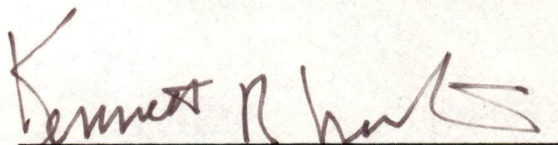
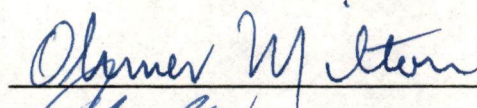
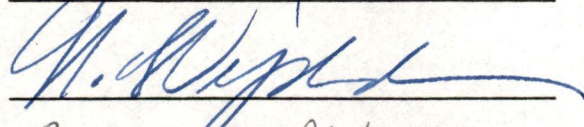
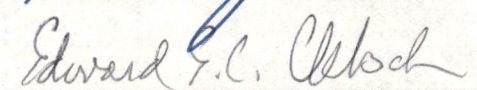


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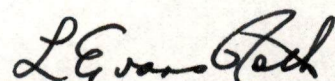
I am submitting herewith a dissertation written by R. Timothy Pollak entitled "An Empirical Method for Evaluating the Usefulness of Psychological Terms: A Naturalistic Observation of Self-Disclosure, Congruence, and Empathy." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Psychology.


Kenneth R. Newton, Major Professor

We have read this dissertation
and recommend its acceptance:

Accepted for the Council:


Vice Chancellor
Graduate Studies and Research

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AN EMPIRICAL METHOD FOR EVALUATING THE USEFULNESS OF
PSYCHOLOGICAL TERMS: A NATURALISTIC OBSERVATION
OF SELF-DISCLOSURE, CONGRUENCE, AND EMPATHY

A Dissertation
Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

R. Timothy Pollak

August 1979

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The author wishes to express his indebtedness to the many people who participated directly in this project. Without the contributions in time and energy of these people, this research effort could not have been accomplished.

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I am doubly indebted to the members of my committee for their encouragement to undertake a project so unusual in concept and for their guidance in carrying it to completion. A special debt is owed to Drs. Ken Newton and Bill Verplanck for their direct involvement in the project as identifier and conceptual consultant, respectively. The statistical advice of Randy Carter at the University of Florida Health Center is gratefully acknowledged as well.

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education, the loving support, but most important, the continued prodding I needed to complete this challenging undertaking.

ABSTRACT

The usefulness of three terms employed extensively in the literature of Humanistic psychology, namely, "self-disclosure," "congruence," and "empathy" are subjected to empirical test. A method using naturalistic behavioral observation techniques was developed to identify episodes of the behaviors in small group interactions, which characterize these three concepts. Observers were trained to recognize episodes of self-disclosure, congruence, and empathy in videotaped interactions between 10 people in an undergraduate course in Human Relations. Significant agreement existed among observers for instances exhibiting "self-disclosure," but observers were unable to agree on episodes in which "congruence" and "empathy" were thought to occur. This suggests that "self-disclosure" is a "useful concept" (observers could use it to label episodes of behavior they agreed were instances of that kind). Results for "congruence" and "empathy" remained ambiguous. The significantly lower frequencies at which instances of these concepts were recognized may account for the low levels of inter-rater agreement for "congruence" and "empathy." With further refinement and broader application, this method could provide a means for determining which of the many poorly defined terms in the humanistic psychological literature are worthy of further examination by methodologically sound behavioral observation techniques.

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CHAPTER I

STATEMENT OF THE PROBLEM

Several authors have suggested that psychological researchers must broaden the common conceptualization of the experimental scientific method if they wish to examine the "subjective" aspects of human experience (Bakan, 1956; MacLeod, 1964; Edie, 1966; Giorgi, 1970). Other writers have verified some of the problems that make development of new methods of exploration difficult (Wertheimer, 1972) but encourage investigators to explore a broader range of research activities (Verplanck, 1970; Gibbs, 1979). The expanding role of psychology and psychological research in contemporary society (Blau, 1977) has been put forth as additional reason for seeking greater clarity through creative collaboration between branches of the science (Bergin, 1976; Wertheimer, 1978). This project is an example of the type of productive amalgamation that can be developed by using the technologies developed in one branch to clarify the problems inherent in another.

There have been a number of suggestions on how this can be accomplished. One school has emphasized the clinical psychologists' role as a scientific naturalist (Raush, 1969) and has encouraged the development of an ecological perspective in psychology (Willems, 1977). Darwin offered suggestions on naturalistic methods for studying psychological phenomena that remain valid today (Darwin, 1872). And in more recent years, the remarkable contributions of ethologists like Lorenz, Tinbergen, and Von Frisch to the understanding of animal behavior have demonstrated

the power of naturalistic observation as an experimental method (Marler & Griffin, 1973). An ecological perspective was developed and maintained during this research effort. Specific considerations were made to integrate the diverse elements of this investigation in a way that would establish a balance between subjective relevance (authenticity) and scientific precision (objectivity) to yield useful and conceptually clear information (Gibbs, 1979).

Theoretical considerations of human behavior and behavioral ecology (Barker, 1963; Willems, 1977) have contributed to the development of observational strategies that are beginning to provide detailed observational data that are needed for a true taxonomy of human behavior (Wahler, 1975; Willems, 1976; Wahler, Leske, & Rogers, 1977). But what can be done about the more complex aspects of human experience and phenomenology? The domain of the "Humanistic" psychologists, whose primary concerns seem to lie with individuals' growth and development, is composed of subjective phenomena often judged to be unavailable to scientific scrutiny. With the expansion of professional psychological interest into areas that focus increasingly on concerns about improving the quality of life (Albee, 1976) and the processes involved in changing the quality of life for the better (Egan, 1970, 1975; Rogers & Truax, 1967; Yalom et al., 1975), there has arisen a phlethora of psychological terms with complex and often poorly defined meanings (APA Thesaurus, 1977). These terms represent pioneering efforts in the difficult task of describing the subjective experiences of individuals as they go through processes of changing and growing. Many of these terms attempt to specify the behaviors and skills that are needed to implement those growthful

processes (Rogers, 1957; Rogers & Truax, 1967). They often seem interchangeable one with another (e.g., unconditional positive regard = warmth = caring, or self-disclosure = willingness to be known = sharing, etc.) and have proven to be difficult to measure (Cozby, 1973; Strahan & Zytowski, 1976; Rogers, 1975; Cadow, 1977; Haase & Tepper, 1972).

This project is an effort to develop a scientifically defensible behavioral method for establishing the limits of precision, i.e., the measurability or usefulness of process-oriented psychological terms.

This project is a demonstration that more scientifically rigorous psychological research methodologies can be applied to the psychologically rich concerns that commonly are included in "Humanistic Psychology." I agree with the way Michael Wertheimer put it:

a dispassionate scientific approach is, in the last analysis, also the most humanitarian one. We will be in the best position to help people if we know what works, what effects something has when we are trying to help troubled souls get along in the world. Tough minded, humane science is apt to be more helpful in this endeavor than are vague, wishful thinking, nonempirical speculation, blind faith, or dogma. (1978)

Need for a Method

This project began as an attempt to empirically demonstrate that rappelling, a stress/challenge mountaineering technique, is effective in changing personal self-confidence. Rappelling is used by many experiential educators to improve self-confidence in their students. Several writers have examined the psychological benefits that can be derived from wilderness stressors (Nelson, 1970; Bernstein, 1972; Jerstad & Selzer, 1973), but little well-designed research has been

completed demonstrating this effect conclusively (Pollak, 1976).

During the process of planning an empirical demonstration of the effectiveness of rappeling, it became apparent that adequate behavioral, i.e., observational, methods of measuring changes in levels of self-confidence were unavailable. Consequently, the focus was changed toward development of an observational method that would provide unequivocal data of behavior change related to self-confidence.

Much discussion has been directed toward the problem of identifying precisely those conditions and behaviors that are necessary for producing positive personal change (Rogers, 1957; Traux & Carkhuff, 1967; Rogers & Truax, 1967; Egan, 1970; Rogers, 1974; Yalom et al., 1975; Saccuzzo, 1975; Egan, 1975). There has been little substantive progress in identifying the full constellation of these conditions, but some generalizations can be drawn from the literature. From their extensive review of the literature on the effectiveness of psychotherapy, Truax and Carkhuff concluded that "Research seems consistently to find empathy, warmth, and genuineness characteristic of human encounters that change people for the better" (Truax & Carkhuff, 1967, p. 141). This "therapeutic triad" seems to operate through a priority system which emphasizes that the therapist respond to: (a) approach responses to human relating, (b) self-exploratory behaviors, (c) efforts at eliminating specific anxieties and fears, and (d) reinforcements of positive self-concepts and self-valuations (Traux & Carkhuff, 1967). These characteristics are also represented in self-disclosure as described by Jourard (1967, 1971).

Self-disclosure, genuineness (or congruence), and empathy form the basis on which intensive small group experiences progress (Rogers, 1974). In fact, specific training programs for encouraging people to develop these interactional skills have been initiated (Egan, 1970; Seashore, 1968) and have shown some evidence of being successful (Campbell & Dunnette, 1968). Researchers into small group processes have had difficulty developing observational methods for dealing with the complexities involved in small group interactions (Mann, 1974) and have relied thus far on systems based on complex theoretical frameworks (Bales, 1950). Previous work comparing participants in intensive small group experiences with Outward Bound program students (Nelson, 1970) suggested that the effectiveness of rappeling might best be examined in the context of a class in human relations.

Since phenomena such as these seem to be consistently present in situations where people change for the better, i.e., see themselves as more able and powerful, it can be postulated that these phenomena will also be present in experiences that encourage increased self-confidence. After all, "self-confidence" carries with it the connotation of individual perception of ability and power. Assuming for the moment that rappeling does produce greater self-confidence--that people who rappel see themselves as being changed for the better and as having greater ability and more personal power than they had before (as so many stress/challenge programs' directors seem to be convinced their students do [Pollak, 1976])--it seems likely that people who have rappelled would exhibit more behaviors that accompany the presence of empathy, warmth, and genuineness and would self-disclose more.

Self-disclosure, congruence (genuineness), and empathy are attributes that are likely to increase an individual's exposure to human relationships. For example, social intercourse is likely to increase when other people know more about an individual's interests, attitudes, and concerns through self-disclosure. More people are likely to approach an individual who is genuine, or real, or not phoney, rather than a person who does not exhibit these qualities. And concern and caring for the feelings of another (empathy) is more likely to be expressed in reciprocity to such an expression from another. Relating to other people is also considered to be an indication of personal strength. The usual clinical assumption is that opening oneself to more intimate relationships is a sign of improving confidence, and the absence of behaviors that demonstrate a willingness to be intimate with others (defensiveness) suggests personal weakness. It follows from these observations that individuals who perceive themselves as more able and powerful (self-confident) are likely to exhibit more of the behaviors that open them to human relationships--self-disclosure, congruence, and empathy. Such behaviors should be directly observable, especially in an environment that is specifically designed to encourage them, namely, the intensive small group experience. This logic suggested a plausible means of behaviorally assessing the self-confidence change of a rappel through direct observation. Naturalistic observation techniques could be applied to the specific behaviors of self-disclosure, congruence, and empathy in a human relations class before and after they went rappeling. An increased frequency after the rappel would be indicative of greater self-confidence.

Vagueness in Therapeutic Process Terminology

This provided a focus for the project. A method was needed for reliably assessing the presence of these phenomena--the frequency with which individuals exhibit empathy, congruence, self-disclosure, etc. However, these terms have definitions that do not readily translate into observable behavior. People seem to understand what is meant by these terms. They can use them in sentences and the "word games" that Wittgenstein described as the basic activity of language (Pitkin, 1973), but individuals often falter when asked to identify the actual events or behaviors that they see as indicating the phenomenon's presence. The assessment method needed for this study must facilitate natural communication through a process of defining terms in directly observable dimensions in order to avoid the distortions added by verbal processing of information. Consensual agreement does this. With the consensual validation demonstrated by two individuals agreeing that the same word describes what they both experience as an instance of that phenomenon, the word labeling the phenomenon is demonstrated as being useful in communicating.

Words that are as vague as these therapeutic process terms may simply be "fuzzy concepts" that lack a referent in actual behavior. The use of language, with its requirements of transforming observed events into abstractions, forces people into thought patterns that lead away from the data base of direct observations. The necessary processes involved in using language, namely, those of "Generalization, Deletion, and Distortion," have been shown to affect people adversely and contribute to confusion (Grinder & Bandler, 1976). Are the process terms of

psychotherapy "word games" that are used merely by psychologists a result of specialized language distortions that can mean nothing to individuals who are not skilled in using the particular word games? Or do these process terms attributed to growthful change in individuals have a recognizable base in people's behavior that is observable by relatively naive, psychologically unsophisticated individuals?

To answer these questions and to provide data for demonstrating the effectiveness of rappelling, a method was developed by which naive raters were trained behaviorally with segments of videotaped group interactions to recognize "self-disclosure," "congruence," and "empathy" in the small group interactions of individuals before and after a rappel.

CHAPTER II

METHOD

The method used in this study was partially adapted from work completed by the Metaphor Research Group of The University of Tennessee (Barlow, Kerlin, and Pollio, 1971). That work developed a technique for documenting agreement that particular passages of transcribed conversation contained metaphors of different types. The present work diverges from that of the Metaphor Research Group in that here we are studying the recognizability of behavioral phenomena in naturally occurring interactions rather than the recognition of figures of speech from transcribed conversation. The specific phenomena selected for examination here are three terms applied to interpersonal interactions: "self-disclosure," "congruence," and "empathy." It must be assumed for the purposes of this study that each of these has behavioral manifestations that can be recognized in videotaped interactions. This section will describe the procedures established to conduct an examination of that assumption.

The procedure consisted of three phases. The first was to establish criteria for identifying the target behaviors of "self-disclosure," "congruence," and "empathy." The second was designed to train naive observers to recognize episodes of these three terms on prerecorded videotapes of intensive small group interactions. The third phase employed the recognizers to gather data on the relative frequencies with which "self-disclosure," "congruence," and "empathy"

occurred during two different sessions of an intensive small group's interactions. These two group sessions occurred before and after an exercise in rappeling.

The criteria needed to select episodes of "self-disclosure," "congruence," and "empathy" were established in Stage I by three persons, called identifiers, who were experienced group facilitators. These three individuals established the criteria for recognizing the variables by viewing videotaped segments of intensive small group interactions in isolation from one another. In so doing, each identifier sought to identify and note episodes in which the variables occurred. The identifiers then jointly viewed and discussed the tapes in order to reach agreement on what specific words and conduct of the participants could be said to constitute scorable episodes. This first stage was primarily a process for establishing paradigm cases and for training an instructor to train the naive observers, called recognizers, in Stage II. Stage I also served to solve some of the mechanical problems encountered in examining the videotaped recordings and labeling tape segments. The paradigm cases, identified and selected through this procedure, were edited onto a new tape that was used in training recognizers during the second phase, called Stage II.

The recognizers were three undergraduate students with no previous intensive small group experience. In Stage II, they were trained to recognize occurrences of the three variables selected for study in this project by viewing and reviewing the newly assembled tape of paradigm examples of "self-disclosure," "congruence," and "empathy," which had been selected by the identifiers in Stage I. Following the

training of Stages I and II, the project entered its third and final phase called Stage III, during which data were collected. Collection was accomplished by each recognizer individually viewing unedited, randomly selected half-hour videotape segments of the two sessions of a 10-person intensive small group interaction. This group consisted of undergraduates enrolled in one section of a course in Human Relations at The University of Tennessee. The persons in this section of the course volunteered to participate in the project by accepting an offer to take part in a rappel as an additional growth experience. The rappel was presented to all the students of this human relations class as a stress/challenge exercise designed to promote more intense interpersonal interaction using an informed consent procedure approved by the university's Committee on Research Participation (Appendix D). A weekend backpacking trip was offered as another choice for intensified interpersonal interaction during the course, but insufficient enrollment limited the number of individuals interested in this option. It was dropped from the study.

Materials and Equipment

The materials used in this study consisted of recording forms developed as needed (see Appendix B), prerecorded videotapes and electronic videotape recording and playback equipment. The episode "recording sheet" evolved slowly into the arrangement shown in the Appendix. This form was developed to minimize the substantial difficulties encountered in accurately labeling tape segments that resulted from the inherent variability of the mechanical tape counting system on the recorder. SONY video-recorder (model #AV 3600) was the videotape

recording and playback machine used throughout the study. Recordings of the target Human Relations group were made using a special procedure. It was decided that to study the entire group all members should be taped simultaneously. Two cameras were placed opposite one another and their signals were mixed by using a special effects generator (SONY model #SEG-1A) to form a single split-screen image. This setup produced recordings that provided a frontal view of nearly every participant. Intrusion on the group's natural process was kept to a minimum by the use of silent stationary cameras. The recorder was placed in an adjacent room so no extra personnel were present as the group met. Other taping setup requirements, such as adequate room illumination and a close seating arrangement, were somewhat intrusive but were mentioned by group members as being facilitative of better interaction.

Videotape recordings (VTR) of four different groups were used in Stage I. The use of more than one group was thought to enhance the chances of accurately generalizing the behavioral characteristics of the terms under study. Composition of these four groups differed widely. Tape recordings of sample intensive small group experiences came from previous research efforts (Moore, 1976) and by taping individual sessions of "In-progress" groups at The University of Tennessee.

Personnel

The identifiers consisted of three individuals experienced in intensive small group interaction procedures and the terminology of Humanistic psychology. The author and primary investigator served both as an identifier and as trainer for the recognizers. Dr. Ken Newton was

major professor on the project and served as an identifier as well. Another graduate student, David O'Brien, M.A., who had several years of encounter group experience, rounded out the term.

The three recognizers were recruited from advanced psychology courses and were given academic credit for their work on this project. Neither the one male nor the two female recognizers had previous experience in human relations groups or other forms of intensive small group experiences. Each of them revealed individual differences in observational style as the work proceeded. One of the women emphasized body movement to a greater degree, and the other was cautious and deliberate in her approach and took extra care to view questionable episodes several times. These personal variations are consistent with the subjective judgment that the three recognizers were representative of 19-to-20-year-old college students.

Participants

All 10 members of one section of Psychology 3616-26, Human Relations, accepted the offer to participate in a rappel down a 100-foot cliff as an additional exercise in personal awareness. In so doing, they also agreed to participate in this study and to have several sessions of the intensive small group experience portion of their course videotape recorded for later analysis. Only segments from two sessions were examined by the recognizers, the session just prior to the rappel and one 4 weeks later. These were compared for lasting differences in the frequencies of the target variables.

Procedures

The procedure used in Stage I was designed to yield clear examples of target behaviors and a person experienced in identifying them to serve as trainer of the recognizers in Stage II. Each identifier was asked to view tape segments privately and to record the audio or visual images that he noticed were helpful to him in identifying episodes as "self-disclosure," "congruence," and "empathy." These data were compiled and discussed in weekly 2-hour-long sessions together, during which each chosen episode was re-examined. The discussions of those sessions were geared toward refining the criteria employed in choosing and clearly characterizing the target behaviors. This process was continued with new tape segments each week until better than 50% agreement was reached for three consecutive tapes. The agreement and judgment system of the Metaphor Research Group (Barlow, Kerlin, & Pollio, 1971, p. 20) was used in modified form to identify accepted and rejected examples of target behaviors.

At first, verbal and written "Identifying characteristics" of each selected episode were assembled and discussed until all three identifiers agreed that they summarized the salient features of the concepts under investigation. Those summaries are presented in Appendix A. They were not used in the study except briefly to help the identifiers clarify their observations and judgments and to more fully discuss their observations. The descriptions served solely as summary descriptions of the behaviors that were serving as cues in episode identification (see Appendix A).

A similar procedure was used for Stage II during training of the recognizers. Each example was reviewed and discussed so the recognizers could develop a shared conceptualization of what they saw as "self-disclosure," "congruence," and "empathy." Then they individually viewed videotape segments and discussed the episodes that were chosen as characteristic of "self-disclosure," "congruence," and "empathy" until they reached 50% agreement. This was quickly accomplished for episodes of "self-disclosure" (SD), and the data collection phase, Stage III, was initiated for this variable, while discussions continued for episodes of "congruence" (C) and "empathy" (E). The criterion agreement level was never reached for these two variables.

Rappel Training

The rappel was conducted using procedures in standard use at Outward Bound schools in the United States (Outward Bound, Inc., 1976). These called for two sessions, a training session and the actual rappel. Training was conducted on a steep hill on campus, during the time of their regular group session. Each participant was shown how to tie knots, use proper signals, belay, and rappel with a "figure 8 descender." They each practiced belaying and rappelling at least one time. Then the group was divided in half. It was explained that there was only sufficient safety equipment for five people to go at a time. The others would have an opportunity to join Dr. Newton for a trip to his mountain property for the day of the rappel and would then rappel during the second quarter of the course. This division was needed to create a control group with which to compare the rappeler's performance. The

abrupt manner in which this group of friends was split apart is believed to have had deleterious effects on the outcome of this study. These will be discussed in greater detail later.

The actual rappel was conducted the Saturday following training at a 100+-foot, quarried cliff in a state park next to one of the TVA dams in the area. Two instructors were present, and helmets and slings borrowed from a canoeing and hiking club were provided for all five participants. Everyone successfully completed the exercise.

CHAPTER III

RESULTS

This project had three goals: (a) investigation of the usefulness of three Humanistic terms, namely, "self-disclosure," "congruence," and "empathy," (b) development of a naturalistic observational method for examining small group functioning, and (c) investigation of the effects of rappeling on personal confidence. The study generated some data relevant to each of these three spheres of investigation. These will each be discussed in separate sections of this chapter. First, findings relevant to the clinical terms under investigation will be presented. Then material relating to the method developed for this project will be discussed. Finally, there will be a brief discussion of observations relevant to the hypothesis that initiated this study, namely, that rappeling is an effective exercise for promoting change in small group members' interpersonal behavior.

Findings Related to "Self-Disclosure," "Congruence," and "Empathy"

The data collected in this investigation are presented in Figure 1. These data indicate that only "self-disclosure" (SD) was a clearly useful term for the recognizers. They agreed only on episodes which they labeled with this term. The method was effective in demonstrating that these four people could agree a significant portion of the time on instances they each labeled "self-disclosure." This indicates a shared conception of what "self-disclosure" means. They responded to the

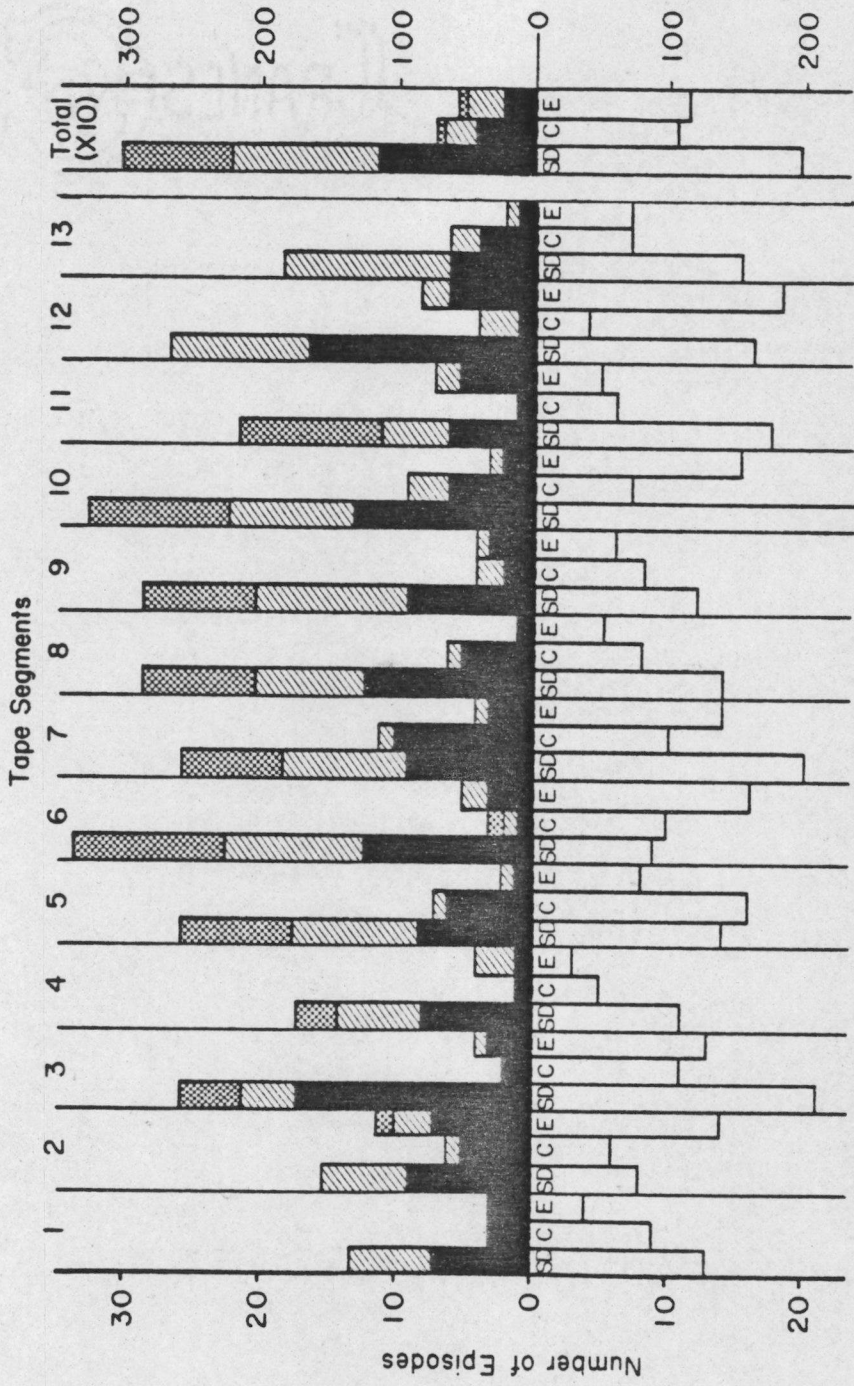


Figure 1. Relative Numbers of Agreements Achieved for "Self-Disclosure" (SD), "Congruence" (C), and "Empathy" (E)

Agreed on by 2 (solid black), 3 (diagonal lines), all 4 recognizers (cross-hatched), spotted by only 1 recognizer (white)

videotaped material consistently, as though episodes containing "self-disclosure" behaviors were meaningful stimuli, i.e., episodes of the "self-disclosure" type produced a consistent response, labeling by the recognizers. Results for "congruence" (C) and "empathy" (E) remain ambiguous. The recognizers were unable to agree on episodes of "congruence," and "empathy." Their labeling did not overlap for a sufficiently high percentage of the episodes to conclude that they were recognizing the same signal.

During the data collection period for "self-disclosure" (Table 1, segments 4-11), at least two raters agreed that an episode was "self-disclosure" for greater than 50% of the episodes spotted. The mean "Effective Percent Agreement" (Hartman, 1977) was 63.5% ($SD = 7\%$) for these eight videotape segments that all three recognizers and the experimenter rated. This frequency of agreement is significant at the .01 level ($p = .0082$) as calculated with the number of upward and downward movements test (Wallis, 1952).

The "Effective Percent Agreement" measure of interrater reliability was used because only instances of positive agreement--those episodes that two or more recognizers labeled as instances of "self-disclosure," "congruence," or "empathy"--were measurable in this study. Measurements of relative frequency or duration were not material to the intent of this part of the investigation, which was primarily directed at establishing the gross recognizability and useability of these three humanistic terms. Instances in which there was agreement that none of the target behaviors were present were not identified and not calculable by this method (Repp et al., 1976).

Table 1

Tape Segments of Stages II and III--Description and "Effective Percent Agreement" (Hartman, 1977) for Recognizers"
Ratings of the Three Variables

Tape segment description	Starting point	Length*	% SD C E		
			SD	C	E
1 Community-based intensive small group experience (This tape was viewed together for initial training.)	#150	#150-750	50	25	43
2 Encounter group (Moore, 1976) Session VI, tape #2	#50	#50-550	65	50	41
3 Human Relations group Postrappel (3-31-77) (Revised setup procedure) (Appendix B) (Begins Stage III "Data Collection" for SD)	#600	#0-370	54	15	23
4 Human Relations group Prerappel I	#394	#0-350	61	17	23
5 Human Relations group Prerappel II	#150	#0-400	64	30	20
6 Human Relations group Postrappel I	#766	#0-200	78	30	24
7 Human Relations group Postrappel II	#386	#0-200	56	52	22
8 Human Relations group Prerappel I	#722	#0-200	67	43	17
9 Human Relations group Prerappel I (No further discussion of C and E after rating tape)	#876	#0-200	70	33	40
10 Human Relations group Prerappel II	#150	#0-400	57	56	17
11 Human Relations group Postrappel I	#138	#0-350	55	14	58
12 Encounter group (Moore, 1976) (Same as #2) Session VI, tape #2	#50	#50-550	62	50	31
13 Human Relations group (Same as #7) Postrappel II (One recognizer missed #12 and #13.)	#386	#0-200	54	46	22
Mean values "Effective Percent Agreement"			61	36	32
Standard deviation			(7.5)	(14)	(14)

Table 1, continued

*Measured in tape counter numbers which proved to be extremely variable and inaccurate, leading to the change in setup procedure with tape segment #3.

Note. SD = "Self-Disclosure"
C = "Congruence"
E = "Empathy"

More refined statistical procedures were neither indicated nor possible using the present method of data collection. The large effect found for agreement on "self-disclosure" is visible without subtle analysis (Figure 1). According to Baer (1977), this is the major goal of Naturalistic observation--to find what actually occurs in a natural setting. Subtle statistical tools that tease out small effects can confuse issues by making findings complex. It then becomes more difficult to tell what really has occurred. The bar graphs of Figure 1 clearly portray the high level of agreement established for "self-disclosure." The number of agreements on nonoccurrence of target behaviors would add to these figures but could not be calculated since no time segmenting technique was used on these VTR data. If these agreements were identified, they would most likely increase the total level of agreement on "self-disclosure." Segmenting is a requirement for using most of the more sophisticated statistical analyses of inter-rater agreement in naturalistic observation studies (Yelton et al., 1977; Repp et al., 1976). However segmenting was judged to decrease the flexibility of the observational method and adversely affect the degree of "naturalness" for the observers. These considerations suggested that segmenting be omitted in this study.

It is not quite as clear that the low levels of agreement for "congruence" and especially for "empathy" nearly reach statistical significance ($p = .1151$ and $.0359$, respectively). The lack of agreement on episodes of "congruence" (C) and "empathy" (E) among the recognizers most likely did not occur by chance. This suggests that there were influences in the constellation of circumstances surrounding this

investigation that systematically prevented the recognizers from agreeing on episodes of "congruence" and "empathy."

Findings Related to Rappeling

An informal questionnaire and an essay-type evaluation form (see Appendix C) were administered immediately following the day's outing to both those who rappelled and those who went on the day hike. The participants' responses to that questionnaire are presented in Table 2. These instruments were designed to provide some assessment of the immediate effect of the exercises. Two of the 35 (5-point scale) items differentiated the rappellers from the nonrappeling group at the $p < .10$ level of statistical significance using the Fisher Exact Probabilities Test (Siegel, 1956) for those who agreed versus those who disagreed with the items on the questionnaire. The statistically significant items indicate that the rappeling group saw the experience as likely to have a "positive influence on my future encounters with adversity" (item 8, Table 2) and were "surprised at how easy it was" (item 19, Table 2). A rank ordering of items by the degree to which they differentiated the two groups is presented at the back of Appendix C.

Informal content analysis of the essay evaluation form suggests that the rappellers gained a stronger sense of self-confidence, put more tension, worry, or fear into the experience, and emphasized more personal challenge-type reasons for choosing to participate. On the other hand, the day hiking group emphasized a stronger sense of community with other group members and a refreshing sense of renewal and tranquility as the significant rewards of their experience. They were also more emphatic

Table 2
Results of the Postrappeling Questionnaire

Item #	Rappelers			Nonrappelers			Difference $p =$
	SA+A	N	D+SD	SA+A	N	D+SD	
1	2	2	1	0	2	1	.50
2	3	2	0	1	1	1	.40
3	3	2	0	0	3	0	1.0
4	5	0	0	3	0	0	1.0
5	3	0	2	0	1	2	.28
6	3	1	1	0	2	1	.40
7	2	1	2	1	0	2	.63
8	3	2	0	0	1	2	.10*
9	3	0	2	0	0	3	.18
10	3	1	1	2	0	1	.71
11	4	1	0	3	0	0	1.0
12	5	0	0	1	1	1	.28
13	4	1	0	1	0	2	.14
14	1	0	4	0	1	2	.71
15	5	0	0	3	0	0	1.0
16	5	0	0	2	0	1	.38
17	4	1	0	1	1	1	.33
18	1	0	4	0	1	2	.71
19	3	2	0	0	1	2	.10*
20	0	2	3	0	0	3	1.0
21	0	0	5	0	0	3	1.0
22	4	1	0	1	2	0	1.0
23	2	3	0	0	2	1	.33
24	5	0	0	1	2	0	1.0
25	1	1	3	0	1	2	.67
26	0	0	5	0	1	2	1.0
27	0	0	5	2	0	1	.11
28	1	3	1	0	1	2	.50
29	3	0	2	2	0	1	.71
30	1	0	4	0	0	3	.62
31	3	2	0	0	3	0	1.0
32	5	0	0	1	2	0	1.0
33	0	2	3	0	0	3	1.0
34	5	0	0	3	0	0	1.0
35	0	1	4	0	0	3	1.0

Note. Five members of the rappeling subgroup and three of the nonrappeling subgroup completed the items; $N = 8$. See Appendix C for complete item descriptions.

*Statistically significant difference at the $p = .10$ level.

in suggesting the group be kept together in future exercises of this type. With only eight people completing these measures, one of these findings can be considered conclusive. However, they do suggest that the two halves of the group evaluated their respective exercises somewhat differently immediately (within 3 days) after the experience. What became of this difference 4 weeks following the exercise is difficult to determine. There clearly was no difference on the measure of "self-disclosure" (SD) used.

CHAPTER IV

DISCUSSION

Self-Disclosure

The results of this study indicate that at least one of the three Humanistic terms selected for study is usable by naive undergraduates. From behavioral data (the examples), the recognizers were able to develop a common understanding of a consistent constellation of behaviors characterized as "self-disclosure." The recognizers used the term to label events with sufficiently high agreement that substantial confidence can be placed in the assumption that they possess a common understanding of the term. Little can be said about the precise nature of their understanding or of its similarity to that of the identifiers in Stage I, since no retrospective examination was conducted. The "self-disclosure" they recognized possibly bears but limited resemblance to the more detailed, clinically specified understanding of that term that the identifiers' advanced psychological training enable them to generate. But it may bear greater resemblance to a common understanding of "self-disclosure" entertained by people who hear the term for the first time or to the ways in which "self-disclosure" is used in common language "word games."

The results of this study demonstrate that for both the psychologically trained and for the relatively naive observer "self-disclosure" has definite behavioral referents. It is a term used to describe discrete behaviors that others can agree are instances of "self-disclosure."

Consensual validity was demonstrated for "self-disclosure." Different individuals saw and labeled the same set of behaviors as "self-disclosure" independently. That cannot be said of "congruence" and "empathy."

Congruence and Empathy

The systematically low levels of agreement on episodes of "congruence" and "empathy" may be due to several different factors. One explanation for the low levels of agreement comes from the literature on behavioral observation technology. It may well be that "congruence" and "empathy" simply occurred too infrequently in the specific Human Relations class examined for them to be observed reliably. It is notoriously difficult to establish sufficiently high inter-rater reliabilities for low frequency behaviors (Johnson & Bolstad, 1973). Such low frequency behaviors are not normally distributed but rather follow a Poisson distribution for which adequate statistical treatments have not been developed.

It is clear that "congruence" and "empathy" were low frequency events. Taking the experimenter's observations of the target tape segments as a standard of measurement, the mean frequency of episodes of "empathy" for the eight segments of the data collection phase was 4.8/segment ($SD = 2.2$); and for "congruence," 4.0/segment ($SD = 1.9$). This is substantially lower than the mean frequency of "self-disclosure" episodes 19.75/segment ($SD = 3.4$). This large difference between the frequency of observed "self-disclosure" episodes and those of "congruence" and "empathy" can account for the low agreement level on observations of these variables. With so few trials available to the recognizers, it is

not surprising that they failed to establish a consistent understanding of what constituted an episode of "congruence" or of "empathy." Recognizing is a skill requiring learning for acquisition. With the limited number of practice trials available, it is less likely that this new skill could be mastered. Even on the training videotape segments (#1 and #2 in Figure 1, page 18), which were of a different group's sessions, there was a large discrepancy in the frequencies of "self-disclosure" when compared to "congruence" and "empathy." With the transfer to the target group (segment #3), that discrepancy increased and corresponding levels of agreement decreased. The high level of "self-disclosure" versus "congruence" and "empathy" seems to be characteristic of the interactions in this particular section of the beginning Human Relations class studied.

Another explanation for the significantly low agreement established for "congruence" and "empathy" can be developed from the terminology of signal detectability theory (Luce, 1963). Either the signal was not sufficiently strong to stand out against the background behavior (noise) or the receiver (the recognizers in this case) was not sufficiently sensitive to the signal to detect it with adequate regularity. Either the episodes of "congruence" and "empathy" that existed were ambiguous, i.e., they were not characterized by a clearly consistent constellation of behaviors on the videotape recordings, or the recognizers' understandings of what constituted "congruence" and "empathy" varied to such a large degree that their labeling systems (detection apparatus) did not overlap (Galanter, 1962). Some evidence that supports the first half of this explanation is available from the difficulty the identifiers encountered

during Stage I in finding paradigm examples of "empathy" and in even agreeing on what constituted an episode of "congruence." Only one of the examples of "empathy" used in the training tape had been labeled independently by all three identifiers. The other 10 examples were agreed on in review sessions. None of the 10 examples of "congruence" that were used for training had been labeled independently by all identifiers, and one was picked up initially by only one person (and later agreed to as a paradigm example by the other identifiers). Another variable, "Unconditional Positive Regard," initially planned for study was dropped during the early portions of Stage I, when none of the identifiers could label episodes as being characteristic of this term. These problems did not arise for "self-disclosure," for which all 12 paradigm examples were labeled independently by each of the identifiers.

Another explanation of the lack of agreement on episodes of "congruence" and "empathy" might be that these two terms label concepts of an introspective nature that have little basis in those aspects of interpersonal behavior visible on videotape (Willems, 1977). They may be more internally or phenomenologically oriented conceptualizations that psychologists have developed primarily from observations of their own experiencing. As such, "congruence" and "empathy" may not have any clearly observable features in the behavior of individuals interacting in a group setting. They may be terms applied exclusively to changes that "empathetic" and "congruent" individuals detect in their internal makeup. This explanation is supported subjectively for "congruence" by the difficulties that were encountered early in Stage I by the identifiers when they had trouble agreeing on instances of this term. A semiarbitrary

definition was finally established for "congruence" as a guide for finding examples (Appendix A). Even with this "definition," agreement was not often possible.

The results for "congruence" and "empathy" suggest that the recognizers were unable to identify a specific behavioral referent for these two terms. "Congruence" and "empathy" were not clearly based in the behaviors of this group's members as observed on videotape by these recognizers. They may be terms that are either too specialized, too vague, too rare, too abstract, or too infrequent, etc. It is clear that for some reason, as yet unknown, "congruence" and "empathy" were not useful to the recognizers as descriptors of what they saw in this Human Relations group's interactions.

The method developed for this study provided data to say these two things unequivocally: "Self-disclosure" was a useful descriptor of some events observed in this investigation, and "congruence" and "empathy" were not. The fact that "self-disclosure" is in and of itself (i.e., with a minimum of verbal intervention) a useful term in common language usage is a significant finding. This is the first step in determining what behaviors a term is actually used to label. Finding out that it, indeed, can be used by common language users provides added assurance that further study of this term will have meaning for common experience and is not exclusively an artifact of obsessive clinical nitpicking.

Precisely what the recognizers saw as "self-disclosure" remains unclear, but that is beyond the scope of this investigation. A more detailed analytic attack is needed to decipher the precise stimuli to which the recognizers responded. Ash et al. (1975) technique of

isolating discrete behavioral tesserae with stop action videotape recording methods may be applicable to this problem--the next step in determining the precise nature of "self-disclosure" in naturally occurring common language units.

The primary objective in this study was to determine whether naive observers could recognize something in behavior and develop a common understanding of it through the information contained in examples and the activity of observing it, exclusive of intervening written definitions. This study provides a demonstration that the behavioral constellations contained in examples can provide sufficient information to enable (at least these) three novice observers to agree on a meaning for "self-disclosure." "Self-disclosure" is a sufficiently powerful behavioral unit that it can act as a stimulus and produce a reliably measured response. The recognizers could "see it." That is, they could agree in recognizing instances of the class "self-disclosure." Inter-rater agreement indicates that they did so with reliable consistency.

Further work needs to be done to clarify the situation for "congruence" and "empathy." Perhaps these two terms are theoretical constructs that have no directly observable behavior correlates or terms that professional psychologists use in their own "word games" to talk about something only specialized training enables one to see. The amount of discussion of empathy (Rogers, 1975; Thomas, 1974; Dymond, 1949; Cottrell & Dymond, 1949), research into behavioral components of it (Cartwright & Lerner, 1963; Haase & Tepper, 1972; McMullan, 1975), and especially the specific training programs that have been developed to promote empathy (Egan, 1975; Truax & Carkhuff, 1967) strongly suggest

that there are discrete behaviors associated with empathy; that empathy is not an ethereal, hypothetical construct. It may, however, be a term that labels behavior rarely seen in common experience, that many people have not yet learned to recognize or to perform. Or, it may be easily recognized in group interactions where it occurs with greater frequency. For unknown reasons, "empathy" did not take place in the sessions of this group that were examined. Some of the possible reasons for the absence of "empathy" in these sessions were discussed earlier. Other possible explanations must be considered as well. The videotaping may have intruded on the intimacy of the group. The participants may have been unskilled in this type of behavior, since this was a beginning class in Human Relations. The rappel experience may have produced a decrement in empathy, or the way in which it was conducted may have produced an angry response in the participants that inhibited their empathic skills (see discussion of rappelling that follows). For whatever reason (or reasons), "empathy" was not detected with sufficient reliability or frequency to make conclusive statements about its character as a stimulus for observers of behavior.

Similarly, for "congruence," little can be concluded from this study's results about its basis in behavior or its potential as a stimulus in naturalistic observations of behavior. However, with the observations reported earlier about the difficulties encountered in defining "congruence" in Stage I and since little research has been devoted to it, this term is, of the three, the most likely to be based primarily on theoretical considerations and not on observed behavior. Further study is needed here to determine whether or not this is the case.

Rappeling

Little information was derived from this investigation relative to the effects on individuals in a Human Relations group of the exercise in rappeling. The only reliable measure, "self-disclosure" (SD), showed no change for the group members who rappeled. The only change evident was opposite to that predicted. Among the nonrappeling group members, one person demonstrated a change in instances of "self-disclosure." She showed an increase in "self-disclosure" on the three segments of the postrappel group session that were examined.

These findings are contrary to prediction but cannot be interpreted as suggesting that rappeling had no effect or a reverse effect. Complications and difficulties in conducting the exercise already mentioned and the questionable utility of "self-disclosure" (SD) as a measure of effectiveness provide more felicitous explanations for these negative findings. More carefully designed and executed research is needed to determine whether rappeling does affect the interpersonal performance of individuals in groups over time.

The rappel did seem to have some immediate effect in differentiating the two halves of the group, as indicated by their responses to the questionnaire items. The nature of the questionnaire, especially its undemonstrated reliability and questionable validity, makes this a necessarily tenuous assumption. However, assuming, for the moment, that rappeling had an effect on the individuals who did it and they were more confident and outgoing immediately following the rappel, what could have happened to that change in the time period prior to the next group session that was examined?

In an effort to understand the apparent decrease in enthusiasm of the rappellers over time, the cofacilitators were asked to evaluate their group's process over the quarter. The separate informal written evaluations of the group's process that they produced both mention that anger was expressed during the first session postrappel by several of the group members at being split up for the outdoor phase of their experience. Both cofacilitators also mentioned that there seemed to be a "plateau" or period of "being stuck" following the outing. Neither identified a clear cause for these several group sessions in which they saw little meaningful sharing among the members. The male cofacilitator seemed to attribute it mostly to either the presence of the VTR cameras or certain members' holding back earlier criticisms of the group's proceedings, which "finally surfaced."

In the context of discussing his pleasure for the absence of "any divisiveness in the group in the sense of clique or subgroup formation," he specifically stated that "the division into two groups for rappeling/day tripping did not seem to cause any excessive feelings of being set apart." The female cofacilitator also mentioned the group's angry discussion immediately after the rappel but attributed the limited "sharing" during the remaining session of that study quarter and the early sessions of the next quarter to either the quarter break or the later discussion of a specific early incident over which someone had remained angry at her.

Since both cofacilitators were well acquainted with the experimenter, though not with the true purpose of the study, these evaluations may be biased to avoid implication of him as in any way contributing to this

period of minimal interaction. The fact that this period approximately coincides with the sessions of actual videotape recording (VTR) suggests even though dummy VTR setup procedures were carried out for the remaining sessions of the Human Relations course the fact that VTR was not instituted from the beginning of the group as an integral part of the course may have contributed to a "period of adjustment" during which a "plateau" in sharing became evident. This may have contributed to lower frequencies of (C) and (E), though one might expect (SD) would be affected as well.

It is the author's opinion that the abrupt manner in which the group was divided had the greatest impact in creating this "plateau" period when little interaction took place. It did not really matter what activity was involved. The two halves of the group could have simply gone to different rooms for a day, and, I believe, the same result would have occurred. It is my clinical impression that anger at being told what to do, without being consulted, was the underlying factor that contributed to decreased interaction in the group. In future research efforts of this type, it will be necessary to obtain full informed cooperation from the group for each intervention made. I believe that only a consensually agreed upon procedure, supported by each member of the group, can effectively alleviate this type of backlash reaction. Any time an ongoing group is divided, its structure is threatened. Only the shared commitment and determination of the individuals involved will prevent a substantial period of readjustment from disrupting the productive flow of the intensive small group experience.

The Method

The method developed for this study was demonstrated to be an effective and relatively unobtrusive tool for gathering behavioral data through videotape recordings (VTR). It has a number of qualities that make it attractive for the careful description of behavior needed to develop a taxonomic foundation for better understanding of small group functioning.

1. It is flexible in that different terms or concepts can be examined. Each can be more firmly identified with the specific behaviors that characterize it. The only specific requirement for use of the method is that paradigm cases be located, i.e., that experts be able to identify episodes in which they concur that the specific something being studied clearly happens.

2. It is unobtrusive and flexible, requiring little manipulation of the behavior of observers or those observed. By using VTR, observers have additional freedom to move back and forth during a segment for closer examination, and data can be stored and reanalyzed for different behaviors or by other recognizers. Scheduling work sessions can be more flexible as well. The direct feedback qualities of VTR have already been found useful for a number of pedagogic applications (Schmitz, 1974; Haight, 1976; Maxwell, 1973; Moore, 1976; Rague, 1973; Swan, 1973). However, few investigators have as yet used this tool in conducting behavioral research (Haase & Teppen, 1972; Ash et al., 1975; Stambaugh, 1975).

3. The method is useful in characterizing groups. Differences between groups can be clarified when frequency counts are compared. For

example, in the segments from two different groups examined, the rates of agreed upon episodes of "self-disclosure" (SD) varied substantially (seg. 12, 1.06 episodes/minute versus seg. 13, 1.46 episodes/minute for the target group). The leaders had altogether different styles of self-disclosing as well, with much greater proportions of activity for the target group's cofacilitators (seg. 12, 4/26 versus seg. 13, 6/18 episodes of self-disclosure engaged in by the leaders). Similarities between various groups' processes may also become clearer. Sequential patterns in group process could be studied using this method and be more completely described.

4. The purely descriptive quality of the data makes interpretation straightforward. Data can be assumed to directly reflect what actually occurs in the natural setting observed. Generalizability of findings may be easier since understanding is simplified when the data source is clearer.

One important drawback on the method is that individual characteristics of the recognizers seem to affect the data. These response characteristics may be controlled through more carefully designed research methods (Kazdin, 1977). The problems of creating behavioral segments can be overcome as well. A simple method for dividing the VTR into observational units can be accomplished by electronically superimposing a digital clock signal to the TV image through the "special effects generator." This addition is also likely to improve reliability by making tape segment identification easier and more accurate. Such a real time image would enable future experimenters to use more sophisticated statistical procedures. Use of these more sensitive statistical procedures represents

a double-edged sword, since they may make interpretation more difficult by increasing the "sensitivity" of agreement estimations beyond "common sense" levels of understanding. These issues will be discussed further in the chapter.

Course Behavioral Analysis and the Ecological Perspective

This study has also demonstrated the usefulness of course analyses of behavior. The largely unrefined character of the investigation provides certain advantages in assisting interpretation of the results and in indicating which aspects of these activities are generalizable. As Dr. Baer suggests (1977), in order for experimental data to be useful, it must characterize what really occurs in natural environments.

The effect found here of "self-disclosure," being recognized, in contrast to the other two variables examined is a pronounced finding. The fact that episodes of "self-disclosure" could be reliably counted and agreed upon when "congruence" and "empathy" could not strongly suggests that it is different in significant dimensions from the other terms. Since behavioral observation is the technique used here, it is likely that some behavioral dimension is being characterized by this difference. Perhaps it is a nonsubtle dimension, such as frequency, duration, or amplitude, that has little obvious significance to the individuals involved in the interaction, but the fact that it stands out to four recognizers, three of whom are peers of the participants, suggests that it is likely to be influential toward other people in the situation as well, though they don't articulate it. Such a dramatic difference most likely has an effect, though perhaps presently unmeasurable.

Ecological theory suggests that changes in an individual's environment will produce reactive changes in him/her, since (s)he is an integral part of that environment. Consequently, a person in an environment where "self-disclosure" is easily recognized and "empathy" and "congruence" are not is likely to be different in some substantial ways from when (s)he is in an environment where "self-disclosure," "empathy," and "congruence" all can be recognized. A method which can characterize these different situations in a manner that can reasonably well assure that the participants are able to detect the differences as well can be a useful tool in investigating the different personal reactions two situations might be producing.

This type of ecological contrast research design is what was attempted with the original intention of this study, namely, to investigate the effects on individuals of the stress/challenge experience of rappelling. By radically altering the behavioral ecology of the individuals in the group, i.e., putting them in a foreign environment on the side of a cliff engaged in unusual activities like hanging by a rope, radical personal adjustments were expected to be required of the individuals. These were anticipated to be likely to produce lasting personal alterations that would in turn change their continuing environment in noticeable ways. The demonstrated fact that personal changes were not found using our measures does not rule out the possibility that changes did take place. As mentioned previously, other experimental interventions, such as splitting the group, initiating VTR after group formation, or the accidental placement of both cofacilitators in the day trip group, may have influenced the behavioral ecology in a sufficiently

strong manner to cancel out a noticeable effect. Another explanation of the negative results lies in the questionable appropriateness of the measures used. Many assumptions were made in choosing "self-disclosure," "congruence," and "empathy," any one of which may have been in error. These measures may not have been sensitive to the type of personality adjustment that could have resulted from rappelling. Many types of change in the group are possible and the coarse measures used could easily have missed those that occurred.

In investigating behavioral ecological adjustments in this manner, there are clearly too many unknown variables and insufficient methodologic flexibility to adjust to them at this time. Perhaps the flexible method initiated here, that relies only on VTR data, naturalistic observation, and discussion to define potential target variables, will begin to fill this gap and advance the possibility of doing psychological research that maintains the richness of an ecological perspective, while providing measurement methods that are sufficiently precise to reach reliable conclusions.

Suggested Improvements for Future Use of the Method

The Naturalistic Observation method developed by this study was shown to provide clear, empirical data regarding "self-disclosure," as it was operationally defined by paradigm cases and the recognizers' interactions. In order to maintain the nonintrusive quality of the observational process in this study, a choice was made to bypass a standard practice in behavioral observation that requires observations be made in discrete time samples. It was thought that division of the VTR segments

viewed into small units would distract the recognizers from their natural mode of viewing audiovisual material. This invasion of their customary behavior was seen as likely to produce unnecessary systematic distortions of unknown direction that would detract from direct interpretation of the results. Consequently, the choice was made to sacrifice substantial statistical power in analyzing the results in favor of naturalness in the observing behavior of the recognizers.

In retrospect, this sacrifice need never have been made. Relatively minor, but costly, technological additions to the VTR recording/playback apparatus used could have provided the necessary segmentation while maintaining a natural viewing situation with the flexibility of pause and reviewing options for observers.

There are two options available for providing discrete units of observation; one an elaboration of the other. First, there is the relatively simple option suggested earlier of adding a digital readout time signal to the special effects generator so that a "real" time image appears on the screen with the audiovideo material being viewed. This number can then be used to label the beginning and the end of identified episodes, and by using predetermined intervals of that time (an interval measure), observational segments can be identified in which recognizers' agreements can be more precisely established.

Further simplification of the recording procedure, which would facilitate naturalness as well as increase accuracy, can be accomplished through addition of another technological refinement. A second recording channel in synchrony with the VTR material could provide a locus for electronic or punched tape recordings from a push-button signaling

device. This would free recognizers from the distracting task of writing their responses on data sheets. An improvement like this would provide the additional advantage of removing a recognizer's record of prior observation from his visual field making it less likely to influence his observational judgments. With this type of methodological refinement, the observers' situation more closely approximates common TV viewing with which most observers are quite familiar. This substantially reduces the possibility of systematic distortions due to imbalances in the observers' common behavior. Future studies might profitably be devoted to determining the effects of changes in the experimental use of this method. Knowledge of these effects would assist in determining the circumstances under which the method provides accurate results.

Future studies using the method developed here should attend more closely to Stage I and collect a larger number of paradigmatic examples. Recognizer training, Stage II, can then proceed longer with known material if target behaviors prove difficult for the recognizers to characterize and if agreement remains low, as it did for "congruence" and "empathy." With this precaution in effect, there will be less reliance on the characteristics of the material to be examined and greater assurance of generalizability of the results. In the present study, little can be said about the likelihood of the recognizers being able to identify any interactional behavior other than "self-disclosure" in other groups. They had insufficient training in recognizing "congruence" and "empathy" to demonstrate their reliability as behavior measurers. If collection of examples proves to be difficult, that might well be evidence enough of a term's limited utility, and some other behavioral constellation may

more profitably be selected for study.

In future studies using VTR data collection methods with small groups, it is important to institute recording procedures from the beginning of the intensive small group experience. The possibility of contaminating the intimacy of this type of interaction by the additional intrusion of a camera lens in the participant's phenomenal field is higher when instituted after the initial session of a group. The experiences of a "plateau" or period of decreased participant involvement reported by the facilitators of the Human Relations class strongly supports this conclusion. The possibility of a reaction variable cannot be overlooked and may have contributed to the lack of results for rappelling found in this investigation. To further insure low intrusiveness of the entire method, recording should be started with the first session. Just because participants agree to be recorded does not guarantee that they will not react adversely to a camera's presence even when they seem to ignore it. It is precisely this type of change in the psychological ecology of studies resulting in unpredictable influences that can adversely affect the group adjustments one is working to measure in psychological research.

Summary

An unobtrusive, flexible observational method was developed for assessing the recognizability of three clinical concepts on videotape recordings (VTR) of small group interactions. "Self-disclosure," "congruence," and "empathy" were the concepts selected for study. The method was applied to one Human Relations group's sessions before and

4 weeks after a stress/challenge exercise involving rappeling in an attempt to evaluate the effectiveness of that experience in promoting increases in these interpersonal relationship behaviors involved in intensive small group experience.

The method was shown to be effective in reliably identifying the "self-disclosure" behaviors of members in the group observed. The other two clinical concepts were not recognized consistently enough to reach definite conclusions about them. Recognizers failed to reach an adequate level of interrater agreement for episodes of "congruence" and "empathy." They occurred at too low a frequency to be reliably identified in this group. This failure suggests that those two concepts are either not adequately manifest in the discrete behavior visible on videotape recordings or recognition of those behaviors requires additional training. Further exploration is needed to identify the behavioral correlates of these two concepts and to explore their usefulness to other people, e.g., trained clinicians, or other helping professionals who use these concepts in speaking about their work.

The rappel exercise seemed to be ineffective in promoting self-disclosure for participants in the exercise. In fact, a reverse effect was suggested by the data. This may be attributable to research administration errors resulting in participant anger and disappointment with the experience.

Use of the method with appropriate refinements for other types of exploration involving VTR material was discussed. Suggestions were made for further exploration and use of this simple but flexible research tool.

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APPENDIXES

APPENDIX A

SUMMARY OF DISCUSSION

TO: Ken Newton, Dave O'Brien

FROM: Tim Pollak

DATE: February 25, 1977

RE: Continuing Tape Analysis

Empathy--

is seen as a highly personal, spontaneous response to what another person has said, that indicates understanding and acceptance beyond the intellectual. It indicates a recognition and appreciation for the emotional components of the statement as well. Empathy often appears as a brief clarification and elaboration (re-description) of the feeling contained in the behavior, verbal or non-verbal of another person that encourages the first person to elaborate on it further. Allows others to go on.

Congruence--

is seen as a behavioral sequence when both the words being spoken and the position/movements of the speaker's body give the same message; when they coincide. This generally happens when a person is deeply involved in expressing something especially important to them; something (s)he wishes to make especially clear. Acting out feeling that is verbally expressed.

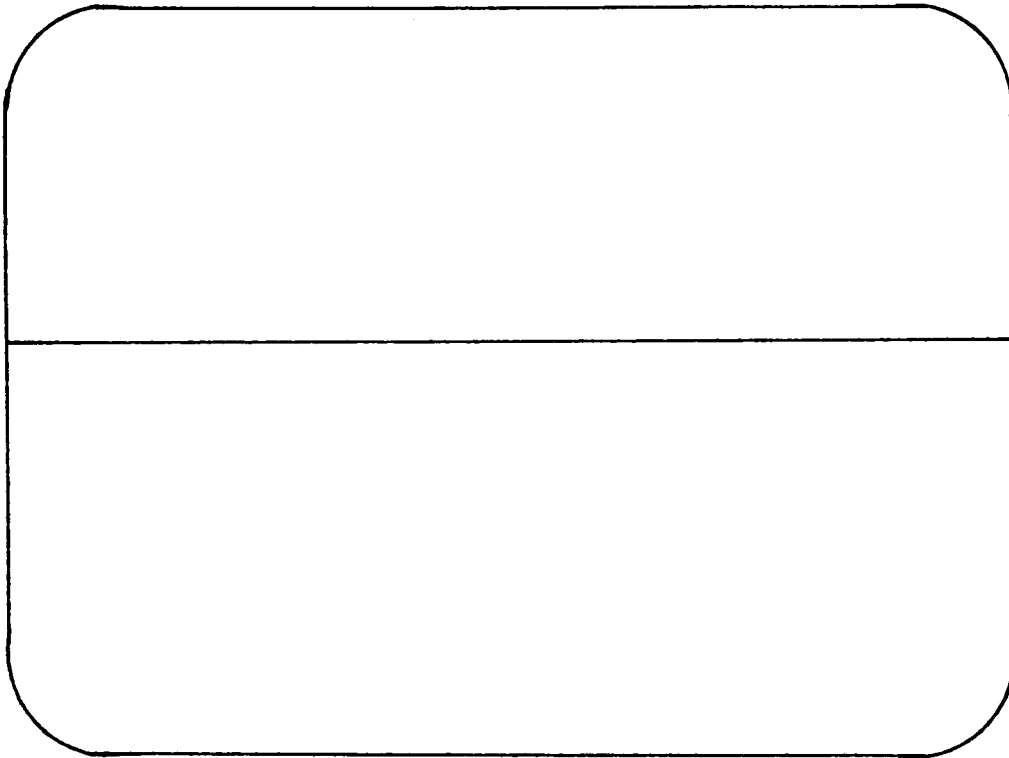
Self-Disclosure--

is seen when the speaker is seriously involved in expressing the situational and emotional content of a life situation. It is as though (s)he is saying, "I'm into this and need to talk about it." It is self-disclosure of the feelings and thoughts associated with a significant concern. Often, it begins with a "lead-in" statement and continues for a while with other group members listening intently. Involves risk, i.e., saying something that may not be accepted.

APPENDIX B

PROCEDURAL FORMS

Prescribed Set-Up Procedure



1. Thread the tape and when the red mark on the tape is aligned with the mark on the machine, set the counter to zero (000).
2. Run the tape fast forward to # _____.
3. Pause and place the numbers on the screen as shown in the diagram above.
4. Find the opening statement, " _____," and reset the counter to zero (000) at the beginning of this statement.
5. Start observing and proceed to # _____.

RECORDING SHEET

counter number	speaker/ receiver	rate t.o.-	Empathy
			Congruence
			Willingness to be known

Recognizer: _____

Date: _____

Tape #: _____

Segment: _____

APPENDIX C

ASSESSMENT DEVICES USED

Date: _____ I.D. # _____

Questionnaire

1. What did you get out of this experience?

2. What did you put into this experience?

3. Why did you choose to do this?

4. What difference has this experience made to you?

5. How can this experience be improved?

Date: _____

I.D. # _____

Questionnaire

Please respond to each statement in the following way:

- SA Draw a circle around SA if you strongly agree with the statement, if it is a very true picture of you.
- A Draw a circle around A if you agree with the statement, if it is mostly true of you.
- N Draw a circle around N if you have no opinion about the statement or if it is neither true nor untrue of you.
- D Draw a circle around D if you disagree with the statement or if it is usually untrue of yourself.
- SD Draw a circle around SD if you strongly disagree with the statement, if it is a very untrue picture of you.

Remember that the best answer is the one that most accurately applies to you.

- | | | | | | |
|--|----|---|---|---|----|
| 1. This experience strongly influenced the way I see myself. | SA | A | N | D | SD |
| 2. I could cope with more than I expected. | SA | A | N | D | SD |
| 3. In the future I think I will be able to handle problems better. | SA | A | N | D | SD |
| 4. I liked this experience | SA | A | N | D | SD |
| 5. This was all new to me. | SA | A | N | D | SD |
| 6. I didn't think I could do the things I did. | SA | A | N | D | SD |
| 7. I felt like a kid again. | SA | A | N | D | SD |
| 8. This experience is likely to have a strong positive influence on my future encounters with adversity. | SA | A | N | D | SD |
| 9. I was scared most of the time. | SA | A | N | D | SD |
| 10. At no time did I feel challenged to do anything I had doubts about. | SA | A | N | D | SD |
| 11. This experience helped me see new things about myself. | SA | A | N | D | SD |

12. It was hard but rewarding.	SA	A	N	D	SD
13. I was afraid at a few critical moments.	SA	A	N	D	SD
14. This was very much like a Boy Scout or Girl Scout outing.	SA	A	N	D	SD
15. I enjoyed the physical exertion involved in this experience.	SA	A	N	D	SD
16. I felt like I got to know the other members of the group more intimately.	SA	A	N	D	SD
17. I did some difficult things during this experience.	SA	A	N	D	SD
18. I was afraid at the beginning and now I wonder why.	SA	A	N	D	SD
19. I am surprised at how easy it was.	SA	A	N	D	SD
20. This was more dangerous than I thought.	SA	A	N	D	SD
21. I gained little from this experience.	SA	A	N	D	SD
22. The instructor directed the experience well.	SA	A	N	D	SD
23. Knowing that I could do the things that I did should help me overcome daily problems of living more swiftly.	SA	A	N	D	SD
24. Other members of the group surprised me by what they did.	SA	A	N	D	SD
25. I was not fully informed of the hardships of this experience.	SA	A	N	D	SD
26. The experience did not seem to add to my understanding of myself.	SA	A	N	D	SD
27. This was just an interesting field trip.	SA	A	N	D	SD
28. I felt rushed and poorly prepared for the experience.	SA	A	N	D	SD
29. I did my best.	SA	A	N	D	SD
30. I did not like this experience.	SA	A	N	D	SD
31. The training helped me feel confident enough to complete the experience.	SA	A	N	D	SD

- | | | | | | |
|---|----|---|---|---|----|
| 32. I trust the other people in the group more. | SA | A | N | D | SD |
| 33. There was not enough leadership provided. | SA | A | N | D | SD |
| 34. I am glad I have had this experience. | SA | A | N | D | SD |
| 35. I never want to do this again. | SA | A | N | D | SD |

Rank Order of Questionnaire Items by the Significance
of the Differences in Responses*

8. This experience is likely to have a strong positive influence on my future encounters with adversity.
19. I am surprised at how easy it was.
27. This was just an interesting field trip.
13. I was afraid at a few critical moments.
9. I was scared most of the time.
5. This was all new to me.
12. It was hard but rewarding.
17. I did some difficult things during this experience.
23. Knowing that I could do the things that I did should help me overcome daily problems of living more swiftly.
16. I felt like I got to know the other members of the group more intimately.
2. I could cope with more than I expected.
6. I didn't think I could do the things I did.
1. This experience strongly influenced the way I see myself.
28. I felt rushed and poorly prepared for the experience.
30. I did not like this experience.
7. I felt like a kid again.
25. I was not fully informed of the hardships of this experience.
10. At no time did I feel challenged to do anything I had doubts about.
14. This was very much like a Boy Scout or Girl Scout outing.
18. I was afraid at the beginning and now I wonder why.
29. I did my best.
3. In the future I think I will be able to handle problems better.

4. I liked this experience.
11. This experience helped me see new things about myself.
15. I enjoyed the physical exertion involved in this experience.
20. This was more dangerous than I thought.
21. I gained little from this experience.
22. The instructor directed the experience well.
24. Other members of the group surprised me by what they did.
26. The experience did not seem to add to my understanding of myself.
31. The training helped me feel confident enough to complete the experience.
32. I trust the other people in the group more.
33. There was not enough leadership provided.
34. I am glad I have had this experience.
35. I never want to do this again.

APPENDIX D

FORMS USED IN OBTAINING INFORMED CONSENT

Introduction

This course is just one section of a larger learning process as are all the projects in which you engage yourself. However, this one will differ in at least one major respect. Here your experiences and the changes you will develop in yourself will be included directly in the learning processes of your colleagues in the course. Not only will your fellow group members and leaders be learning from their interactions with you, but your own articulation of what is uniquely occurring in you will aid in further discovery for everyone.

The course itself is also under study to see what gains are actually achieved in a setting of this structure. Many students in the past have said that they learned a great deal here. We would like to quantify some of those changes to more clearly understand what occurs in interactions of the kind you will experience. So, we will ask you to complete some exercises near the beginning of the course and again near the end that are also part of this investigation. The exercises are both mental and physical and are designed to give you an opportunity to encounter some questions that may not have occurred to you before, as well as to provide data to evaluate later. We hope you find them interesting and welcome your questions and discussion about them.

Complete anonymity will, of course, be thoroughly maintained by coding everything with only your student identification number. The demographic information we request is only for research purposes and will only be used in this context. Confidentiality will be observed and your permission requested for any other use of the data. No one in the course will see any one else's data until the end. Then only the summarized results and conclusions will be made available.

Please check one of the spaces below and sign this sheet, to indicate that you have read and understood its contents and that all your questions have been satisfactorily answered.

_____ I am willing to participate in this study

_____ I am not willing to participate in the research on this course and understand that this will in no way affect my grade or credit in the course. I realize that I am still expected to complete all the exercises since these are part of the total class experience. The data they contain will be used only in class exercises and may not be used in conjunction with any other purpose.

Signed: _____

If you would like to hear about the results of this investigation, please so indicate by filling in your mailing address below.

Student Identification No.

Dear Participant,

There will be three different types of experiences available to you in your small groups during this course. We would like you to give us an indication of your degree of interest in each of these below. Your small group will meet weekly on Thursdays with additional meetings scheduled if and when desired. Two of the groups will be offered additional opportunities to participate in rigorous outdoor experiences together. One group will have a chance to receive training in the mountaineering skill of rappeling and an opportunity to rappel down a fifty-foot cliff. Another group will be offered a weekend backpacking trip in the Smokies that will involve a good deal of hiking and two nights camping out. There will be opportunities available to the other two groups for weekend retreats together at a secluded conference center in the mountains. None of these events are mandatory in any way. Participation in them is entirely voluntary. Refusing to participate will not affect your grade or credit for the course. They are simply opportunities provided for you to learn something new about yourself in interaction with others in a unique setting.

Please indicate which of these you will and will not do by writing in yes or no in the spaces provided. This is not a total commitment to one activity or the other; you are free to change your mind at any time. But, please give us an indication of which you will (yes) and will not (no) do.

_____ No extra activity
_____ Weekend retreat at conference center
_____ Weekend backpacking trip
_____ Cliff rappel experience

VITA

Ralph Timothy Pollak was born in Chicago, Illinois, on September 6, 1945. He attended elementary schools in Evanston, Illinois, and was graduated from Evanston Township High School in 1963. The following September he entered Antioch College, and in June 1968, he received a Bachelor of Arts degree in Secondary Education with Chemistry as subject area. He was classified as a Conscientious Objector by the Selective Service System and entered alternative military service at the University of Colorado Medical Center where he was employed as a Mental Health Assistant.

He entered the Graduate School at The University of Tennessee in September 1973 and received the Doctor of Philosophy degree with a major in Clinical Psychology in August of 1979, after completing a clinical internship at J. Hillis Miller Health Center, the Department of Clinical Psychology, Gainesville, Florida. He is an associate member of the American Psychological Association.