EMPATHY SKILLS: ATTAINMENT ON THE BASIS OF CERTAIN SUBJECT VARIABLES

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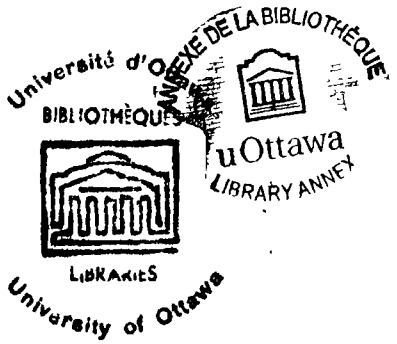

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CURRICULUM STUDIORUM

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ABSTRACT

The affective-feeling component related to empathy as a natural disposition of an individual and the cognitive-understanding dimension related to empathy as a learned interpersonal skill are separate but related dimensions of empathic functioning. The extent to which the learned empathic skill or "state" is influenced by the natural empathic disposition, or "trait," as well as additional components of the age of the trainee, the trainee's perception of the trainer, the age of the "client" used in a measure of verbal empathy, and the order of presentation of certain measures, present the problem investigated. It was hypothesized that discrimination between high and low attainment of state empathy was possible on the basis of the mentioned components. The study also considered the differences on the same components between trainees involved in six hours of training and those involved in 12 hours of training who attained either high or low state empathy functioning after training. Trait empathy was measured by scores on the Comrey Personality Subscale of Empathy vs. Egocentrism (P) and the perceived empathy level of the trainer was measured by scores on the RI - Client Form - Scale for Empathic Understanding for 62 professional women who were members of a religious congregation. Data obtained from tapes of the Helping Interview divided on the basis of state empathy level

and amount of training time was analyzed by two-group and four-group discriminant analyses. Significant discriminating patterns were found for Lo-Hi, Lo 6-Hi 6, and Lo 12-Hi 12 groups on the two-group analyses, with Lo 6-Hi 6 groups being the most easily differentiated and predicted in the four-group discriminant analysis. Findings were discussed with regard to issues involved and suggestions for further research were offered.

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INTRODUCTION

That it is necessary for the counselor or helper in a therapeutic relationship to offer empathy to the client or helpee in order for therapeutic change to occur is a statement that has received consistent support both clinically and through research. Most counselor training units include a program of training in empathic skills in order to increase the level of empathic functioning of the trainees. In literature, however, there exists a conceptual and operational lack of consensus regarding a definition of empathy. The specific roles of cognition and affect appear to be a major source of the ambiguity revolving around a consistent definition of the term. It must be noted, though, that cognition and affectivity are intricately related as developmental processes, cognition mediated by emotional factors, and affectivity mediated by cognitive processes. In this thesis, references to cognition and affectivity are meant as emphases of each.

Several authors (Buckheimer, 1963; Haier, 1974; Hogan, 1975) have suggested a distinction between empathy as a capacity or natural disposition of an individual, emphasizing an affective-feeling ability, and empathy as a trainable interpersonal interaction, emphasizing a cognitive-understanding skill. Such a distinction is analogous to the trait-state differentiation drawn by Spielberger et al. (1969) in

his discussion of anxiety. In the therapeutic or helping relationship, both dimensions of empathy, affective-feeling and cognitive-understanding, appear to be involved, but the extent to which the trait, or empathic disposition, affects the state, or learned skill, is an empirical question.

It is also recognized that attainment of state empathy, trainable through Carkhuff's (1971) systematic training program, possibly involves certain other components or variables, either characteristics of the trainees or components involved in the training process. The present study identifies some of these variables and seeks to investigate the use of them, in addition to trait empathy, in differentiating between trainees who attain low and high state empathy functioning after training. Specifically, this study investigates differences between the groups by attempting to delineate patterns within the groups according to their scores on the identified components. It further investigates the validity of the differentiation in this data by employing the results to classify individuals into group membership. These tasks, here briefly stated, constitute the core of this thesis.

The literature relevant to the study is presented in the first chapter. The first chapter also discusses the problems investigated in greater depth, and presents this study's hypotheses. The second chapter presents the experi-

mental design and specifically describes the experimental tools, the subject population, and the methods of data analysis. The results of the study are presented and discussed in the third chapter, along with suggestions for further research.

CHAPTER I

REVIEW OF THE LITERATURE

Literature relevant to this study is presented in this chapter. The first section of the chapter clarifies empathy as a concept involving both cognitive-understanding and affective-feeling components. Each of these components are examined separately with relation to empathy, and a number of key studies indicating support for each dimension is presented. Then, empathy is viewed in the helping relationship as a componential condition with both cognitive and affective dimensions. In section two, empathy is viewed as a trait, or natural disposition of a person, related to the affective-feeling dimension. Its development is investigated, and research evidence presented. Section three includes a discussion of empathy as a state or interpersonal skill related to the cognitive-understanding emphasis. That such a skill is facilitated by Carkhuff's (1971) systematic training program in empathic skills is presented and research studies cited. The empirical question of the relationship between trait and state empathy in an empathy training situation is raised. Section four in the first chapter is directed toward identifying other variables in addition to trait empathy which potentially discriminate between trainees who are successful in attaining facilitative levels of

functioning in state empathy after training and those who are not. Consideration is given to the duration of time spent in the training situation as an influential factor in the learning of empathy as a skill. Also included are discussions of the empathic functioning of the trainer during empathy training, measurement of such functioning, and supporting research evidence. The age of the trainer and two variables involved in the procedural aspect of measures of certain components are also included in this section. Section five concludes the chapter with a statement of the specific problems investigated by this study and experimental hypotheses.

1. Empathy as a Componential Condition.

In this section, cognitive-understanding and affective-feeling are first examined as separate dimensions of empathy, followed by a discussion of empathy as it has been emphasized cognitively, and then empathy as a more affective construct. Finally, empathy will be viewed as a componential process in the helping relationship.

Since the term eifuhlung was introduced by Theodore Lipps in 1897, two components of empathic skill, understanding and feeling, have been stressed by students of human behavior at different times and in different ways. The most frequent definition is cognitive--one understands how another feels;

the other definition is affective--one feels the same emotion as the other (Shantz, 1975).

That affectivity and cognition are separate dimensions in the empathic process is suggested by an illustrative study involving empathic ability with delinquent and non-delinquent boys, in which Rotenberg (1974) studies role-taking from two separate stances. The term "cognitive role-taking" for empathy was used to denote the intuitive ability to put oneself in the other's shoes and predict his responses or conduct in every interaction, without being involved with the other's feelings. The term "affective role-taking" was substituted for that "behavioral disposition to relieve the distress of others" as an indication of experiencing the other's emotion. Results showed that delinquent boys were slightly though not significantly lower ($p < .10$) than non-delinquent boys on cognitive role-taking. On affective role-taking, delinquent boys revealed significantly lower ($p < .05$) affective role-taking dispositions. Implications from such a study could indicate that the components of affectivity and cognition are separate elements to consider when defining empathic ability.

Understanding consists of perceptual and cognitive behaviors that combine to form "social understanding" (Keefe, 1976). Those who stress perception and cognition in defining empathy see objectivity, detachment, and

analytic knowledge of the other person's social roles as its critical dimensions. Some writers (Dymond, 1949; Hogan, 1967; Stryker, 1957; Wispe, 1968) refer to empathy as a cognitive ability to put oneself in the other's place, to identify or predict accurately responses, thoughts, or feelings, without actually experiencing that person's feeling or state of mind. On the operational-empirical level, these authors have tended to concentrate mostly on studying empathic dispositions as cognitive constructs used interchangeably with role-taking skill. With specific regard to the helping or counseling profession, emphasis on the cognitive component involved in understanding can be found in literature. Hinsie and Campbell (1964) define empathy as:

> an intellectual understanding of what is inherently foreign to our own ego in other people. Empathy is thus a form of identification; it may be called an intellectual identification in contrast to affective identification (p. 323).

Jessor and Richardson (1968), in enumerating skills that are required for competence in interpersonal relationships, assert:

> First the individual must be able to take the role of another accurately; he must be able to correctly predict the impact that various lines of action will have on the other's definitions of the situation. That is what is meant by empathy if we strip the concept of its affective overtones (p. 41).

A recent view of empathy has been provided by Wexler (1974) whose approach to empathy is based on a more cognitive approach to experiencing. The term "empathic responding" rather than empathy is used by Wexler to emphasize that

empathy consists of overt behaviors which are provided as responses to the client. The empathic response is:

> an attempt to organize and articulate the meaning of the information the client is processing. When it is optional, an empathic response is a structure or group of structures that more fully captures, and better organizes, the meaning of the information in the field that the client is processing than had the structure(s) the client had generated himself (p. 97).

According to Wexler, the therapist acts much like an organizer of information being processed by the client and in a sense is a "surrogate information-processor" for the client. By more accurately and optimally organizing the information processed by the client, the therapist in his responding facilitates more optimal modes of experiencing in the client. Such a view of empathy incorporates more the cognitive and overt responding dimensions.

Other authors (Krech & Crutchfield, 1958) conceive of empathy as implying a "suffering with" or experiencing someone's emotion without perceiving or knowing its origin, i.e., the affective level. This concept of empathy was primarily studied by developmentalists who defined it as a moral-affective variable often indistinguishable from sympathy (Aronfreed, 1968; Lenrow, 1965). Such an affective emphasis regarding a definition of empathy is exemplified by Greenson (1960), who states:

> to emphasize means to share, to experience the feelings of another person. This sharing of feeling is temporary. One partakes of the quality and not the degree of the feelings, the kind and not the quantity. It is primarily a preconscious phenomenon (p. 418).

And so, for Greenson, while the sharing of feeling is temporary and not of the same quantity, it is affective. Greenson does differentiate empathy from sympathy, however, pointing out the fact that sympathy contains the element of condolence, agreement, or pity. Identification, too, differs from empathy, since identification is viewed by Greenson as essentially unconscious and permanent.

To the extent that feelings are tied to physiological responses, there is empirical evidence that empathic skill does have an affective-feeling element. Gellen (1970) found significantly more vascular constriction, indicating greater physiological arousal, in counselors and counselor trainees than in college science majors when both groups were exposed to an empathy test consisting of slides and dramatic dialogue. Vanderpool and Barrat (1970) found evidence of greater physiological arousal on several measures during therapy interviews in psychiatric residents who had previously been rated high in empathy by other criteria. Although it is possible to understand another person without feeling with him, the above studies indicate that the capacity for emotional response, at least that which is

measured by physiological response, is observed in individuals who demonstrate higher levels of empathy.

Some writers, when attempting to define empathy in the counseling experience, or to describe the occurrence of empathy in the helping process, have recognized phases or component parts rather than a single concept. Empathy, then, is viewed as composed of both affective and cognitive dimensions. Feshbach (1973), proposing that an adequate understanding of empathy must take into account both cognitive and affective factors, suggests a three-component model of empathy involving cognitive and affective elements. The ability to discriminate both the perspective and the role of another person are considered the cognitive components. Emotional capacity and responsiveness constitute the third component and is considered an affective one. In terms of this schema, Feshbach necessitates the occurrence of all three components in order for the empathy response to take place.

Fox and Goldin (1964) also view empathy as a three phase process: (1) experiencing the client's feelings and temporary identification with them, (2) a critical scrutiny of these feelings; that is, a testing of the feeling against the reality of the counselor's knowledge of the client, and (3) communicating to the client the feelings as experienced. Similar phases are expressed by Kagan (1970) who described

empathy as (1) the perception of the client's feelings, (2) the interpretation to oneself what the client's feelings are, and (3) the communication of this interpretation back to the client. Keefe (1976) includes perceiving, feeling, thinking, and communicating as part of the empathic skill. Perceiving accurately the client's gestalt, allowing a direct feeling response to arise, holding qualifying or distorting cognitive processes in abeyance, separating his or her own feelings from those shared with the client, and transmitting his or her awareness of the client's state of being back to the client, are characterized by Keefe as part of the empathic process.

In all of the above descriptions of the empathic process, components of affective-feeling and cognitive-understanding are equally emphasized and seen as necessary. The initial phases concerned with the experiencing of the client's feelings imply an affective-feeling dimension. The remaining phases which Fox and Goldin, Kagan, and Keefe describe involve the utilization of cognitive-understanding factors.

Accurate empathy is defined by Carl Rogers (1957) as a twofold process. The first component is the counselor's capacity to sense or feel what the client is feeling. This seems to be a recognition of the affective aspect of empathy. The second component is the counselor's communication of this felt sensitivity to the client at a level that is attuned to

the client's current feeling state. Rogers defines empathy as:

> [a sense of] the client's private world as if it were your own, but without ever losing the "as if" quality--this is empathy ... to sense the client's anger, fear, confusion as if it were your own, yet without your own anger, fear, or confusion getting bound up in it. ... When the client's world is clear to the therapist, and he moves about in it freely, then he can both communicate his understanding of what is clearly known to the client and can also voice meanings in the client's experience of which the client is scarcely aware (p. 99).

When Rogers explains the importance of "communicating this understanding" and "voice meanings," implications of the occurrence of cognitive understanding seem to be made. In Truax and Carkhuff's (1967) explanation of empathy, the "ability to sense" seems descriptive of the affective aspect, while the "ability to know what the patient means" points to a more cognitive element. They say:

> Accurate empathy involves more than just the ability of the therapist to sense the client's or patient's "private world" as if it were his own. It also involves more than just his ability to know what the patient means. Accurate empathy involves both the therapist's sensitivity to current feelings and his verbal facility to communicate this understanding in a language attuned to the client's current feelings (p. 46).

While it does appear that both affective-feeling and cognitive-understanding are separate dimensions to consider in the concept of empathy, and that both components are involved in the concept of empathy as it applies to the helping relationship, the specific emphasis of each component

is not outlined as to its significance in the final communication of empathy to the client. How does one measure the affective-feeling component of empathy versus the cognitive-understanding one in order that one may determine its influence on the therapeutic ingredient called "empathy" that is finally perceived by the helpee in a helping relationship?

2. Empathy as a Trait.

In this section, the affective-feeling component of empathy will be examined more closely as a natural disposition or a trait of an individual, facilitated by developmental factors.

Buckheimer (1963), in investigating the concept, suggested two separate ways of looking at empathy and implied two different measures for determining its existence. One way of looking at empathy was to see it as interaction. Empathic interaction could be fruitfully measured through situational tests or the technique of rating and evaluating tape-recorded interviews. Such a concept of empathy seems to be referring to empathy as a more cognitive,interpersonal skill. A second way of looking at empathy, according to Buckheimer, was to relate it to the capacity of the counselor to share the same perceptual field of the counselee, as if he or she were the counselee. Empathy, here, is referred

to as a capacity, a more affective-feeling ability, a natural disposition of the person. This would imply another measure for study.

In 1974, in a study by Haier, California Personality Inventory (CPI) protocols of 262 male psychiatric residents from 13 training centers were scored for empathy by use of the Hogan empathy scale, and rated for competence. The 30 residents in the total sample with the highest scores for empathy ($\bar{X}$ = 31.0) were compared with the 30 with the lowest scores for empathy ($\bar{X}$ = 17.6). There was no difference in their mean criterion rating for competence (5.03 vs. 5.23). Haier suggests in his discussion of these results a consideration involving a distinction between trait and state empathy analogous to that drawn by Spielberger in his discussion of anxiety (Spielberger et al., 1969). Trait empathic counselors, defined by high scores on the Hogan empathy scale, may have genuine empathic ability which they can naturally communicate to their clients, very effective interpersonal skills being indicated by the CPI profiles of high empathic residents in Haier's study. On the other hand, low trait empathic counselors may learn, in the course of their training, to "say the right thing at the right time," thereby obscuring any actual relationship between trait empathy and therapeutic competence.

Like Haier and Buckheimer, other therapists have recognized and studied empathy as a trait or personality characteristic, as well as an interpersonal skill that can be learned and sharpened with practice. Anderson (1968) found that therapists offered similar levels of therapeutic conditions across different presenting problems, just as they did across different clients. If the therapist conditions were simply learned techniques or interpersonal skills, one might have expected differential levels offered as a function of the presenting problem.

Along the same line of thought, Buckheimer suggests that differences can be seen between the occasionally empathic and the consistently empathic trainee, the occasionally empathic trainee identifying specifically to pure similarity of experience. Those who are occasionally empathic seem to respond only to similar situations. They seem to project and overidentify. However, those who are consistently empathic seem to be able to go beyond similarity of experience, seem to be freer of psychological mechanisms of projection and identification. Indeed, in recent studies with children (Deutsch, 1976; Rothenberg, 1970), results indicate that the likelihood of an empathic response increases as the similarity between the child and who the child is judging increases, and as the familiarity of the other's situation increases. This direction of

attribution--from self to another person--is projection, not empathy (Chandler, 1974).

Bergin (1969) has suggested that what is usually called "spontaneous improvement" in therapeutic research may well be caused by clients spending time with some other person (usually a nonprofessional) with a naturally high level of accurate empathy, nonpossessive warmth, and genuineness. That the inherently helpful person does influence others is shown by a study (Shapiro & Voog, 1969) in which it was found that normal college students' levels of understanding, warmth, and genuineness were predicative of their roommates' grade point averages. Bloch (1961) also sees empathy as a fairly permanent characteristic acquired naturally and operative in situations other than psychotherapy. Through a study involving a Q-sort method, Bloch concluded that those characteristics attributed to an empathic person reflected insight, perceptiveness, and social acuity, while those items least characteristic of a highly empathic person embodied a complex dimension of conventionality, anti-intraception, and reliance on the defensive techniques of projection and repression. Lesh (1970), in an attempt to study the first phase of the empathic process, that is, "the ability to detect (perceive) and decode affective communication," found that the more open to experiences a person is, the more the person depends on his

or here own feelings and value systems, the more willing the person is to be him or herself, the more empathic is that person. Hogan and Grief (1973), who developed an empathy scale within the framework of a multidimensional theory of moral development, describe the naturally empathic person as possessing a patient and forebearing nature, affiliative but socially ascendant tendencies, and liberal and humanistic political and religious attitudes. Conversely, Hogan states that nonempathic persons tend to be intolerant and withdrawn, with ethnocentric and authoritarian values. Comrey (1961) and his co-workers have carried out a series of studies designed to identify, measure, and verify several personality factors among which empathy emerged predominantly. Individuals who score high on the subscale of the Comrey Personality Scales (Comrey, 1970) dealing with empathy (P) are considered to be sympathetic, helpful, generous, unselfish, and interested in devoting their lives to others. According to the test manual, individuals who are low on this scale are not particularly sympathetic or helpful to others, tend to be concerned about themselves and their goals, and are relatively uninterested in dedicating their lives to serving their fellow man. In the present research, the scale of the Comrey Personality Scales measuring Empathy vs. Egocentrism (P) will be used as a measure of trait empathy.

When one views empathy as a "trait" or "capacity" or "personality characteristic," it is evident that what one is referring to has early, developmental roots. Hogan (1975) uses the term "trait empathy," referring to the biological metaphor of empathy that is genotypic rather than phenotypic. He negates the possibility of training an empathic disposition in short-term training programs, hypothesizing that trait empathy has its roots in genetic factors, intelligence, and early experiences. Building on a biological consequence of man's evolutionary history as a group-living, culture dependent animal, empathic tendencies are a natural emergent in man, according to Hogan, further developed and facilitated by four factors. First, Hogan postulates an intellectual component; secondly, empathy may be encouraged by parents who attempt to inculcate into their children humanistic values such as consideration for the rights of others. Third, empathic tendencies can be modeled; thus, empathic parents will tend to raise empathic children. Finally, Hogan suggests the factor of experiencing suffering as necessary before one can resonate the suffering of others.

Hogan implies both cognitive-understanding and affective-feeling components have roots in the development of an empathic disposition. Feshbach (1975), from her studies with children, proposes that while the cognitive dimension of empathy is important, it is the affective

component that gives the empathy construct its unique property. Understanding the feelings of another person or even the ability to take the role of another person, does not ensure an empathic response. One may not be predisposed to use that ability or, assuming that one does take on the role of the other, the affective response may be blocked or poorly articulated. The affective component of empathy (like the cognitive one) is subject to development and modification through learning experiences. Aronfreed (1968) indicates through his research that the affective response to the experience of others is not instinctive, but depends somewhat on the child's having previously experienced that affect. On a broader level, it is suggested that those aspects of the socialization process that relate to the experience, expression, and restraint of feeling are highly relevant to the development and manifestation of empathy.

In summary, it would seem that while trait empathy as a "capacity" or "personality characteristic" or "natural disposition" reflects an ability facilitated by cognitive-understanding and affective-feeling even in its development, the affective component particularly in the developmental process, carries the greater emphasis. Trait empathy, then, with regard to training in empathy skills, can be viewed as that natural empathic disposition, facilitated developmentally by the affective-feeling component, that the trainee brings to the training.

3. Empathy as a State.

There exists research evidence to suggest that such a skill as empathic understanding, assuming that empathic understanding involves both the ability to perceive and communicate to the client what she or he is feeling, can be taught through training experiences (Carkhuff & Truax, 1965; Truax & Carkhuff, 1967). Such a program may be said to train one in simulated or "state" empathy, an interpersonal skill that can be learned and sharpened with practice, thereby taking on a more cognitive emphasis.

Research indicates that a heavily weighted didactic-intellectual approach to training important interpersonal skills is not likely to be effective in producing high functioning counselors who can have a significant effect on their clients. Bergin and Solomon (1963) whose findings indicated a correlation between rated empathy and client outcome, found that the level of accurate empathy correlated -.17 with subjects' practicum grades in an internship program and -.16 with their academic grades. Subjects were 18 post-internship students from a major clinical psychology program approved by the American Psychological Association (A.P.A.). Such a study suggests that programs evaluating effectiveness of students in terms of grades, are not necessarily helping them acquire skills important for psychotherapeutic functioning. Carkhuff, Kratochvil, and

Friel (1968) made a comparison of clinical and non-clinical first and fourth year graduate trainees on levels of warmth, empathy, and genuineness. Although it was found that the first-year clinical trainees rated higher on all measures than the first-year nonclinical trainees, there were no differences between the two groups by the fourth year. Implications of such a study challenge the effectiveness with which graduate training programs in clinical psychology, operating strictly on an intellectual, didactic approach, are able to help students even maintain an effective level of functioning throughout and at the end of their programs. Carkhuff, Collingwood, and Renz (1969) carried out a study employing a purely didactic training experience which focused exclusively upon discriminations of the dimensions of empathy, respect, concreteness, genuineness, and self-disclosure. Although the training did have an effect on discrimination, no significant differences in communication of these dimensions to clients were obtained between pre- and posttraining measures. It seems evident that therapeutic training programs emphasizing the development of intellectual and didactic abilities do so at the expense of helping trainees acquire specific helping skills important for facilitating client change.

In attempts to bridge the gap between knowing what to do and having the skill to do it, between the classroom

and the counseling session, a number of training programs emphasizing the importance of communication of empathy in a therapeutic relationship have been proposed. Truax, Carkhuff, and Doud's (1964) "Integrated Didactic-Experiential Approach," Ivey's (1971) "Microcounseling" and Carkhuff's (1971) "Systematic Training" are some of the training programs which attempt to assist the beginning counselor in acquiring some of the basic skills of counseling, adding an experiential dimension to the intellectual-didactic one. In this thesis, Carkhuff's "Systematic Training" will be explored and employed as a method of training "state empathy" or empathy as an interpersonal skill involving a cognitive emphasis.

Systematic training as proposed by Carkhuff, whether it includes all the dimensions of empathy, respect, concreteness, confrontation, and immediacy, or a single dimension, such as empathy, is composed of two phases: discrimination and communication. In discrimination training, once the trainees are given didactic information regarding the chosen facilitative condition, they are initiated in the use of the rating scales of that condition. The trainees, then, are given an operational definition of the condition under study, develop the ability to discriminate between different levels of helper functioning, and are provided with a tool to judge their

own functioning. The communication training involves the trainees formulating their own responses. Initially, trainees formulate such responses after listening to audiotape client statements, and then the trainees formulate responses in a role-playing situation.

The present research attempts to utilize the systematic training approach as elaborated by Carkhuff with regard to only one dimension, empathic understanding. Only those studies involving the use of the systematic training approach to teach the skill of empathic responding and only those outcomes of the studies dealing with empathy and its measurement will be reported.

Vander Kolk (1971) studied the effects of systematic training in empathic skills with nonprofessionals, his goal being to compare systematic training with the intellectual-didactic training method and a "no treatment" control group. He employed a pre-post control group design. The Carkhuff Scale for Measurement of Empathic Understanding was used by the judges to rate the subject's written empathic responses to Carkhuff's Index of Communication. Following 48 hours of training, the results indicated that the experimental group receiving systematic empathy training demonstrated significantly greater change than the intellectual-didactic and control groups. Furthermore, education, race, age, and experience were not found

to be related to constructive change in interpersonal skills.

Kalisch (1971) studied the effect of systematic training in empathy with students in nursing. The experimental group received empathy training, while the control group was subjected to lectures and discussion on human behavior. The classes for all groups lasted 12-1/2 hours over a 6-week time span. Truax's 9-point Accurate Empathy Scale (Rogers et al., 1967) was used to rate the subjects' written empathic responses (pre- posttest design) with audiovisual standardized helpee stimulus expressions as prepared by Strupp and Jenkins (1963). The results indicated that the students being subjected to the experimental treatment improved significantly (.01 level). Kalisch concludes that systematic training in empathy is successful in increasing empathy. Eicke (1971) evaluated the effects of a short-term communication training program (6 hours). Using graduate students in counseling, he assessed the subjects' empathic functioning by administering the Index of Communication split (odd-even) for pre- and posttesting. The judges rated the counselors' written responses on Carkhuff's 5-point Scale for Measurement of Empathic Understanding. Results indicated a significant difference between the experimental and control groups. Eicke's conclusion supported previous findings that systematic

training in empathic skills increases the level of empathic functioning and in this study, in a relatively short period of time.

In all of the above reported research, judges rated empathic skills through the use of written measures. Carkhuff (1966) studied therapists' responses to different client affects and found that written response measures limit the upper levels of highly functioning therapists. Butler and Hansen (1973) found that ratings of written responses correlated nonsignificantly with ratings of interview behavior at follow-up. Possibly trainees can write a stylistically correct response but are unable to respond empathically in an interview. The character of written responses could be understood as representing the learning of responses to highly specific cues not ordinarily confronted in verbal interaction. Learning to communicate empathically requires a different and more difficult level of skills than writing a response. On the other hand, being able to give verbally a good response translates easily into writing a response although the lack of nonverbal cues undoubtedly limits performance on a written measure (Gormally & Hill, 1974). Although written responses are easy and economical to use, they lack generalization to real helping situations; this limits their utility in research. That the learned empathic skill is actually carried over

into a real situation carries more weight when the more demanding criterion measure of verbal communication through the standard or helping interview is used by judges to rate the effects of training.

The following cited studies used the standard or helping interview as a measure of offered empathy. Kratochvil (1969) randomly assigned 11 female nurses and 5 occupational therapists to either a training group, which he met 3 times a week for 1-1/2 hours for 4 weeks, for a total of 18 hours, or to a control group, which he did not meet. The training group was exposed to systematic training, one of the skills taught being that of empathy. Pre- and post-training measures were obtained by casting each subject in the helping role as a counselor before and after training with a standard client given a mental set to discuss any personal problems or experiences which she could share with the counselor. Each session was tape-recorded , three 3-minute excerpts were randomly selected from the tapes, and the excerpts were rated by two experienced raters in order to determine the levels of functioning before and after the training. The posttraining level of functioning of the training group was significantly greater at the .05 level of significance on all dimensions, including empathy.

Charbonneau (1974) used both ratings from the Index of Communication and the standard interview as outcome

measures for empathy training using bilingual student nurses whose first language was French and second was English, as subjects. The experimental treatment was 18 hours of systematic empathy training, while the control group received 18 hours of lectures and discussion on human behavior and communication. The results showed the experimental group offered significantly higher levels of verbal as well as written empathy in their first language, French, than the control group. Verrill (1969) also employed a standard interview to assess the effectiveness of a systematic empathy training program compared to a program of assigned readings on empathy, and a no-treatment control group. While no statistically significant differences were found between the groups on the judges' ratings of empathic responses on the standard interview, the trend was in the direction of the systematic empathy training group tending to be more empathic than the other two groups. Sussman (1973), in an attempt to develop and analyze the effects of a peer-group counselor training model, studied the effects of empathy training on 25 junior high school volunteers as opposed to a control group matched for sex and ethnic group. The effectiveness of the training program was investigated by employing pre-post measures on trained and nontrained volunteers, the measure being tape-recorded counseling with a "stooge" client for 15 minutes. After 16 hours of

training (2 hours a day, once a week for 8 weeks), the experimental group was significantly more facilitative than the control group on empathic skills. In a study comparing the effects of two training methods, role-playing and audio-training, in promoting empathic understanding, Boulet (1975) used both verbal and written measures of empathy after training. Thirty-two volunteer student counselors were randomly assigned to three groups: (1) a control group, which received 9 hours of pre-experimental empathy training, but no training during the experimental phase; (2) an audio-training group (audio-training II) which received 9 hours of pre-experimental empathy training plus an additional 9 hours of continued empathy training during the experiment; and (3) a role-playing group, which had also received the 9 hours of pre-experimental empathy training, followed by 9 hours of role-playing for the experiment. Judges rated both verbal empathy derived from tape excerpts of a standard interview, using Carkhuff's Empathic Understanding in Interpersonal Process: A Scale for Measurement, and written empathy using the Index of Communication. No significant differences were found among the three groups in level of written empathy. However, results from the standard interview revealed significant differences between the role-playing group's level of empathy and the control and audio-training II groups. Besides supporting previous conclusions as to the

teachability of empathic skills, this study shows that role-playing preceded by audio-training can be a more effective training method in increasing the level of empathic functioning in a helping role.

The present study will employ role-playing preceded by audio-training as part of the systematic training in empathy skills, as well as using the standard or helping interview as the method of measuring the communication of empathy after training.

Aspy and Roebuck (1974) successfully taught empathic skills to teachers in Lexington, Kentucky, using Carkhuff's systematic training program. The training lasted 15 hours across five 3-hour sessions. Pre- and post-audio tape-recordings of the trainees' classroom performances were used to determine the effectiveness of the training program. Audio tape ratings were done blind by raters who had applied the Truax scales to at least 100 hours of psychotherapy. The results indicated that these teachers could be trained to attain minimally facilitative levels of empathy in their classroom through this type training program.

The above studies dealing specifically with systematic training in empathy as an interpersonal skill lead to the conclusions that empathy, as an interpersonal kill, is teachable to both professional and nonprofessional populations and that Carkhuff's systematic training in empathy skills is a program particularly effective in doing so.

In summary, then, the following conclusions pertinent to this study may be drawn from the research cited thus far:

1. that empathy is a componential condition in the helping relationship involving both affective-feeling and congitive-understanding dimensions;

2. that related to the affective emphasis, empathy may be viewed as a personality characteristic or trait which the counseling trainee brings to the training situation;

3. that such a personality characteristic can be identified and measured;

4. that related to the cognitive emphasis, empathy may be viewed as a trainable interpersonal skill learned through Robert Carkhuff's program in systematic training in empathic communication;

5. that empathy, as a trainable interpersonal skill, may be operationally defined and successfully measured through the Helping Interview, a measure of verbally offered empathy.

These points being established, the question remains as to the relationship between trait and state empathy. To what extent the natural empathic disposition of the trainee will influence the learning of the cognitive skill of empathic functioning is yet uninvestigated. One might hypothesize that the trainee who possesses high trait empathy may have genuine empathic ability which she or he can naturally communicate to others. To learn a skill to which one is already naturally inclined could result in quick learning with good competency in the skill. Trainees learning a specific skill to which they are already naturally inclined might result in competency in less the amount

of training time when compared to trainees less naturally inclined to that specific skill. The question that emerges is: Does trait empathy discriminate between those who function successfully after training in empathic skills and those who do not? Before attempting to empirically investigate the raised question, further attention needs to be directed toward certain other variables in the training situation.

4. Variables in the Training Situation.

In this section, the amount of time spent in a training situation, the empathic level of functioning of the trainer, the age of the trainee, and two variables involved in the procedural aspect of measures of certain components are discussed.

The duration or amount of time spent in such a training program as Carkhuff's systematic training in communication would necessarily have some effect upon the trainees. Carkhuff (1969a) states that if we want trainees to function effectively in the helping role, we must give them plenty of practice in that role. In reviewing the previously cited research in empathy training, however, various amounts of training have been given and all have been reported effective in the training of empathic skills. Kratochvil (1969) successfully trained nurses and occupational therapists in 18 hours; Vander Kolk (1971) trained

nurses successfully in empathic skills in 12-1/2 hours; Charbonneau (1974) successfully trained nurses in 18 hours; Sussman (1973) trained junior high school students successfully in 16 hours; Boulet (1975) trained student counselors successfully in 18 hours; Aspy (1974) trained teachers in 15 hours; and Eike (1971) successfully trained graduate students in counseling in 6 hours.

While the "success" of the training in empathic skills may be determined by written measures of empathy or by the more demanding criterion of the standard or helping interview, one is left wondering if there is a minimum amount of training necessary before facilitative empathic responding, as measured by Carkhuff's scale, can occur. A training group growth curve reported by Schroeder, Hill, Gormally, and Anthony (1973) has shown that trainees learn to write stylistically correct empathic responses after six hours of training. However, the amount of training needed before trainees can respond empathically in a helping interview is inconclusive when one reads the research. The effect of the duration of the training, too, upon the final communication of empathy might possibly be affected by the functioning of the trainee. Carkhuff (1969a) reports that people functioning at low levels only learn what they are taught. Thus, longer training periods might be necessary for low-functioning trainees. On the

other hand, high-level-functioning people can generalize from one learning experience to another (as, for example, from discrimination to communication, as reported by Carkhuff, 1969a), and might respond empathically in a helping interview after fewer hours of training than low-level-functioning trainees. In more closely examining his data, Kratochvil (1969) reports in a discussion of his results that a minimally facilitative trainer was able to significantly increase the average level of functioning of his trainees, a group of nurses and occupational therapists, in 18 hours of training covering a period of 4 weeks. However, while six of the trainees increased their levels of interpersonal functioning, two deteriorated. The two trainees who improved the most were in the top half (in terms of level of functioning before training) of the training group, while the two who deteriorated were in the bottom half. Pretraining level of functioning was measured by the standard interview, an instrument that measures a more cognitive-type empathy.

If level-of-functioning were to be measured as a trait, and used as a pretraining measure of level-of-functioning, the amount of training needed in empathy as an interpersonal skill, in order to produce an empathic response in a helping interview, might vary according to trait empathy. In other words, the amount of training in

state empathy as a predictor of final communication of empathy to the client, might vary according to trait empathy.

In addition to all the above, however, it seems necessary to take into consideration that the trainer is crucially involved in the learning situation. What the trainer brings to the training has been shown to be influential as to what is learned and what is modeled (Aspy, 1973, 1974, 1975; Perry, 1975). The level of the trainer's communicative functioning has been emphasized as a critical ingredient in effective training. Carkhuff (1969a) reports that, in general, the trainee's level of communication of empathy, respect, concreteness, genuineness, self-disclosure, confrontation, and immediacy moves in the direction of the trainer's level of functioning in these dimensions. When the trainer is functioning at a low level, the trainee does not gain, or he deteriorates.

There is evidence that modeling the empathic level provided does occur in the training situation. In a study designed to assess the contributions of modeling and instructions to the training of counselor empathy (Perry, 1975), 60 subjects were assigned randomly to six treatment groups. A factorial design incorporating two instruction conditions (instructions; no instructions) and three modeling conditions (high empathy model; low empathy model; or no model) was used to study the results. The subjects wrote responses to

a taped client in Phase 1, a training phase, and conducted an interview with a client (actor) in Phase 2. Results indicated that instructions had no effect on empathy offered by subjects, but subjects hearing a high empathy model showed significantly higher empathy in Phase 1 responses than all other subjects. The prediction of the generalization of modeling to Phase 2, a live interview, was not supported although it approached significance.

The results of this study emphasize the importance of the trainer's behavior upon modeling that can occur. Therapeutic behaviors can be influenced by the observation of a model. This conclusion has also been substantiated by other studies regarding modeling specific to empathy training (Dalton et al., 1973; Payne et al., 1972). Thus, what the trainer brings to the training situation is an important variable to consider when attempting to study the results of a training program.

Measuring the therapeutic conditions offered by the trainer, or specifically, the level of empathy offered by the trainer during the training program, may be viewed from a client-therapist analogy. Research related to perceived empathy has illustrated the necessity of considering the client or helpee's role in making assessments regarding the level of therapeutic conditions offered by the therapist or helper. Studies have been done involving the rating of

counselor empathy and other therapeutic conditions among counselors, clients, and objective judges which are useful and seemingly analogous to the topic of the rating of trainer empathy and other dimensions of trainer functioning. After briefly reviewing these studies, their applicability to the trainer-trainee situation will be discussed.

Considerable lack of agreement occurs in the literature regarding the validity of the rating of counselor empathy by specific groups of persons. The ratings of counselors themselves, clients, and objective judges of counselor empathy have been questioned, researched, and re-researched. Rogers et al. (1967) and Kiesler (1966) have found strong relationships between judges' ratings of the therapeutic conditions and the clients' perceptions of them. Bozarth and Grace (1970), Feitel (1968), and Fish (1970) discovered moderate correlations between perceptions of clients and judges, but no correlation between clients and counselors in the judgment of therapeutic conditions. In contrast, Burstein and Carkhuff (1968), Hansen, Moore, and Carkhuff (1968), Caracena and Vicory (1969), Kurtz and Grummon (1972), and McWhirter (1973) have indicated no relationship between clients and judges in the perception of the therapeutic conditions. The last three studies cited, however, are qualified by pertinent remarks from their authors. Caracena and Vicory (1969), in exploring the relationship between offered empathy,

as measured by judges using the Accurate Empathy (AE) Scale (Truax & Carkhuff, 1967), and achieved or phenomenological empathy, as measured by the client's response to the Relationship Inventory (RI) (Barrett-Lennard, 1962), suggest that judges are more dependent on superficial criteria in assessing counselor offered empathy, while clients rely more on interview interest and involvement in the relationship, as well as how clearly the interviewer's communications are.

> Interviewing interest, commitment and involvement may be some of the variables upon which judges and subjects commonly agree when asked to rate empathy. Sheer quantity of words per response relates to judges' ratings of empathy, interest and involvement, but subjects appear not to use such objective indexes. The subjects seem to depend more upon what the interviewers say and how clearly they say it, two conceptually related concomitants of empathy (Caracena & Vicory, 1969, p. 514).

Kurtz and Gummon (1972) point out that, while their findings do not indicate a relationship between clients and judges in the perception of therapeutic conditions, there is a significant relationship between client-perceived empathy and outcome in therapy.

McWhirter (1973) has also arrived at the conclusion that objective judges may be limited due to the lack of information on counseling process such as nonverbal clues.

Hill and King (1976) have pointed out that conflicting results among counselors, clients, and objective judges in the rating of counselor empathy may be due to differences in the measuring instruments used by the participants, as well as

diversity in what each participant was looking for. When giving all subjects the same instruments as well as the same discrimination training, all participants indicated strong agreement on their perceptions of empathy regarding the counseling experience.

Client perception of what occurs in the therapist-client relationship and what conditions are offered by the therapist can still be, as Horenstein, Houston, and Holmes (1973) suggest, a valid way to evaluate therapeutic progress. If one might substitute the terms client and therapist with those of trainee and trainer, inferences may be made regarding the trainee's perception of the trainer's level of functioning and its effects on the outcome of training in state empathy.

Studies by Berlin (1960), Thornton (1960), and Rosen (1961) collectively imply that the operation of empathy, as well as regard, congruence, and unconditionality are change-producing ingredients in any significant, continuing interpersonal relationship, and it would seem that subjective experience of these variables perceived by specific trainees could effect the learning of empathic skills. Barrett-Lennard (1962) has postulated that the client-therapist relationship, as perceived by the client, will be most crucially related to the outcome of therapy. One might postulate that the trainee-trainer relationship, as perceived by the trainee, will be most crucially related to the outcome of training.

Certain other variables might possibly be influential as to whether a trainee reaches a facilitative level of empathic functioning after training or whether she or he does not. The age of the trainee is one such variable. Presently, there exists virtually nothing in the research with Carkhuff's model that considers the age of the trainee. It would be of interest, then, to determine whether age would contribute any discriminating influence with regard to trainees who are successful after training in empathic skills and trainees who are not.

Two additional variables to be considered involve the procedural aspect of measures of certain components. The Helping Interview (explained in detail in the following chapter), which is used as a final measure of communicated empathy, involves the use of people willing to share their feelings and concerns with the trainees. It is possible that the age of these persons in relation to the age of the trainee could influence the level of empathy offered. The age of the "client" then will be considered as a possible discriminant factor with relation to the success or unsuccess of empathic functioning the trainee attains. The second variable involves the order of presentation of the measure of trainer empathy and the measure of the offered empathy after training. While this is controlled for by virtue of the experimental design (see following chapter) for all subjects, it is possible,

though not probable, that, for example, those trainees who attained successful results in the measure of the communication of empathy (state empahy) underwent that measure first, or second. The order of presentation, then, will be added to the list of those variables which carry discriminant potential as to the success or unsuccess of the trainee with regard to a facilitative level of empathic functioning after training.

In addition, then, to the factor of trait empathy as a possible discriminating variable with regard to the attainment of facilitative empathic functioning after training in state empathy, other components may be identified as possible discriminant variables. One is the amount of training given in state empathy or the duration of time spent in the training situation. It is further suggested that trait empathy may play an even more discriminant role in shorter training periods. Another component identified as a possible discriminant factor is the level of empathy offered by the trainer during the training program, as perceived by the trainee. Additional variables which might have discriminant value are the age of the trainee, the age of the "client" in the Helping Interview, and the order of presentation of measures of trainer functioning and state empathy. Thus, trait empathy, the amount of time spent in a training situation, the level of empathic functioning of the trainer, the age of

the "client" used in the Helping Interview, and the order of presentation of measures of trainer functioning and state empathy, are influential factors in the training process. The extent to which these identified components discriminate between those trainees who successfully attain facilitative levels of empathic functioning after training in empathic skills and those trainees who do not is an empirical question.

5. Problems Investigated and Hypotheses.

This final section of Chapter I will include the problems investigated in this research and this study's experimental hypotheses.

The present study concerns itself with empirically identifying those components in an empathy training situation which contribute to the successful learning of empathy as an interpersonal skill. It is proposed that, after training in such skills, those trainees who have attained a facilitative level of empathic functioning will differ significantly on scores measuring those components when compared to scores of those trainees who have not attained a facilitative level of empathic functioning. Training time (6 or 12 hours) will also be considered. Specifically, the investigation will attempt to (1) discriminate between those trainees who successfully learn to function at an empathically facilitative level and those who are unsuccessful on the basis of trainees'

scores on certain components involved in the training situation; (2) determine whether the amount of time spent in the training situation results in differences within these groups on the components involved in the training situation; (3) delineate which components or pattern of components best differentiate the groups; and (4) employ a classification system using differences found to classify individuals into the various groups. The purpose of the latter step is to determine the usefulness and accuracy of the data for early identification of individuals with potential for empathic and facilitative relationships or selection to lay-professional programs emphasizing the helping relationship. It is understood that the utilization of such a predicative classification system would rest on a large-scale validation study.

Thus, the problems posed are now put in the null form as experimental hypotheses:

1.1 There are no significant differences in scores or patterns of scores on measures of variables* involved in the training situation between trainees who attained successful levels of empathic functioning as measured by the Helping Interview and those who are unsuccessful after training.

1.2 There are no significant differences in scores or patterns of scores on measures of variables* involved in the training situation between trainees who have received 6 hours of training and those who have received 12 hours of training.

1.3 There are no significant differences in scores or patterns of scores on measures of variables* involved in the training situation between trainees who attained successful levels of empathic

functioning as measured by the Helping Interview after 6 hours of training and those who were unsuccessful after 6 hours of training.

1.4 There are no significant differences in scores or patterns of scores on measures of variables* involved in the training situation between trainees who attained successful levels of empathic functioning as measured by the Helping Interview after 12 hours of training and those who were unsuccessful after 12 hours of training.

1.5 There are no significant differences in scores or patterns of scores on measures of variables* involved in the training situation between trainees who have not attained successful levels of empathic functioning as measured by the Helping Interview after 6 hours of training and those who were unsuccessful after 12 hours of training.

1.6 There are no significant differences in scores or patterns of scores on measures of variables* involved in the training situation between trainees who have attained successful levels of empathic functioning as measured by the Helping Interview after 6 hours of training and those who were successful after 12 hours of training.

2.1 There are no significant differences in scores or patterns of scores on the variables* involved in the training situation among four mutually exclusive groups of subjects, one being unsuccessful trainees as measured by the Helping Interview after 6 hours of training, another being successful trainees as measured by the Helping Interview after 6 hours of training, a third being unsuccessful trainees as measured by the Helping Interview after 12 hours of training, and the fourth being successful trainees as measured by the Helping Interview after 12 hours of training.

[Note: In all cases, differences were accepted at $p < .01$ level of probability.]

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*Trait empathy as measured by the Comrey Personality Empathy vs. Egocentrism Scale (P), trainer level of empathic functioning as measured by the Barrett-Lennard Relationship Inventory (RI), Client Form, age of trainee, age of "client" involved in Helping Interview, order of presentation on measures of RI.

Other interests to be examined will be the possibility of employing findings in a classification system to predict group membership from scores obtained on the components involved in the training situation. Also of interest will be the nature of determined relationships in terms of similarities and differences among groups.

The next chapter presents the experimental design for the testing of these hypotheses.

CHAPTER II

EXPERIMENTAL DESIGN

In this chapter, a detailed description will be given of the design of this study in four main sections. The tools are described in the first section. The second section deals with the subjects who participated in the study. In the third section, the experimental procedures are discussed. Section four concludes the chapter with a discussion of the statistical procedures used in the analysis of the data.

1. The Tools.

In this section, the Comrey Personality Empathy vs. Egocentrism Scale (P) as a measure of trait empathy, the Helping Interview and the Empathic Understanding in Interpersonal Processes: A Scale for Measurement as measures of state empathy, and the Barrett-Lennard Relationship Inventory - Client Form - Scale for Empathic Understanding as a measure of trainer level-of-functioning in empathy during the training process will be described.

(a) Comrey Personality Empathy vs. Egocentrism Scale (P).- In this study, a scale on the Comrey Personality Scales (CPS), one measuring Empathy vs. Egocentrism (scale P), was used to ascertain an individual's measure of

trait empathy, or natural empathic disposition. The individual items that make up this scale may be found in Appendix 1.

The CPS were developed by Andrew L. Comrey in an attempt to represent from a psychometric point of view, a developmentally sophisticated measure of the major areas of the adult personality domain. The lack of agreement between the descriptions of personality offered by different factor analytic theorists (e.g., Cattell, Eysenck, and Guilford), compared with the seemingly greater consensus in the field of human abilities, led Comrey to undertake the study of the psychometric investigation of personality in an attempt to develop a factor analytic taxonomy of personality traits (Comrey, 1961). The form of the present taxonomy and the research strategy that produced it have evolved over a series of investigations, many of which have been described in the psychological literature (Comrey, 1962, 1965, 1966, 1969; Comrey & Duffy, 1968; Comrey & Schlesinger, 1962; Comrey & Jamison, 1966; Comrey, Jamison & King, 1968; Duffy, Jamison & Comrey, 1969; Jamison & Comrey, 1969).

The CPS yield scores on eight personality dimensions: Trust vs. Defensiveness (T), Orderliness vs. Lack of Compulsion (O), Social Conformity vs. Rebelliousness (C), Activity vs. Lack of Energy (A), Emotional Stability vs. Neuroticism (S), Extraversion vs. Introversion (E),

Masculinity vs. Femininity (M), and Empathy vs. Egocentrism (P). Each personality scale contains 20 items. In addition there are two validity scales, the Validity Check (V) scale which has 8 items, and the Response Bias (R) scale which has 12 items, making a total of 180 items in the inventory. Half of the items on each scale are positively worded with respect to the scale name, and half are negatively worded in order to control for possible acquiescence response set. Each item is a statement to which the respondent replies using one of two possible 7-choice answer scales.

According to Comrey (1970), the eight personality scales were developed to measure the factor constructs found in extensive research to be the most important for the description of personality. The organization of the items measuring these eight personality factor scales is hierarchial in character. Four substantially correlated items make up a homogeneous item group. Five substantially correlated homogeneous item groups make up a factor scale. Thus, 160 items break down into 40 homogeneous item groups, which break down into 8 personality factor scales. The Validity Check (V) is designed to detect random marking or other kinds of erratic respondent behavior. The Response Bias (R) scale is designed to give a measure of the respondent's tendency to answer the inventory items in a socially desirable way.

The CPS are intended primarily for use with "normal" socially functioning individuals. The dimensional structure of the inventory reflects the major characteristics which are held to underlie the everyday behavior of such individuals.

Since the problem being studied in the present research involves only the personality trait of empathy, only that scale on the CPS of Empathy vs. Egocentrism (P) will be discussed.

The five correlated homogeneous item groups making up the Empathy vs. Egocentrism scale include Sympathy, Helpfulness, Service, Generosity, and Unselfishness. Four correlated items make up each group. Individuals who score high on this scale describe themselves as sympathetic, helpful, generous, unselfish, and interested in other perople. Individuals who are low on this factor are not particularly sympathetic or helpful to others, tend to be concerned about themselves and their own goals, and are relatively uninterested in dedicating their lives to serving their fellow man. The mean and standard deviation for the Empathy vs. Egocentrism scale, based on a sample of 362 females from a university population and cited by Comrey in the Manual to the Comrey Personality Scales (Comrey, 1970), are $\underline{M}$ = 99.7, $\underline{SD}$ = 15.4. The mean and standard deviation for the scale, based on a sample of 365 males from a university population, are cited by Comrey as $\underline{M}$ = 93.2, $\underline{SD}$ = 15.0.

Reliabilities of individual items have been increased through the use of multiple-response formats with two 7-point answer scales being employed. Such items have greater variance than the typical 2- or 3-choice personality inventory item and, hence, other things being equal, give more stable results in factor analytic studies based on inter-item correlations. To obtain increased stability of factor analytic results in studies designed to uncover the really important factors of personality, the Factored Homogeneous Item Dimension (FHID) was used as the basic unit variable rather than the single item. Successfully developed FHIDs usually have internal consistency reliabilities in the .70 to .95 range, much higher than typical item reliabilities (Comrey, 1970). Factor analytic results based on FHIDs as the basic variables tend, therefore, to be more stable than those based on single items as variables. To obtain reliability estimates, the items for each personality factor scale were divided into two equivalent halves by randomly choosing one positively worded and one negatively worded item from each FHID defining that factor for each half-scale. This yielded 10 items for each half-scale. These half-scale factor scores were correlated and the coefficients were corrected to full-length test reliabilities by the Spearman-Brown formula. Reliability for the Empathy vs. Egocentrism scale was .94, based on 746 volunteer subjects, 362 males and 384 females.

Empathy vs. Egocentrism (P) has been a well-defined factor in one analysis after another by Comrey and his collaborators (Comrey, 1961; Comrey & Backer, 1970; Comrey & Jamison, 1966; Cozier & Comrey, 1970; Duffy, Jamison & Comrey, 1969). In an unpublished study carried out by Nancy Cozier and Comrey (1970), an earlier version of the CPS was administered to 247 UCLA student volunteers as a test of construct validity. These subjects also filled out a 1-page biographical data inventory. On the Empathy vs. Egocentrism (P) scale, the following quantitative variables correlated with the P scale at a significant level:

At the .01 level of significance:

-Number of service organizations belonged to

At the .05 level of significance:

-Number of organizations of all kinds belonged to

-Number of offices held by the respondent

-Some participation in personal contact political work vs. none.

Variables with no correlations approaching significance were age, number of classes dropped, number of complaints to professors about grades, and living independently vs. living at home.

Comrey and Backer (1970) have carried out an expanded construction validation study, similar to that done by Cozier but using the present Comrey Personality Scales. A biographical inventory was developed to inquire into aspects of the respondents' life circumstances which might

relate to the CPS in a predictable way. This biographical data inventory and the CPS were administered anonymously to 209 male and female volunteer students at UCLA. Respondents participated in order to receive a free analysis of their own personality test results, but by code number rather than by name to protect their anonymity. On the Empathy vs. Egocentrism (P) scale, the following positive correlations were significant at the .01 level of significance:

- Amount of interest in joining the Peace Corps
- Married vs. not married (males only)
- Catholic religion preferred vs. other religion or none
- Number of things lent to other people in last month
- Number of school-related activities
- Age when dating began

At the .05 level of significance, the following positive correlations were found:

- Number of occupations seriously considered
- Number of changes in academic major
- Number of college social activities
- Number of entertainment preferences listed
- Number of times late to classes and/or appointments in a week
- Number of social activities in high school

Negative correlations at the .05 level of significance found in the Comrey and Backer study were:

- Number of units carried per quarter
- Amount of time spent watching TV
- College Grade Point Average
- Extent of premarital sexual activity

The P scale has persistently correlated more highly with social desirability measures than any other of the CPS scales, according to Comrey (1970). The pattern of correlations with external criteria for the scale support the "service-to-people" orientation implicit in the factor description but the extent to which both of these phenomena are influenced by social desirability considerations has not been adequately determined at this time. It would appear, however, that individuals with high scores on this factor think of themselves, at least, as being more interested and concerned about doing something for their fellow man than those with low scores.

In this study, the means used to assess the final communication of empathy offered by the trainee after training in state empathy, was the utilization of the Helping Interview. Judges rated the taped interview using Carkhuff's Empathic Understanding in Interpersonal Processes: A Scale for Measurement as an instrument for measurement. Both the Helping Interview and Carkhuff's empathy scale will be described below.

(b) Helping Interview.- In order to measure the results of training in empathic skills, or the level of state empathy, subjects participating in this research were cast into the helping role. The method of casting the helper in the helping role,either with real or standard clients, is

considered by Carkhuff (1969a) as the preferred mode of assessing the helper's level of functioning:

> This process, while time-consuming, is extremely effective. Indeed, if the conditions are available, casting prospective helpers in the helping role appears to be the preferred method of assessing communication (p. 105).

Since all subjects were professional women in the occupational fields of teaching or nursing and acquainted with dealing and communicating with people in service-oriented areas, the decision was made to use as helpees people with real concerns and feelings to share in order to make the helping situation a genuine, live interpersonal interaction. Gormally and Hill (1974) point out that when a client is coached to discuss a standard problem, the self-exploration process may be distorted because the client might be more aware of what he is supposed to do rather than be genuinely interacting in the relationship. In addition, boredom, fatigue, and passage of time may affect the standard client not genuinely engaged in the helping relationship. Thus, the present study utilizes as clients persons with genuine feelings and concerns in an effort to increase the meaningfulness of the measure of offered empathy in the helping interview.

(i) Method of obtaining helpees.- Three friends of the trainer who lived in separate sections of the Baltimore-Wilmington area were contacted by the trainer and asked to

solicit people who might be willing to participate in a study in communication. Volunteer participants were asked to share concerns, feelings, or problems during a 30-minute tape-recorded session with people trained for varying amounts of time in listening skills in order that those skills might be evaluated. Volunteer helpees were requested to participate in two separate interviews if that be necessary, and whether they wished to share the same concern or problem or a different one in the second interview was their decision.

(ii) Description of the helpees.- Forty persons from the Baltimore-Wilmington area, 37 females and 3 males, ranging in age from 15 to 72, with a mean age of 28.9 and a standard deviation of 14.7 years, volunteered to serve as helpees to 72 helpers. Volunteer helpees were assigned to the training center closest geographically to their residences, and randomly assigned to a helper in that training center for the Helping Interview, the only control being that the helper and helpee not know one another. All but eight of the helpees were interviewed twice by two different helpers. This was necessary when it was impossible to recruit 72 helpees. The helping interviews lasted 30 minutes and were tape-recorded. From these tape-recorded interviews, outside judges rated the level of empathic functioning of the helpers.

(c) Empathic Understanding in Interpersonal Processes: A Scale for Measurement.- This empathy measurement scale was used in the present research during the training of empathic skills as a method of teaching the trainees to recognize and offer empathic responding, and was also used by the judges as the instrument by which to rate the levels of empathic responding during the Helping Interview. A copy of this scale may be found in Appendix 2.

The Empathic Understanding in Interpersonal Processes: A Scale for Measurement is an operationalization of the concept of state empathy, as defined by Carkhuff (1969a). Empathy is, according to Truax and Carkhuff (1967):

> the ability to recognize, sense, and understand the feelings that another person has associated with his behavioral and verbal expressions, and to accurately communicate this understanding to him (p. 46).

Carkhuff's scale is a 5-point one with the possibility for mid-point ratings, thus becoming a 9-point scale. Levels 1, 2, 3, 4, 5 correspond to various levels of empathy. At level 3, the helper's communication is essentially interchangeable with the helpee's communication in terms of feeling and meaning. It is termed as the minimal level of empathic functioning since the helper neither adds to nor subtracts from the helpee's verbalization. Levels 1 and 2 are referred to as subtractive responses indicating that the helper's response does not attend or detracts significantly

(level 1) or subtracts noticeable affect (level 2) from the communication of the helpee. Levels 4 and 5 are referred to as additive responses indicating that the helper's response adds noticeably (level 4) or significantly (level 5) to the feelings and meaning of the helpee's expression.

With regard to the validity of the Carkhuff scale, Carkhuff (1969b) states:

> This scale [Empathic Understanding in Interpersonal Processes: A Scale for Measurement] is derived in part from "A Scale for the Measurement of Accurate Empathy," which was validated in extensive process and outcome research on counseling and psychotherapy, ... and in part from an earlier version that had been validated in extensive process and outcome research on counseling and psychotherapy. ... In addition, similar measures of similar constructs have received extensive support in the literature of counseling and therapy and education (p. 315).

Carkhuff's intent in presenting the new, revised scale was to increase reliability and reduce ambiguity. While Carkhuff does not provide direct, validating evidence for this scale, the author assumes greater clarity and reliability than would be present if using the unrevised version.

The reliability of the scale can be determined by correlating different rater ratings on the scale for the same sample of excerpts. Truax and Carkhuff (1967) reported such correlations for 28 studies involving a wide variety of therapist and patient populations with coefficients ranging from .43 to .95 depending on the study and judges using the original scale. A number of studies using the Carkhuff scale yielded similar results (Carkhuff, 1969b).

The instrument used in this study to measure the trainer's level of empathic functioning during the training process was the Barrett-Lennard Relationship Inventory (RI). The RI is described below.

(d) Barrett-Lennard Relationship Inventory - Client Form - Scale for Empathic Understanding.- Originally developed out of the theoretical rationale provided by Rogers' (1957) description of the "necessary and sufficient conditions" of personality change, the RI was developed by Barrett-Lennard (1962) to measure both the client's perceptions of the therapist-offered conditions as well as the therapist's own perceptions of these same conditions. The current form of the RI contains a total of 64 items, with each of the four scale dimensions of empathic understanding (E), level of regard (R), unconditionality of regard (U), and congruence (C) containing 16 statements. Two forms are available for the RI, one form for the client and another for the therapist. On each form are contained the 64 statements which assess the client's (therapist's) perception of the therapist (client) along the four dimensions. The respondent considers each statement in relation to his therapist or client, and assesses it on a 6-point scale ranging from strong agreement with the statement to strong disagreement with the statement. His or her response is indicated by writing a +3, +2, +1, -1, -2, -3 beside each

statement specifying how strongly he or she feels the statement is true (+) or is not true (-). Each of the four scales contains 16 statements, 8 positive items and 8 negative items, yielding a total score for each scale. The group of items representing each scale is dispersed throughout the inventory to allow for maximum independence of response to them.

As this study was concerned only with the variable of perceived empathy from the point of view of the trainee, the only scale to be described from the RI will be the empathic understanding scale (E) with emphasis on the client (trainee) form. A copy of this scale may be found in Appendix 3. According to the RI, empathic understanding is:

> conceived as the extent to which one person is conscious of the immediate awareness of another. Qualitatively it is an active process of desiring to know the full present and changing awareness of another person, of reaching out to receive his communicating and meaning, and of translating his words and signs into experienced meaning that matches at least those aspects of his awareness that are most important to him at the moment. It is an experiencing of the consciousness "behind" another's outward communication, but with continuous awareness that this consciousness is originating and proceeding in the other (Barrett-Lennard, 1962, p. 3).

Thus empathic understanding in this context involves the recognition of the other's perceptions, feelings, affect, experience and awareness, as well as inferred, implied or indirectly expressed aspects of the other's awareness. It involves experiencing both the content and process of all the other person's awareness.

Reliability data reported by Barrett-Lennard indicated acceptable Spearman-Brown split-half correlation coefficients for each scale, attesting to satisfactory internal consistency of the measures. For the empathic understanding scale, the reliability coefficient was .86 for the client form. Mills and Zytowski (1967) determined test-retest reliability on a different sample of college students (N = 36) who were administered a modification of the client form and asked to assess a close, long-standing personal relationship. Retested four weeks later, a reliability of .84 was reported for the empathy scale. Wiebe and Pearce (1973) also found acceptable reliability coefficients for the RI that were generally slightly lower than those reported by Barrett-Lennard. They concluded that there exists a need for refinement of the RI. The results of the item analysis revealed a need for shortening the RI possibly to four scales with a total of 32 items which would have high discriminating ability.

Regarding validity, Barrett-Lennard has provided content validation and indirect evidence for the validity of the scales. The content of the RI was derived mainly from Rogers' (1967) necessary and sufficient conditions paper, Brown's (1954) Relationship Sort, plus written comments and discussions from staff at the University of Chicago Counseling Center. Selected items were subsequently

given to five judges to classify as either a positive (+) or negative (-) indicator of the respective variable. An item analysis was conducted comparing responses given to each item by the "upper" and "lower" half of the sample, and a final set of 85 items was then arrived at. In establishing content validity, great care and attention was taken to fit the content of the scales to the underlying theory. To this extent the congruence between the items and theory based on conditions of helping provides a basis for the face validity of the instrument. Whether the scales actually measure what they were designed to measure is responded to by Barrett-Lennard (1962) in the following way:

> As in other research where theoretical variables are given operational form for the first time, validation at this level is necessarily indirect. Having ensured that the elements of information from which the scale is built up are content valid, and providing internal empirical features such as the reliability and distribution of characteristics of obtained scores are acceptable, the validation process seems essentially to be a matter of discovering meaningful relationships with other variables that are theoretically relevant under the conditions of the investigation (p. 7).

Predicative validity of the RI is based on Barrett-Lennard's findings (1962) that those clients who were perceived as "more changed" after five therapy interviews and at termination had attained higher mean scores on the dimensions of the RI compared to clients perceived as "less changed." An interesting finding was that the client's perception of the

therapist's response was more directly related to therapeutic change than the therapist's actual response as he perceived it. Further support for such findings is provided by Rogers et al. (1967) who evidence the validity of the RI in showing the relationship between the RI measures and client improvement as well as the client's perception of the therapeutic conditions offered being more directly related to therapeutic change than the perception of the therapist.

Mills and Zytowski (1967) suggest the existence of a single dominant characteristic to which all the scales contribute in the RI, and question the existence of independent multiple characteristics in a relationship. Rank-ordered in terms of subtest contributions, congruence and empathy were the first two contributing scales. The congruence and empathy scales would then be predominant in such a general characteristic, according to these authors.

In summary, then, the following conclusions pertinent to this research may be drawn regarding the RI: (1) the RI has proven to be a reliable and valid instrument that has been useful in measuring client and therapist perceptions in the different therapeutic conditions; (2) the client's perception of the therapist's responses was shown to be more directly related to therapeutic change than the therapist's perceptions; (3) empathy and congruence might well be the

dominating general factors in a relationship. Because of the above, the empathic understanding scale (E) of the RI was felt to be a very useful measure of perceived empathy; that is, the trainer's empathic level-of-functioning as perceived by the trainee, in the present study.

2. The Subjects.

Seventy-two women of a Roman Catholic congregation accepted to participate in a study involving listening skills. All were professional women with college or graduate school degrees and all were involved in service-oriented occupations such as teaching or nursing. The subjects ranged in age from 25 to 76 years, with a mean age of 47.2 and a standard deviation of 14.8 years.

The trainer involved in the study had administered the Comrey Personality Scales on two separate occasions to a total of 204 members of the Sisters of St. Francis of Philadelphia who were attending community meetings. Testees used numbers rather than names for identification purposes on the scales, and were assured of the confidentiality of the test results which would be used for research purposes only. After each testing, participants were asked to list unavailable dates for the following four weeks and were informed that through a process of randomization and their own availability, some would be asked to participate in a

study involving training in listening skills. The training would demand 12 hours of time from some and 6 hours of time from others over a period of two weeks.

Fifty-four women were eliminated because of their scheduled unavailability during the following month. Seventy-two numbers were then randomly selected, the corresponding scores on the Comrey measure of trait empathy checked for a normal distribution of high, medium, and low scores, and the 72 numbers randomly assigned to one of six groups, three groups consisting of four sessions of three hours each (12 hours total), and three groups consisting of four sessions of 1-1/2 hours each (6 hours total).* Schedules were arranged so that the initial presentation of each session was made twice to a 6-hour group and twice to a 12-hour group.

Training centers were set up, four in the Baltimore area and two in the vicinity of Wilmington, convenient locations for the majority of group members. The 72 potential trainees were contacted by mail, notified of their dates, places, and times of training. A brief description of each session of the systematic training was enclosed in the individual mailings. Throughout the selection process, as well as throughout the training itself, the author/trainer was unknowledgeable as to the trait empathy scores of the selected group members.

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*Trait empathy scores of those members of the 12-hour groups and scores of those in the 6-hour groups were normally distributed.

The 204 individual scores obtained on the Comrey Personality Empathy vs. Egocentrism Scale (P) for empathy from which the 72 participants in the study were selected can be found in Appendix 4. Although 72 subjects participated in the total study, only the data obtained from 62 subjects was available for statistical analysis, due to faulty tape-recording equipment during the Helping Interview. The individual scores of the 62 subjects obtained from the P scale for empathy are also indicated in Appendix 4. In order to control for the possibility of a biased sample due to those women who were eliminated because of indicated unavailability, a statistical analysis was done. The null hypothesis for this analysis read as follows:

> There is no significant difference between the total group and the sampled group in the scored level of trait empathy as measured by the Comrey Personality Empathy vs. Egocentrism Scale (P) for empathy.

Table 1 presents the means and standard deviations for the two groups; the total group of 204 women obtained a mean of 110.62 and a standard deviation of 11.22, and the sampled group composing the actual 62 subjects a mean of 110.18 and a standard deviation of 12.94. A t test revealed that the means were not significantly different ($p < .01$), and an F ratio to test the significant difference between the two variance estimates was also not significant. Thus, the null hypothesis of no significant difference between the two groups was not rejected. It may be assumed, then, that

Table 1

Student's *t* Test and *F* Ratio for Scores on the Comrey Personality Empathy vs. Egocentrism Scale (P) for the Original Group and the Selected Sample Group

	Total Original Tested Group (N=204)	Selected Sample Group (N=62)	diff.	*t*	$F=S_1^2/S_2^2$
M	110.62	110.18	.44	.08	
σ	11.22	12.94	-1.72		1.33

$t_{.99}(264) = 2.58$

$F_{.99}(61,203) = 1.58$

the 62 selected subjects in the study were not significantly different in their scored level of trait empathy from the initial 204 participants as measured by the P scale for empathy.

3. Procedures.

In the following section, the procedures involved in the training of the subjects in empathic skills, the procedures involved in the ascertaining of state empathy, and the rating procedures will be described.

(a) Description of training in empathic skills.- Six-hour groups designated as Groups 1, 4, and 5 and 12-hour groups designated as Groups 2, 3, and 6 received identical material and presentation of concepts during the training, the 12-hour groups receiving more practice time at each session. All training centers were residences of local groups of religious women and training took place in all instances in spacious, comfortable rooms.

The author was the single trainer responsible for the training, familiar with the training procedures and concepts both theoretically, through reading and dialogue, and experientially, having been involved as a participant in a previous training course, Systematic Training in Communication, at the University of Ottawa.

Essentially, the empathy training consisted of two elements: (1) Discrimination Training; and (2) Communication Training via audio-taped stimuli and role-playing. The communication training itself was broken down into three parts. In the first part, trainees were provided with transcripts of recorded stimulus expressions and paper and pencil; in part two, trainees were provided with audio stimulus only; and in part three, trainees engaged in role-playing, interchanging the roles of helper and helpee, the focus on the helper's performance.

(i) Discrimination training.- In this first phase, the concept of empathy was introduced. All trainees were invited to share with the group their understanding of what empathy conceptually meant for them. In the process, the concept was defined, clarified, and its importance and role in the helping relationship stressed.

The trainees were then introduced to Carkhuff's Empathic Understanding in Interpersonal Processes: A Scale for Measurement. Each of the five points of the scale was defined and illustrated by the trainer. Following this, the trainees were called upon to discriminate between different levels of empathic functioning. A tape-recorded client stimulus expression was played to the group. The trainer then read out a possible helper response which the trainees rated on the 5-point empathic scale. They indicated their

rating on paper. All trainees then read aloud their rating which was discussed by the members of the group. The role of the trainer, at this point, was to underline the important aspects mentioned by the trainees during their discussion and to indicate other aspects which might have been omitted. The trainees in the 12-hour groups rated some 20 responses in this manner; the trainees in the 6-hour sessions approximately 10. A total of three hours was devoted to discrimination training alone in the 12-hour groups, and a total of 1-1/2 hours in the shorter sessions.

Though discrimination training is only one phase in the total training program, it does serve many important functions: it helps to clarify the concept of empathy, provides the trainee with a variety of examples at different levels of functioning, provides models to imitate or avoid, and a repertoire of responses, as well as providing a useful tool with which to judge one's performance in the next phase of training, communication.

(ii) Communication training.- This phase of training involves the formulation of interchangeable responses to pre-recorded client statements, and its goal is to improve the trainees' empathic functioning. Communication training is broken down into three phases: (a) Trainees were provided with paper, pencil and a transcript of recorded client statement. The trainees listened to the audio-taped

excerpt as a group, and following the excerpt, trainees were allotted time to write down on paper an empathic response. Each trainee read out his response which was then rated by his fellow trainees including the trainee himself and the trainer. Two hours were allotted to this phase of the program for the 12-hour groups and one hour for the 6-hour groups. During phase b, trainees again listened to the pre-recorded excerpts as a group, and following the excerpt, one trainee was called upon to verbally formulate an empathic response which was rated in the same manner as before. Here, not only was the trainee to listen attentively to the helpee's expression, but also he was to respond immediately. Thus the trainee was progressively taught to respond accurately and immediately to client stimulus expressions. This phase also lasted two hours for the 12-hour groups and one hour for the 6-hour groups. As an introduction to phase c of communication training, the trainer presented didactically and in lecture form to all groups some of the interview skills mentioned by Ivey in his book, Microcounseling, in order to further acquaint the trainee with basic interview skills. Attending behavior, open invitation to talk, and minimal encouragement to talk were those skills presented and discussed, though not formally practiced until the actual role-playing occurred. Under attending behavior, (1) eye contact, (2) relaxed

physical posture, and (3) verbal following behavior were presented. Attending behavior helps in awkward moments when the helper does not know what to do in a session. If the helper can simply maintain eye contact, retain a relaxed posture, think back to something that interested him in the client's earlier discussion and make a comment about it, the interview can then proceed once again. Open invitation to talk included the trainer's presentation of the distinction between an open-ended question, which allows the client many alternatives for self-expression and allows the questions to be centered around the concerns of the client rather than around the concerns of the interviewer for the client, and closed questions, which tend to be factual and can often be answered with a yes or no answer. The skilled interviewer uses a balance between open and closed questions to facilitate the growth of the client. Minimal encourages to talk include (1) "um-hmm", (2) repetitions of one or two words from what the client has just said, (3) one-word questions, (4) head nods, and (5) a variety of body postures and gestures. By using "encouragers" the interviewer is showing interest and involvement, but is allowing the client to determine the primary direction of the interview.

Following the presentation of the interview skills of Ivey's, the groups were subjected to role-playing, the 12-hour groups involved in 4-1/2 hours of role-playing,

and the 6-hour groups in two hours of role-playing. The purpose of the role-playing was to allow the trainees to gain as much practice as possible in communicating empathy when cast in the role of helper. Triads were formed within the groups in order to ensure even more practice as the helper for the group members. One member of the triad played the part of helpee, identifying herself with a real or imagined person and responded in terms of the role she played. One of the other members of the triad played the role of helper. The remaining member of the group observed, evaluating the helper's empathic functioning. The role-playing lasted between 5 to 10 minutes and then roles were interchanged, so that each member played each role. Later, a helper and helpee role-played before the larger group, the two participants as well as the group and the trainer evaluating the helper's empathic functioning. The focus was on the helper at all times and the goal of role-playing was to allow the trainees in the role of helper to respond empathically to the helpee. The other trainees in addition to the trainers, provided the helper with ratings of how well they thought she performed. The ratings gave the helper feedback as to what levels of empathy she had offered the helpee. The goal of role-playing was to present the trainees with the opportunity to practice the communication of empathy when cast in the role of helper. That

role-playing preceded by audio-training is an effective training method to increase the level of empathy offered in a live, interpersonal interaction was shown by Boulet (1975).

(b) Description of procedures involved in measuring state empathy and the trainer's level-of-functioning.- The method of ascertaining the level of state empathy, or the incorporation of the learning of empathic skills for each of the trainees was through the conduction of a 30-minute interview with a volunteer helpee who was willing to share real concerns, feelings, or a specific problem with a helper whom the helpee had never before met. The interview took place immediately following the fourth and final session of each group's training. Also, in the event that the trainee's perception of the trainer had in some way varied the learning of the empathic skills and that the performance in the Helping Interview was more attributable to that fact rather than trait empathy or the amount of training given, the Barrett-Lennard Relationship Scale was administered to each subject. To control for the order of presentation of these two tasks, that is, to eliminate any possibility that task 1 could influence positively or negatively task 2, subjects in each group were randomly assigned to the Barrett-Lennard Relationship Scale or the Helping Interview as task 1. In effect, this meant that, while half of the subjects in

each group were responding to the Barrett-Lennard scale (referred to as Group A), the other half were conducting their interviews (referred to as Group B). The order was then reversed in the second half of the testing.

The helpers were randomly assigned to the helpees for the 30-minute interviews. Individual rooms were used for interviews, all equipped with tape recorders. Prior to the interview, the helpees were again reminded that they were participating in a study involving listening skills, that their sharings during the 30-minute taped interview would serve as a stimulus for the listeners who would later be rated as to how well they utilized the skills in which they had been trained, and that the tape recordings were confidential and would be used exclusively for research purposes. Helpees were also requested to inform the trainer if they randomly were assigned to a helper whom they knew, since the author felt that in such a study as this, a more genuine, interpersonal encounter might occur than would be the case if the helper and helpee were acquainted.

The helpers, before the interview, were told to be as empathic as possible during the interview, and were aware of the method of soliciting the volunteer helpees as well as what information had been shared with the helpees regarding the study. The helpers, too, were requested to inform the trainer if they were paired with a helpee whom

they knew. Helpers were shown the rooms that were being used for the interviews, and familiarized with the tape-recording equipment in order to reduce anxiety and become somewhat comfortable in the environment.

(c) Rating procedure.- In this section, the training of the judges will be described, as well as the procedures used to select the excerpts from the Helping Interviews, the rating of the verbal empathy responses, and the reliability of the judges.

(i) Training of judges.- The author chose clinically naive subjects to serve as raters. Five women who were teachers volunteered their services. These five potential raters were given the following training:

1. presentation of theoretical material related to empathy and discussion of it

2. presentation and explanation of Carkhuff's empathy scale with verbal illustrations presented by the author

3. review of the scale and practice rating

4. test on Index of Discrimination
   The Index of Discrimination is composed of 16 expressions by helpees of problems, and in response to each expression there are four possible helper responses. The rater taking the test is asked to rate each response on the empathy scale of Carkhuff. It is then possible to compare the trainees' ratings with those provided by Carkhuff. The two raters demonstrating the lowest deviation scores on the Index of Discrimination were eventually selected as judges.

5. discussion by the trainees of ratings given on the Index of Discrimination

6. rating and discussion of 42 excerpts over a period of two further training sessions.

(ii) Selection of excerpts.- Though to have the judges rate the total interview would have been ideal, this was not feasible in terms of time. It was then necessary to select excerpts from the interviews. Based on a number of studies undertaken by Carkhuff and his associates on segment length and segment location, Carkhuff (1969b) proposes the following procedures:

1. It is usually most efficient to employ samples of the briefest duration (approximately 2 minutes).

2. Random or predesignated means of sampling or a combination of both (e.g., random sampling with designated periods) will increase the probability of securing representative excerpts.

3. Excerpts should include at a minimum a helpee-helper-helpee interaction (p. 223-244).

In this study, excerpts including at a minimum a helpee-helper-helpee interaction were randomly selected from 2-minute segments of the first, middle, and final third of each interview. In those cases where a helpee-helper-helpee interaction did not take place, another excerpt meeting this requirement was randomly selected in that third of the interview. A total of 186 excerpts was selected in this manner.

(iii) Rating.- The 186 excerpts, once identified and coded, were copied from the original interviews onto a master tape. These coded excerpts were then randomized and presented to the two judges for rating. Forty-five excerpts were randomly selected and presented to the two judges for rerate so as to determine their intrajudge reliabilities.

The judges indicated each rating, with its accompanying code, on a separate sheet so as to avoid being influenced by the previous rating. The judges worked individually and determined their own time schedules within a set deadline. They were also given the following guidelines:

1. Ratings tend to become unreliable when raters work for more than two consecutive hours without a break.

2. It is usually preferable that a rater work not more than four or five hours per day.

3. Raters should not discuss their ratings with one another.

The raters were given no detail of the research nor the goal of the study. They knew only that empathy was one variable under study.

(iv) Reliability of judges.- With regard to the ratings given by the judges to the Helping Interviews, two types of reliabilities will be reported: first, the interjudge reliability which refers to the agreement between the

two judges' ratings; and second, the intrajudge reliability which refers to the consistency with which the same judge ascribes a rating to the same excerpt in two different time periods.

Table 2 indicates the inter- and intrajudge reliabilities for the Helping Interview ratings. The interjudge reliability was calculated by means of the Ebel intraclass reliability as reported by Guilford (1954). Based on 186 excerpts, it was .96.

The intrajudge reliability was calculated by means of the Pearson correlation on 45 excerpts. Reliability for judge 1 was .79, and for judge 2 was .82.

The coefficients reported compared favorably to the interjudge reliabilities reported by Truax and Carkhuff (1967). In 28 studies reviewed, they reported interjudge reliabilities (Ebel) varying from .43 to .95. Interjudge reliability indicates a high degree of correlation between the judges' ratings. Therefore, it was assumed that the judges employed in this study reached acceptable levels of reliability.

Table 2

Inter- and Intrajudge Reliabilities (Ebel & Pearson) for the Helping Interview

Reliability	Judges	N	r
Interjudge	1 and 2	186	.96
Intrajudge	1	45	.79
	2	45	.82

4. Analysis of the Data.

Raw scores on the Empathy vs. Egocentrism Scale (P) of the Comrey Personality Scales and the RI scale of empathic understanding - Client Form - were determined for each of the 62 trainees. In addition, the age of the trainer, the amount of time (6 or 12 hours) spent in the training situation, the age of the "client" the trainee interviewed during the Helping Interview, and the order of presentation of the RI (first or second) relative to the Helping Interview were accumulated for each of the trainees. Finally, the score on the Helping Interview was determined for each trainee by summing the six ratings given by the judges. Ratings for levels of offered empathy were given by judges in accord with the Empathic Understanding in Interpersonal Processes: A Scale for Measurement in which a minimally facilitative level of empathic functioning is operationally defined. Two judges had each rated three 2-minute excerpts from the taped Helping Interview of each trainee. The sum of the six ratings determined the trainee's level of communicated empathy. On the basis of the average level of communicated empathy in the Helping Interview, trainees were divided into two groups, one group consisting of those trainees who had successfully reached at least minimally facilitative levels of empathic functioning after training, and the second group being comprised of those

trainees who had not. A sum score of 17.5 or greater was determined necessary for the trainee to be included in the group of those trainees who had attained at least a minimally facilitative level of empathic functioning after training. The raw data for each trainee in this study may be found in Appendix 5.

The principle techniques of analysis were a series of six 2-group discriminant analyses and a stepwise 4-group multiple-discriminant analysis, both employing the IBM computer at the Computing Centre at the University of Ottawa. A user's program of discriminant analysis was chosen from Statistical Package for the Social Sciences, Second Edition (SPSS, Nie et al., 1975). Multiple-discriminant analysis was chosen as the test statistic because it most completely answers the questions: "Is it possible to discriminate among the different groups on the basis of their scores on the measures of the identified variables involved in the acquisition of state empathy, and if so, which variable or combination of variables best accomplishes this?"

The 2-group comparisons were between the following groups:

(a) Low state empathy vs. High state empathy (Lo vs. Hi)

(b) Training time 6 hours vs. Training time 12 hours (6 vs. 12)

(c) Low state empathy after 6 hours of training vs. High state empathy after 6 hours of training (Lo 6 vs. Hi 6)

(d) Low state empathy after 12 hours of training vs. High state empathy after 12 hours of training (Lo 12 vs. Hi 12)

(e) Low state empathy after 6 hours of training vs. Low state empathy after 12 hours of training (Lo 6 vs. Lo 12)

(f) High state empathy after 6 hours of training vs. High state empathy after 12 hours of training (Hi 6 vs. Hi 12).

The 4-group multiple-discriminant analysis included the groups Lo 6, Hi 12, Hi 6, and Lo 12. Throughout the analyses, the scores on the measures of the identified variables were considered in relation to groups divided by state empathy and time.

For each of the two types of analyses, the means and standard deviations for the various groups on the scores on measures of the identified variables were computed. The differences among the groups on each scale were tested for significance by an F ratio. A discriminant-function analysis was then conducted in a stepwise fashion on all groups using the raw scores on the measures of the identified variables to eliminate the less useful ones before performing the actual analysis. Rao's "V" (Rao, 1952, ch. 8) was used as the stepwise criterion for inclusion into the analysis. Wilks' lambda (Cooley & Lohnes, 1962) was computed and tested for significance by a chi

square approximation in order to determine whether the vectors of means for the measures of identified variables across the groups were significantly different from each other. Each discriminant function was tested for significance by a chi square test (Bartlett, 1947). The centroids and dispersions of each group on each discriminant function were then computed. When the overall chi square test indicated significance, an attempt was made to predict these same trainees' level of state empathy and amount of time spent in the training situation from their discriminant-function scores. That is, each person, treated as a point in the discriminant-function space, was predicted to be a member of that group of which their point fell closest to the centroid. Probabilities of prior group membership based upon the uneven number of subjects in the groups was taken into consideration in making the predictions.

For statistical significance, it was decided to accept the .01 level of probability in all cases where significance was tested. The results of these analyses are presented and discussed in the next chapter.

CHAPTER III

PRESENTATION AND DISCUSSION OF RESULTS

The first section of this chapter deals with presentation of the results of the analyses performed on the experimental data. The findings of these analyses are discussed in the second section, and the chapter ends with suggestions for further research.

1. Presentation of the Results of the Analyses.

The hypotheses regarding differences in scores or patterns of scores on measures of specific identified components involved in the training of empathy skills with respect to the variables of state empathy and the amount of time spent in the training situation were tested by discriminant and multiple-discriminant analyses.

The results are presented in a similar manner for each of the experimental hypotheses in order to facilitate comparison of findings for the seven discriminations. The order of presentation is as follows:

1. group means and standard deviations
2. univariate F ratios and corresponding significance
3. discriminant function summary data
4. standardized discriminant function coefficients
5. group centroids

6. prediction results

7. in the case of the 4-group analysis, centroids of the groups in the discriminant function space.

Additional information for interest, replication, or further research is provided in the form of raw scores used for this study (Appendix 5), within-groups correlation matrix for each analysis (Appendix 6), classification function coefficients for each analysis (Appendix 7), and unstandardized discriminant function coefficients for each analysis (Appendix 8).

In order to test hypothesis 1.1, regarding differences in scores on measures of identified components involved in the training situation between trainees who were successful in attaining facilitative levels of empathic functioning after training in empathic skills and those trainees who were unsuccessful after training, a discriminant analysis including all of the 62 subjects was employed. The results of the analysis are presented in Tables 3 through 8.

Table 3 indicates that the Low State Empathy group has a high mean on the age of the trainee and a relatively low mean on trait empathy when contrasted with the High State Empathy group. This pattern is reflected as well in Table 4 where, out of the five components identified, the age of the trainee results in an F ratio significant at less than the .001 level. The remaining four components are

Table 3

Components in the Training Situation: Group Means and Standard Deviations for the Low State Empathy (Lo)-High State Empathy (Hi) Discrimination

Components	Low State Empathy (n=46)	High State Empathy (n=16)	Total Sample (N=62)
	Means		
Trait	108.4348	115.1875	110.1774
Age of trainee	51.9130	33.8750	47.2581
Age of "client"	28.7826	29.2500	28.9032
Perceived empathy level-of-functioning of trainer	29.7391	28.1250	29.3226
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	1.5435	1.3750	1.5000
	Standard Deviations		
Trait	12.4131	13.5017	12.9372
Age of trainee	13.7143	8.3417	14.8047
Age of "client"	14.2157	16.4093	14.6743
Perceived empathy level-of-functioning of trainer	9.2074	10.7696	9.5691
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	.5036	.5000	.5041

Table 4

Components in the Training Situation: Univariate F Tests for the Low State Empathy-High State Empathy Discrimination

Component	Wilks' Lambda	F Ratio	p
Trait	0.9470	3.3599	ns
Age of trainee	0.7111	24.3752	.001
Age of "client"	0.9998	0.0118	ns
Perceived empathy level-of-functioning of trainer	0.9945	0.3341	ns
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	0.9783	1.3333	ns

df = 1,60

not significant, though trait empathy tends toward significance at the .05 level. These data indicate that a significant difference exists between the two groups on at least the age variable as a component in the training situation.

The discriminant analysis was performed in a stepwise manner; that is, the most discriminating variable is first considered alone, then the variables which account for most of the remaining unexplained variance are added one at a time and in order of their importance. The criterion used in this study was the overall multivariate F ratio for the test of differences among group centroids. In this case, the variable which maximizes the F ratio also minimizes Wilks' lambda, a measure of group discrimination. Table 5 indicates the discriminating power of the discriminant analysis with a chi square approximation of 25.352, which is significant at less than the 0.001 level with 3 degrees of freedom. Since there were only two groups in this analysis, only one discriminating function is possible, accounting for 100% of the variation between Low State Empathy and High State Empathy groups. These data suggest that the chance of producing group differences this large or larger by drawing two random samples from a four-dimension multivariate swarm is less than one in ten thousand. These results indicate that discrimination is possible on the

Table 5

Components in the Training Situation: Discriminant Function Summary Data for the Seven Discriminant Analyses

Comparison	Function	Relative %	Wilks' Lambda	Chi Square	df	p
Lo-Hi	1	100	0.6483	25.352	3	0.001
6-12	1	100	0.9033	6.049	1	0.014
Lo 6-Hi 6	1	100	0.5700	15.740	4	0.003
Lo 12-Hi 12	1	100	0.4614	20.497	3	0.0001
Lo 6-Lo 12	1	100	0.9343	2.957	1	ns
Hi 6-Hi 12	1	100	0.7961	3.079	1	ns
Lo 6-Hi 6-Lo 12-Hi 12	1	67.30	0.4909	40.554	12	0.0001
	2	25.75	0.7735	14.640	6	0.023
	3	6.96	0.9438	3.294	2	ns

basis of the predictor variables used (i.e., the five identified components in the training situation).

Thus, hypothesis 1.1, which in the null form held that the two groups had similar scores or patterns of scores on the components, can now be regarded as not tenable. Group differences obtained may now be examined in Tables 6 and 7.

Table 6 shows the standardized discriminant function coefficients for a number of the different analyses, including the Low State Empathy-High State Empathy discrimination. These scaled weights indicate the relative contribution of each of the components in determining the discriminant score for placement of individuals along the discriminant function axis. The sign merely indicates whether the variable is making a positive or negative contribution. Hence, in the case of the Lo-Hi discrimination, Table 6 indicates that the age of the trainee (-0.90030) and trait empathy (0.40833) constitute the largest contribution in opposite directions on the function, while the perceived empathy level-of-functioning of the trainer (-0.20308) is of lesser importance but still meaningful in separating the groups along the function. As in factor analysis, these contributing coefficients can be used to "name" the functions by identifying the dominant characteristic or characteristics they measure (Nie et al., 1975). Function 1, therefore, in

Table 6

Components in the Training Situation: Standardized Discriminant Function Coefficients for the Low State Empathy-High State Empathy (Lo-Hi) 6 Hours of Training Time-12 Hours of Training Time (6-12), and Low State Empathy 6 Hours-High State Empathy 6 Hours (Lo 6-Hi 6) Discriminations

Components	Comparisons		
	Lo-Hi	6-12	Lo 6-Hi 6
Trait	0.40833	-	0.59075
Age of trainee	-0.90030	-	-0.53711
Perceived empathy level-of-functioning of trainer	-0.20308	-	0.39062
Age of "client"	-	1.00000	-0.29967
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	-	-	-

Note: Missing scales were not significant enough for inclusion in the stepwise discriminant analysis.

the case of the Lo-Hi discrimination could be labelled as essentially an age-trait continuum, with each at opposite poles.

Table 7 represents the group centroids for all seven of the analyses. The placement of the Lo-Hi groups along the function or continuum mentioned above may be readily determined by inspecting their respective group centroids listed in Table 7. In this way, the data may be employed to classify individuals in terms of their location along the function axis. Thus, an individual with a discriminant function score nearing that of the Low State Empathy centroid (-0.34692) would be classified into the Low State Empathy group, while a trainee with a score closer to the High State Empathy centroid (0.99740) would fall into the High State Empathy group. The relative closeness to a centroid would dictate the degree of accuracy or probability of correct classification. This point will be further discussed later in this chapter.

Success or lack thereof in a discriminant analysis can be measured by employing the discriminating variables and their respective unstandardized weights (Appendices 7 and 8) to classify individuals into the prescribed groups on the basis of their discriminant function score(s) alone, regardless of their actual group membership. This information for the Low State Empathy-High State Empathy

Table 7

Components in the Training Situation: Group Centroids in Reduced Space for the Seven Discriminant Analyses

Analyses	Function 1	Function 2	Function 3
Analysis 1			
Lo	-0.34692	-	-
Hi	0.99740	-	-
Analysis 2			
6	-0.27664	-	-
12	0.29508	-	-
Analysis 3			
Lo 6	-0.34153	-	-
Hi 6	1.21975	-	-
Analysis 4			
Lo 12	-0.47237	-	-
Hi 12	1.10219	-	-
Analysis 5			
Lo 6	-0.20981	-	-
Lo 12	0.24977	-	-
Analysis 6			
Hi 6	0.65164	-	-
Hi 12	-0.50683	-	-
Analysis 7			
Lo 6	0.22227	-0.02638	0.27194
Lo 12	0.49066	-0.02955	-0.26567
Hi 6	-0.84347	1.01470	-0.06659
Hi 12	-1.10625	-0.64698	-0.08372

Note: Only Analysis 7 involved more than two groups, hence it was the only one to have more than one function.

discrimination is presented in the form of a classification matrix in Table 8. This matrix indicates the number of cases who were correctly and incorrectly predicted to be members of the respective groups. It can be seen, for example, that of the 46 Low State Empathy trainees in the analysis, 39 were correctly classified as Low State Empathy trainees on the basis of their discriminant function scores, while 7 were incorrectly classified. These figures represent 84.8% and 15.2%, respectively. Similarily, of the 16 High State Empathy trainees, 7 or 43.8% were correctly classified as High State Empathy trainees, leaving an error of 9 cases, or 56.3%.

Prior probability of group membership is also important in this matrix. As can be readily determined, a subgroup of 46 Low State Empathy trainees in a pool of 62 trainees is more likely to have one of its members chosen in a random pick as they represent more than half of the population. Thus, prior probabilities of group membership have been based upon relative group size, and may be used as a base against which to compare the predicted group membership figures.

In order to test hypothesis 1.2, regarding differences in scores on measures of the identified components between trainees who were involved in the training situation for 6 hours and trainees who were involved in the training

Table 8

Components in the Training Situation: Prediction Results for the Low State Empathy (Lo)-High State Empathy (Hi) Discrimination

Actual Group	N	Prior Probability	Predicted Group Membership: Lo	n	Hi	n
Lo	46	74.2%	84.8%	39	15.2%	7
Hi	16	25.8%	43.8%	7	56.3%	9
Cases correctly classified			77.42%			

Note: Prior probabilities are based upon relative group size.

situation for 12 hours, a second discriminant analysis including the 62 subjects was employed, switching the variable which divided the groups from state empathy to amount of time spent in the training situation. The results of the analysis are presented in Tables 5 through 7, and 9 through 11.

Table 9 shows minimal differences in means on the component scores with the exception of the age of the client. This is reflected in Table 10, where none of the scores on measures of the identified components provides an F ratio at the .01 level of significance when a comparison between trainees having received 6 hours of training and those receiving 12 hours of training is made. The age of the client, while not reaching a probability of .01, is the closest to being significant. This data suggests that significant differences between trainees involved in 6 hours of training and those involved in 12 hours of training may not exist on scores measuring certain components.

This analysis, as all of the others, was carried out in a stepwise fashion, culminating in a discriminant function that is just over the .01 level with 1 degree of freedom. The data indicates that producing these differences by chance is unlikely, and that discrimination between trainees involved in 6 hours of training and those involved in 12 hours of training on the basis of a score(s) on a measure(s) of a component(s) is possible. (See Table 5.)

Table 9

Components in the Training Situation: Group Means and Standard Deviations for the 6 Hours of Training-12 Hours of Training Discrimination

Components	6 Hrs. Tr. (n=32)	12 Hrs. Tr. (n=30)	Total (N=62)
	Means		
Trait	110.7813	109.5333	110.1774
Age of trainee	47.1875	47.3333	47.2581
Age of "client"	24.8438	33.2333	28.9032
Perceived empathy level-of-functioning of trainer	29.7813	28.8333	29.3226
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	1.5625	1.4333	1.5000
	Standard Deviations		
Trait	12.0530	13.9970	12.9372
Age of trainee	14.3896	15.4816	14.8047
Age of "client"	11.2883	16.7078	14.6743
Perceived empathy level-of-functioning of trainer	9.8791	9.3701	9.5691
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	.5040	.5040	.5041

Table 10

Components in the Training Situation: Univariate *F* Tests for the 6 Hours Training-12 Hours Training Discrimination

Component	Wilks' Lambda	*F* Ratio	*p*
Trait	0.9976	0.1421	ns
Age of trainee	1.0000	0.0014	ns
Age of "client"	0.9170	5.4286	ns
Perceived empathy level-of-functioning of trainer	0.9975	0.1498	ns
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	0.9833	1.0169	ns

df = 1,60

Therefore, hypothesis 1.2, which in the null form held that trainees in the 6-hour training session and those in the 12-hour training session had similar scores or patterns on the measures of the identified components, must be rejected.

The standardized discriminant function coefficient in Table 6 shows that in the training-time discrimination the only contributor in separating 6-hour trainees from 12-hour trainees was the age of the "client" used in the measure of state empathy. Table 5 shows the centroids for the 6 hours-12 hours discrimination as -.34692 and 0.99740, respectively.

The classification matrix is shown in Table 11, in which trainees engaged in 6 hours of training were correctly classified 96.9% of the cases, while trainees in 12 hours of training were correctly classified only 3.3% of the time.

Hypothesis 1.3, regarding differences in scores between Low State Empathy trainees after 6 hours of training and High State Empathy trainees after 6 hours of training, was tested with a third discriminant analysis involving the 32 trainees engaged in the 6 hours of training and changing the independent variable back to state empathy. The results of this analysis are presented in Tables 5 and 7, and 12 through 15.

Table 11

Components in the Training Situation: Prediction Results for the 6 Hours Training-12 Hours Training Discrimination

Actual Group	N	Prior Probability	Predicted Group Membership Lo	n	Hi	n
6	32	51.6%	96.9%	31	3.1%	1
12	30	48.4%	96.7%	29	3.5%	1

Cases correctly classified 51.61%

Note: Prior probabilities are based upon relative group size.

The means for these two groups, presented in Table 12, appear to differ most on the component of trait empathy and the component of the age of the trainee. Closely following is the difference in the scores of the perceived empathy level-of-functioning of the trainer. These differences are reflected in Table 13, which shows that, of the five components, only the trait empathy and age of the trainee hold significant differences between the two groups at the .05 and .01 levels of significance, respectively, while the other three scales were found to have insignificant differences in means. These findings indicate that differences do exist between trainees who after 6 hours of training function at minimally facilitative levels of functioning in empathy and those who after 6 hours of training do not, at least in terms of two components involved in the training situation.

Following the stepwise analysis, the resulting discriminant function was tested for significance by a chi square approximation. The chi square was 15.740 which, with 4 degrees of freedom, was significant at the .003 level. This suggests that discrimination between low and high state empathy trainees after 6 hours of training is possible on the basis of their scores on two of the five identified components. (See Table 5.)

Table 12

Components in the Training Situation: Group Means and Standard Deviations for the Low State Empathy 6 Hours of Training (Lo 6) - High State Empathy 6 Hours of Training (Hi 6) Discrimination

Components	Lo 6 (n=7)	Hi 6 (n=25)	Total Sample (N=32)
	Means		
Trait	108.0800	120.4286	110.7813
Age of trainee	50.5200	35.2857	47.1875
Age of "client"	25.8000	21.4286	24.8438
Perceived empathy level-of-functioning of trainer	28.2800	35.1429	29.7813
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	1.6000	1.4286	1.5625
	Standard Deviations		
Trait	10.5592	12.8699	12.0530
Age of trainee	13.7694	9.9953	14.3896
Age of "client"	11.8181	9.0712	11.2883
Perceived empathy level-of-functioning of trainer	10.6047	3.3877	9.8791
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	.5000	.5345	.5040

Table 13

Components in the Training Situation: Univariate *F* Tests for the Lo 6-Hi 6 Discrimination

Component	Wilks' Lambda	*F* Ratio	*p*
Trait	0.8148	6.8171	.05
Age of trainee	0.8023	7.3939	.01
Age of "client"	0.9735	0.8152	ns
Perceived empathy level-of-functioning of trainer	0.9149	2.7916	ns
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	0.9796	0.6250	ns

df = 1,30

The null form of hypothesis 1.3, which held that low and high state empathy trainees after 6 hours of training would have similar scores or patterns of scores on measures of the five components, must be rejected.

Table 6 contains the standardized discriminant function coefficients for the Lo 6-Hi 6 discrimination. It shows that trait empathy and the age of the trainee were the two largest contributors to separation of high and low state empathy trainees after 6 hours of training time. Also adding power to the discriminating function, though to a lesser extent, is the perceived empathy level-of-functioning of the trainer and the age of the "client" used in the measure of state empathy.

Table 15 presents the prediction or classification results, and indicates that trainees who functioned at minimally facilitative levels of functioning in empathic skills after 6 hours of training were identified 85.7% of the time, while trainees who did not reach a minimally facilitative level of empathy functioning were correctly classified in 96% of the cases. Total cases correctly classified by the discriminant function used to separate trainees who attained high state empathy functioning after 6 hours of training in empathic skills from trainees who were unsuccessful after 6 hours of training was 93.75%.

Table 14

Components in the Training Situation: Standardized Discriminant Function Coefficients for the Low State Empathy 12 Hours Training Time (Lo 12)-High State Empathy 12 Hours Training Time (Hi 12), Low State Empathy 6 Hours Training Time (Lo 6)-Low State Empathy 12 Hours training Time (Lo 12), and High State Empathy 6 Hours training Time (Hi 6)-High State Empathy 12 Hours Training Time (Hi 12) Discriminations

Components	Comparisons		
	Lo 12-Hi 12	Lo 6-Lo 12	Hi 6-Hi 12
Trait empathy	0.39922	-	-
Age of trainee	-0.72510	-	-
Perceived empathy level-of-functioning of trainer	-0.57050	-	1.00000
Age of "client"	-	1.00000	-
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	-	-	-

Note: Missing scales were not significant enough for inclusion in the stepwise discriminant analysis.

Table 15

Components in the Training Situation: Prediction Results for the Low State Empathy 6 Hours Training Time (Lo 6)-High State Empathy 6 Hours Training Time (Hi 6) Discrimination

Actual Group	N	Prior Probability	Predicted Group Membership Lo 6	n	Hi 6	n
Lo 6	25	78.2%	96.0%	24	4.0%	1
Hi 6	7	21.8%	14.3%	1	85.7%	6
Cases correctly classified			93.75%			

Note: Prior probabilities are based upon relative group size.

In order to test hypothesis 1.4, regarding differences in scores between trainees who attained high state empathy after 12 hours of training and those who did not after the same amount of hours, a fourth analysis was carried out employing the 30 trainees who were involved in the 12-hour group. Again the group was divided on the basis of state empathy. The results of the analysis are presented in Tables 5, 7, 14, and 16 through 18.

Table 16 shows that trainees who attained facilitative levels of empathic functioning after 12 hours of training have a lower mean age and also a lower perception of the trainer as functioning empathically than their low state empathy counterparts. The latter group appears to be somewhat lower on their mean score of trait empathy as compared to the high state empathy group. Significant differences in the age of the trainee ($p < .001$) and the perception of the trainer ($p < .01$) can readily be seen in Table 17, which presents the univariate F ratios of the five components for this discrimination. The remaining components were found to have nonsignificant F ratios. It can be said from this that differences between high and low state empathy trainees after 12 hours of training do exist on two of the components, and that these differences are significant.

Table 5 presents the significance of the resulting discriminant function which, in this case, is less than .0001 with 3 degrees of freedom. This suggests that it is unlikely

Table 16

Components in the Training Situation: Group Means and standard Deviations for the Low State Empathy 12 Hours of Training (Lo 12)-High State Empathy 12 Hours of Training (Hi 12) Discrimination

Components	Lo 12 (n=21)	Hi 12 (n=9)	Total Sample (N=30)
	Means		
Trait	108.8571	111.1111	109.5333
Age of trainee	53.5714	32.7778	47.3333
Age of "client"	32.3333	35.3333	33.2333
Perceived empathy level-of-functioning of trainer	31.4762	22.6667	28.8333
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	1.4762	1.3333	1.4333
	Standard Deviations		
Trait	14.5785	13.2237	13.9970
Age of trainee	13.7970	7.2419	15.4816
Age of "client"	16.2091	18.6548	16.7078
Perceived empathy level-of-functioning of trainer	7.0684	11.5000	9.3701
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	.5118	.5000	.5040

Table 17

Components in the Training Situation: Univariate *F* Tests for the Lo 12-Hi 12 Discrimination

Component	Wilks' Lambda	*F* Ratio	*p*
Trait	0.9944	0.1583	ns
Age of trainee	0.6081	18.0452	0.001
Age of "client"	0.9930	0.1975	ns
Perceived empathy level-of-functioning of trainer	0.8080	6.6546	0.01
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	0.9825	0.4974	ns

df = 1,28

Table 18

Components in the Training Situation: Prediction Results for the Lo 12-Hi 12 Discrimination

Actual Group	N	Prior Probability	Predicted Group Membership: Lo 12	n	Hi 12	n
Lo 12	21	0.70000	95.2%	20	4.8%	1
Hi 12	9	0.30000	77.8%	7	22.2%	2
Cases correctly classified 90.0%						

Note: Prior probabilities are based upon relative group size.

that these differences between groups is due to chance, and that discrimination between trainees who have been involved in 12 hours of training in empathy skills and reach facilitative levels of empathic functioning and those trainees who have received an equal amount of training and not attained facilitative levels of functioning is possible on the basis of their scores on two of the five scales.

On the strength of these findings, hypothesis 1.4, which in null form held that high and low state empathy trainees had similar scores or patterns of scores on the components involved in the training situation, must be rejected.

The standardized discriminant function coefficients presented in Table 14 show that in the Lo 12-Hi 12 discrimination, the age of the trainee (-0.72510) and the perceived empathy level-of-functioning of the trainer by the trainee (-0.57050) were the largest contributors in separating the low state empathy trainees from the high state empathy trainees along the function, while trait empathy (0.39922) offsets the high state empathy trainees from the low ones. In other words, the function along which high and low state empathy trainees can be differentiated could be visualized with high age and high perception of the trainer clustered at the low state empathy end, and high trait empathy at the high state empathy end. This may be readily seen in Table 7

in which the centroids for the Lo 12-Hi 12 discrimination are -0.47237 and 1.10219, respectively.

In the classification phase of the analysis, low state empathy trainees after 12 hours of training were more readily identified with a 95.2% "hit-rate" or accurate classification. High state empathy trainees with 12 hours of training were correctly classified 22.2% of the time and incorrectly 77.8% (Table 18).

The fifth discriminant analysis was carried out to test hypothesis 1.5, regarding differences in scores between low state empathy trainees after 6 hours of training in empathic skills and low state empathy trainees after 12 hours of training in empathic skills. In this case, the 46 low state empathy trainees were employed in an analysis where groups were determined by amount of training time. The results are presented in Tables 5 and 7, and 19 and 20.

Table 19 shows minimal differences between means of the two groups under consideration, with the exception of the age of the client, which appears to be lower in the 6-hour training time group. Such minimal differences are reflected in Table 20 which indicates no significant differences between the Lo 6 and the Lo 12 groups.

Table 5 presents the discriminant function for these groups to be nonsignificant ($p > .05$), meaning that it is not possible for these groups, consisting of trainees who, after

Table 19

Components in the Training Situation: Group Means and Standard Deviations for the Low State Empathy 6 Hours of Training (Lo 6)-Low State Empathy 12 Hours of Training (Lo 12) Discrimination

Components	Lo 6 (n=25)	Lo 12 (n=21)	Total Sample (N=46)
	Means		
Trait	108.0800	108.8571	108.4348
Age of trainee	50.5200	53.5714	51.9130
Age of "client"	25.8000	32.3333	28.7826
Perceived empathy level-of-functioning of trainer	28.2800	31.4762	29.7391
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	1.6000	1.4762	1.5435
	Standard Deviations		
Trait	10.5592	14.5785	12.4131
Age of trainee	13.7694	13.7970	13.7143
Age of "client"	11.8181	16.2091	14.2157
Perceived empathy level-of-functioning of trainer	10.6047	7.0684	9.2074
Order o- presentation of Barrett-Lennard RI Scale of Empathic Understanding	.5000	.5118	.5036

Table 20

Components in the Training Situation: Univariate *F* Tests for the Lo 6-Lo 12 Discrimination

Component	Wilks' Lambda	*F* Ratio	*p*
Trait	0.9990	0.0433	ns
Age of trainee	0.9874	0.5599	ns
Age of "client"	0.9464	2.4905	ns
Perceived empathy level-of-functioning of trainer	0.9694	1.3871	ns
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	0.9847	0.6850	ns

df = 1,44

12 hours of training in empathic skills, have not attained facilitative levels of empathic functioning, to be discriminated between on the basis of the five identified components involved in the training situation. Table 14 lists the standardized discriminant function coefficient used in the analysis as the age of the "client" used in the measure of state empathy. Group centroids are close to each other on the continuum as can be readily seen in Table 7, indicating minimal discrimination on the basis of the single coefficient used in the analysis.

Hypothesis 1.5, therefore, is accepted. It held that the null condition exists in scores or patterns of scores of the two groups on measures of the identified components.

To test hypothesis 1.6, regarding differences in components in the training situation between high state empathy trainees after 6 hours of training and high state empathy trainees after 12 hours of training, a sixth discriminant analysis was carried out including the 16 trainees who had attained minimally facilitative levels of empathic functioning. The amount of time in the training situation was the variable used to distinguish between the groups. The results of this analysis are presented in Tables 5, 7, 14, 21, and 22. Again, minimal differences appear to exist between the means of scores when comparing the two groups being

Table 21

Components in the Training Situation: Group Means and Standard Deviations for the High State Empathy 6 Hours of Training (Hi 6)-High State Empathy 12 Hours of Training (Hi 12) Discrimination

Components	Hi 6 (n=7)	Hi 12 (n=9)	Total Sample (N=16)
	Means		
Trait	120.4286	111.1111	115.1875
Age of trainee	35.2857	32.7778	33.8750
Age of "client"	21.4286	35.3333	29.2500
Perceived empathy level-of-functioning of trainer	35.1429	22.6667	28.1250
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	1.4286	1.3333	1.3750
	Standard Deviations		
Trait	12.8699	13.2237	13.5017
Age of trainee	9.9953	7.2419	8.3417
Age of "client"	9.0712	18.6548	16.4093
Perceived empathy level-of-functioning of trainer	3.3877	11.5000	10.7696
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	.5345	.5000	.5000

Table 22

Components in the Training Situation: Univariate *F* Tests for the Hi 6-Hi 12 Discrimination

Component	Wilks' Lambda	*F* Ratio	*p*
Trait	0.8750	1.9996	ns
Age of trainee	0.9763	0.3402	ns
Age of "client"	0.8115	3.2517	ns
Perceived empathy level-of-functioning of trainer	0.6477	7.6145	.05
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	0.9905	0.1346	ns

df = 1,14

considered in Table 21. This is supported by Table 22 which indicates only the perceived level of functioning in empathy as significant ($p < .05$).

Upon completion of the stepwise analysis, the resulting discriminant function was found to be nonsignificant ($p > .05$), with a chi square of 3.079 and 1 degree of freedom (see Table 5). Table 14 shows that the single standardized discriminant function coefficient used in the analysis was the perceived empathy level-of-functioning of the trainer, and group centroids were close: 0.65164 and -0.50683 for Hi 6 and Hi 12 groups, respectively.

Thus, the null condition state in hypothesis 1.6 must be accepted on the grounds that differences do not exist in terms of scores on measures of identified components for these two groups at the .05 level of probability.

The six previous discriminant analyses always involved only two groups in each analysis. In order to take into account the possible relationships with other groups in the same analysis, the seventh discriminant analysis, which employed the four groups in a single analysis, was undertaken. In order to test hypothesis 2.1, regarding differences in scores on measures of components in the training situation between high state empathy trainees after 6 hours of training, low state empathy trainees after 12 hours of training, high state empathy trainees after 12

hours of training, and low state empathy trainees after 6 hours of training, a multiple-discriminant analysis employing the total 62 trainees was carried out. In this case, groups were divided on the basis of state empathy and amount of training time, and the number of possible discriminant functions was three (number of groups in the analysis minus one). The results of this analysis are presented in Tables 5, 7, and 23 through 26. Figure 1 graphically summarizes the findings by placing the groups' centroids in the discriminant function space.

Table 23 shows that Hi 6 trainees have their highest scores on measures of trait empathy and the perceived level of empathic functioning of the trainer, and lowest means on their own age and the age of the "client" used in the measure of state empathy. Trainees in the Lo 12 group are distinguished by a higher mean age and a relatively higher mean on the "client's" age. Hi 12 trainees have a low mean age and a low mean score on perceived level of empathic functioning of the trainer, while trainees in the Lo 6 group have a high mean age and a low "client" age as most distinguishing features. These findings are in accord with those of the previous analyses, as they must be, since the same subjects were employed in all of the analyses.

Table 24 provides additional information on these differences by showing that the age of the trainee has

Table 23

Components in the Training Situation: Group Means and Standard Deviations for the Hi 6-Lo 12-Hi 12-Lo 6 Discrimination

Components	Hi 6 (n=7)	Lo 12 (n=21)	Hi 12 (n=9)	Lo 6 (n=25)	Total Sample (N=62)
		Means			
Trait	120.4286	108.8571	111.1111	108.0800	110.1774
Age of trainee	35.2857	53.5714	32.7778	50.5200	47.2581
Age of "client"	21.4286	32.3333	35.3333	25.8000	28.9032
Perceived empathy level-of-functioning of trainer	35.1429	31.4762	22.6667	28.2800	29.3226
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	1.4286	1.4762	1.3333	1.6000	1.5000
		Standard Deviations			
Trait	12.8699	14.5785	13.2237	10.5592	12.9372
Age of trainee	9.9953	13.7970	7.2419	13.7694	14.8047
Age of "client"	9.0712	16.2091	18.6548	11.8181	14.6743
Perceived empathy level-of-functioning of trainer	3.3877	7.0684	11.5000	10.6047	9.5691
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	.5345	.5118	.5000	.5000	.5041

Table 24

Components in the Training Situation: Univariate *F* Tests for the Hi 6-Lo 12 - Hi 12-Lo 6 Discrimination

Component	Wilks' Lambda	*F* Ratio	*p*
Trait	0.9128	1.8462	ns
Age of trainee	0.7013	8.2347	0.001
Age of "client"	0.9048	2.0352	ns
Perceived empathy level-of-functioning of trainer	0.8639	3.0468	0.05
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	0.9647	0.7081	ns

df = 3,58

differences among the groups at less than the .001 level, while the perceived level of empathic functioning of the trainer indicated group differences at the .05 level. These findings suggest that significant differences exist between the four groups on two of the five identified components.

Again, the analysis was carried out in a stepwise fashion to avoid inclusion of noncontributing or insignificant variables in the discrimination. In this case, as in the previous analyses, the inclusion level of significance was .001, hence the order of presentation of the Barrett-Lennard RI scale of empathic understanding was not considered as discriminating enough for the analysis.

Table 5 provides the information concerning significance of discriminant functions. It can be seen that three possible functions were calculated, and that the last, while not significant at the .05 level, did account for 6.96% of the variation among groups. Function 1 accounted for 67.30% of the variation and was significant at the .001 level, while Function 2 accounted for the remaining 25.75% of the variation and was significant at the .02 level. This indicates that discrimination is possible in terms of at least two separate and distinct functions on the basis of their scores on measures of components involved in the training situation.

Hypothesis 2.1, therefore, which in the null form stated that the Hi 6, Lo 12, Hi 12, and Lo 6 groups would

have similar scores or patterns of scores on the five identified components, must be rejected.

Table 25 provides the standardized discriminant function coefficients for each of the components on Functions 1, 2, and 3. It can readily be seen that Function 1 has age of the trainee at one end and trait empathy at the other, while Function 2 has the age of the "client" and the perceived level of empathic functioning of the trainer at its extremes. This data, combined with that provided in Table 7, indicates that in Function 1 a higher mean on the component of the age of the trainee is at the low state empathy end of the function in both the 6-hour and 12-hour training-time groups, while trait empathy is at the high state empathy end in both the 6-hour and 12-hour training-time groups. For Function 2, the Hi 6 group is represented by the perceived high level of empathic functioning of the trainer and by high trait empathy, while the Hi 12 group tends toward a high "client" age. Function 3 gives the information that the Lo 12 group may also be represented by a high "client" age, while the Lo 6 group tends toward a high mean on the age of the trainee. Essentially then, Function 1 has as its largest contributors the age of the trainee and the trait empathy components, and best separates the high state empathy group from the low state empathy group. Function 2, with Hi 6 and Hi 12 at opposite poles,

Table 25

Components in the Training Situation: Standardized Discriminant Function Coefficients for the Hi 6-Lo 12-Hi 12-Lo 6 Discrimination

Component	Hi 6-Lo 12-Hi 12-Lo 6		
	Function 1	Function 2	Function 3
Trait	-0.36614	0.35325	-0.21260
Age of trainee	0.89899	-0.04659	0.03806
Perceived empathy level-of-functioning of trainer	0.29674	0.68679	-0.48143
Age of "client"	0.01341	-0.54846	-0.83529
Order of presentation of Barrett-Lennard RI Scale of Empathic Understanding	-	-	-

Note: Missing scales were not significant enough for inclusion in the stepwise discriminant analysis.

best employs the perceived level of empathic functioning of the trainer, trait empathy, and the "client's" age as components for this separation. Function 3 has as its extremes the age of the trainee and the age of the "client," and best separates Lo 6 from Lo 12. Function 3, however, while accounting for 6.96% of the variance among groups, and included in classification computations, was not significant at the .05 level.

Classification results proved rather interesting. Only 44.4% of the high state empathy after 12 hours of training trainees were correctly classified, while 71.4% of their 6 hours of training counterparts were classified into the appropriate category. Low state empathy after 12 hours of training trainees were correctly identified only 42.9% of the time, while low state empathy after 6 hours of training trainees were placed into the right category 60.0% of the time. In sum, prediction results indicate that the analysis proved useful in classifying an average of 53.23% of all cases on the basis of their scores on measures of identified components in the training situation (see Table 26).

Figure 1 provides graphically what Table 7 presents numerically for Functions 1 and 2. That is, group centroids are plotted along the two respective discriminant functions to indicate their relative positions to each other. It can be seen clearly now that Function 1 contributes to most of

Table 26

Components in the Training Situation: Prediction Results for the Hi 6-Lo 12-Hi 12-Lo 6 Discrimination

Actual Group	Prior Probability	Predicted Group Membership			
		Hi 6	Lo 12	Hi 12	Lo 6
Hi 6	11.3%	71.4%	0.0%	0.0%	28.6%
n	7	5	0	0	2
Lo 12	33.9%	9.5%	42.9%	0.0%	47.6%
n	21	2	9	0	10
Hi 12	14.5%	11.1%	11.1%	44.4%	33.3%
n	9	1	1	4	3
Lo 6	40.3%	4.0%	28.0%	8.0%	60.0%
n	25	1	7	2	15

Cases correctly classified 53.23%

Note: Prior probabilities are based upon relative group size.

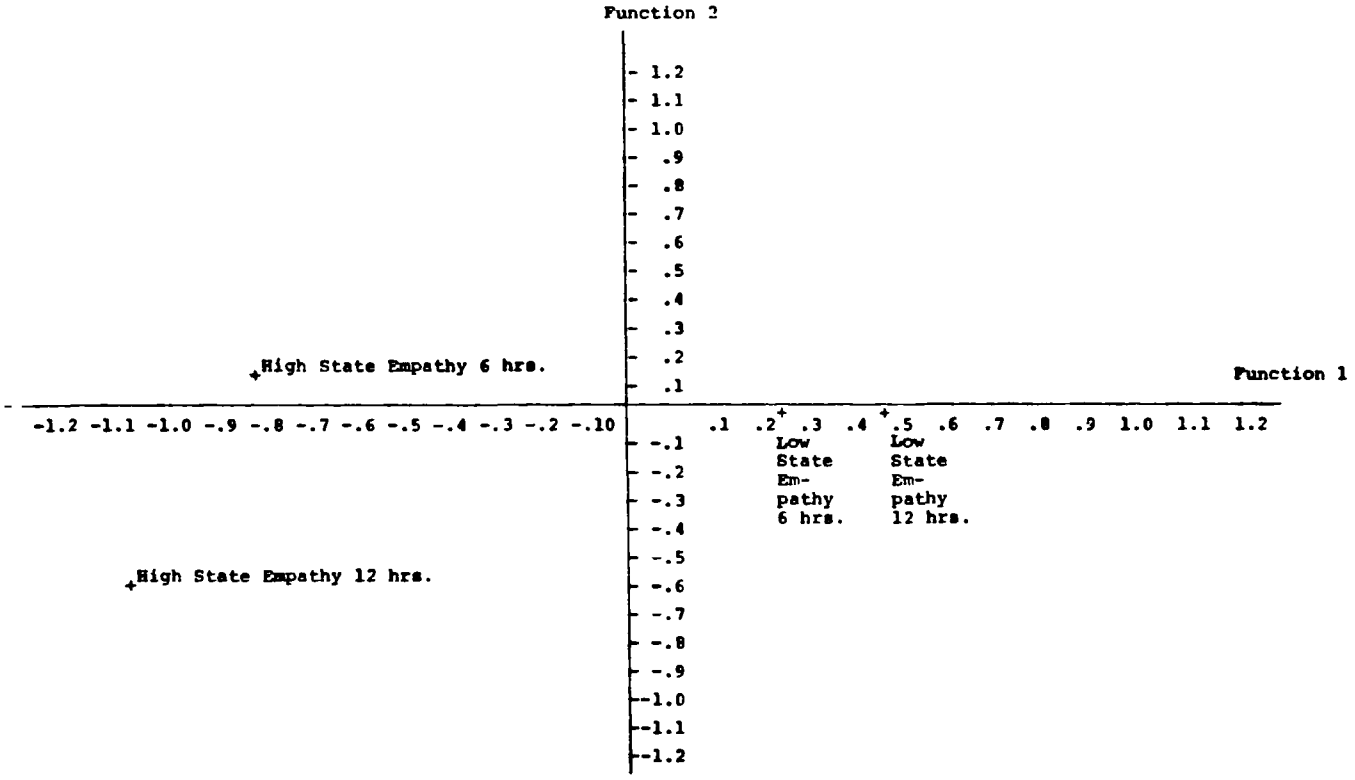

Figure 1. Components in the Training Situation: Centroids of the Four Groups in the Discriminant Function Space for the Hi 6-Lo 12 - Hi 12-Lo 6 Discrimination.

the separation between high and low state empathy after training, regardless of the amount of training. Function 2, while doing little to separate low state empathy groups according to time, discriminates between high state empathy after 6 hours of training and high state empathy after 12 hours of training groups.

This section of Chapter III, then, has presented the results of the discriminant and multiple-discriminant analyses. It was found that in five of the seven analyses the null condition had to be rejected on the grounds that differences in terms of scores or patterns of scores on the five identified components in the training situation did appear to exist. In summary, high state empathy (Hi) trainees after training were different from low state empathy (Lo) trainees after training, training groups of 6 hours duration (6) were different from training groups of 12 hours duration (12), Hi 6 were not similar to Lo 6, Hi 12 were different from Lo 12, and, in the four-group analysis, high state empathy groups (Hi 6, Hi 12) differed significantly from low state empathy groups (Lo 6, Lo 12) on two of the components, while the Hi 6 and Hi 12 groups were further differentiated from each other by two additional components.

The following section will discuss the results presented in light of their implications.

2. Discussion of Results.

The discussion of results will initially center upon the multiple-group discriminant analysis, utilizing the four groups, Hi 6, Lo 12, Hi 12, and Lo 6, since the four-group analysis provides all of the necessary information for some conclusions. Various points and additional conclusions will then be clarified and elaborated upon through inspection of the separate two-group analyses.

In the multiple-group analysis, then, it can be noted in Figure 1 that the Lo 12 group scored highest on Function 1 while the Hi 12 group scored lowest along that function. On Function 2, Hi 6 trainees scored highest, whereas Hi 12 trainees scored lowest. Function 3 (see combined data from Tables 7 and 25) best separates the Lo 6 group from the Lo 12 group. In other words, the first function appears to contrast the Lo 12 with the Hi 12 group, with the Lo 6 and Hi 6 groups lying somewhere in between. The second function seems to result in further separation of the clusters by contrasting the Hi 6 group with the Hi 12 group, this time with the Lo 6 and Lo 12 groups somewhere between the poles. Function 3 best separates the Lo 6 group from the Lo 12 group with the Hi 6 group somewhere in between. An important aspect of these three resultant functions is the finding in Table 5 that Function 1 and Function 2 account for approximately 93% of the variation among the four groups, while the third function accounts for only about 7%.

What kind of information, then, do the functions give with regard to discriminating variables? From inspecting Table 26 and seeing that Hi 6 and Lo 6 trainees were correctly classified 71.4% and 60.0% of the time, respectively, it seems that differences between the Hi 6 and Lo 6 groups, as they have been arranged in the analysis to form Functions 1, 2, and 3, were relatively easier to define and measure than their counterparts. At this point, reference to the various two-group analyses involving the Lo 6 and Hi 6 groups provide added information. Table 15 shows that in the Lo 6-Hi 6 discrimination, Lo 6 trainees were accurately classified in 96% of the cases, while Hi 6 trainees were correctly placed approximately 86% of the time. In the fifth discriminant analysis, however, Lo 6 trainees were shown not to be significantly different from Lo 12 trainees on scores on measures of certain components in the training situation. The null hypothesis is again accepted in the sixth discriminant analysis, where Hi 6 trainees demonstrated no evidence of differences on scores on measures of certain components from Hi 12 trainees. Table 26 reflects this pattern, with 28% of the actual Lo 6 group falling into the Lo 12 group classification, and 47.6% of the actual Lo 12 group falling into the Lo 6 group classification. Basically, then, what the first function specifically does is to contrast the Hi 6 and Hi 12 groups with the Lo 6 and Lo 12 groups. It separates high

state empathy trainees from low state empathy trainees. The first two-group analysis (Lo-Hi) performed the same discrimination. Therefore, while the Lo 6 and Hi 6 groups to a certain extent are easier to measure and define than their counterparts, there is also overlap or resemblance of Lo 6 with Lo 12 group and Hi 6 with Hi 12 groups.

To interpret the nature of the differences in terms of the functions, however, it is necessary to consider the components that define them. From Table 25, for example, for Function 1, it can be noted that the age of the trainee and the perceived level of empathic functioning of the trainer have the highest positive weights for determining the discriminant score in Function 1 (the minimal weight of the age of the client at .01 will be considered negligible), while trait empathy has the highest negative weight. In other words, trainees who were older in age, low in trait empathy, and whose perception of the trainer was relatively high with regard to empathic functioning, tended to fall in a group distinct from trainees who were younger in age, high in trait empathy and who had a relatively lower perception of the empathy level of the trainer. Essentially, the components of trainee's age, trait empathy, and perceived empathy in Function 1 of the four-group analysis are also used to discriminate between Lo-Hi groups in the first two-group analysis, and, as Table 6 indicates, in very near the same proportions. The first discriminant analysis, as can be seen from Table 8, was able to

correctly classify 84.8% of the low empathy group, but only 56.3% of the high state empathy group. It appears, then, considering the Lo-Hi discriminant analysis and Function 1 of the multi-group analysis, that on the basis of age, trait empathy, and the perception of the empathy level-of-functioning of the trainer, a better prediction can be made for trainees who will not achieve the facilitative level-of-functioning in empathy after training, than for trainees who will.

Such a conclusion is particularly interesting with respect to the components involved. Age, for example, does tend to be associated with a variety of psychological and sociological factors, with new skills and new learning sets being more difficult for a person long established in certain behavior patterns to achieve in a relatively short period of time. While the mean age of the trainees in the 6-hour training-time group as compared with the mean age of the trainees in the 12-hour training-time group was almost identical, 47.2 years and 47.3 years, respectively, significant differences within those groups can be observed between trainees who attained high state empathy and those who did not. Table 23 indicates a mean age of 50.5 years for the low state empathy group after 6 hours of training and a mean age of 35.3 years for the high state empathy groups in the same analysis. The mean age of the low state empathy group after 12 hours of training was 53.6 years, while 32.8 years was the

mean for the high state empathy group after 12 hours of training. In all analyses contrasting high state empathy trainees with low state empathy trainees, age was a heavily weighted component (Tables 6, 14, and 25). The total sample ranged in age from 25 to 76 years, with an overall mean age of about 47 years. From the raw data of individual characteristics in Appendix 1, it can be gleaned that while not every "young" trainee achieved a facilitative level of empathic functioning, no trainee over 50 years of age reached high state empathy as rated by the judges. Judges' ages were 27 years and 58 years. The age of the trainee, then, may be considered a very significant component in discriminating between trainees with regard to facilitative empathic functioning after training.

That trait empathy is somewhat influential in predicting state empathy is a valuable finding with regard to its theoretical significance and a useful finding with respect to counselor-training programs. That trait empathy alone is not enough to predict if a trainee will or will not reach facilitative levels of empathic functioning is very evident from the appropriate discriminant functions, but its value as a predictor is also evident. In every analysis discriminating between high and low state empathy groups, trait empathy contributed to the resulting discriminant function (Tables 6, 14, and 25). That in certain analyses trait empathy is more

heavily weighted than in others (particularly in the Lo 6-Hi 6 analysis) may be noted. This finding will be discussed later in this chapter.

A thought-provoking finding in the discriminant functions contrasting Lo-Hi trainees deals with the perceived level of empathic functioning of the trainer. One might initially expect that the higher the level of trainer empathic functioning, as perceived by the trainee, the higher the level of trained state empathy on the part of the trainee. While the overall means and standard deviations for the component of perceived empathy level, as presented in Table 3, are similar in each group, the variance accounted for by Function 1 in the multi-group analysis includes this component as one with certain discriminating power. To use the mean score of 29.3 and the standard deviation of 9.6 (Table 23) for all groups as an indication of trainer functioning in general, would show at least minimally facilitative functioning when compared with a mean score of 22.7 and a standard deviation of 12.9 (Barrett-Lennard, 1962) for at least facilitative functioning on a scale of empathic understanding as perceived by the client. The guess that a higher perception of the trainer's empathic functioning might lead to higher state empathy is not upheld, however, in the instances of the first analysis between Lo-Hi groups, and the fourth analysis between Lo 12-Hi 12 groups. In fact, a negative weight was

assigned to this component in these cases, indicating that a higher score on the component of perceived trainer empathy tended to be associated with membership in the low state empathy group. Such was not the case, though in the Lo 6-Hi 6 discriminant function, where the component of perceived trainer empathy possessed a positive weight (Table 6) and tended to be associated with membership in the high state empathy group in that analysis as can be noted from Table 7. This component also was heavily weighted in Function 2 of the multi-group discriminant analysis, as can be seen from Table 25, and was shown to best separate high state empathy trainees after 6 hours of training from high state empathy trainees after 12 hours of training. The component of the perceived level of empathic functioning of the trainer by the trainee, then, is not consistent in the direction of its weighting in discriminating between high and low state empathy trainees, whereas components of the trainee's age and the level of trait empathy are constant in their direction.

A closer look at Function 2 of the four-group discriminant analysis will lead into further discussion regarding this finding and initiate discussion regarding the component of the age of the "client" during the helping interview.

It is the second function that further clarifies the high state empathy group by discriminating between the high state empathy trainees after 6 hours of training and the high

state empathy trainees after 12 hours of training. As previously mentioned, Function 2 accounts for 25.7% of the variance among the four groups, and, as can be seen readily from Table 25, utilizes the components of perceived level of empathic functioning of the trainer and trait empathy as positive weights, and the age of the client (the minimal contribution of age of the trainee at .046 being negligible) as a negative weight to separate Hi 6 from Hi 12 groups. The technical aspects of such as the above may be explained by referring to Table 21 and noting that the greatest numerical differences between Hi 6 and Hi 12 groups may be found in the same components as those contributing to the second discriminant function. So, in effect, a high perception of the empathic functioning of the trainer ($\underline{M}$ = 35.1), a high level of trait empathy ($\underline{M}$ = 120.4), and a younger "client" during the helping interview ($\underline{M}$ = 21.4) versus a lower perception of the level of empathic functioning of the trainer ($\underline{M}$ = 22.7), a lower level of trait empathy ($\underline{M}$ = 111.1), and an older "client" during the helping interview ($\underline{M}$ = 35.3) are components that, in accord with Function 2, best discriminate between trainees who attain facilitative levels of empathic functioning after 6 hours of training and those who attain facilitative levels after 12 hours of training.

In Function 2, the same components of the perceived empathy level of the trainer and trait empathy are seen to

possess even further discriminating power between those two groups of trainees having in common a facilitative level of empathic functioning, but differing in the amount of training given in order to achieve such. Trainees, then, who reach facilitative levels of state empathy after 12 hours of training are lower in perceived empathy of the trainer as well as in trait empathy, when compared to trainees of the same high state empathic level after 6 hours of training. In these two aspects of lower trait empathy and lower perception of the empathy level-of-functioning of the trainer, Hi 12 trainees resemble Lo 6 trainees. Such a resemblance is reflected clearly in Table 26, where 33.3% of the actual Hi 12 group were misclassified into the Lo 12 predicted group. A high perception of the trainer by the trainee, then, appears to be more related to facilitative functioning after 6 hours of training than after 12 hours of training. In addition, trait empathy is more heavily weighted as a discriminant factor in the shorter training period (6 hours) than in the longer one (12 hours).

The age of the "client," while a component with discriminating power in Function 2, may, in the overall picture of prediction, be of actually less significance than the trainee's perception of empathy and trait empathy. Considering a two-group analysis, that which separated the 6 hours of training group from the 12 hours of training group, it can

be observed from Table 9 that the mean scores and standard deviations for scores on measures of components involved in the training situation for these two groups were almost identical, with the exception of the age of the "client." Table 10 shows no significant differences at the .05 level of probability between the 6-hour and 12-hour groups on any of the measured components. The resultant discriminant function, though, was deemed significant (see Table 5) and successfully predicted 96.9% of the 6-hour group as can be seen from Table 11. The only component involved in the discrimination was age of the "client" (Table 6). While highly successful as a predictor of 6-hour group members, such a discriminant function was very unsuccessful in predicting members of the 12-hour group, attaining, as Table 11 indicates, only 3.3% "hit rate" of accurate classification. In other words, while 96.9% of the "clients" were of a younger age in the measure of state empathy for the 6-hour group, 96.7% were considered alike enough in age from the 12-hour training group to be misclassified. Noting from Table 17 that the mean age of the "client" in the Hi 12 group was not significantly different from the age of the "client" in the Lo 12 group, from Table 14 that such a component was not considered significant enough for inclusion in the two-group stepwise discriminant analysis, and from Function 2,

that it accounts for 25% of the variation among the four groups, one might suggest that the component of the age of the "client" is, in the overall picture, less a predictor of the achievement of facilitative functioning after training than trait empahy and the perceived empathy level of the trainer, both of which are involved in Function 1 as well as Function 2. Function 3, having age of the "client" as its largest contributor, best separates Lo 6 and Lo 12 groups. While accounting for only 6.96% of the variance among groups, it was not a significant function at the .05 level of probability.

As was expected, the order of presentation of the RI measuring the perceived empathy level of the trainer, before or after the Helping Interview, did not affect the measure of state empathy. In no analysis was the order of presentation a discriminant factor with regard to the success or unsuccess of the trainee's attaining a facilitative level of empathic functioning after training.

An intriguing and stimulating prospect for discussion is the question of why both high and low state empathy trainees in 6-hour training groups were better defined and more easily discriminated on the basis of the identified components than trainees in 12-hour programs. Table 10 indicates no significant differences at the .05 level of probability on scores of measures of identified components between the 6-hour

and 12-hour groups. In examining Table 6 and Table 14 for standardized discriminant coefficients in the Lo 6-Hi 6 and Lo 12-Hi 12 groups, respectively, and Table 7 for group centroids for those same analyses, one observes that age is more heavily weighted in the Lo 12-Hi 12 group as a discriminant factor, while trait is more significant in the Lo 6-Hi 6 group. Perceived empathy is more heavily weighted in the Lo 12-Hi 12 group and in the opposite direction than in the Lo 6-Hi 6 group. The age of the "client" is not considered significant enough for inclusion in the stepwise analysis for the Lo 12-Hi 12 group, while it has discriminant power in the Lo 6-Hi 6 analysis. In other words, trainees who, after 6 hours of training in empathic skills failed to reach facilitative levels of empathic functioning, tended to be relatively older ($\underline{M}$ = 50.5 years), had a relatively lower level of trait empathy ($\underline{M}$ = 108.0), rated the trainer as being relatively lower in empathic functioning ($\underline{M}$ = 28.3), and interviewed "clients" who were relatively older ($\underline{M}$ = 25.8) than those trainees who did reach successful levels of facilitative functioning after 6 hours of training, and who tended to be younger ($\underline{M}$ = 32.3), had a relatively higher level of trait empathy ($\underline{M}$ = 120.4), rated the trainer as being relatively high in empathic functioning ($\underline{M}$ = 35.1), and interviewed "clients" who were relatively younger ($\underline{M}$ = 21.4). Thirty out of 32 cases were correctly classified (Table 15) with the

resulting discriminant function in this two-group analysis. Implications are that with the proper set of "qualifications" a potential trainee can reach a facilitative level of empathic functioning after 6 hours of training in empathic skills. It is not surprising to find that, in using the four-group analysis, a lower degree of correct classifications were made than when using the two-group method. It is to be expected intuitively as well as statistically that classifying an individual into one of four groups is more difficult than into one of two.

In the Lo 12 group, trainees, while highly predictable in the two-group discrimination analysis with Hi 12 group trainees (Table 18), were less predictable in the multi-group analysis resembling Lo 6 trainees on components of age and trait. Hi 12 group trainees were difficult to contrast with relation to Lo 12 trainees (Table 18), with only 22% being correctly classified in the two-group analysis, and resembling Lo 6 trainees in the multi-group analysis (Table 26), probably due to similar scores on the component of perception of empathy level of the trainer. Trainees after 12 hours of training, then, appear to be a less homogeneous group on scores on measures of components than trainees after 6 hours of training, whose level of empathy functioning may be fairly well predicted from the same components. That the longer duration of training time in some way reduces the need for

so quite as high a perception of the empathic functioning of the trainer and so quite as high a level of trait empathy in order to attain a facilitative level of state empathy is implied. Perhaps the trainee, through the learning process itself, does indeed eventually learn to say the "right thing at the right time" attaining cognitive empathic competence.

Thus, the salient findings of this study stand out as follows.

1. Significantly different patterns of scores on the measures of certain identified components involved in the training situation were exhibited by certain groups in the analysis. Trainees who successfully reached facilitative levels of empathic functioning after training were significantly younger than those who did not. After 6 hours of training, trainees who successfully reached facilitative levels of empathy functioning were both significantly younger and demonstrated significantly higher scores on the measure of trait empathy than those who did not. After 12 hours of training in empathy, successfully functioning trainees were both significantly younger and scored significantly lower on a measure of their perception of the empathic functioning of the trainer. Trainees who successfully reached facilitative levels of empathic functioning after 6 hours of training scored significantly higher on a measure of their perceptions of the empathic functioning of the trainer than trainees who

successfully reached facilitative levels of empathic functioning after 12 hours of training.

2. State empathy appeared to be a significant variable in the analysis, in that component scores and prediction results were different for the high versus low groups.

3. Trainees in the 6-hour training group appeared more clearly defined and easier to classify on the basis of patterns of their scores on measures of identified components, while trainees in 12-hour training groups had more poorly defined component scores.

4. Low state empathy and high state empathy groups were best described in terms of a high age-low trait versus low age-high trait continuum, respectively. This continuum accounted for approximately 67% of the variability among the four groups. The high state empathy group after 6 hours of training and the high state empathy group after 12 hours of training were best described in terms of a high perception of the empathic functioning of the trainer versus a low perception, with the high state empathy after 6 hours of training group being at the high perception end. This continuum accounted for roughly 26% of the total variation among the four groups. Low state empathy after 6 hours of training and low state empathy after 12 hours of training were best described in terms of a low "client" age during the measure of state empathy versus a high "client" age, respectively. This

continuum accounted for about 7% of the variability among the four groups.

5. Implications for directors and trainers of empathic skills programs would stress the finding that differences of age, trait empathy, and the trainee's perception of the empathic level-of-functioning of the trainer, do exist between trainees who reach facilitative levels of functioning after relatively short training periods (6 hours) and those who do not, and that consideration of age of the trainee, trait empathy scores as measured by the Comrey Personality Scale of Empathy vs. Egocentrism (P), and perceived empathy level-of-functioning of the trainer scores, as measured by the Barrett-Lennard RI scale for empathic understanding, are influential components in predicting state empathy.

Indications are that longer training periods obscure the relationship between certain components and therapeutic competence, though further investigation would be needed to fully support this hypothesis.

3. Suggestions for Further Research.

Possibly the best starting point in any suggestions for further research would be the shortcomings characterizing the original investigation. While the findings of this study can be interesting and intriguing, it would prove necessary and beneficial for further research to increase the relative subgroup population size and include both males and/or

nonprofessional women not affiliated with a religious congregation. Besides providing a more representative sample of each of the subgroups comprising the low and high state empathy populations, such a study using a different sample would also be useful for validation purposes. If similar discriminant findings were made, the next step would be towards cross-validating the power of these scores to differentiate between a second group of trainees, using their discriminant scores to classify them in terms of previous discriminant functions. In other words, a discriminant profile may be established and its usefulness assessed through cross-validation upon an independent sample. From this, a valuable tool for purposes of identifying trainees who might benefit most and most quickly from a training program in empathy, or for selection of lay nonprofessionals for short-term training in the offered empathy aspect of the helping relationship, may be derived.

A specific problem stems from the very nature of the classification system employed in discriminant analysis. Simply stated, discriminant analysis amounts to comparing an individual (employing any experimental variable) to a number of groups that have been statistically differentiated upon these variables, and classifying the individual into the group with the pattern most similar to his own. Statistically, this is accomplished through use of classification equations,

one for each group, that yield probability of group membership. Naturally, the group with the highest probability score is the one into which the individual will be classified by the program. The rule of highest probability, however, defines a very tight dividing line. Consider, for example, an individual in this study having a .51 probability of being in the low empathy group and a .49 probability of classification into the high empathy group. Although this subject would be categorized as a low empathy trainee, the choice is not at all clear, and the individual is really not similar to either group. With this in mind, it may be possible, then, to review the probability figures of each case involved in the study, and remove those below a certain cut-off point, say less than 60 or 65%. In this way, the cases that contributed the least to the determination of the prediction equation will be removed, allowing the study to be re-run with subjects that could now be considered more "typical" of each of the different groups included. Not only would the results of such an investigation by necessity increase the accuracy of predictions, but more importantly would provide clearer dimensions to discriminate the groups.

A study of substantial value would be to test more directly the hypothesis suggested in the discussion section of this study concerning the effects of training time. The same trainees, involved in a long-term training program,

might be periodically checked through the Helping Interview after, for example, 6, 12, 18, and 24 hours of training time to see if a natural empathic disposition and a high perception of empathy-functioning of the trainer are indeed less important for attainment of facilitative levels of empathic functioning as more time is spent in training. In other words, counselors with lower levels of trait empathy and lower perceptions of the empathic functioning of the trainer may develop in the course of training "phenotypic" empathy, as Hogan (1975) would call it. As training time increased, a less and less homogeneous group would result on the basis of components of trait empathy and perceived empathy level of the trainer.

If the major thrust for this research is in the direction of providing useful guidelines for identifying individuals with potential for empathic and facilitative relationships, other "missing links" of data must still be investigated. For example, what is the relationship between "phenotypic" empathy on the part of the counselor and experienced genuineness on the part of the client in a therapeutic relationship? Are trait empathic counselors more aware of their own feelings, more self-exploring? How congruent are "affective-feeling" areas of warmth and unconditional positive regard with trait empathy? These are only a few of the highly thought-provoking and stimulating questions that come to mind

and serve to remind one that attempting to find one truth opens avenues for deeper and broader ones.

SUMMARY AND CONCLUSIONS

The purpose of this research was to discover to what extent affective-feeling as related to the natural empathic disposition of an individual and cognitive-understanding as related to empathy as a trainable, interpersonal skill are related elements to consider when defining empathic ability. More specifically, this study examined differences in age, scores on measures of trait empathy and the perceived empathy level of functioning of the trainer, "client" age, and the order of presentation of certain measures as potentially discriminating factors between trainees who attained facilitative levels of empathic functioning after training in empathic skills and trainees who did not. The study also considered the differences on the same components between trainees involved in 6 hours of training and those involved in 12 hours of training who attained either high or low state empathy functioning after training. The nature and magnitude of determined differences were also important factors.

The final subject pool was composed of 62 professional women who were members of a religious congregation, and who ranged in age from 25 to 76 years. Among these were 32 who underwent 6 hours of empathy training (7 of whom reached facilitative levels of empathy functioning and 25 of whom did not) and 30 who underwent 12 hours of empathy training

(9 of whom reached facilitative levels of functioning and 21 of whom did not).

The data was collected for each subject and analyzed by both a two-group and a four-group discriminant analysis. Results generally indicated that differences did indeed exist when contrasting those who had attained facilitative functioning after training with those who had not, and when contrasting certain combinations of 6 and 12 hours of training time within these groups.

An analysis of the data indicated that component differences manifested themselves in high and low scores for various discriminations. In all cases where the discriminant function was significant, components of the age of the trainee and trait empathy were influential to the discrimination and in opposite directions from one another. The component of the trainee's perception of the trainer's level of empathic functioning varied in the direction of its influence depending on the groups involved in the discrimination. Of lesser influence was the age of the "client," and the order of presentation of the RI as related to the Helping Interview was of no influence whatsoever.

Group centroids were plotted for two of the three discriminant functions established from a four-group analysis. The first function was found to contribute 67.3% to the differentiation, the second function contributed 25.75%, and

the third function was shown to provide 6.96% of the information for discriminating between the groups.

Finally, prediction into group membership on the basis of discriminant scores yielded 71.4% correct classification for high state empathy trainees after 6 hours of training, 60.0% for low state empathy trainees after 6 hours of training, 44.4% for high state empathy trainees after 12 hours of training, and 42.9% for low state empathy trainees after 12 hours of training. Thus, it was suggested that groups which were less difficult to classify were better defined and more homogeneous in terms of components.

Further research was suggested towards the improvement of the present study through a larger and more heterogeneous population, and through cross-validation. Also of value would be studies aimed at measuring the effect of longer training periods on predictors of state empathy and directed toward the discovery of the relationship between trait empathy and other variables involved in identifying the trainee's ability to develop a facilitative relationship.

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APPENDIX 1

INDIVIDUAL ITEMS IN THE COMREY PERSONALITY SCALES THAT COMPRISE THE EMPATHY VS. EGOCENTRISM SUBSCALE (P) (COMREY, 1970)

APPENDIX 1

INDIVIDUAL ITEMS IN THE COMREY PERSONALITY SCALES THAT COMPRISE THE EMPATHY VS. EGOCENTRISM SUBSCALE (P) (COMREY, 1970)

9. I am very kindhearted.

18. I would hate to make a loan to a poor family I didn't know well.

27. I enjoy helping people even if I don't know them very well.

36. I take care of myself before I think about other people's needs.

45. I would like to devote my life to the service of others.

54. I am inclined to be sympathetic.

63. I am generous with the poor.

72. If someone is looking for help, I try to make myself scarce.

81. I think it is more important for those I love to be happy than it is for me to be happy.

90. I would try to avoid a job in which I had to help people with their problems.

99. I am a very sympathetic person.

108. My inclination is to give as little to charity as my conscience will allow.

117. I like to help people even if they don't know who did it.

126. I am rather a selfish person.

135. I have a strong desire to do something for the good of humanity.

144. I am rather insensitive to the difficulties that other people are having.

153. I am willing to share what I can with others less fortunate.

162. I try to get out of helping other people if I can.

171. I like to look after the welfare of the ones I love before I worry about myself.

180. It would be hard for me to spend my life serving other people.

APPENDIX 2

EMPATHIC UNDERSTANDING IN INTERPERSONAL PROCESSES: A SCALE OF MEASUREMENT (CARKHUFF, 1969b)

APPENDIX 2

EMPATHIC UNDERSTANDING IN INTERPERSONAL PROCESSES: A SCALE OF MEASUREMENT (CARKHUFF, 1969b)

Level 1

The verbal and behavioral expressions for the helper either do not attend to or detract significantly from the verbal and behavioral expressions of the helpee(s) in that they communicate significantly less of the helpee's feelings and experiences than the helpee has communicated himself.

EXAMPLE: The helper communicates no awareness of even the most obvious, expressed surface feelings of the helpee. The helper may be bored or disinterested or simply operating from a preconceived frame of reference which totally excludes that of the helpee(s).

In summary, the helper does everything but express that he is listening, understanding, or being sensitive to even the most obvious feelings of the helpee in such a way as to detract significantly from the communications of the helpee.

Level 2

While the helper responds to the expressed feelings of the helpee(s), he does so in such a way that he subtracts noticeable affect from the communications of the helpee.

EXAMPLE: The helper may communicate some awareness of obvious, surface feelings of the helpee, but his communications drain off a level of the affect and distort the level of meaning. The helper may communicate his own ideas of what may be going on, but these are not congruent with the expressions of the helpee.

In summary, the helper tends to respond to other than what the helpee is expressing or indicating.

Level 3

The expressions of the helper in response to the expressions of the helpee(s) are essentially interchangeable with those of the helpee in that they express essentially the same affect and meaning.

EXAMPLE: The helper responds with accurate understanding of the surface feelings of the helpee but may not respond to or may misinterpret the deeper feelings.

In summary, the helper is responding so as to neither subtract from nor add to the expressions of the helpee. He does not respond accurately to how that person really feels beneath the surface feelings; but he indicates a willingness and openness to do so. Level 3 constitutes the minimal level of facilitative interpersonal functioning.

Level 4

The responses of the helper add noticeably to the expressions of the helpee(s) in such a way as to express feelings a level deeper than the helpee was able to express himself.

EXAMPLE: The helper communicates his understanding of the expressions of the helpee at a level deeper than they were expressed and thus enables the helpee to experience and/or express feelings he was unable to express previously.

In summary, the helper's responses add deeper feeling and meaning to the expressions of the helpee.

Level 5

The helper's responses add significantly to the feeling and meaning of the expressions of the helpee(s) in such a way as to accurately express feeling levels below what the helpee himself was able to express or, in the event of ongoing, deep self-exploration on the helpee's part, to be fully with him in his deepest moments.

EXAMPLE: The helper responds with accuracy to all of the helpee's deeper as well as surface feelings. He is "tuned in" on the helpee's wave length. The helper and the helpee might proceed together to explore previously unexplored areas of human existence.

In summary, the helper is responding with a full awareness of who the other person is and with a comprehensive and accurate empathic understanding of that individual's deepest feelings.

APPENDIX 3

INDIVIDUAL ITEMS ON THE RELATIONSHIP INVENTORY-CLIENT FORM THAT COMPRISE THE SCALE OF EMPATHIC UNDERSTANDING (BARRETT-LENNARD, 1962)

APPENDIX 3

INDIVIDUAL ITEMS ON THE RELATIONSHIP INVENTORY-CLIENT FORM THAT COMPRISE THE SCALE OF EMPATHIC UNDERSTANDING (BARRETT-LENNARD, 1962)

2. She wants to understand how I see things.

6. She may understand my words but she does not see the way I feel.

10. She nearly always knows exactly what I mean.

14. She looks at what I do from her own point of view.

18. She usually senses or realizes what I am feeling.

22. Her own attitudes toward some of the things I do or say prevent her from understanding me.

26. Sometimes she thinks that I feel a certain way, because that's the way she feels.

30. She realizes what I mean even when I have difficulty in saying it.

34. She usually understands the whole of what I mean.

38. She just takes no notice of some things that I think or feel.

42. She appreciates exactly how the things I experience feel to me.

46. At times she thinks that I feel a lot more strongly about a particular thing than I really do.

50. She does not realize how sensitive I am about some of the things we discuss.

54. She understands me.

58. Her response to me is usually so fixed and automatic that I don't really get through to her.

62. When I am hurt or upset she can recognize my feelings exactly, without becoming upset herself.

APPENDIX 4

INDIVIDUAL SCORES OBTAINED BY 204 RELIGIOUS WOMEN ON THE COMREY PERSONALITY SUBSCALE OF EMPATHY VS. EGOCENTRISM (P)

APPENDIX 4

INDIVIDUAL SCORES OBTAINED BY 204 RELIGIOUS WOMEN ON THE COMREY PERSONALITY SUBSCALE OF EMPATHY VS. EGOCENTRISM (P)

*Indicates score of a randomly selected subject (n = 62)

Subject	Score	Subject	Score	Subject	Score
1	98	34	123	67	122
2	105	35	112	68	120
3	105	36	135*	69	105
4	113	37	114	70	113
5	126	38	113*	71	114
6	118*	39	95*	72	121*
7	124	40	110	73	130*
8	123	41	119*	74	125
9	111	42	112	75	121
10	119*	43	115	76	105
11	116*	44	123	77	117
12	116	45	100	78	102
13	110*	46	118	79	108
14	100*	47	109	80	111*
15	98	48	110	81	121
16	108	49	98	82	105
17	98	50	85	83	96
18	110*	51	127	84	113
19	124*	52	121	85	106
20	120*	53	104*	86	99
21	120*	54	106*	87	114*
22	128*	55	98	88	113
23	123*	56	81*	89	110
24	91*	57	105	90	96
25	109	58	111	91	123
26	99*	59	137	92	119
27	98*	60	91	93	112*
28	112	61	121*	94	121*
29	116	62	107	95	108
30	129	63	120*	96	94
31	79	64	127	97	95
32	91	65	128	98	108
33	114	66	117	99	102

Subject	Score	Subject	Score	Subject	Score
100	132	140	116	180	123
101	126	141	102*	181	107
102	118	142	98	182	122
103	111	143	113*	183	114*
104	100	144	93*	184	109*
105	100	145	104	185	111
106	102*	146	98	186	90*
107	93	147	119	187	124
108	127	148	111*	188	111*
109	108	149	112	189	135
110	108	150	107	190	121
111	100*	151	113	191	106
112	114*	152	117	192	124
113	122*	153	99	193	117
114	114*	154	127	194	106
115	104	155	120	195	130*
116	108	156	96	196	88*
117	109	157	96	197	113
118	112	158	83	198	117
119	112	159	104	199	96
120	116*	160	113	200	104
121	114	161	105*	201	126
122	115	162	114	202	135
123	115	163	118	203	117
124	104	164	87*	204	101
125	113*	165	128*		
126	104	166	103		
127	106	167	93*		
128	102	168	119*		
129	117	169	99*		
130	108	170	104		
131	129*	171	107*		
132	115*	172	91*		
133	119	173	110*		
134	101*	174	99		
135	118	175	112		
136	115	176	114		
137	100	177	122*		
138	99*	178	79*		
139	124*	179	109		

APPENDIX 5

INDIVIDUAL TRAINEES' RAW DATA ON THE IDENTIFIED COMPONENTS USED IN THE DISCRIMINANT ANALYSES

APPENDIX 5

INDIVIDUAL TRAINEES' RAW DATA ON THE IDENTIFIED COMPONENTS USED IN THE DISCRIMINANT ANALYSES

Identification Number	Hours of Training Time	Trait Empathy Score	Trainee's Age	Client's Age	Order of Presentation of RI	Perception of Empathic Functioning of Trainer by Trainee	State Empathy Sum Score
6	12	118	26	35	1	37	13.5
10	12	119	41	26	1	40	17.5
11	12	116	37	19	1	36	16.5
13	12	110	57	45	1	33	11.0
14	12	100	39	18	2	25	17.0
18	6	110	31	18	1	27	15.0
19	6	124	64	28	1	-1	9.0
20	12	120	76	18	2	27	12.0
21	12	120	67	18	2	40	14.0
22	6	128	50	15	1	30	18.5
23	12	123	46	18	2	20	18.0
24	12	91	49	17	2	16	16.0
26	12	99	27	17	1	23	19.5
27	6	98	43	28	2	35	14.5
36	12	135	61	67	2	45	15.5
38	12	113	58	50	1	35	15.5
39	6	95	59	18	1	16	9.5
41	12	119	28	72	1	12	18.0
53	6	104	58	36	2	38	14.0
54	6	106	33	25	2	29	16.0
56	12	81	52	50	1	28	14.5
61	6	121	27	36	2	37	18.5
63	6	120	26	33	1	39	20.0
72	6	121	58	29	2	48	12.0
73	6	130	43	18	2	33	21.5
80	6	111	56	15	2	35	15.0
87	6	114	58	35	1	40	16.0
93	6	112	58	15	2	15	6.5

Identification Number	Hours of Training Time	Trait Empathy Score	Trainee's Age	Client's Age	Order of Presentation of RI	Perception of Empathic Functioning of Trainer by Trainee	State Empathy Sum Score
94	6	121	28	15	1	35	17.5
106	12	102	62	33	1	30	11.0
111	6	100	44	16	2	34	9.5
112	12	114	29	30	1	36	15.5
113	12	122	31	31	1	18	19.5
114	6	116	25	15	1	31	16.5
120	6	116	33	26	1	33	10.0
125	6	113	58	24	2	25	10.0
131	6	129	69	25	2	34	6.5
132	12	115	62	67	1	32	16.5
134	6	101	57	15	2	22	10.5
138	12	99	51	20	1	35	15.5
139	12	124	28	35	1	40	18.0
141	12	102	27	50	2	5	18.0
143	6	113	74	16	2	12	7.0
144	6	93	29	18	2	39	19.5
148	12	111	71	20	2	29	12.0
161	12	105	28	19	2	22	19.5
164	12	87	39	50	1	24	18.0
165	12	128	62	26	2	42	16.0
167	6	93	55	16	1	28	15.0
168	6	119	30	28	1	24	11.0
169	6	99	48	58	2	31	10.5
171	12	107	36	18	1	34	14.5
172	12	91	69	50	2	20	12.5
173	6	110	27	58	1	22	12.5
177	12	122	56	31	1	26	15.5
178	12	79	46	25	2	25	11.0
183	12	114	59	22	2	30	13.0
184	6	109	63	26	2	26	15.5
186	6	90	61	35	2	37	16.5
188	6	111	46	16	2	23	15.5
195	6	130	44	15	1	33	19.5
196	6	88	55	24	1	43	13.0

APPENDIX 6

WITHIN-GROUPS CORRELATION MATRICES FOR EACH OF THE DISCRIMINANT ANALYSES

APPENDIX 6

WITHIN-GROUPS CORRELATION MATRIX FOR DISCRIMINANT ANALYSIS OF LOW STATE EMPATHY (Lo)-HIGH STATE EMPATHY (Hi)

	Trait	Age of Trainee	Age of Client	Perceived Empathy Level of Functioning of Trainer	Order of Presentation of Barrett-Lennard RI Scale of Empathic Understanding
Trait	1.0000				
Age of Trainee	0.1292	1.0000			
Age of Client	-0.0270	-0.0239	1.0000		
Perceived Empathy Level-of-Functioning of Trainer	0.2003	-0.0545	-0.0070	1.000	
Order of Presentation of Barrett-Lennard RI Scale of Empathic Understanding	-0.0574	0.3264	-0.1705	-0.0456	1.0000

WITHIN-GROUPS CORRELATION MATRIX FOR DISCRIMINANT ANALYSIS OF 6 HOURS OF TRAINING TIME (6) - 12 HOURS OF TRAINING TIME (12)

	Trait	Age of Trainee	Age of Client	Perceived Empathy Level of Functioning of Trainer	Order of Presentation of Barrett-Lennard RI Scale of Empathic Understanding
Trait	1.0000				
Age of Trainee	-0.0175	1.0000			
Age of Client	-0.0095	-0.0304	1.0000		
Perceived Empathy Level-of-Functioning of Trainer	0.1753	-0.0056	0.0066	1.0000	
Order of Presentation of Barrett-Lennard RI Scale of Empathic Understanding	-0.0964	0.3551	-0.1405	-0.0408	1.0000

WITHIN-GROUPS CORRELATION MATRIX FOR DISCRIMINANT ANALYSIS OF Lo 6-Hi 6

	Trait	Age of Trainee	Age of Client	Perceived Empathy Level of Functioning of Trainer	Order of Presentation of Barrett-Lennard RI Scale of Empathic Understanding
Trait	1.0000				
Age of Trainee	0.0874	1.0000			
Age of Client	-0.0497	-0.2200	1.0000		
Perceived Empathy Level-of-Functioning of Trainer	-0.2450	-0.1663	0.1955	1.0000	
Order of Presentation of Barrett-Lennard RI Scale of Empathic Understanding	-0.1277	0.3078	-0.0017	-0.1599	1.0000

WITHIN-GROUPS CORRELATION MATRIX FOR DISCRIMINANT ANALYSIS OF Lo 12-Hi 12

	Trait	Age of Trainee	Age of Client	Perceived Empathy Level of Functioning of Trainer	Order of Presentation of Barrett-Lennard RI Scale of Empathic Understanding
Trait	1.0000				
Age of Trainee	0.1514	1.0000			
Age of Client	0.0497	0.1067	1.0000		
Perceived Empathy Level-of-Functioning of Trainer	0.5171	-0.0008	-0.0623	1.0000	
Order of Presentation of Barrett-Lennard RI Scale of Empathic Understanding	-0.0144	0.3771	-0.2543	-0.3013	1.0000

WITHIN-GROUPS CORRELATION MATRIX FOR DISCRIMINANT ANALYSIS OF Hi 6-Hi 12

	Trait	Age of Trainee	Age of Client	Perceived Empathy Level of Functioning of Trainer	Order of Presentation of Barrett-Lennard RI Scale of Empathic Understanding
Trait	1.0000				
Age of Trainee	0.3467	1.0000			
Age of Client	-0.0916	-0.3383	1.0000		
Perceived Empathy Level-of-Functioning of Trainer	0.0828	0.0094	-0.3192	1.0000	
Order of Presentation of Barrett-Lennard RI Scale of Empathic Understanding	-0.2187	-0.0681	-0.1023	-0.2694	1.0000

WITHIN-GROUPS CORRELATION MATRIX FOR DISCRIMINANT ANALYSIS OF Lo 6-Lo 12

	Trait	Age of Trainee	Age of Client	Perceived Empathy Level of Functioning of Trainer	Order of Presentation of Barrett-Lennard RI Scale of Empathic Understanding
Trait	1.0000				
Age of Trainee	0.0761	1.0000			
Age of Client	0.0524	0.0307	1.0000		
Perceived Empathy Level-of-Functioning of Trainer	0.1671	-0.1152	0.1769	1.0000	
Order of Presentation of Barrett-Lennard RI Scale of Empathic Understanding	-0.0135	0.4290	-0.1618	0.0198	1.0000

WITHIN-GROUPS CORRELATION MATRIX FOR DISCRIMINANT ANALYSIS
OF Hi 6, Lo 12, Hi 12, Lo 6

	Trait	Age of Trainee	Age of Client	Perceived Empathy Level of Functioning of Trainer	Order of Presentation of Barrett-Lennard RI Scale of Empathic Understanding
Trait	1.0000				
Age of Trainee	0.1198	1.0000			
Age of Client	0.0140	-0.0339	1.0000		
Perceived Empathy Level-of-Functioning of Trainer	0.1464	-0.0937	0.0508	1.0000	
Order of Presentation of Barrett-Lennard RI Scale of Empathic Understanding	-0.0654	0.3400	-0.1462	-0.0499	1.0000

APPENDIX 7

CLASSIFICATION FUNCTION COEFFICIENTS USED TO DETERMINE PROBABLE GROUP MEMBERSHIP

APPENDIX 7

CLASSIFICATION FUNCTION COEFFICIENTS USED TO DETERMINE PROBABLE GROUP MEMBERSHIP FOR THE Lo-Hi DISCRIMINATION

Component	Lo (n=46)	Hi (n=16)
Trait	0.61335	0.67773
Age of Trainee	0.25506	0.13103
Perceived Empathy Level-of-Functioning of Trainer	0.17732	0.13404
Constant	-42.51151	-43.13728

Note: Missing components were not significant enough for inclusion in the stepwise discriminant analysis.

CLASSIFICATION FUNCTION COEFFICIENTS USED TO DETERMINE PROBABLE GROUP MEMBERSHIP FOR THE 6-12 DISCRIMINATION

Component	6 (n=32)	12 (n=30)
Age of Client	0.12375	0.16554
Constant	-1.53719	-2.75068

Note: Missing components were not significant enough for inclusion in the stepwise discriminant analysis.

CLASSIFICATION FUNCTION COEFFICIENTS USED TO DETERMINE PROBABLE GROUP MEMBERSHIP FOR THE Lo 6-Hi 6 DISCRIMINATION

Component	Lo 6 (n=25)	Hi 6 (n=7)
Trait	0.98986	1.11978
Age of Trainee	0.34016	0.24121
Age of Client	0.23498	0.16461
Perceived Empathy Level-of-Functioning of Trainer	0.60880	0.71361
Constant	-73.72398	-85.98547

Note: Missing components were not significant enough for inclusion in the stepwise discriminant analysis.

CLASSIFICATION FUNCTION COEFFICIENTS USED TO DETERMINE PROBABLE GROUP MEMBERSHIP FOR THE Lo 12-Hi 12 DISCRIMINATION

Component	Lo 12 (n=21)	Hi 12 (n=9)
Trait	0.50621	0.60018
Age of Trainee	0.26626	0.11195
Perceived Empathy Level-of-Functioning of Trainer	-0.00504	-0.20564
Constant	-34.60486	-32.84758

Note: Missing components were not significant enough for inclusion in the stepwise discriminant analysis.

CLASSIFICATION FUNCTION COEFFICIENTS USED TO DETERMINE PROBABLE GROUP MEMBERSHIP FOR THE Hi 6-Lo 12 - Lo 6-Hi 12 DISCRIMINATION

Component	Hi 6 (n=7)	Lo 12 (n=21)	Hi 12 (n=9)	Lo 6 (n=25)
Trait	0.69812	0.61176	0.65690	0.61434
Age of Trainee	0.15810	0.28276	0.14022	0.25973
Age of Client	0.09115	0.14967	0.16383	0.11834
Perceived Empathy Level-of-Functioning of Trainer	0.29377	0.27888	0.14405	0.23943
Constant	-50.96440	-47.67982	-43.31923	-44.67188

Note: Missing components were not significant enough for inclusion in the stepwise discriminant analysis.

APPENDIX 8

UNSTANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS USED TO OBTAIN DISCRIMINANT SCORES FOR SUBJECT PLACEMENT AXIS OF THE FUNCTION(S)

UNSTANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS FOR EACH OF THE Hi-Lo, 6-12, Lo 6-Hi 6 DISCRIMINATIONS

Identified Components in Training Situation	Comparisons		
	Hi-Lo	6-12	Lo 6-Hi 6
Trait	0.03156	-	0.04901
Age of Trainee	-0.06081	-	-0.03733
Perceived Empathy Level-of-Functioning of Trainer	-0.02122	-	0.03954
Age of Client	-	0.06815	-0.02655
Order of Presentation of Barrett-Lennard RI Scale of Empathic Understanding	-	-	-
Constant	0.01863	-1.96965	-4.18640

Note: Missing scales were not significant enough for inclusion in the stepwise discriminant analysis.

UNSTANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS FOR EACH OF THE Lo 12-Hi 12, Lo 6-Lo 12, AND Hi 6-Hi 12 DISCRIMINATIONS

Identified Components in Training Situation	Comparisons		
	Lo 12-Hi 12	Lo 6-Lo 12	Hi 6-Hi 12
Trait	0.02852	-	-
Age of Trainee	-0.04684	-	-
Perceived Empathy Level-of-Functioning of Trainer	-0.06089	-	0.09285
Age of Client	-	0.07034	-
Order of Presentation of Barrett-Lennard RI Scale of Empathic Understanding	-	-	-
Constant	0.84831	-2.02471	-2.61153

Note: Missing scales were not significant enough for inclusion in the stepwise discriminant analysis.

UNSTANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS
FOR THE Hi 6-Lo 6 - Hi 12-Lo 12 DISCRIMINATION

Identified Components in Training Situation	Comparisons: Hi 6-Lo 6 - Hi 12-Lo 12 Function 1	Function 2
Trait	-0.02830	0.02731
Age of Trainee	0.06072	-0.00315
Perceived Empathy Level-of-Functioning of Trainer	0.03101	0.07177
Age of Client	0.00091	-0.03738
Order of Presentation of Barrett-Lennard RI Scale of Empathic Understanding	-	-
Constant	-0.68719	-3.88405

Note: Missing scales were not significant enough for inclusion in the stepwise discriminant analysis.