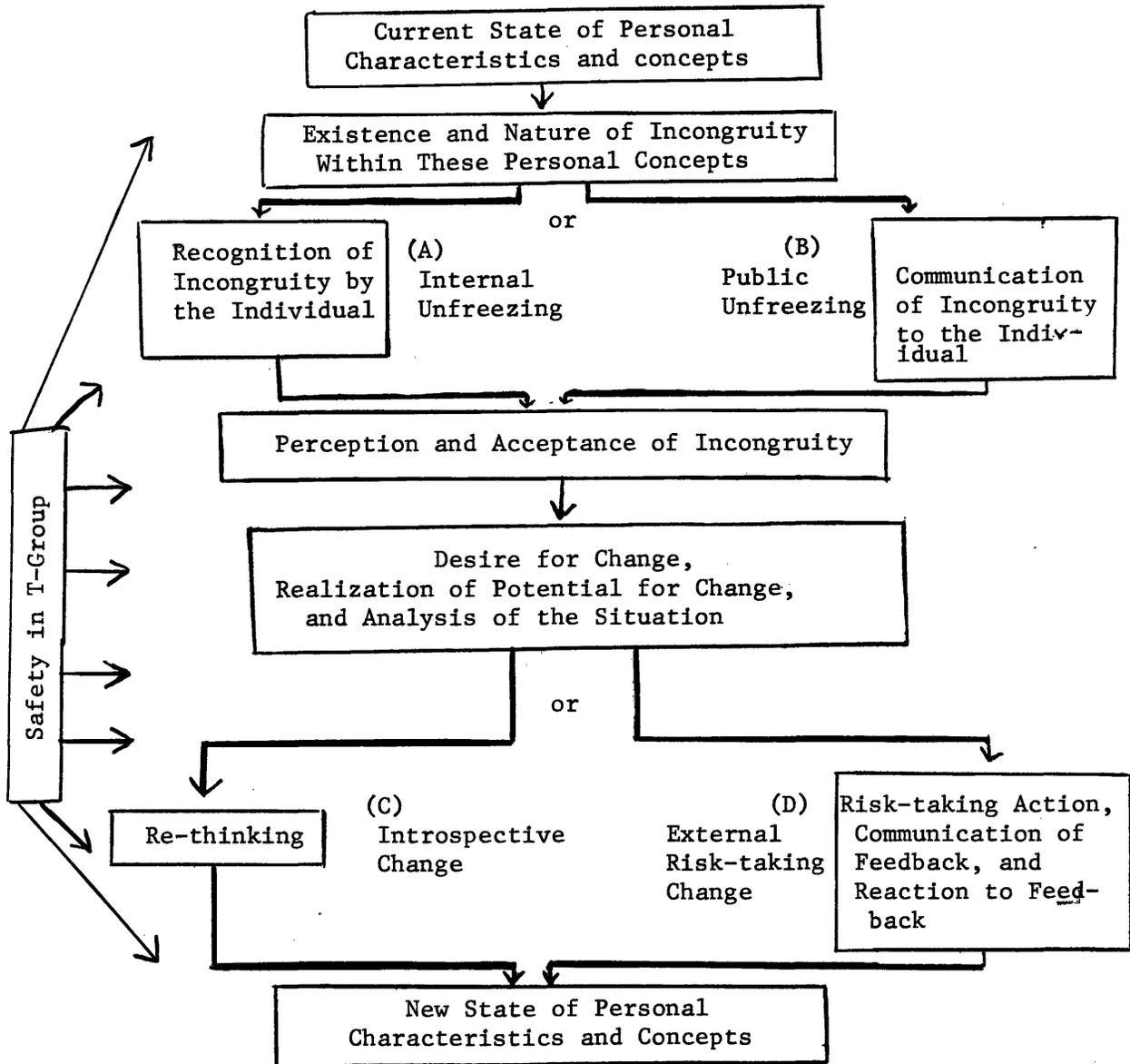


FIGURE I. THE BASIC MODEL

An individual starts the process with a set of personal characteristics and concepts about himself which contains a contradiction. Either the individual realizes this incongruity or he says or does something in the group that shows it and it is pointed out to him by another member of the group. The individual's acceptance of the existence of this incongruity provides the stress that leads in turn to his desire to deal with the incongruity by changing, his realization that he can change, and his analysis of the problem and its setting. His analysis leads him to decide how he will respond to the problem. He can respond either by introspection and internal change or by taking a risk in the group and performing an action designed to help himself change. This action elicits feedback from the group and the individual's handling of this feedback determines his growth. The end-product of both the rethinking and the risk-taking processes is an updated set of personal characteristics and concepts. Finally, internal safety and safety provided through membership in the group and the norms of the group provide the necessary atmosphere for the individual to follow through the various steps of the change process.

This model is somewhat similar to Miles' model of learner change in a laboratory, which describes growth as a four-step process involving the desire for change, the unfreezing of previous behavior patterns, involvement and participation in the group process, and the reception of feedback, all of which leads to the assimilation of new patterns of behavior.<sup>1</sup>

Our model goes beyond Miles', however, in several ways. First, it attempts to explain the reasons for the individual's desire to change and to describe specifically how he goes about attempting to change. Second,

by going into greater detail, we are able to separate two different ways in which people can recognize the need for change and two different ways they can try to accomplish change.

### 3.2. Examples

Before going into a detailed description of the model, examples of each stage in the growth process may help the reader to better understand the model. First are the two manners in which a person can go through the unfreezing process, internally and publicly. Examples of totally internal unfreezing (Path A in Figure 1) are the following:

- Ex. 1. Joe identifies with Mike because he sees many of his own traits in Mike and agrees with much that Mike says in the group. Mike gives another member some feedback that Joe agrees with and is accused by several people of being evaluative in his feedback. Joe begins to wonder if he is really as objective and accepting of others as he had thought or if maybe he is too evaluative and judgmental.
- Ex. 2. Paul feel a strong dislike for a group member whom he hardly knows, which seems inconsistent with his belief that he likes and accepts people until they give him reason to dislike them. He begins to wonder which, the emotion or the belief, is really himself.

Examples of publicly-induced unfreezing (Path B in Figure 1) are the following:

- Ex. 3. In the first example above, Mike, who has always considered himself to be objective and accepting of people as they are, reacts to the accusations that he is evaluative by wondering whether he really is objective or if maybe his perception of himself is inaccurate.
- Ex. 4. Mark points out to Roger that he is acting very fidgety, continually playing with his hands and tapping his feet and occasionally cracking his knuckles. Roger, who had tried to hide his discomfort from the group, realizes that the group observed his anxiety and wonders why he is uncomfortable.

Then we have the two methods of moving toward growth, internal re-thinking on the one hand and risk-taking and feedback reception on the other. The following are examples of introspective change (Path C in Figure 1).

- Ex. 5. Having been told that people think that he is much less friendly than he thinks he is, John contemplates his reactions to different people in the group and after much soul-searching, realizes that he is not as friendly as he had thought. He vows to himself to test this realization with people outside the group.
- Ex. 6. After several people told Steve that they liked him and he felt good with that information, Steve realized that he wasn't as independent as he had thought he was and really cared what other people thought of him. In addition, he realized that he no longer wanted to be totally independent because of the feelings he had when people said they liked him. He had subconsciously changed from wanting to be totally independent to wanting some independence but also needing and having several close friends.

Finally, two examples of risk-taking, feedback--receiving growth are:

- Ex. 7. Having realized that he was not being very open in the group, Pete takes a chance and tries to explain to the group why he is introverted. Sweating, he slowly becomes more open as he analyzes himself publicly and the group tells him that they appreciate his new effort at openness. The reaction of the group reinforces Pete's desire for further openness and gives him confidence to continue the effort. As he becomes increasingly open in the group, it becomes easier for him to do so.
- Ex. 8. When Chuck decides that he should assert himself as a leader in the group, the group reacts negatively to his first attempt, forcing him to reconsider his leadership style and his role in the group.

### 3.3. The Micro-Models

Now that we have a general picture of the model, we move to define and explain the various steps in the model in greater detail. We begin with the current value of the subject's personal characteristics. By

these characteristics we mean the set of personality traits and behavior patterns that serve to define the individual as a person, especially in relation to the other members of the T-group. These characteristics, and various perceptions or versions of them, make up four identity concepts that ultimately provide us with the stimulus for change or growth. The four concepts are the real self, the self-image, the ideal self, and the public image. Very simply, the real self is the objective description of what the person really is. The self-image is the individual's subjective perception of himself, what he thinks he is, or how he sees himself. The ideal self is the image that describes what the individual wants to be, or how he would like to perceive himself. The public image is the subjective picture of the individual held by other people, in this case the other members of the group; that is, how he is seen by others. In other words, we are defining as an individual's identity concepts, in addition to the individual's real self, three subjective and unconsciously filtered views of the real self. The self-image is filtered by the individual himself, through defenses he has developed to be able to accept himself. The public image is filtered twice--once by the individual in terms of how his real self is reflected in his behavior, what he allows to be "let out" for public view, and once by the public in terms of how they perceive the individual's behavior, which perception is heavily influenced by their own personalities. Finally, the ideal self is filtered by the individual's self-image and by what he considers to be reasonable and hopefully attainable goals for his real self.

Whenever two or more of these concepts, or identities, conflict with regard to a personality or behavioral trait of the individual, we say that

an incongruity exists. We assume that a person can be congruent only when all four pictures of himself are consistent along all personality and behavior dimensions. An inequality between two or more of these four identities provides the stimulus for growth, which is defined as the movement toward congruence, toward removing any incongruity among the four identity concepts. Schein <sup>2</sup> has pointed out that for individual change to occur, there are two necessary requirements--safety and stress. While the T-group and the individual himself provide the psychological safety needed for growth, it is an individual's recognition of an incongruity within himself (or within his identity concepts) that constitutes the necessary stress.

Generally speaking, the most common incongruities that will arise in a T-group are differences between a person's self-image and his public image (where people see the individual differently from the way he sees himself) and between his self-image and his real self (where he doesn't see himself as he really is). In most cases, growth will mean moving conflicting concepts toward consistency with the real self, which also moves them closer toward consistency with each other. In other cases, the real self is changed in order to bring greater congruence. The point is the focal nature of the real self in relation to the other three concepts. (When the incongruity involves the real self as one of two conflicting concepts, the importance of real self is obvious.) Finally, the amount of stress provided by any specific incongruity depends on the centrality of the issue in question (its importance to the individual), and the magnitude of the incongruity (whether it is big enough to be important and small enough to be accepted and seen as manageable).

Other models of T-groups have used incongruities as a central focus, or stress-producing stimulus to growth, but they have tended to define an incongruity differently from our definition. Clark and Culbert say an individual is incongruent if "others see him as not being fully aware of his own feelings and reactions or as not communicating those feelings of which he is aware."<sup>3</sup> Harrison bases his model of a T-group on the assumption that people feel "dissonance" when events occur unpredictably, and that the value of a T-group stems from its ability to generate situations in which people feel dissonances and tend to want to work toward reducing them. He says that "dissonances occur when the trainer does not behave as expected; when behavior which has been effective elsewhere does not seem to work in the group; and when the individual observes unexpected, confusing, or inconsistent behavior on the part of others or even himself."<sup>4</sup> (Harrison and Lubin also showed that the more confrontation an individual experiences in a group, the more he learns.<sup>5</sup>) Finally, as mentioned previously, Burke and Bennis also dealt with actual self, ideal self, and "the self as rated by others."<sup>6</sup> These other definitions of what we call "incongruities" are included in, or can be adapted to, our definition with a minimum of manipulation.

Going on in the model, an incongruity becomes a stimulus to change when it is manifested in the group. The manifestation can take the form of either an action on the part of the individual or a thought he experiences. The form and nature of the manifestation are determined by the nature of the incongruity itself and the individual's personal characteristics. When a thought or action is perceived as incongruous by the individual owning it, he is said to develop the stress for change (or "unfreeze",

to use Schein's term) internally. When an incongruous act is perceived by another member of the group, the unfreezing must be stimulated by communication from the perceiving group member. Thus, we have Figure 2 for the first part of the growth model.

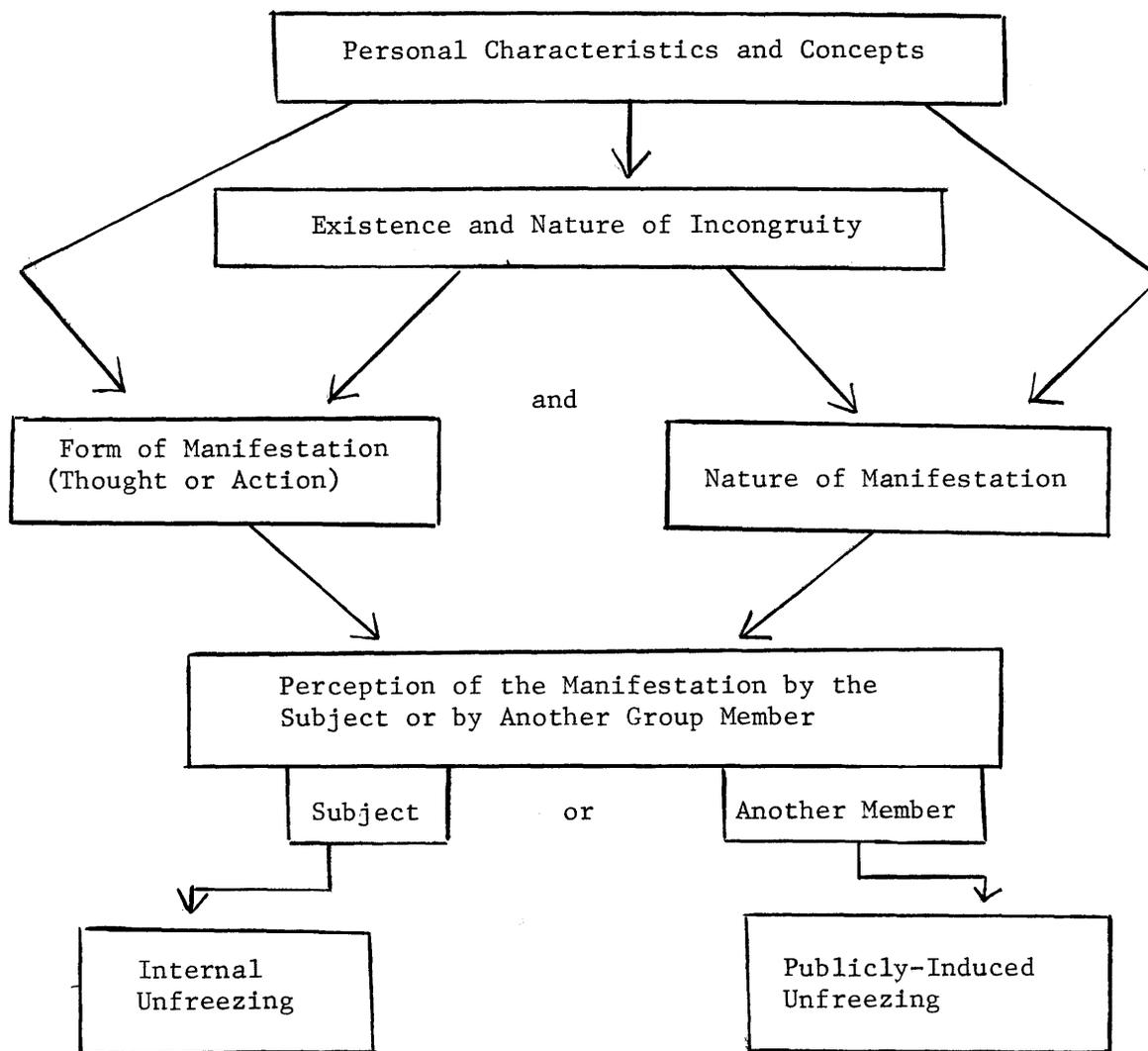


FIGURE 2. THE MANIFESTATION OF THE INCONGRUITY

In the case of internal unfreezing, the process is the following: the nature of the manifestation, filtered by his personality characteristics and his degree of involvement and feeling of safety in the group, determines the individual's perception of the manifestation. The perception of the manifestation combines with the nature of the incongruity itself to lead to the perception of the incongruity. This perception, combined with the individual's personal characteristics determines whether he will accept the existence of the incongruity. This acceptance of the incongruity provides the stress for change, as shown by Kolb and Boyatzis,<sup>7</sup> who emphasized the need for conscious goal-setting and goal awareness as prerequisites for successful growth. Figure 3 is a model of the internal unfreezing process.

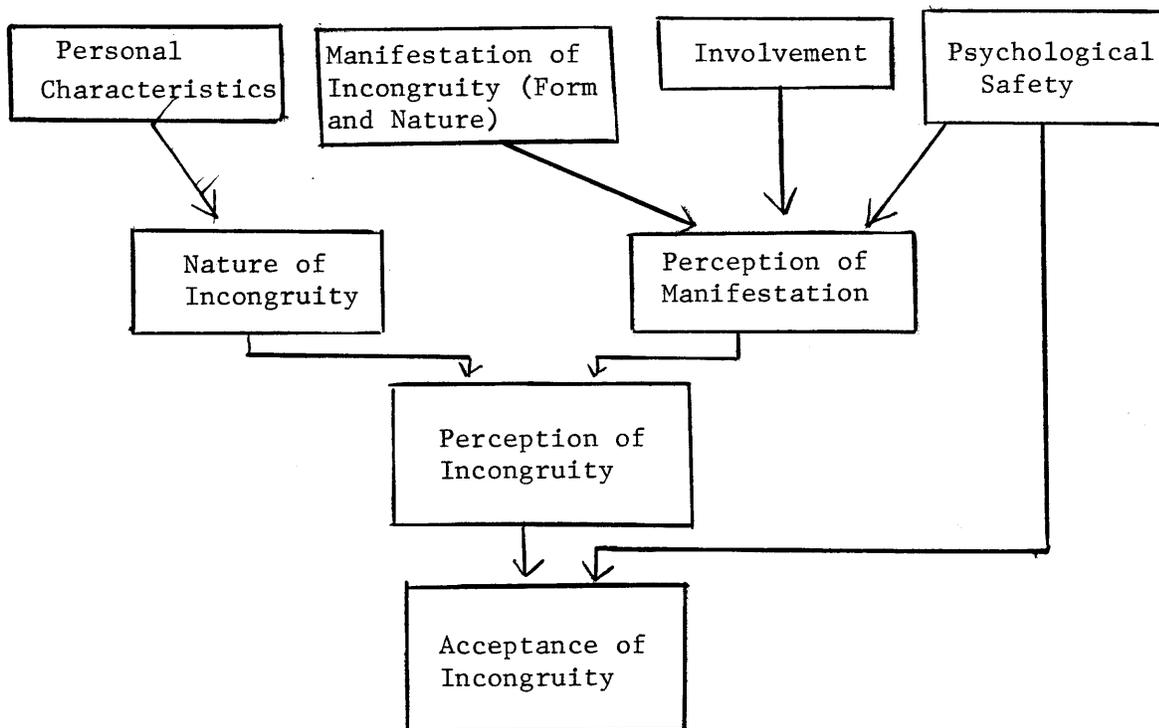


FIGURE 3. INTERNAL UNFREEZING

The situation in which the unfreezing is initiated by communication from another member of the group is somewhat more involved. The content and nature of the manifestation are filtered by the perceiving member's personal characteristics to determine how he perceives the manifestation. This perception, the relation between the two individuals involved (including their relative roles in the group), and the norms of the group lead the perceiver to want to communicate his perception to the incongruent individual, which he does. The content and nature of the communication, along with the previously mentioned norms, relative roles, personal characteristics, and safety determine the subject's perception of the communication. This perception leads through the various steps of the internal unfreezing process to the subject's perception and acceptance of the incongruity. At this point, the individual now has the stress needed for him to attempt change.

Clark and Culbert describe the above process as follows:

To the extent A's incongruous behavior is neither too trivial nor too gross, it is explicitly and persistently reflected back to A by some of the other members, B...n. To the extent such reflection causes A to perceive these aspects of his own behavior which are at variance with his self-concept, he is in a psychological crisis.<sup>8</sup>

Thus, our model of externally—induced stress is Figure 4.

We have reached the point where the stress, or stimulus for change, exists within the individual, regardless of its derivation. The individual must now choose whether to live with his incongruity or to try to resolve it. In addition to psychological safety provided by the group and within the individual, the necessary prerequisites for the decision to act toward resolving the incongruity are the desire for change and the

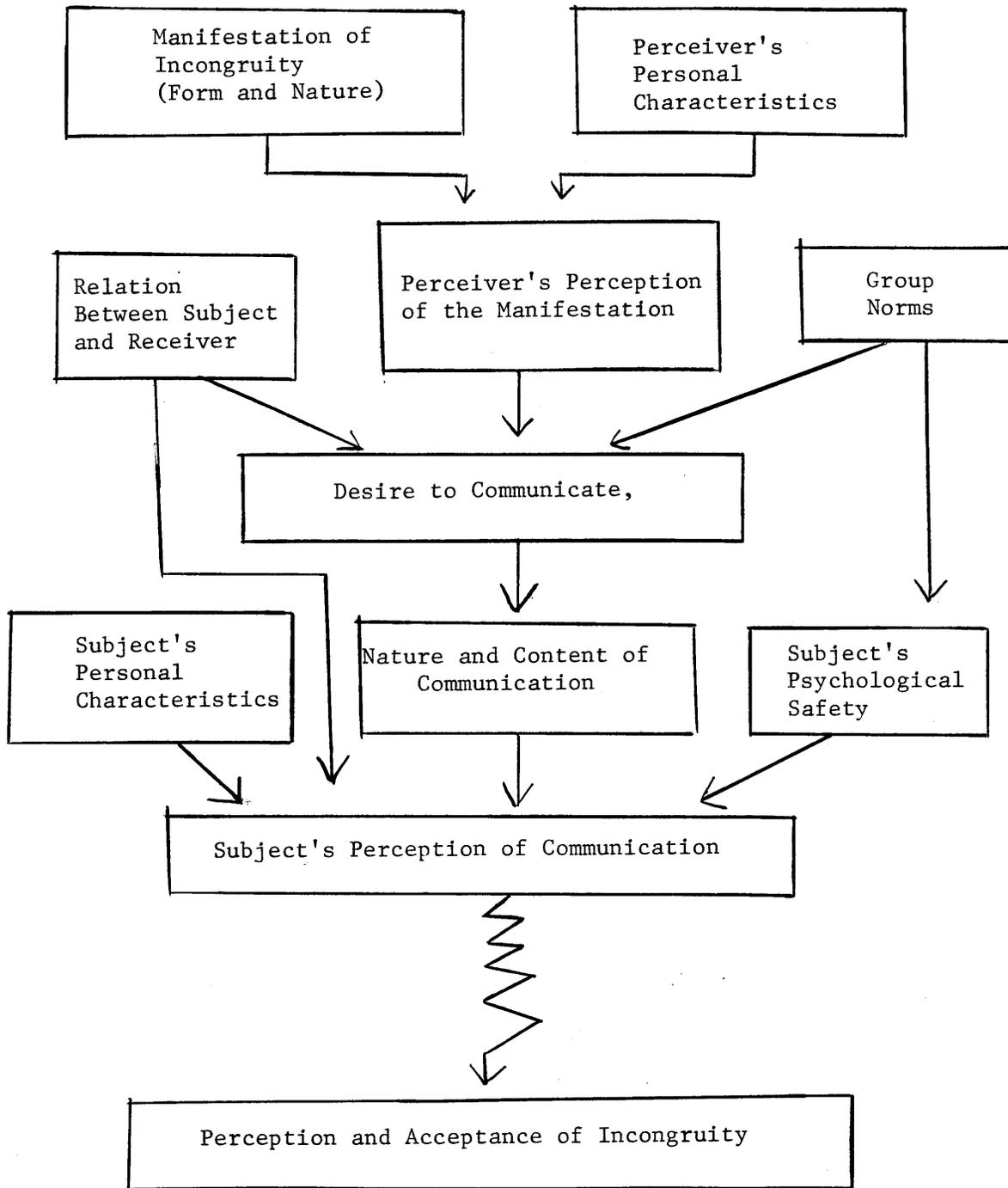


FIGURE 4. PUBLICLY-INDUCED UNFREEZING

realization of the potential for change. As mentioned before, Kolb and Boyatzis showed the importance of goal-setting and goal awareness (desire for change) and of high expectation of success (realization of potential for change) in their model of self-directed behavior change.

Once the individual has decided to act to resolve the incongruity, he analyzes the situation. In this analysis, the individual considers which of the four concepts of his identity are in conflict (where the incongruity exists) and which concept(s) he should change in order to resolve the conflict and then decides how to attempt the change. Two important factors the individual brings into the analysis of the situation are his role in the group and his degree of psychological safety, both internal and external. By a person's role, we mean things like how much influence and status he has, how well he is liked, if he feels included in the group, how much he participates, and how open he is in the group. Internal safety means the amount of stress or anxiety a person can handle, how confident and self-accepting he is, and how strong his self-concept is. Finally, the group provides external safety through empathy, trust, concern, and support, reflecting the norms of the group.

One aspect of the decision process concerns whether the individual chooses to change by introspection (re-thinking) or by taking a public risk in the group and eliciting feedback. Our model for the stage that proceeds from the individual owning the stress to his acting to resolve it is Figure 5. As usual, the individual's personal characteristics and the group's norms pervade the model. They have been left out only to keep the model from becoming excessively complicated.

When the action decision is to attempt the desired change through

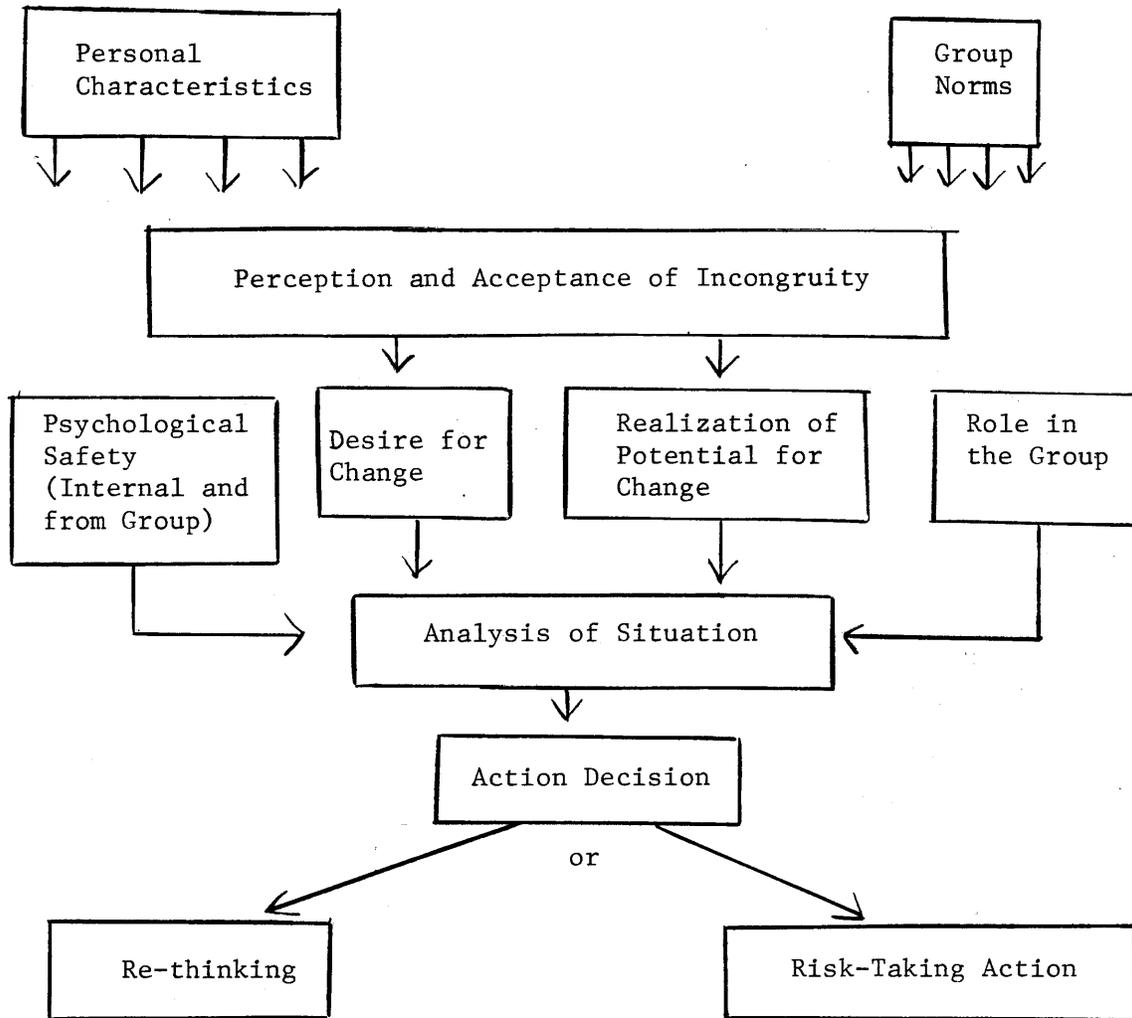


FIGURE 5. THE DECISION TO ACT ON THE INCONGRUITY

introspection, the decision to rethink one's own identity concepts leads to the internal exploration for the "truth", the solution to the incongruity. The nature of the solution the individual discovers is filtered by his personal characteristics and internal safety to determine his reaction to the solution. If he rejects the solution, he recycles through the process by exploring further for the "truth." If he accepts the solution, he internalizes it, providing the desired change in terms of updated personal characteristics and identity concepts. This

updating of the individual's personal characteristics and identity concepts is the desired growth toward congruence, the change being along the dimension in which the specific incongruity had existed. The introspective growth process is modelled in Figure 6.

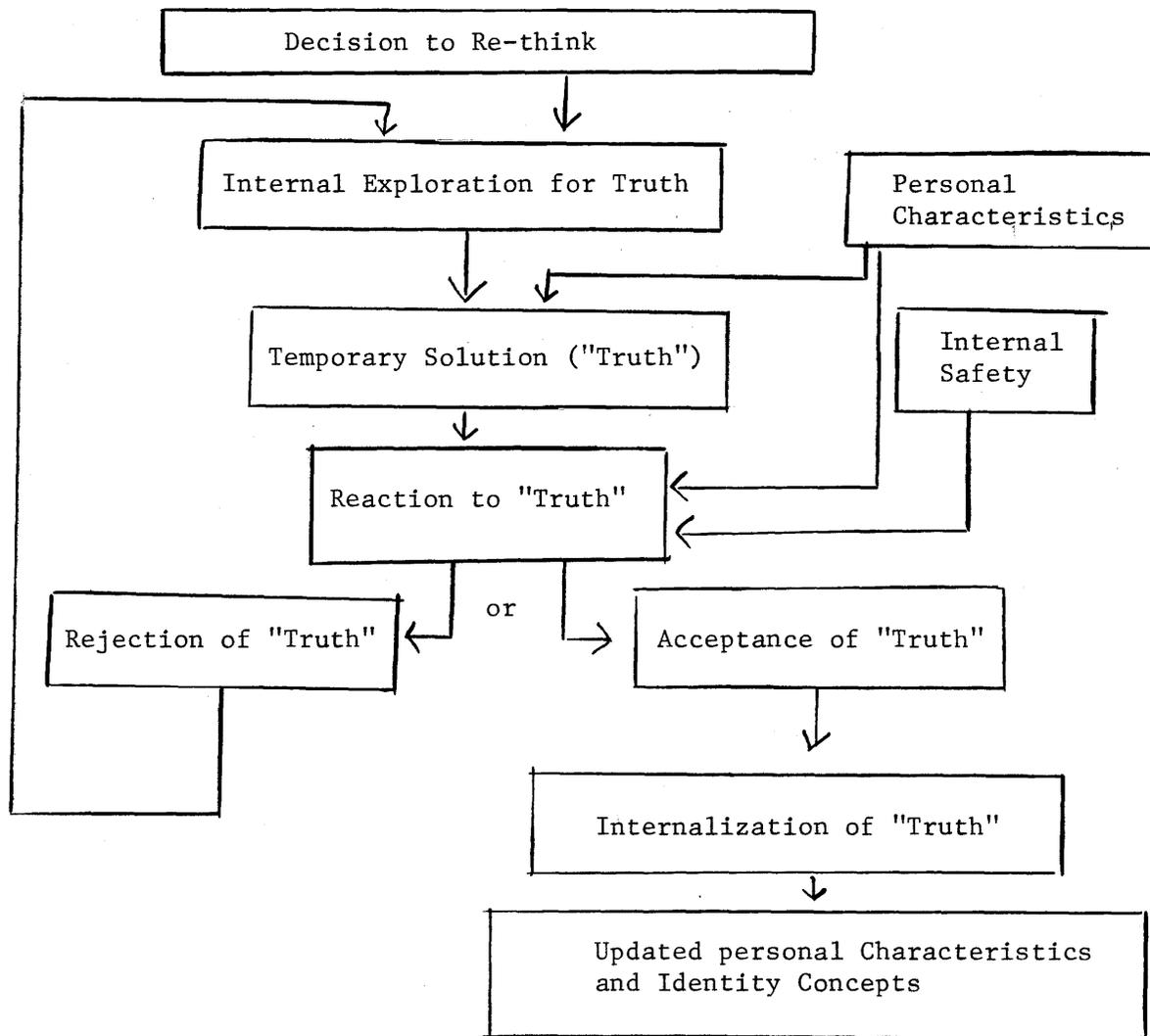


FIGURE 6. INTROSPECTIVE CHANGE

When the action decision leads to public risk-taking instead of introspection, the individual invests part of himself in terms of one or more of his identity concepts by exposing himself to the group to some degree in order to elicit feedback. The appropriateness and nature of his action, the other group members' degree of empathy for the individual and their personal characteristics lead to the group's perceptions of the action and their desire to communicate these perceptions to him. This communication is the feedback that helps the individual evaluate his action (in combination with his own reaction to the risk he took). The content and nature of the feedback and the relationship between the feedback-giver and receiver, combined with the usual factors of safety, group norms, and characteristics, determine the risk-taker's reaction to the feedback. This reaction takes the form of his perception, acceptance, and internalization of the feedback. This internalization of the information communicated to the individual provides his growth, through updated personal characteristics and identity concepts.

The model of the external, public growth process is then Figure 7.

Unlike the introspective growth model, much research has been done on versions of the risk-taking, feedback model of growth. Clark and Culbert stressed the relation between empathy, roles, safety and effective feedback.

To the extent such persistent reflection (feedback) comes from members who are perceived by A as congruent and to the extent A perceives the group as having some degree of empathy and positive regard for him, there is a new integration by A--his self-concept enlarges to include the reality with which he has been confronted. ...A's behavior tends to change in line with this new integration, and he therefore tends to be more congruent..."<sup>9</sup>

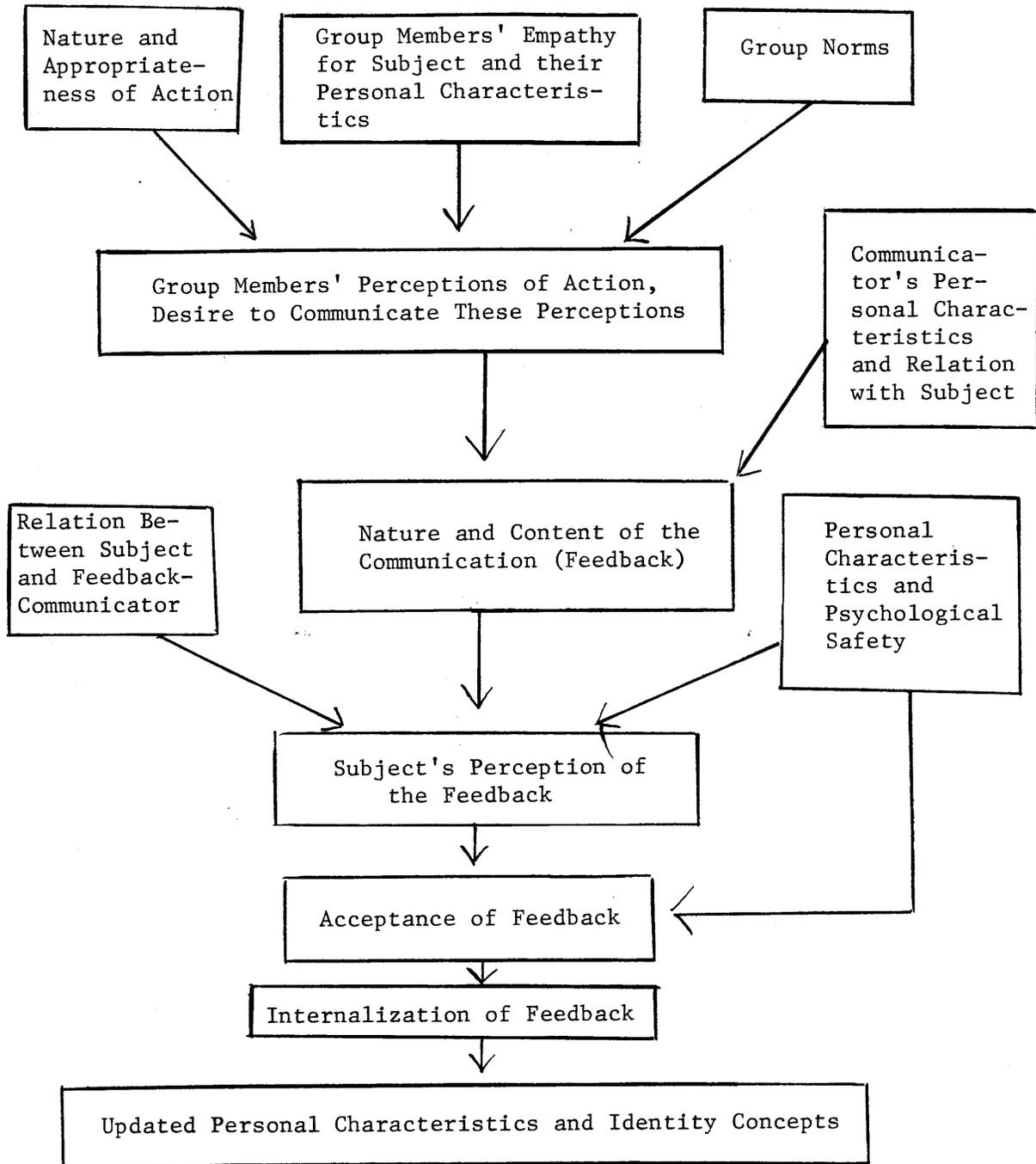


FIGURE 7. EXTERNAL RISK-TAKING CHANGE

Kolb and Boyatzis have emphasized the importance of feedback for growth, the characteristics of effective feedback, and the characteristics of an effective helper. <sup>10</sup> Myers, Myers, Goldberg, and Welch have shown the importance of giving and receiving feedback for increasing sensitivity to others, openness and honesty in human relations, and encouraging inquiry into one's own and others' behavior. <sup>11</sup> Hampden-Turner based his "existential learning theory" on the importance of investing personal autonomy (risk-taking) for eliciting feedback and improving human relations. <sup>12</sup> French defined feedback as "communicated objective public identity" and showed that the greater the amount of such feedback an individual received, the greater the resultant change in his self identity.<sup>13</sup> Finally, Sherwood said that a person's self-identity changes in a T-group toward his view of his public identity, the degree of the change depending on his involvement in the group and the communication to him of the important differentials (between self-identity and public identity and between public identity and perceived public identity). <sup>14</sup>

#### 3.4 Emphases and Implications of the Model

We will now look at some of the main emphases and implications of our model. The model recognizes three main factors necessary for growth-- the stress for change caused by the incongruity, the internal and group-provided psychological safety, and the willingness of the individual to make an investment, to take a risk, in order to grow. Schein<sup>15</sup> has shown the importance of safety and stress, Hampton-Turner<sup>16</sup> has underlined the investment aspect of growth, and Rogers has emphasized safety. Although safety was not included at each stage in the presentation of the model, we

assume its importance (and the importance of the norms that help provide the safety) throughout the growth process. As Rogers says,

Any experience which is inconsistent with the organization of the self,...may be perceived as a threat, and the more of these perceptions there are, the more rigidly the self-structure is organized to maintain itself.

Under certain circumstances, involving primarily complete absence of any threat to the self-structure, experiences which are inconsistent with it may be perceived, and examined, and the structure of self revised to assimilate and include such experiences. <sup>17</sup>

An important related issue is the question of the continuation of the growth begun in a T-group when an individual leaves the group and its safety for the "real world" and its relative lack of safety. The individual has learned how to grow in a safe environment, but has he learned how to grow in less safe surroundings? Perhaps T-groups would be more effective if they provided a little less safety, teaching the individual how to grow in a more realistic atmosphere. The alternative would be to teach the individual how to create safety for himself outside the group, so he will be encouraged to continue to take risks in order to grow.

Like safety and the related group norms, the individual's personal characteristics pervade the model at every stage. Steele<sup>18</sup>, Shutz and Allen<sup>19</sup>, and Harrison and Oshry<sup>20</sup> have shown how people with different personality traits react differently to T-groups and grow at different rates and on different dimensions. Although an individual's personality is particularly relevant to how he reacts to new information (perception and acceptance of incongruities and feedback), it is important to his thoughts and actions throughout the growth process. In addition, an individual's personality characteristics are continually changing as he

goes through the process, so that his reaction to information depends not only on factors inherent in the content and nature of the communication, but also on the state of his personal traits at the time of its reception.

Another important point is that the model has left out any consideration of resistance to change. Implicit in the model is the idea that blocks can occur anywhere in the process to keep the individual from following through the remainder to the process. These blocks would be the absence of factors deemed necessary for change, such as adequate safety or the desire for change or the realization of the potential for change, or the rejection of the existence of the incongruity. Because of such a block, an individual can be knocked off the growth process at any point and return to a state from which he would have to be unfrozen again in order to grow.

We have defined growth as a change in at least one of a person's four identity concepts, in the direction of reducing an incongruity within these concepts. However, we have not tried to derive any rules or formulae for determining which concept should be changed, given a specific conflict. The concept the individual decides to work on must depend on which concepts are in conflict and along what dimension the conflict exists. In addition, the decisions on which concept to change and which process (internal or public) the individual will use to change it are interrelated. Not only does the choice of the concept on which to work influence the change method used, but preferences about change methods in terms of such factors as relative psychological safety have an influence on the choice of the concept to be changed. Future versions of our model should include an attempt to relate these various factors, but explicit and specific rules

may be very difficult to derive because of the tremendous effect of the individual's personal characteristics on all of these factors. As a final point here, one of the great values of a T-group is in the opportunity it gives a participant to learn how other people see him. This suggests that "public image" may be an easier concept to work on in a T-group than the other three concepts and that public image could be changed more easily in a T-group than elsewhere, where it is not a common, or even expected or accepted, topic of conversation.

What sets our model apart from previous models is the existence of two pairs of alternative methods of growth. At the unfreezing stage, the individual learns of his incongruity either by himself (internally) or through communication of information by another group member (publicly). At the action stage, the individual chooses to grow either by the internal, introspective, re-thinking process or by the external risk-taking, feedback process. Whether the individual perceives the incongruity internally or publicly is a factor in his choice of a change method, but it is only one of several determining factors and the individual may go through the growth process by following either unfreezing method with either growth method.

In terms of the two different growth methods, the basic differences are in the kinds of risk involved and the source of the safety. In the external growth method, the risk is behavioral, the investment is interpersonal, and the safety is provided in large part by the group. In the internal growth method, the risk and the investment are internal, and the safety is largely provided by the individual himself.

The model seems to suggest a strong relation between the location

of the desired change and the method of change chosen. In other words, public image change seems to mean the external change method and self-image change seems to mean the internal change method. However, the relationship is really much more complex than that because public image change and self-image change are not independent of each other. In the short run, one can change one's behavior or his public image without changing his self-image (or his real self), and vice-versa, but over the long run, a change in either concept must be accompanied by a change in the other for the change to be more than temporary. In other words, the re-freezing of a change is strongest when the change is both behavioral and conceptual.

The interdependency between external and internal change points out an important aspect of the model. An individual does not merely go through the model once and become changed. For lasting growth, an individual cycles and re-cycles through the model. In fact, to totally resolve an incongruity, the individual may have to continually re-cycle through the process for a relatively long period of time. (This again brings up the problem of continuing the growth process after the end of the T-group.) At each cycle through the process, and to a lesser extent at each point in the process, the individual's personal characteristics are updated as a result of the process, or stage, just completed. The new identity concepts may still include the incongruity the individual was working on or they may include new ones, but hopefully the old incongruity has been reduced somewhat in magnitude or the individual has come closer to understanding the true nature of the incongruity. Thus, re-cycling through the growth model may be seen as spiraling inward

toward greater congruence or toward better understanding of existing incongruity. As Rogers <sup>21</sup> and Rubin <sup>22</sup> have pointed out, as a T-group progresses, people become able to see their identity concepts more clearly and accept themselves more. In this way, growth is a continual process, not just a series of steps in a transition package. Ideally, in this continuing re-cycling, the individual will go through both the internal and external change methods and the eventual change will be the more permanent for the dual nature of the change.

Another important aspect of the re-cycling process is that re-cycling does not mean starting at the top of our model, working through to the end, and returning to the top to start over again. Not only can the process stop at any point, but it can also return to any point from the end. Thus, after evaluating new feedback or new concepts, an individual can update his perception of the incongruity and go on from there, or he can increase his desire for change or his realization that he can change and proceed from there. He can change his analysis of the situation based on the results of his previous action decision and decide on further, perhaps more appropriate action. Thus, a person can re-cycle within sub-parts of the model in addition to re-cycling through the entire model.

The final point with regard to the repetitive aspect of the model pertains to the development of the group's norms. As people go through the growth process, they develop (or recognize) deeper feelings and the discussions become more "here and now"--oriented. In addition, as people continually re-cycle, more people are brought into the group process, both by going through the growth process themselves and by helping others go through it (by pointing out incongruities and giving feedback).

Both Hampden-Turner<sup>23</sup> and Clark and Culbert<sup>24</sup> have referred to this group development process. In addition, as Rogers has pointed out, as the group develops (and psychological safety in the group increases), people are more able to share their weaknesses and in so doing not only grow but also become closer with the other members of the group. <sup>25</sup>

An important point made by the model is that active participation in the group is not a necessary requirement for growth. As long as people are involved in the group process, they are experiencing feelings and emotions which can lead to growth through internal unfreezing and introspective growth. Although this kind of growth alone may not tend to provide the most permanent changes in a person, it does provide at least temporary changes which may in turn lead to more permanent ones. The mere fact that a person can grow as the result of being in a T-group without having actively participated in it is the important point.

An interesting analogy to be drawn from the model is between our identity concepts and the different roles a person has in different situations. The analogy continues with an incongruity between identity concepts being like a role conflict. Like an incongruity, a role conflict can be denied or tolerated or worked on, depending on its importance to the individual (centrality) and its magnitude. Brouwer gives a good example of this possible application of the model, <sup>26</sup> and the reader is invited to explore it further.

Finally, the implications of the model for T-group growth, in terms of the desired norms and safety and risk-taking are also important for growth in other settings. This will be discussed to greater depth later.

## Chapter 4. The Research

### 4.1 The Hypotheses

As an attempt to validate the model, we tested various hypotheses on actual T-groups. Because of external limitations imposed on our research methodology, the hypotheses we dealt with relate only to the second half of the model, the actual change stage, rather than the unfreezing stage of the process.

The first group of hypotheses are concerned with the external change process. The model suggests that the amount of risk a person takes in the group is a large factor governing the amount of feedback he is given in the group. It also implies that the amount of feedback a person receives should be a large determinant of the amount he grows by the external change method.

We differentiate here between being given feedback and receiving feedback. When we say that a person is given feedback, we mean that someone communicates something to him about that person. When we say that a person receives feedback, we mean that he recognizes and considers to be important some feedback that has been given to him.

Thus, we will hypothesize the following:

Hypothesis 1A. The more risk a person takes in a group, the more feedback he will be given from the group.

Hypothesis 1B. The more feedback a person receives in a group, the more he will grow as the result of the external change process.

In addition, we say that:

Hypothesis 1C. The more risk a person takes in a group, the more he will grow by the external change process.

Hypothesis 1D. Neither the amount of risk a person takes nor the amount of feedback he receives will effect the amount he grows by the internal change process.

The second group of hypotheses involves the importance of a person's role in the group. We define a person's role in terms of the following variables: how open he is, how much he participates, how much influence he has, how much status he has, how well he is liked, how much the group trusts him, how empathetic he is, how much feedback he gives, how involved he is in what happens in the group, and how included he is in the group. We hypothesize that a person's role in the group will effect his choice of change method. In terms of our definition of role, we say that the higher a person rates on each of the above role variables, the more he will tend to take risks, be given feedback, and ultimately grow through this public process.

Thus, we have:

Hypothesis 2A. The higher a person rates on the role variables (openness, participation, influence, status, affection, trust, empathy, giving feedback, involvement, inclusion) the more risk he will take and the more feedback he will be given.

Hypothesis 2B. The higher a person rates on these role variables, the more he will grow by the external change process. In addition, those variables should not relate to the amount the individual grows through the internal change method.

The third hypothesis relates the amount of safety the individual is provided by the group with his growth. We define this safety by the amount of empathy the individual thinks the group feels with him and the degree to which he trusts the group members. The hypothesis is that the more safety the individual feels in the group, the more risk he will take, the more feedback he will be given, and the more he will grow through this method. Again, this variable (group-provided

safety) should not effect the amount of internal growth the individual experiences. We have as Hypothesis 3 the following:

Hypothesis 3A. The more safety an individual receives from the group (empathy and trust), the more risk he will take and the more feedback he will be given.

Hypothesis 3B. The more such safety an individual feels, the more he will grow through external change. Also, this dimension should not effect his amount of internal change.

The fourth group of hypotheses relates to the amount of internal safety a person feels. We define internal safety as the ability of the individual to accept his own emotionality, his willingness to accept pain (the existence of an incongruity) in order to learn, his ability to tolerate tension (take risk) in order to get feedback, and a general lack of anxiety. We hypothesize that the more internal safety a person feels, the more he will grow by both external and internal change methods. In addition, in terms of the external change method, we say that the greater a person's internal safety, the more risk he will take take, the more feedback he will be given, and the more feedback he will receive. Thus, we have:

Hypothesis 4A. The more internal safety a person feels (accepts emotionality, accepts pain to learn and tension to get feedback, and is low on anxiety), the more he will grow, by both external and internal methods.

Hypothesis 4B. The more internal safety a person feels, the more risk he will take, the more feedback he will be given, and the more feedback he will receive.

The fifth, and last, hypothesis concerns the ways in which a person learns. Four styles of learning, which are not mutually exclusive,

have been defined. These are Action Experimental, Concrete Experiential, Reflective Observational, and Abstract Conceptual. We hypothesize that people who tend to learn by action experimentation and/or by concrete experience should tend to change by the external method (risk-taking, feedback) rather than by the internal method and that people who tend to learn by reflective observation and/or by abstract conceptualization should tend to change by the internal method rather than by the external method. Thus, our final hypothesis is:

Hypothesis 5A. People who tend to learn by action experimentation or by concrete experience should tend to take risks, be given and receive feedback, and grow by this external method rather than by the internal method.

Hypothesis 5B. People who tend to learn by reflective observation or abstract conceptualization should tend to grow by internal rather than external methods.

#### 4.2 The Method and the Results

The research was done on seven T-groups run in connection with the Sloan School of Management's Organization Studies Group's Organization Development track. The laboratory lasted four days, February 5-8, 1970. Each group consisted of eleven or twelve people, mostly Masters students, and included a trainer and a co-trainer. A questionnaire was sent to the participants to be returned before the beginning of the lab (the "Before" questionnaire) and another questionnaire (the "Last Day" questionnaire) was given on the last day of the laboratory sessions. These questionnaires are included as Appendix 1. Of the seven groups, the data from two were deemed not useable because of an insufficient number of questionnaires returned. In the five useable groups, there were

fifty-five members, of whom forty-three filled out the "Before" questionnaire, forty-nine filled out the "last Day" questionnaire, and forty-one filled out both.

In looking at the research, the most important variables are those that measure what we have been calling growth. In order to measure separately the two different kinds of growth we have been discussing (internal and external), we have adopted the assumptions that change produced by the external method is interpersonal, behavior change; that change produced internally by introspection is self-concept change; and that behavioral and self-concept change are independent over short periods of time. Changes in one's concept and one's behavior are definitely related and closely linked in the long run, but in order to facilitate our research, we assume their independence over the duration of the T-groups on which we did the research.

We have two related measures of internal, introspective growth, assuming it is the same as change in self-concept. In both the "Before" and "Last Day" questionnaires, the participants were asked to answer the question "Who am I?" by completing the sentence "I am \_\_\_\_\_." up to ten times, once as if speaking to a stranger and once as if speaking to a friend. The amount of change in self-concept is measured first by the total number of lines that were different between the "Before" and "Last Day" answers to the question. A high changer, as designated by this measure, which we call the Y measure of growth, is a person who has fewer than five lines (out of up to twenty) the same

from "Before" to "Last Day." Of the forty-one people filling out both questionnaires, twenty-five rated as high changers by this measure and sixteen were rated as low changers. The second measure of the amount of internal change is the difference in the number of roles used to answer the question the two times. This method, the X measure of growth, defines as a high changer a person whose number of roles used to describe himself changed by more than four (out of up to twenty). (In almost every case, including all those with significant changes, the direction of change was to using fewer roles the second time.) Fifteen of the forty-one were designated as high changers by this method, and the remaining twenty-six as low changers. All participants were coded on both measures by two independent scorers, who agreed in every case.

Our measure of external, public risk-taking growth is a subjective rating by the trainers of high or low interpersonal, behavioral growth for each participant, with approximately one half of each group in each category. Thus, this measure, the T measure of change, designated twenty-eight of the fifty-five participants as high changers and twenty-seven as low changers.

Two types of statistical analysis were used on the data. Since the growth measures are nominal, relations between them and the other variables, which are all interval, were calculated with the Mann-Whitney U-test. The numbers we will quote from the U-test results will be the equivalent normal statistics (Z-values) for one-tail tests. The .05 significance level for the Z-value is 1.645 and the .10 significance level is 1.28. For the relationships between the various

interval variables, we used simple correlation coefficients, which have .254 as the .05 significance level.

Hypothesis 1 concerned the relationships between risk-taking, being given feedback, receiving feedback, and growth. We measured the amount of risk a person took in the group by adding the number of times he was named by his fellow group members in their answer to Question 2 in the "Last Day" questionnaire, which was "Who takes interpersonal risks in the group?" We measured how much feedback a person was given in the group by the number of times he was named as an answer to the "Last Day" Question 4, "Name everyone in the group you have given significant feedback to." Finally, we measured the amount of feedback a person received by the number of people he listed in his answer to Question 5, "Name everyone in the group who has given you significant feedback." The results were as follows: the correlation coefficient between risk-taking and feedback given (hypothesized high) was .5726, which is significant at the .05 level. The z-values were 1.24 between feedback reception and external growth (hypothesized high, not quite significant at the .10 level) and 2.92 between risk-taking and external growth (hypothesized high and significant at the .05 level). The other Z-values were 0.51 between risk-taking and X-measure of internal growth, 0.36 between risk-taking and Y-measure of internal growth, 0.64 between feedback reception and X-measure, and 1.02 between feedback reception and Y-measure (all of which were hypothesized low and were not significant at the .10 level). The relationship between being given feedback and receiving feedback (not

hypothesized) was a .2228 correlation, not quite significant at the .05 level. Thus, we have, with the results significant at the .05 level underlined,

	Being Given Feedback	External Growth (T)	Internal Growth (X)	(Y)
Risk-Taking	<u>.5726</u>	<u>2.92</u>	.51	.36
Receiving Feedback	.2228	1.24	.64	1.02

Correlations                      U-Test (Z)

TABLE 1. HYPOTHESIS 1 RESULTS

The second hypothesis concerned the relationship between a person's role in the group (openness, participation, influence, status, affection, trust, empathy, giving feedback, involvement, and inclusion) and the amount of risk he takes, the amount of feedback he is given, and the amount he changes. All the role variables were measured by the "Last Day" questionnaire. Openness was measured in two ways, first by the individual's answer to Question 10, "How open are you in the group about your own feelings (on a 1-to-5 scale), and second by the number of times the individual was named as an answer to Question 12, "Who has been open in the group about his feelings?" Participation was measured in the same two ways, substituting participation for openness in Questions 9 and 11. Influence was measured by similar self-rating and group-rating in Question 13, "Who has influence in the group?"

(Do you?)" Status and affection were measured by averaging the group members' rating of each other on these two variables (status=high, medium, or low; affection= closest, average, or least close) in Questions 14 and 15. Trust was measured by the number of people naming the individual in their answers to Question 3, "Think of a couple of personal secrets that you have. Who in the group would you feel most comfortable telling them to?" Empathy was measured by the number of times the individual was named as an answer to Question 1, "Who in the group best understands your problems?" Giving feedback was measured by the number of times the individual was named as an answer to Question 5, "Name everyone in the group who has given you significant feedback." Involvement was measured by the individual's answer to Question 8, "How involved are you in what happens in the group?", on a 1-to-5 scale. Lastly, inclusion was measured by Question 7, "How much do you feel a member of the group? (Do people care about you and listen to what you say?)" All of these variables were hypothesized to be positively related to risk-taking, being given feedback, and external change, and unrelated to internal change. The results were Table 2, with results significant at the .05 level underlined.

Hypothesis 3 was concerned with the relationship between the amount of safety the group provides for the individual, in terms of empathy and trust, and the amount of risk he takes, the amount of feedback he receives, and the degree to which he grows. We measured empathy by the number of names the individual listed in answering Question 1 on the "Last Day" questionnaire, "Who in the group best

	<u>Risk- Taking</u>	<u>Being Given Feedback</u>	<u>External Growth (T)</u>	<u>Internal Growth</u>	
				X	Y
Openness-Self-rating .....	.2011	<u>.2508</u>	-.17	.37	.89
Group-rating .....	<u>.7609</u>	<u>.4950</u>	<u>2.53</u>	1.45	.37
Participation-Self-rating .....	<u>.3002</u>	<u>.4197</u>	<u>2.46</u>	.12	.66
Group-rating .....	<u>.5931</u>	<u>.6182</u>	<u>2.54</u>	1.17	.27
Influence-Self-rating .....	<u>.3960</u>	<u>.4108</u>	1.30	1.02	-1.28
Group-rating .....	.2171	-.0924	<u>2.19</u>	1.30	.10
Status .....	.1923	.1114	<u>2.53</u>	.93	.18
Affection .....	.1856	.1765	<u>2.95</u>	.83	.81
Trust .....	.0290	-.0919	1.17	<u>-1.94</u>	1.08
Empathy .....	-.0379	-.0823	-.17	.85	<u>-1.88</u>
Giving Feedback .....	<u>.3691</u>	.1996	<u>2.03</u>	<u>2.10</u>	.17
Involvement .....	.2054	.2287	.48	.73	-.36
Inclusion .....	<u>.2560</u>	<u>.2784</u>	1.36	.88	-.43
	Correlations		U-Test (Z)		

TABLE 2. HYPOTHESIS 2 RESULTS

understands your problems?" and trust by the number of people he named in answer to Question 3, who in the group he would feel most comfortable telling personal secrets to. We hypothesized that the greater the amount of empathy and trust the individual felt in the group, the more risk he would take, the more feedback he would be given, and the more he would grow by this external method. We also hypothesized no relation between this safety and internal growth. The results were the following, again with results significant at the .05 level underlined:

	Risk-Taking	Being Given Feedback	External Change (T)	Internal Change X	Y
Empathy	<u>.2656</u>	<u>.5087</u>	1.08	1.22	.02
Trust	.2155	-.0919	.26	-1.37	.10

Correlations
U-Test (Z)

TABLE 3. HYPOTHESIS 3 RESULTS

Hypothesis 4 related internal safety (acceptance of emotionality, willingness to accept pain to learn, tolerance of tension to get feedback, and lack of anxiety) to risk-taking, feedback, and growth. The first three internal safety variables were measured by Part IV of the "Before" questionnaire, "Individual Responses to the Environment", devised by Clay Alderfer of Yale. Questions 1,3,7,9,12,16 and 18 measure the ability of the individual to accept his own emotionality.

Questions 8, 10, 13, and 15 measure the individual's willingness to accept pain in order to learn. And Questions 2, 4, and 19 measure the ability of the individual to tolerate tension in order to get feedback. We measured an individual's level of anxiety in the group by Question 6 in the "Last Day" questionnaire, "How do you feel in the group?" on a 1-to5 scale ranging from "uneasy, worried, anxious" to "at ease, comfortable, relaxed." We hypothesized a positive relation between all four measures of internal safety and risk-taking, being given feedback, receiving feedback, and all three measures of growth, both external and internal. The results were:

	Risk-Taking	Being Given Feedback	Receiving Feedback	External Growth (T)	Internal Growth	
					X	Y
Acceptance of Emotionality	.2420	.1127	<u>.2869</u>	.43	.84	<u>-1.81</u>
Acceptance of pain to Learn	-.0017	-.0779	.1325	-1.07	-1.22	-.47
Tolerance of Tension to Get Feedback	-.0211	-.0227	-.1770	<u>-1.69</u>	.15	.06
Anxiety	.0078	.2148	<u>.2522</u>	.33	.15	-.80

Correlations
U-Test (Z)

TABLE 4. HYPOTHESIS 4 RESULTS

Finally, Hypothesis 5 concerned the relationship between learning style (action experimentation, concrete experience, reflective observation, and abstract conceptualization) and the two different growth processes. Learning style was measured in the "Before" questionnaire by Part III, "Learning Style Inventory," designed by David Kolb and Frank Perna. We hypothesized that active experimentation and concrete experience learning styles should be related positively to risk-taking, being given and receiving feedback, and external growth and should not be related to internal growth. Further, reflective observation and abstract conceptualization should be related positively to internal growth, but not external growth. The results were the following:

	Risk-Taking	Being Given Feedback	Receiving Feedback	External Growth (T)	Internal Growth (X)	Internal Growth (Y)
Active Experimentation	.0639	<u>-.2957</u>	-.0624	.94	-.07	-.19
Concrete Experience	.0672	.0853	.0841	<u>-2.12</u>	.99	-1.23
Reflective Observation	-.0838	-.1140	.0522	-.07	-.33	.20
Abstract Conceptualization	-.0526	-.2360	.0581	.15	-.35	.64

Correlations
U-Test (Z)

TABLE 5. HYPOTHESIS 5 RESULTS

### 4.3 Conclusions

There are several conclusions to be drawn from the results of our research. The results from Hypothesis 1 showed the importance of risk-taking for being given feedback and for behavioral growth, both significant at the .05 level. In addition, receiving feedback was also important for external growth, but not quite significant at the .05 level. Neither risk-taking nor feedback reception was significantly related to internal growth. These results support the part of the model called the "external change process."

Hypothesis 2 showed the importance of openness, participation, influence, giving feedback, and inclusion in the group for risk-taking; the importance of openness, participation, influence, and inclusion for being given feedback; and openness, participation, influence, status, affection, and giving feedback for growth by the external method, all of which were significant at the .05 level. In terms of internal growth, personal empathy and trust, neither of which was related significantly to external growth, were each related significantly negatively to one of the two measures of internal growth, and giving feedback was related significantly positively to one of the internal change measures. These results support the bottom half of the model, especially at the "Analysis of Situation" and "Action Decision" stages. Involvement was positively related to risk-taking and being given feedback, but not quite significantly at the .05 level, and was not related significantly to either of the two types of growth.

In terms of safety provided by the group (Hypothesis 3), empathy was shown to be significantly related to risk-taking and being given feedback at the .05 level and trust was highly correlated with risk-taking, but not significantly. Neither empathy nor trust was significantly related to either of the two growth methods, although empathy had a high relation to external change and to one measure of internal change, and trust had a high negative relation to one measure of internal change. These results tend to support the importance of group-provided safety for intermediate steps toward external growth.

With relation to internal safety (Hypothesis 4), there were few significant results with relation to the hypothesis. The acceptance of emotionality was highly correlated with risk-taking, significantly (.05) correlated with receiving feedback, and significantly negatively related to one internal change measure. The acceptance of pain in order to learn had no strong relation and the tolerance of tension to get feedback had only one, a significant (.05) negative relation with external growth. The lack of anxiety correlated significantly only with receiving feedback. Although this was not contained in the hypothesis and the results in Table 4, lack of anxiety and acceptance of emotionality correlated significantly (.05) with involvement, inclusion, participation, openness, empathy, trust, status, and affection, while acceptance of pain to learn and tolerance of tension to get feedback did not correlate highly with any of these. From this, we conclude that anxiety and acceptance of emotionality, as indicators of internal safety, are useful for predicting intermediate steps toward growth, but not growth itself, in a group, and that acceptance of pain to learn and tolerance of

tension to get feedback are not useful.

Finally, learning style (Hypothesis 5) provided few interesting results. The only significant (.05) relationships were negative, those being between active experimentation and being given feedback and between concrete experimentation and external growth. Since learning style did not correlate with any of our other variables not mentioned in the hypothesis or Table 5 results, we are forced to conclude that learning style tendency is not a good predictor of growth in a T-group.

#### 4.4 Recommendations for Further Study

The first recommendation we would make for further study would be in terms of better growth measures. Our measure of external growth, the trainer's rating of interpersonal growth, is unreliable because it is subjective and was done by only one individual for each group. The internal growth measures were reliable, but it is not clear that they actually measured what we wanted them to measure, especially since they conflicted in many instances. Better growth measures would enable us to drop the assumptions equating internal growth with self-concept change and external growth with behavior change. Better growth measures could ideally be found that would relate more closely to changes in each of the four identity changes, which was our original definition of growth. Having better measures of growth would enable us to relate the various kinds of growth (internal-external, in which identity concept (s) the change occurs) to each other and to the temporary or permanent nature of the change.

Another point is that if further research is done on the model, it

should be concentrated on the unfreezing process and the internal change process, which are relatively un-researched, compared to the external change process. Such research would require several questionnaires during the course of the laboratory sessions, which was not an alternative for us because of the short duration of the groups we studied. Such research should also include showing the model to T-group participants for their opinions of its applicability to their experiences in the group, and also to aid their own understanding of these experiences.

Other ways in which our data could be used to verify our model are also evident. Perhaps the best example of this would be to separate a person's perception of his role in the group from the group's perception of that role and analyze their respective effects on his growth in the group separately. Another example would be to delve further into the cause-and-effect nature of the relationships we have studied. The causal directions of many of these relationships are not obvious from the model or from the analysis. Another example would be to look at various combinations of internal and external safety and their effect on growth. One hypothesis in this vein is represented in Figure 8.

In terms of further use of our data, we have several final recommendations for analysis that either do not relate directly to our model as it is presented but are interesting for other purposes or that we were unable to pursue ourselves. First, the variables we used to define a person's role in the group are interrelated and an analysis of these interrelationships would provide useful information about the development of groups. Another example of a possible further use of our data would be the exploration of dyadic relationships within the groups and the

Internal Safety

		High	Low
External Safety	High	Growth by External and Internal Methods	Some Growth by External Method
	Low	Growth by Internal Method	No Growth by Either Method

FIGURE 8. Hypothesized Relation Between External and Internal Safety and Growth by External and Internal Methods.

interactions within these pairs. These interactions were alluded to in the model as influencing the nature and perceptions of communications between people in the group. Information about these dyads is available from our questionnaires (who names whom as answers to various questions, who rates whom high or low on different variables, etc.) and would provide useful information about the helping relationship in a group.

Finally, the data could be used for investigating people's perceptions of what is happening around them and the reasons for different people perceiving the same thing differently. A fine example of this phenomenon in our data is the relationship between one person giving feedback and another person receiving it. The data show differences between who said they gave significant feedback and who were named as having given significant feedback by those receiving it; and between who were said to have been given significant feedback and who said they received significant feedback. Another example pointed out by the data is the different

ways in which different people rate others as high or low on the same dimensions. These differences and the reasons for them seem promising for further study.

## Chapter 5. Further Implications of the Model

Although the model presented in Chapter 3 was designed to depict growth in a T-group, it is relevant to personal growth in general. None of the variables in the model are restricted to the T-group. They can be generalized to all human interaction.

The T-group provides an environment where certain model variables are increased. A T-group is designed to provide psychological safety by developing empathetic understanding between participants, by being set apart from the normal pattern of daily life, by having a skilled professional trainer, by being a learning experience without external evaluation. The desire to communicate about personal qualities is encouraged by the here-and-now and feedback orientations of the T-group. Lastly, risk is encouraged by the experimental nature of the T-group. Participants either come to a group with expectations of trying new behaviors or develop such expectations.

### 5.1 Implications for Management

The T-group is by no means the only environment where these variables can be increased in order to promote personal growth. In fact, almost any setting can provide such opportunities. Management, for example, can, by understanding the process of growth provide opportunities for it. One area that deserves management attention in terms of growth potential is the performance appraisal system. Here management transmits information about incongruities that could result in growth.

However, the appraisal is tied to external rewards so that psychological safety is minimized and self-exploration is unlikely.

Another area that deserves management attention is the nature of communication in the organization. If, for example, performance is legitimate content for communication, but personal incongruities are not, then the type of information needed for personal growth is not available. An example of this is a manager who thinks that he is an effective leader and that he is well liked by his men. His subordinates know that he thinks this and at the same time they know that he is ineffectual and dislike him. Since communication that is not directly related to the task, especially if it is negative, is not encouraged and may even be discouraged, this incongruity is not brought to the attention of the manager. He is, therefore, denied an opportunity for growth. In many firms, personal qualities of people are off-limits for communication, which greatly limits the opportunities for personal growth.

Another way in which management can promote growth is to adopt a constructive attitude toward failure. Our model shows two important steps in taking a growth-directed action:

- (1) analysis of the situation; and
- (2) taking the risk.

Failure of the action to produce the desired results may cause re-examination of the situation and also inhibit future risk-taking. It is not, however, the risk but rather the analysis that causes the failure so that management must support the risk at the same time as it reacts against the failure. "Your new sales campaign didn't work

but we appreciate your having the courage to take a chance" is the type of statement that separates the risk from the action.

## 5.2 Implication for T-groups

As we have said, all human settings have potential for rewards. In a T-group, one can get many different kinds of rewards and satisfactions, some of which are more powerful motivators for growth than others. Internal reward is a powerful reinforcement for growth; i.e., when I grow as a person, I feel better about myself and my potential.

In a T-group, as a person cycles through the model, the importance of each variable becomes clear. For example, the requirement for growth of data about personal characteristics leads to norms about giving feedback. The importance of safety leads to a supportive, non-threatening climate. More concretely, a person takes a risk and grows as a result. In other words, his risk-taking is positively rewarded internally. As group members observe that taking risks leads to growth, risk-taking becomes an acceptable behavior and a norm conducive to risk-taking develops. Participants begin to tie in risk, feedback, support, and other behaviors that at one time may have been viewed negatively, with growth, which is a rewarding experience. As more and more people make this connection, the associated T-group norms gain more and more credence. Tuning in to one's feelings and then expressing them may be very threatening and anxiety-producing, but, if this process is associated with growth, the anxiety is viewed differently. This kind of anxiety becomes something that is not always avoided but something that can have positive results.

### 5.3 A Model of Organizational Growth

The model presented in Chapter 3 can represent organizational growth. Each personal variable has analogous organizational characteristics. Like a person, an organization has a real self, a self-image, an ideal self, and a public image. The real self is the objective description of the organization. The self-image is the organization's perception of itself. The ideal self is what the organization wants to be, which includes the organization's goals, missions, etc. The public self is the way the organization is perceived from outside.

The analogy between the personal and organizational growth models is fairly straightforward. Incongruities between different identity concepts can exist. These incongruities can either be recognized internally--by someone inside the organization--or externally. If safety and the desire to communicate exist, then problem-solving can occur.

An example may clarify the model. A company sets the goal of 10% profit increase per year. This year, if they continue the way they are going, they will not make it. There exists an incongruity between actual self and ideal self. This incongruity begins to manifest itself in the sales for the first three months of the year. The accountant who has a desire to communicate on these matters gathers the data and presents it. The organization usually accepts accountants' reports so there is acceptance of the incongruity. Herein lies the

crunch. Safety and the realization for potential for change are important. If the board of directors is breathing down management's necks, management will react with defensiveness and rigidity. Problems will be blamed on forces outside the organization--"this is a bad year", "subcontractors didn't come through," or "government passed restrictive legislation." When management is on the defensive it cannot begin self-exploration or enter the problem solving mode. However, if safety exists, if for instance the board of directors has confidence in the management and management feels it can handle the problem, then organizational introspection can occur. Given some safety, the organization looks at itself and analyzes the problem. Management finds that sales did not reach forecasted levels because the salesmen were not sufficiently motivated.

What has now happened is that the organization has gone through the model once. This first time around, the real incongruities have not even been worked. The result of the first cycle is that a new incongruity has been found. The salesmen who had been thought to be motivated were not in fact. What happens on the second cycle through the model depends very much on the salesmen's feeling of safety and their desire to communicate. This leads to the analysis of the situation which finds that the salesmen do not feel properly rewarded for their efforts. They feel that Research and Development gets all the glory.

In the next cycle through the model, management takes action which has implications outside the organization. This is an external risk. The management decides to enlarge the job of the salesmen to

include market research. The salesmen have the added responsibility of studying the market and working with the R & D department to develop new products. This action could very well not work and sales may continue to decline. This is the risk management takes.

The model points out significant factors in organizational growth. Communication, the identity concepts, safety, and risk are common to individual and organizational growth. It is sufficient at this point to merely state that the ways of developing these factors are also analogous.

## Chapter 6. Summary and Conclusions

### 6.1 The Model

Drawing on previous theory, we built an original, integrative model of the process of personal growth in a T-group. We began with an individual's set of personal characteristics and classified them into four identity concepts--real self, self-image, ideal self, and public image. We then defined growth as a move toward reducing any incongruities within or among these concepts. The first half of the model concerned the unfreezing process through which the individual came to recognize and accept the incongruity in his identity concepts. The unfreezing process led to the desire for change, the realization of the potential for change, the analysis of the situation, and finally the action decision. The growth method the individual used in his attempt to resolve his incongruity led to an updated set of personal characteristics and identity concepts, this updating representing the growth resulting from his going through the change process depicted by the model.

Perhaps the most significant aspect of the model is that it includes two methods both of unfreezing and of growing--internal and external. In terms of unfreezing, the internal method involves the individual's recognizing his incongruity by himself while the external method involves another group member communicating some information to the individual that helps him to recognize his incongruity. The internal growth method involves change by introspection, while external growth involves public risk-taking and the communication of feedback. (We explained the choice of change method in terms of the nature of the

risk involved, the source of the required safety, and the individual's role in the group.) The existence of the internal unfreezing and growth processes were said to show active participation in the group to be unnecessary for growth, at least in the short term.

The three main emphases of the model, in terms of requirements for growth, are the stress provided by the existence of the incongruity, the safety provided by the group and within the individual, and the willingness of the individual to take a risk in order to grow. Another important characteristic of the model is its cyclical nature. We conceptualize growth as a long, continuous process and each cycle through the model as a step in the overall growth process rather than a transition from one static situation to another. In addition, the more varied the individual's cycles through the model, the more permanent the resultant changes, or growth. Finally, the group's norms, which are constantly evolving and developing, and the individuals' personal characteristics, which are continually undergoing change, were assumed to pervade the model and we de-emphasized resistances to change.

## 6.2 Significant Research Results

The research yielded several results that supported the model. The following are the statistically significant results. Risk-taking was related to being given feedback and to the amount of growth by the external growth process. In terms of the individual's role in the group, openness, participation, influence, status, affection, giving feedback, and inclusion "led to" risk-taking, being given feedback,

and the amount of external growth. Trust and empathy were negatively related to growth by the internal method and giving feedback was related to internal growth. For group-provided safety, empathy led to risk-taking and being given feedback. With regard to internal safety, the acceptance of emotionality and a low level of anxiety led to receiving feedback and related very closely with the role variables. Finally, learning style produced few significant results.

### 6.3 Applications of the Model

The model was shown to be useful and applicable in several contexts. The primary application of the model is, of course, personal growth. Its main use in this context is to provide a framework for understanding growth experiences. It also has important implications for T-group training and for providing atmospheres conducive to growth outside of T-groups, such as in the work environment. Both T-group trainers and managers can learn from the model the importance of relevant norms, safety, the nature of communication, constructive attitude toward risk, empathy, trust, and understanding for successful and meaningful personal growth.

The model is also useful for explaining the development of a group in terms of norms, relationships, roles, and other factors usually taken as given in a group. Finally, the application of the model to the process of change in an organization was described.

### 6.4 Conclusions

We believe that our model is a valuable and useful tool for

studying and understanding the personal growth process. We see it as both an integration of previous models and a step forward in terms of new ideas. We regret that the unfreezing process and the internal growth method remain relatively untested. For further research, we would recommend an emphasis on these parts of the model, the use of better measures of growth, and other means of gathering data in addition to one-shot, short-answer questionnaires. However, we feel that this study has been a significant step toward understanding the growth process.

## FOOTNOTES

### Chapter 1

1. Douglas McGregor, The Human Side of Enterprise (New York, 1960).
2. Carl R. Rogers, Client-Centered Therapy (Boston, 1951).
3. Abraham H. Maslow, Motivation and Personality (New York, 1954).
4. Anthony G. Athos, "Is the Corporation Next to Fall?", Harvard Business Review, V.1. 48, No. 1 (Jan-Feb 1970), p. 59.
5. Paul J. Brouwer, "The Power to See Ourselves," Harvard Business Review, Vol. 42, No. 6 (Nov-Dec 1964), p. 156.
6. Ibid., p. 158.

### Chapter 2

1. Paul Buchanan, "Evaluating the Effectiveness of Laboratory Training in Industry," Explorations in Human Relations Training and Research, Report No. 1, 1965, National Training Laboratories, Washington, D.C.
2. T. Gordon, "What is Gained by Group Participation," Education Leadership, (Jan 1950), p. 223.
3. Irwin Martin Rubin, Sensitivity Training as a Means of Reducing Prejudice, Alfred P. Sloan School of Management Ph.D. Thesis, (Feb 1966).
4. R.L. Burke and W.G. Bennis. "Changes in Perception of Self and Others During Human Relations Training," Human Relations, 1961, 14, pp. 165-182.
- 4A. D.R. Bunker, "Individual Application of Laboratory Training," The Journal of Applied Behavioral Science, 1965, 1, pp. 131-148.
5. Richard E. Boyatzis and David A. Kolb, Feedback and Self-Directed Behavior Change, Alfred P. Sloan School of Management Working Paper #394-69, p. 24.
6. J.R.P. French, J.J. Sherwood, and D.L. Bradford, "Change in Self-Identity in a Management Training Conference," The Journal of Applied Behavioral Science, 1966, 2, pp. 210-218.
7. Carl R. Rogers, On Becoming a Person, Houghton-Mifflin Co., (Boston 1961), pp. 39-58.

8. James V. Clark and Samuel A. Culbert, "Mutually Therapeutic Perception and Self-Awareness in a T Group," The Journal of Applied Behavioral Science, Vol. 1, No. 2 (Apr-May-June 1965), pp. 180-194.
9. C.M. Hampden-Turner, "An existential 'Learning Theory' and the Integration of T-Group Research," The Journal of Applied Behavioral Science, Vol. 2, No. 4, (1966), pp. 374-375.
10. Leland P. Bradford, Jack R. Gibb, and Kenneth D. Benne, T-Group Theory and Laboratory Method (New York, 1964), p. 427.
11. Sara K. Winter, Jeffery C. Griffith, and David A. Kolb, The Capacity for Self Direction, Alfred P. Sloan School of Management Working Paper #309-68.

### Chapter 3

1. Matthew B. Miles, "Learning Processes and Outcomes in Human Relations Training: A Clinical and Experimental Study," in Personal and Organizational Change Through Group Methods, ed. Edgar H. Schein and Warren G. Bennis (New York, 1967), pp. 244-254.
2. Edgar H. Schein and Warren G. Bennis, Personal and Organizational Change Through Group Methods (New York, 1967), p. 44.
3. Clark and Culbert, p. 181.
4. Bradford, Gibb, and Benne, p. 427.
5. Roger Harrison and B. Lubin, "Personal Style, Group Composition, and Learning (Parts I and II)," The Journal of Applied Behavioral Science, 1965, 1, pp. 286-301.
6. Burke and Bennis.
7. David A. Kolb and Richard E. Boyatzis, Goal-Setting and Self-Directed Behavior Change, Alfred P. Sloan School of Management Working Paper #367-69.
8. Clark and Culbert, p. 181.
9. Ibid.
10. David A. Kolb and Richard E. Boyatzis, On the Dynamics of the Helping Relationship, Alfred P. Sloan School of Management Working Paper #423-69.

11. Gail E. Myers, Michelle T. Myers, Alvin Goldberg, and Charles E. Welch, "Effect of Feedback on Interpersonal Sensitivity in Laboratory Training Groups," The Journal of Applied Behavioral Science, Vol. 5 No. 2 (1969), pp. 175-185.
12. Hampden-Turner.
13. French, Sherwood, and Bradford.
14. J.J. Sherwood, "Sherwood, "Self-Identity and Referent Others," Sociometry, 1965, 28, pp. 66-81.
15. Schein and Bennis, p. 44.
16. Hampden-Turner.
17. Rogers, Client-Centered Therapy, pp. 515 & 517.
18. Fred Irving Steele, The Relationship of Personality to Changes in Interpersonal Values Effected by Laboratory Training, Alfred P. Sloan School of Management, Ph.D. Thesis, June, 1965.
19. W.C. Schutz and V.L. Allen, "The Effects of a T-Group Laboratory of Interpersonal Behavior," The Journal of Applied Behavioral Science, 1966, 2, pp. 265-286.
20. Roger Harrison and Barry I. Oshry, Report to SAED of GESAED-BUHRC Training Study, 1965.
21. Carl R. Rogers, Freedom to Learn (Columbus, Ohio, 1969), p. 96.
22. Rubin.
23. Hampden-Turner.
24. Clark and Culbert.
25. Rogers, Freedom to Learn.
26. Brouwer.

## BIBLIOGRAPHY

- Athos, Anthony G. "Is the Corporation Next to Fall?" Harvard Business Review, Vol. 48 No. 1 (Jan-Feb, 1970) pp. 49-61.
- Boyatzis, Richard E. and David A. Kolb. Feedback and Self-Directed Behavior Change. Alfred P. Sloan School of Management Working Paper #394-69.
- Bradford, Leland P., Jack R. Gibb, and Kenneth D. Benne. T-Group Theory and Laboratory Method. 1964, John Wiley and Sons, Inc., New York.
- Brouwer, Paul J. "The Power to See Ourselves." Harvard Business Review, Vol. 42 No. 6 (Nov-Dec, 1964), pp. 156-163.
- Brown, Roger. Social Psychology. 1965, Collier-Macmillan Canada, Ltd., Toronto. Chapter 2.
- Buchanan, Paul. "Evaluating the Effectiveness of Laboratory Training in Industry." Explorations in Human Relations Training and Research, Report no. 1. 1965, National Training Laboratories, Washington, D.C.
- Bunker, D.R. "Individual Application of Laboratory Training." The Journal of Applied Behavioral Science, 1965, 1, pp. 131-148.
- Burke, R.L. and W.G. Bennis. "Changes in Perception of Self and Others During Human Relations Training." Human Relations, 1961, 14, pp. 165-182.
- Clark, James V. and Samuel A. Culbert. "Mutually Therapeutic Perception and Self-Awareness in a T Group." The Journal of Applied Behavioral Science, Vol. 1 No. 2 (April-May-June, 1965), pp. 180-194.
- French, J.R.P. Jr., J.J. Sherwood, and D.L. Bradford. "Change in Self-Identity in a Management Training Conference." The Journal of Applied Behavioral Science, 1966, 2, pp. 210-218.
- Gordon, T. "What is Gained by Group Participation." Education Leadership, Jan., 1950, pp. 220-226.
- Hampden-Turner, C.M. "An Existential 'Learning Theory' and the Integration of T-Group Research." The Journal of Applied Behavioral Science, Vol. 2 No. 4, 1966, pp. 367-386.
- Harrison, Roger and B. Lubin. "Personal Style, Group Composition, and Learning" (Parts I and II). The Journal of Applied Behavioral Science, 1965, 1, pp. 286-301.

- Harrison, Roger and Barry I. Oshry. Report to SAED of GESAED-BUHRC. Training Study. Unpublished manuscript prepared for the Small Aircraft Engine Division of General Electric by the Boston University Human Relations Center, 1965.
- Kolb, David A. and Richard E. Boyatzis. Goal-Setting and Self-Directed Behavior Change. Alfred P. Sloan School of Management Working Paper #367-69.
- Kolb, David A. and Richard E. Boyatzis. On the Dynamics of the Helping Relationship. Alfred P. Sloan School of Management Working Paper #423-69.
- Maslow, Abraham H. Motivation and Personality. 1954, Harper and Brothers, New York.
- McGregor, Douglas. The Human Side of Enterprise. 1960, McGraw-Hill Book Co., New York.
- Myers, Gail E., Michele T. Myers, Alvin Goldberg, and Charles E. Welch. "Effect of Feedback on Interpersonal Sensitivity in Laboratory Training Groups." The Journal of Applied Behavioral Science, Vol. 5 No.2, 1969, pp. 175-185.
- Psathas, P. and R. Hardart. "Trainer Interventions and Normative Patterns in the T-Group." The Journal of Applied Behavioral Science, 1966, 2, pp. 149-169.
- Rogers, Carl R. Client-Centered Therapy. 1951. Houghton-Mifflin Co., Boston.
- Rogers, Carl R. On Becoming a Person. 1961, Houghton-Mifflin Co., Boston.
- Rogers, Carl R. Freedom to Learn. 1969, Charles E. Merrill Publishing Co., Columbus, Ohio.
- Rubin, Irwin Martin. Sensitivity Training as a Means of Reducing Prejudice. Alfred P. Sloan School of Management, Ph.D. Thesis, February, 1966.
- Schein, Edgar H. Organizational Psychology. 1965, Prentice-Hall, Inc., Englewood Cliffs, N.J.
- Schein, Edgar H. and Warren G. Bennis. Personal and Organizational Change Through Group Methods. 1967, John Wiley and Sons, Inc., New York.

- Schutz, W.C. and V.L. Allen. "The Effects of a T-Group Laboratory on Interpersonal Behavior." The Journal of Applied Behavioral Science, 1966, 2, pp. 265-286.
- Sherwood, J.J. "Self-Identity and Referent Others." Sociometry, 1965, 28, pp. 66-81.
- Siegel, Sidney. Nonparametric Statistics for the Behavioral Sciences. 1956, McGraw Hill Book Company, New York.
- Steele, Fred Irving. The Relationship of Personality to Changes in Interpersonal Values Effected by Laboratory Training. Alfred P. Sloan School of Management, Ph.D. Thesis, June, 1965.
- Winter, Sara K., Jeffrey C. Griffith, and David A. Kolb. The Capacity for Self Direction. Alfred P. Sloan School of Management Working Paper #309-68.

APPENDIX

The Questionnaires

A. BEFORE QUESTIONNAIRE

We are interested in studying various behavior variables in the T-Group and possible factors influencing them. A lot of research has been done on T-Groups, but it has mostly focused on input-output, rather than on the process itself; our attempt will be slightly different. What this will mean to you will be that we ask you to fill out the enclosed forms, which should take about a half-hour, and return them in the envelope provided. In addition, we will ask for information during the T-Group about what is going on in the group. This information will be in the form of short questionnaires and will not only be valuable to us but may also generate important data for you to discuss in the T-Group.

It is very important that you be sure to put your name on each page. All the information you give will be treated as strictly confidential. The results of our research will be completed during the spring term and will be available to you. Thank you for your assistance.

Stanley Quint

Aaron Kleiner

NAME \_\_\_\_\_

I. Answer the question "Who am I?" about yourself in the following manner. Write statements, completing the phrase "I am....", on this page as if you were describing yourself to a stranger. Do the same on the next page as if you were describing yourself to a friend.

To a stranger:

I am \_\_\_\_\_ .  
I am \_\_\_\_\_ .

NAME \_\_\_\_\_

To a Friend:

I am \_\_\_\_\_ .

NAME \_\_\_\_\_

II.

Envision the T-Group halfway through it (after two days). If it were meeting your needs (and/or goals you may have set for it), what would it be like? What would you be doing, saying, feeling; what would other people be doing, saying, feeling? Please be as specific as possible.

NAME \_\_\_\_\_

### III. Learning Style Inventory

Note: If you have already taken this test in its old form and do not want to fill out this new form, you may record your scores from the previous test on the back of this page instead.

This inventory is designed to assess your method of learning. As you respond to the items, give a high rank to those terms which best characterize the way you learn and a low rank to the terms which least characterize of your learning style.

Rank order (1, 2, 3, 4) each group assigning a 4 to the term which best characterizes your learning style, and a 1 to the term which is least characteristic of you as a learner. All groups must be ranked, but duplicate ties are not allowed. In each case it is suggested that you assume a prefix phrase such as, "When I am approaching a new situation I tend to be..." In some cases the words selected may seem very similar in their meaning, but they are not - relatively are all different. Work quickly. There are no right or wrong answers.

_____ involved	_____ relevant	_____ watching
_____ tentative	_____ analytical	_____ feeling
_____ discriminating	_____ impartial	_____ thinking
_____ practical	_____ receptive	_____ doing
_____ evaluative	_____ intuitive	_____ experimental
_____ risk-taker	_____ questioning	_____ abstract
_____ aware	_____ logical	_____ observing
_____ accepting	_____ productive	_____ specific
_____ pragmatic	_____ open to new experience	_____ attentive

\_\_\_\_\_future-oriented

\_\_\_\_\_reflective

\_\_\_\_\_present-oriented

\_\_\_\_\_intense

\_\_\_\_\_reserved

\_\_\_\_\_rational

\_\_\_\_\_responsible

\_\_\_\_\_perceptive

\_\_\_\_\_theoretical

\_\_\_\_\_goal-oriented

\_\_\_\_\_concrete

\_\_\_\_\_reflective

\_\_\_\_\_abstract

\_\_\_\_\_active

\_\_\_\_\_intelligent

\_\_\_\_\_competent

\_\_\_\_\_flexible

\_\_\_\_\_experimentation

\_\_\_\_\_conceptualization

\_\_\_\_\_observation

\_\_\_\_\_experience

NAME \_\_\_\_\_

Part IV. Individual Responses to the Environment

Please mark the following questions according to the extent to which the statement is true for you.

- |                         |                            |
|-------------------------|----------------------------|
| 1. means Strongly Agree | 4. means Slightly Disagree |
| 2. means Agree          | 5. means Disagree          |
| 3. means Slightly Agree | 6. means Strongly Disagree |

- \_\_\_1. I prefer not to let my thinking be clouded by emotions.
- \_\_\_2. I make special efforts to hear all sides in controversies.
- \_\_\_3. I am a highly emotional person.
- \_\_\_4. I am willing to tolerate some personal discomfort in order to increase my self awareness.
- \_\_\_5. I have big ups and downs in my life
- \_\_\_6. I seek to know and understand a lot about the people around me.
- \_\_\_7. My feelings change frequently.
- \_\_\_8. If a person cannot say something positive to me about myself, I'd rather he say nothing.
- \_\_\_9. I tend to be less emotional than most people.
- \_\_\_10. My life is complicated enough without looking for much new information.
- \_\_\_11. I like it when people level with me.
- \_\_\_12. It is difficult for me to hide my feelings.
- \_\_\_13. Unexpected events provide me with little interesting information.
- \_\_\_14. I am often strongly moved by my experiences.
- \_\_\_15. If there is some personal stress in gaining self-knowledge, I'd prefer not to know.

- \_\_\_16. I am almost always able to maintain a calm front.
- \_\_\_17. I like to know a lot about my environment.
- \_\_\_18. I never let myself cry.
- \_\_\_19. I prefer to find things out about myself even when they hurt.
- \_\_\_20. I think I am better able to express my feelings than most people.
- \_\_\_21. I ask a lot of questions in unfamiliar situation.

NAME \_\_\_\_\_

V. Optional:

How did you feel either about the preceding questionnaires  
or while filling them out?

B. LAST DAY QUESTIONNAIRE

NAME \_\_\_\_\_

GROUP \_\_\_\_\_

(Trainer's Name)

I. Answer the question "Who am I?" about yourself in the following manner. Write statements, completing the phrase "I am...", on this page as if you were describing yourself to a stranger. Do the same on the next page as if you were describing yourself to a friend.

To a Stranger:

I am \_\_\_\_\_ .

NAME \_\_\_\_\_

GROUP \_\_\_\_\_

I am \_\_\_\_\_ .

I am \_\_\_\_\_ .

To a friend:

I am \_\_\_\_\_ .

NAME \_\_\_\_\_

GROUP \_\_\_\_\_

II. In answering the following questions, be sure to include your own name whenever it is appropriate.

1. Who in the group best understands your problems?

2. Who takes interpersonal risks in the group? (Do you?)

3. Think of a couple of personal secrets that you have. Who in the group would you feel most comfortable telling them to?

NAME \_\_\_\_\_

GROUP \_\_\_\_\_

4. Name everyone in the group you have given significant feedback to.

Pick the piece of feedback you have given that was most important and helpful to the person receiving it. Describe it in terms of who you gave it to, the context, and the content.

5. Name everyone in the group who has given you significant feedback.

Pick the one piece of feedback that you received that was most important and helpful to you. Describe it in terms of who gave it, the context, and the content.

NAME \_\_\_\_\_

GROUP \_\_\_\_\_

In the following questions, circle the appropriate number.

6. How do you feel in the group?

1            2            3            4            5

Uneasy,  
worried,  
anxious

At ease,  
comfortable,  
relaxed

7. How much do you feel a member of the group? (Do people care about you and listen to what you say?)

1            2            3            4            5

Definitely a  
member, people  
care a lot

Not a member,  
people don't  
care

8. How involved are you in what happens in the group?

1            2            3            4            5

Very involved

Not involved at all

9. How much have you participated in the group?

1            2            3            4            5

Very little

A lot

10. How open are you in the group about your own feelings?

1            2            3            4            5

Closed

Open

11. Who has participated a lot in the group?



NAME \_\_\_\_\_

GROUP \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

THANK YOU VERY MUCH FOR YOUR HELP