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The Effects of Interpersonal Skills Training on Locus of Control

Michael J. Banks
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THE EFFECTS OF INTERPERSONAL SKILLS TRAINING ON LOCUS OF CONTROL

by

Michael J. Banks

A Thesis Submitted to the Faculty of the Graduate School of Loyola University of Chicago in Partial Fulfillment of the Requirements for the Degree of Master of Arts

April

1979
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CHAPTER I

INTRODUCTION

Unlike many other creatures who are born with a set of instincts that equip them to deal with the world effectively, people enter the world almost completely helpless. The individual comes into the world ignorant and a great portion of his or her time is spent in learning. It is learning or more precisely, faulty, maladaptive, or incomplete learning that is the source of a great deal of what is problematic in life for the individual.

R. W. White (1959) has stated that people have an innate drive to deal effectively with their environment. This drive for competence or effectance is in some ways akin to Alfred Adler's concept of "striving for superiority," which Adler posits as a basic drive in all people because of their initial inferiority or helplessness (Ansbacher and Ansbacher, 1956).

Abraham Maslow (1968), among others, has posited that one possible goal of this striving is "self-actualization." However, the presence of this competence motivation or "striving for superiority" does not always lead to the successful realization of this goal.

One important intervening variable which may
account for a large portion of the failure to realize this goal may be the individual's expectations.

Rotter's social learning theory (1954) specifies that the occurrence of a particular behavior (behavior potential) is a function of the individual's expectancy of reinforcement and the value of the reinforcement for that behavior. He defines expectancy as the probability held by the individual that a particular reinforcement will occur as a function of a specific behavior on his or her part.

What Rotter is describing is an expectancy variable and not a motivational one. The importance of this distinction is that given the possible universality of competence motivation, individual differences in actual behavior may in part be a function of one's expectations.

The concept "locus of control" is a generalized expectancy variable derived from Rotter's social learning theory which reflects the perceived effectiveness of the individual's actions. Rotter (1966) distinguishes between two types of individuals on the locus of control continuum, externals who perceive reinforcements as dependent on luck or on others and internals who perceive reinforcement as contingent upon what they do. He states that:

the individual is selective in what aspects of his behavior are repeated or strengthened and what
aspects are not depending upon his own perception of the nature or causality of the relationship between the reinforcement and the preceding behavior. If a person perceives a reinforcement as contingent upon his own behavior, then the occurrence of either a positive or negative reinforcement will strengthen or weaken potential for that behavior to recur in the same or similar situation. If he sees the reinforcement as being outside his own control or not contingent, that is depending upon chance, fate, powerful other, or unpredictable circumstances, then the preceding behavior is less likely to be strengthened or weakened (p. 5).

The results of this difference in perception are that

the individual who has a strong belief that he can control his own destiny is likely to (a) be more alert to those aspects of the environment which provide useful information for his future behavior; (b) take steps as to improve his environmental condition; (c) place greater value on skill or achievement reinforcements and be generally more concerned with his ability, particularly his failures; and (d) be resistive to subtle attempts to influence him (p. 25).

Externals tend to develop and adapt poorly to their environment, while internals tend to learn more adaptive behavior and become autonomous. Internals are confident that they are in control of themselves and their destinies, while externals feel that they are pawns in the hands of chance, fate, or powerful others.

Bandura (1977) also believes that expectancies play a critical role in differences in behavior. However, he distinguishes between what he calls "efficacy expectations" and "outcome expectations." The former represents the individual's belief that he or she may be able to perform some behavior, while the latter represents the in-
individual's belief that a given behavior will lead to certain outcomes. Bandura characterizes locus of control as primarily concerned with causal beliefs about action-outcome contingencies rather than with personal efficacy. However, while he believes that causal belief and self-efficacy are different phenomena, he also thinks that causal ascriptions of behavior to skill or chance can mediate the effects of performance on self-efficacy. In other words, while these two beliefs are different, they are interrelated.

Although Bandura has made important theoretical refinements, the thrust of this study will deal with the relationship between locus of control and interpersonal skills.
CHAPTER II

REVIEW OF RELATED LITERATURE

Familial Antecedents of Locus of Control

The question arises as to the origins of this difference in expectancies. These differences can, in part, be accounted for in the developmental histories of internals and externals. The research seems to indicate that internals and externals were exposed to significantly different child-rearing practices.

Chance (1965) matched children's scores on Crandall's Intellectual Achievement Responsibility Questionnaire (an internal-external scale) with their mother's attitudes towards child rearing. The author found that internal control expectancies were related to permissive and flexible maternal attitudes and expectations of early independence.

Katkovsky, Crandall, and Good (1967) also compared children's scores on the Crandall scale with home observations of parental behavior and attitudes. Their findings indicated that internal control expectancies were related to parental protectiveness, nurturance, and the tendency to be approving and non-rejecting. Conversely,
parental behaviors such as dominance, rejection, and criticalness were negatively associated with beliefs in internal control. The researchers further noted that the largest number of significant results were obtained from behavioral observations and not with expressed parental attitudes.

Davis and Phares (1969) also found that parents of internals were judged as being more accepting, less rejecting, having greater positive involvement, and exercising less hostile control than parents of externals. Also, parents of internals were perceived as being more consistent disciplinarians than were the parents of externals. One other significant finding of the authors was that there were no significant differences between the expressed attitudes of parents of internals and externals. The difference was in their actual parenting behaviors.

MacDonald (1971), using a large sample of college students, found that internality was positively correlated with perceived parental nurturance and consistency in maintaining standards for behavior.

Finally, Epstein and Komcrita (1971) used a sample of black children and found that external attribution of success in a matching task was positively correlated with inconsistent parental discipline and hostile control.

To summarize, the research seems to consistently indicate that internals tend to come from warm, accepting
homes with predictable standards and consistent discipline coupled with nurturance. Externals, on the other hand, tend to come from homes characterized as being higher in the use of physical punishment, overprotection, affective punishment, and generally inconsistent discipline.

Finally Davis and Phares (1969) found that, while the parents of internal and external children may have similar attitudes toward child rearing, their actual child rearing behaviors differed significantly. One might therefore speculate that this difference in parental behavior may be reflecting the control orientations of the parent themselves.

**Sociological Factors and Locus of Control**

In addition to familial antecedents, there are definite indications that minority group status, socioeconomic status, and level of education, also play a role in the differing expectations of internals and externals.

In one study, Battle and Rotter (1963) used the "Children's Picture Test of Internal-External Control," a projective task, the Bealer I-E (Internal-External) scale, and a live-matching task with eighty black and white children from middle and lower class families. The authors found that lower-class blacks were more external than middle class black or whites and that middle class children
were, in general, more internal than lower class children.

In another study, Lefcourt and Ladwig (1965a) investigated differences between blacks and whites in their control expectancies. The subjects were compared on three different I-E scales and a pertinent performance task. Blacks were found to be significantly more external than whites. The authors suggested that because of societal factors (for instance, discrimination) a large portion of the externality of blacks could be attributed to blacks' dubiousness about avenues open to them rather than doubts about their own adequacy.

Several other researchers have also found that middle class children are more internal than lower class children (Gruen and Ottinger, 1969); that educational level is directly related to internality (Walls and Miller, 1970); and that socioeconomic status and objective access to societal opportunities is positively related to internality (Jessor, Graves, Hanson, and Jessor, 1968).

Some important methodical issues are pertinent to the societal antecedents of control expectancies. Rotter (1966) stated that the I-E scale was primarily measuring a unidimensional trait. However, more recent factor analysis suggests that the I-E scale is measuring a multi-dimensional trait. Gurin, Gurin, Lao, and Beattie (1969) factor analyzed responses of 1965 black college students
to an extended I-E scale. Four factors were extracted: (1) Control Ideology (the person's belief about how much control most people in society possess); (2) Person Control (the individual's belief in his personal control); (3) System Modifiability or Blame (the degree the person believes the system can be modified); and (4) Race Ideology (the individual's belief in collective action, possibility of making changes in discrimination practices, system vs. individual blame and racial militancy).

While Gurin's four factors may not generalize beyond blacks, Mirels' (1970) research cross-validates two of these factors. Mirels has suggested two basic independent factors: (1) belief in mastery over the course of one's life and (2) belief concerning the extent the individual has impact on political and societal institutions. These two factors appear to be similar to Gurin's Personal Control and System Modifiability.

The importance of this two factor approach is that it can reflect more accurately the sources of influence on "locus of control," with the second factor reflecting societal expectancies and the first more personal ones.

Gurin and others (1969) have questioned whether or not it would be more functional for disadvantages groups to have an internal orientation. They have in fact stated that members of these groups with an internal orientation would tend to support the status quo, while more external
members (on the second factor) would tend to opt for social change.

This hypothesis of Gurin and her associates is supported by Lao (1970) who gathered data on 1,493 black male college students from the Deep South. She found that an internal belief in personal control is positively related to general competence and that an external belief in ideology which blames the system for black disadvantages is positively related to innovative behavior as evidenced by participation in the civil rights movement. In addition to this Lao showed that the personal and ideological factors are independent of each other.

In response to these multidimensional findings, Phares (1976) concluded that while there was some commonality in the conclusion of various researchers regarding the dimensionality if I-E, there was much disagreement. He argued that there was little evidence that such sub-factors produce empirically different predictions.

To summarize, the research indicates that social factors play a significant role in control expectations, with membership in socially disadvantaged groups correlating positively with externality. In addition to this and despite the above-mentioned argument of Phares, it seems that further investigation of a two-factor locus of control construct may lead to improved predictions.
Crises and Locus of Control

Finally, crisis events such as a divorce, death of a loved one, or other misfortune may account for another portion of control orientation. While there has not been much research in this area, two studies seem relevant. McArthur (1970) found that young men who received low numbers in the draft lottery shifted to more external orientations. Another study (Gorman, 1968) found that undergraduates scored in a more external direction following the 1968 Democratic Convention. A large portion of the students had been McCarthy supporters and as a result were quite disillusioned.

Locus of Control and Maladjustment

Several studies have dealt with control orientation as a measure of emotional adjustment. Distefano, Pryer, and Smith (1971) administered the I-E scale to normal adolescents, psychiatric patients, and normal adults. They found that there was a significant linear relationship of increasing internality as a function of increasing age in the adolescent group. In addition to this, they noted that the psychiatric group scores were more extreme in either direction than those of the adult group. The authors suggest that perception of control is relevant to both normal development and emotional adjustment.
The research of Smith, Pryer, and Distefano (1971) also indicates the relationship between emotional adjustment and locus of control. They compared the I-E scores with behavioral ratings of thirty mildly and thirty severely emotionally disturbed hospitalized psychiatric patients. The authors found that the severely emotionally impaired patients were significantly more external than the mildly disturbed patients.

A similar study by Lottman and DeWolfe (1972) found that process schizophrenics (a poor premorbid adjustment) were significantly more external than reactive schizophrenics (good premorbid adjustment). The authors suggest that these differences in expectancies to be a function of long-term learning and not simply current symptoms.

While severity of psychopathology appears to be related to externality as suggested by Shybut (1968), other studies have indicated that not all diagnostic groups are externals.

Harrow and Terrante (1969) administered the Rotter scale to a group of psychiatric patients during the first week of their hospitalization and again after six weeks. The authors found that the schizophrenic group was significantly more external than the other groups. At the other extreme, the manic group was extremely internal, with depressives and character disorders scoring
between the two extremes. When subjects were retested, there was a non-significant shift towards internality in the schizophrenic group. There was, however, a significant shift towards internality in the non-schizophrenic groups as well as shift towards more normal locus of control (i.e., less extreme internality) with the manic group.

In the above-mentioned study by Distefano and his associated (1971), the authors found that when compared with a normal group an emotionally disturbed group was significantly more external. However, when an alcoholic group was compared with normals, they were significantly more internal.

While these differences do not refute Shybut's argument that severity of psychopathology is related to externality, these differences may indicate that different diagnostic groups would require different approaches to treatment. However, the bulk of the literature has focused primarily on the effects of externality and on methods of helping people to become more internal.

Kish, Solberg, and Vecker (1971) found among hospitalized psychiatric patients that internal patients perceived the ward as more supportive, practical, affiliative, involving, clear in its expectations, and allowing more patient autonomy than the external patients. The authors believe that psychiatric hospitals tend to take over the
patient's initiative and that, after a long stay in the hospital, the patient tends to feel as if he or she has little or no control over his or her destiny. However, those patients who feel that their initiatives pay off are more likely to leave the hospital.

To summarize, the research is fairly consistent indicating that people are handicapped by an external orientation. Internals tend to engage in more instrumental goal-directed behavior, while externals generally manifest emotional nongoal-directed responses.

Change in Locus of Control

Several studies have important implications for psychotherapy. The research indicates that internals are more resistant to manipulation from the environment if they are aware of such manipulations. Externals, on the other hand, expect control from the outside world and therefore are less resistive (Bionde and MacDonald, 1971; Doctor, 1971; Getter, 1966; Strickland, 1970).

In a study by Lefcourt and Ladwig (1965b) the authors found that the behavior on the part of persons maintaining external control expectancies could be altered if new goals could be cognitively linked to whatever prior success such persons had.

In a second study Lefcourt (1967) found that external control subjects exhibited a marked increase in
internal control when informed that achievement reinforcement was available. Lefcourt suggested that lack of goal striving was due to externals being less perceptive than internals. He further stated that by learning what cues were linked with reinforcement possibilities, an individual could learn to generalize reward-gaining behavior to new situations.

These hypotheses are supported to a degree by Smith (1970) who found that clients who went through a crisis intervention program in which they had to learn to solve their own problem became more internal than a comparable group going through traditional psychotherapy.

Even more direct support of Lefcourt's arguments comes from Dua (1970), who contrasted the effects on I-E of an action-oriented approach directed at improving interpersonal skills with a re-educative therapy approach. The action-oriented treatment involved planning specific behaviors for improving relationships, while the re-educative approach was directed toward influencing the clients attitudes. Dua found that while in comparison to an untreated control group both the action-oriented approach and the re-education approach lead to a decrease in externality. However, it was the more action-oriented skills training approach which produced the most significant change.

One of the things that both the Smith and Dua
studies have in common is the action-oriented nature of their treatment approaches. One might speculate that if clients take a direct and active part in their own treatment, they are likely to attribute treatment gains to themselves and thereby become more internal. Some tentative support for this hypothesis has indicated the relevance of self-attributions in the maintenance of therapeutic behavior change (Davison and Valins, 1968, 1969). The important point to be made here is that the combination of self-attribution with reinforcement may be what changes a belief in external control to one of internal control.

Some Extrapolations: Training and Locus of Control

Human beings are, among other things, social animals and a great deal of their reinforcements come from their interactions with others. The individual generally has a strong desire for positive interpersonal relationships. However, despite this strong desire, the individual does not always get wants he or she wants. Several theories have discussed the likely consequences of frustration of important need areas. Specifically, social learning theory leads to the following prediction:

When an individual places a high value on a particular need area and at the same time has low expectancies that more desirable behavior will lead to satisfactions in that area, he will typically engage in avoidant behaviors . . . failure to be rewarded in a strong need area is perceived as punishing. Thus, whether we are
talking about a simple expectation for punishment or the failure to receive rewards that one values highly, the outcome is the same—a very unpleasant affective state which the individual will attempt to avoid (Phares, 1972, p. 441).

Of related interest, Beck (1967) states that there are three components to depression: (1) construing experiences in a negative way, (2) viewing the self in a negative way, and (3) having negative expectations of the future. Given this triadic configuration, Beck points out that one way of changing the motivational pattern of the individual is by changing his cognition. He states that

As long as he expects a negative outcome from any course of action, he is stripped of any internal stimulation to do anything. Conversely, when he is persuaded that a positive outcome may result from a particular endeavor, he may then experience an internal stimulus to pursue it (p. 236).

Many theorists think that interpersonal relationships are one of the most basic and crucial areas of human functioning (Sullivan, 1953; Horney, 1937; Fromm, 1955; and many others). Given the possible universal desire for positive interpersonal relationships and the negative consequences of having a low expectation of success in this area, the literature on the effects of what is called interpersonal skills training is quite pertinent.

Carkhuff (1969b) has researched and developed a systematic training approach which appears to be not only effective but also economic. He states that
We can do anything in training that we can do in treatment—and more. Training in interpersonal skills strikes at the heart of most difficulties in living. Systematic training in interpersonal skills affords a means of implementing the necessary learning in progressive gradations of experience which insure the success of the learning. In making explicit use of all sources of learning—the experiential, the didactic, and the modeling—systematic group training in interpersonal skills provides the most effective, economical, and efficient means of achieving the individual growth of the largest number of persons (1969b, pp. 130-131).

Carkhuff's thesis of directly training clients in interpersonal skills appears to be in line with the Dua (1970) and Smith (1970) studies mentioned above. That is, an action-oriented treatment approach which may facilitate self-attributed behavior change and leads to increased internality.

Pierce and Drasgow (1969) did a comparative study of modes of treatment with neuropsychiatric in-patients. The authors found a training group to show significant improvement over drug-therapy, group-therapy, and individual-therapy subjects. After interviewing the patients, they discovered that the patients of the ward found those patients who received training to be significantly more helpful than those patients who had not received training. The authors recommended that

if one wants to create a truly therapeutic atmosphere in either group therapy or on the wards, one must train the patients, since they do not exist in isolation from each other but rather are a major part of each other's environment (p. 298).
In another study (Vitalo, 1971), patients' improvement in interpersonal functioning was found to be significantly greater than that which resulted through modeling in group therapy. The training was also found to have affected a general improvement in patients' social functioning. Based on this evidence, Vitalo stated that this consistent efficacy in producing improved social functioning suggests the present program as a preferred mode of treatment in instances where the presenting problem is predominantly interpersonal. Further, the briefness of the training combined with the importance of the skills it transmits suggest it as adjunct treatment to all forms of therapeutic intervention (p. 170).

Several other researchers have found positive effects of interpersonal skills training with parents (Carkhuff and Bierman, 1970; Carkhuff and Griffin, 1971), prison inmates (Devine and Steinberg, 1974; Montgomery, 1974), delinquents (Carkhuff, Berenson, Griffin, Devine, Angelone, Clinton, Keeling, Muth, Patch and Steinberg, 1974) and ex-felons (Griffin, 1973).

The research data seems to indicate that interpersonal skills training is effective as an adjunct to traditional modes of treatment if not a preferred mode of treatment itself.

Finally, with a normal population, Egan (1976) has developed a human relations training model similar to Carkhuff's and directly related to the possibility of changes in control expectancies. In fact, it is Egan's thesis that:
increasing your interpersonal skills can make you less vulnerable to random social influence for a number of reasons. Skills training gives you a greater sense of competence and increases your self-esteem. You become less dependent and freed at least to a degree, from the need for social approval. You also acquire the ability to challenge untoward attempts at influence in your regard. On the other hand, learning communication skills can open you up to more reasonable kinds of social influence. You can listen more carefully to what others have to say and with greater understanding. You are less defensive and therefore more willing to listen (p. 243).

The research on skills training and the studies on changes in locus of control appear to have a point of convergence. It seems highly likely that what is needed to help change an external to an internal is to show them that reinforcement is not up to luck but that it is contingent, in part, upon what they do. Systematically training individuals in those skills which they need to deal effectively with their environment seems to be a direct way to change externals into internals. By equipping external subjects with interpersonal skills, we are doing several things. One, with new skills, they are likely to have better interpersonal relationships and this is likely to enhance their sense of self-esteem and self-worth. Secondly, these more positive consequences are likely to further enhance, reinforce, and maintain the subjects' newly increased behavioral repertoire. Thirdly, as both Rotter (1966) and Lefcourt (1967) have pointed out, externals seem to be relatively unaware of reinforcement contingencies. However, with skills training,
social cues are made more explicit and as a result externals can "see" the path to social reinforcement and their expectancies are likely to change (Lefcourt, 1967).

**Purpose of the Study**

The present study attempts to probe the relationship between behavior change and personality change. Specifically, the role of I-E on level of interpersonal skills will be examined, as well as, the effect of increased interpersonal functioning on belief in control.

**Specific Hypotheses**

1. Subjects in a human relations training class (experimental condition) will show a significant increase in interpersonal skills as measured by a behavioral rating scale based on the work of Egan (1976) and Carkhuff (1969b).

2. Subjects under the experimental condition will become significantly more internal than control-group subjects.

3. At pretest, the external subjects will have a significantly lower level of interpersonal skills than internal subjects.

4. At posttest, the internal subjects will show a greater increase (over pretest level) in interpersonal skills than the external subjects.
CHAPTER III

METHOD

Subjects

Subjects were 83 students who enrolled into one of three evening psychology courses: Psychology 378--Laboratory in Interpersonal Relations; Psychology 380--Statistics I; and Psychology 331--Abnormal Psychology. There were 27 male subjects ranging in age from 20 to 55 years with 14 to 24 years of formal education. There were 56 female subjects ranging in age from 19 to 53 years with 14 to 18 years of formal education.

The students were classified as being either Experimental or Control subjects depending on in which course they enrolled. Those subjects enrolling in the human relations training course (Psychology 378) were designated as the Experimental group, while those subjects who enrolled in the two remaining academic courses constituted the Control group.

The subjects were further classified along the I-E continuum into three personality groups. Those subjects scoring in the lowest third on the Rotter scale (1966) were classified as Internals (0 to 6 on the Rotter), those scoring in the middle third were classified as
Moderates (7 to 10 on the Rotter) and those receiving the highest scores were classified as Externals (11 to 21 on the Rotter).

The subjects were thus classified into one of two conditions (Experimental or Control) and into one of three personality groups (Internal, Moderate, or External).

Further Description of the Sample Groups

Experimental Group: 45 subjects enrolled in the human relations training course (15 males and 30 females).

<table>
<thead>
<tr>
<th>Group</th>
<th>Males (n=3)</th>
<th>Females (n=12)</th>
<th>All Subjects (n=15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>mean 33.67</td>
<td>23.80</td>
<td>26.93</td>
</tr>
<tr>
<td></td>
<td>s.d. 18.50</td>
<td>5.03</td>
<td>9.78</td>
</tr>
<tr>
<td>Internal</td>
<td>mean 16.00</td>
<td>15.38</td>
<td>15.80</td>
</tr>
<tr>
<td></td>
<td>s.d. 1.25</td>
<td>1.27</td>
<td>1.42</td>
</tr>
<tr>
<td>Moderate</td>
<td>mean 15.83</td>
<td>14.78</td>
<td>15.20</td>
</tr>
<tr>
<td></td>
<td>s.d. .93</td>
<td>.97</td>
<td>1.08</td>
</tr>
<tr>
<td></td>
<td>Males (n=6)</td>
<td>Females (n=9)</td>
<td>All Subjects (n=15)</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------</td>
<td>---------------</td>
<td>---------------------</td>
</tr>
<tr>
<td><strong>Subjects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>mean 25.67</td>
<td>23.44</td>
<td>24.33</td>
</tr>
<tr>
<td></td>
<td>s.d. 7.55</td>
<td>3.91</td>
<td>5.51</td>
</tr>
<tr>
<td><strong>External</strong></td>
<td>mean 15.83</td>
<td>15.72</td>
<td>15.77</td>
</tr>
<tr>
<td>(n=15)</td>
<td>s.d. 1.47</td>
<td>1.30</td>
<td>1.32</td>
</tr>
</tbody>
</table>

**Control Group:** 38 subjects enrolled in the two academic courses (26 females and 12 males).

<table>
<thead>
<tr>
<th></th>
<th>Males (n=4)</th>
<th>Females (n=4)</th>
<th>All Subjects (n=8)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>mean 35.50</td>
<td>24.50</td>
<td>30.00</td>
</tr>
<tr>
<td></td>
<td>s.d. 5.45</td>
<td>3.70</td>
<td>7.29</td>
</tr>
<tr>
<td><strong>Internal</strong></td>
<td>mean 18.50</td>
<td>15.75</td>
<td>17.13</td>
</tr>
<tr>
<td>(n=8)</td>
<td>s.d. 4.36</td>
<td>.50</td>
<td>3.23</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Males (n=4)</th>
<th>Females (n=4)</th>
<th>All Subjects (n=8)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>mean 24.00</td>
<td>26.00</td>
<td>25.00</td>
</tr>
<tr>
<td></td>
<td>s.d. 3.16</td>
<td>1.41</td>
<td>2.51</td>
</tr>
<tr>
<td><strong>Moderate</strong></td>
<td>mean 15.00</td>
<td>15.25</td>
<td>15.13</td>
</tr>
<tr>
<td>(n=8)</td>
<td>s.d. 1.15</td>
<td>.96</td>
<td>.99</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Males (n=4)</th>
<th>Females (n=18)</th>
<th>All Subjects (n=22)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>mean 31.75</td>
<td>25.50</td>
<td>26.64</td>
</tr>
<tr>
<td></td>
<td>s.d. 6.85</td>
<td>7.68</td>
<td>7.78</td>
</tr>
<tr>
<td><strong>External</strong></td>
<td>mean 15.50</td>
<td>15.49</td>
<td>15.49</td>
</tr>
<tr>
<td>(n=22)</td>
<td>s.d. 1.73</td>
<td>1.24</td>
<td>1.30</td>
</tr>
</tbody>
</table>
Instruments

The primary measuring instrument used for the study was the I-E scale developed by Rotter (1966) to assess the individual's reinforcement orientation. It consists of 23 question pairs plus six filler questions, and uses a forced-choice format. Some examples are: "Many of the unhappy things in people's lives are partly due to bad luck." or "People's misfortunes result from the mistakes they make." and "It is hard to know whether or not a person really likes you." or "How many friends you have depends on how nice a person you are." This questionnaire is shown in Appendix D. This scale was used as the pretest and posttest instrument for the Experimental and Control groups.

Another measuring instrument, a five point behavioral rating scale, was used as a second pretest and posttest instrument with the Experimental group only. The scale was used to assess nine basic interpersonal skills. (See Egan, 1976 and Carkhuff 1969b.) The mean of the scale, 3.0, refers to minimally effective level of interpersonal functioning. Scores below 3.0 are indicative of less effectiveness and greater interpersonal disorganization while scores above 3.0 are indicative of a higher level of interpersonal effectiveness. This scale is shown in Appendix C. In addition to this, a copy of Carkhuff's scoring norms (1969, pp. 315-329) is shown in
Appendix as well as an example rating guide (Appendix B).

Procedures

The experimenter administered the I-E scale to all subjects during the first and last meeting of their respective classes. Subjects were told that the experimenter was gathering data on people's attitudes and beliefs. They were instructed to answer all questions, that there were no right or wrong answers, and to indicate which statement of the forced-choice pair that they agreed with most.

After the first meeting of their class, the experimental subjects were assigned to their permanent small training groups of 5 to 7 members with one or two trainers. To control for differences in trainers' style and skills, equal numbers of internal, moderate, and external subjects were randomly assigned to each of the permanent small groups.

The training received by the experimental subjects consisted of both didactic instruction in the form of lectures and experiential step-by-step practice in the nine basic interpersonal skills discussed by Egan (1976). The subjects moved from practicing simple listening skills in dyads and triads to the development of more complex interpersonal skills (confrontation, immediacy, etc.) within the context of an open group (see Egan 1976, 1975b). In
addition to this, the subjects read materials on the skills and did pertinent workbook assignments (Egan 1975b, 1976 and Wood, 1974).

The trainers of each of the small groups made an assessment of the subject's interpersonal skills, as delineated by the behavioral rating scale, after the first and last meeting of the small training groups. All trainers made independent evaluations and were blind to the subjects I-E scale scores as well as the hypotheses of the study.

During this same time period, the control group received no further contact from the experimenter and none of these subjects went through any program designed to improve interpersonal skills.

At the end of the semester, all subjects were re-tested with the same I-E scale. Prior to taking this posttest, none of the subjects knew that they would be asked to retake the questionnaire they had taken earlier as a pretest. There was a 14 week time lapse between the pretest and posttest for both groups.

Scoring

Both pretest and posttest I-E scales were scored according to a standard answer key (Rotter, 1966) I-E scores for each subject was obtained by counting the number of external responses indicated.

Both pretest and posttest interpersonal skills
scores were based on trainers' ratings of the experimental subjects' skills. Each of the small group trainers rated the skills of the members of their respective groups. In those groups having two trainers, the trainers were instructed to make independent assessments of members' skills. Since the trainers were familiar with the Cark­ huff and Egan assessment procedures, no special training was given to them for this study. They were simply asked to rate subjects' interpersonal skills according to the method shown in Appendix B.
CHAPTER IV

RESULTS

Analysis of I-E Data

In order to determine if a significant change in I-E occurred as a result of the training received by the experimental group, the I-E change scores were subjected to an analysis of variance unweighted means solution (Winer, 1971). Results of the analysis of variance for the I-E data are shown in Table 1. The factor A main effect is non-significant ($F(1,77) = 1.63, p = .25$), indicating that the Experimental and Control groups do not differ significantly with respect to their changes in level of I-E. The factor B main effect is also non-significant ($F(2,77) = 1.46, p = .25$). This shows that the Internal, Moderate, and External groups do not significantly differ with respect to changes in their level of I-E. However, the AB interaction is significant ($F(2,77) = 4.97, p = .01$) and this indicates a significant interaction between condition (Experimental vs. Control) and level of I-E (Internal, Moderate, and External).

The nature of the interaction effects is indicated by inspecting the cell means of the I-E change scores in Table 2. A graphic representation of this interaction is
Table 1
Analysis of Variance of I-E Change Scores
(Unweighted Means Solution)

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Exp. vs. Con.)</td>
<td>16.11</td>
<td>1</td>
<td>16.11</td>
<td>1.63</td>
</tr>
<tr>
<td>B (Int-Mod-Ext)</td>
<td>28.94</td>
<td>2</td>
<td>14.47</td>
<td>1.46</td>
</tr>
<tr>
<td>AB</td>
<td>98.21</td>
<td>2</td>
<td>49.11</td>
<td>4.97</td>
</tr>
<tr>
<td>Within Subjects</td>
<td>761.13</td>
<td>77</td>
<td>9.88</td>
<td></td>
</tr>
</tbody>
</table>

(N=83)
<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experimental</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N=45) Internal</td>
<td>15</td>
<td>4.40</td>
<td>6.20</td>
<td>+1.80</td>
</tr>
<tr>
<td>Moderate</td>
<td>15</td>
<td>8.47</td>
<td>6.80</td>
<td>-1.67</td>
</tr>
<tr>
<td>External</td>
<td>15</td>
<td>14.53</td>
<td>12.60</td>
<td>-1.93</td>
</tr>
<tr>
<td><strong>Control</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N=38) Internal</td>
<td>8</td>
<td>4.38</td>
<td>3.88</td>
<td>-0.50</td>
</tr>
<tr>
<td>Moderate</td>
<td>8</td>
<td>8.25</td>
<td>9.63</td>
<td>+1.38</td>
</tr>
<tr>
<td>External</td>
<td>22</td>
<td>13.36</td>
<td>13.50</td>
<td>+0.14</td>
</tr>
</tbody>
</table>
given in Figure 1. This figure represents the profile corresponding to the simple effects of condition (factor A) for each of the levels of I-E (factor B). An equivalent graph of the cell means is given in Figure 2. This figure represents the profile corresponding to the simple effects of I-E (factor B) for the two levels of condition (factor A).

In order to probe this interaction, an analysis of variance for simple effects was performed (Winer, 1971). The analysis of variance for simple effects of condition (Experimental vs. Control) for each level of I-E is summarized in Table 3. The data indicates a non-significant difference ($F(1,77)=3.24, p=.10$) between conditions for the Internal group; a significant difference ($F(1,77)=5.70, p=.05$) between conditions for the Moderate group, and a non-significant difference ($F(1,77)=2.62, p=.25$) between conditions for the External group. More simply, the data indicates that the only significant effect due to condition occurred in the Moderate I-E group. By inspection of the cell means (Table 2), it can be seen that the Experimental Moderate group shifted as predicted in an internal direction. Paradoxically, the factor A main effect while not significant does approach significance at the .10 level. What is paradoxical here is, that by inspection of the
Figure 1. Profile of Simple Effects for Condition
Figure 2. Profile of Simple Effects for I-E
### Table 3

Analysis of Variance for Simple Effects for I-E

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>A for b₁ (Condition for Internals)</td>
<td>31.97</td>
<td>1</td>
<td>31.97</td>
<td>3.24</td>
</tr>
<tr>
<td>A for b₂ (Condition for Moderates)</td>
<td>56.31</td>
<td>1</td>
<td>56.31</td>
<td>5.70</td>
</tr>
<tr>
<td>A for b₃ (Condition for Externals)</td>
<td>25.92</td>
<td>1</td>
<td>25.92</td>
<td>2.62</td>
</tr>
<tr>
<td>Within Cell</td>
<td>761.13</td>
<td>77</td>
<td>9.88</td>
<td></td>
</tr>
</tbody>
</table>
cell means (Table 2) it can be seen that the Internal Experimental group moved towards a more external direction. These data while non-significant are opposite of the predicted direction of change.

A second analysis of variance of simple effects was performed and these results are summarized in Table 4. These data deal with the simple effects of I-E on Condition. The data indicate a significant difference \( F(2,77)=5.31, p=.01 \) in changes in I-E between the I-E groups under the experimental condition. However, there was no significant difference \( F(2,77)=1.12, p=N.S. \) in changes in I-E between the I-E groups under the control condition. In other words, the only significant change in I-E occurred in the I-E groups under the Experimental condition. And while all of these changes were not in the predicted direction, as stated above, skills training apparently resulted in significant changes in I-E.

**Inter-Judge Reliability for Skills Data**

Mean skills scores for the seven training groups having two rater-trainers are shown in Table 5. When comparison data for these groups was ordered according to the scoring categories in Appendix B, the inter-judge reliability based on the Spearman rho statistic (Guilford, 1956) ranged from .43 to .90 with a mean correlation of
Table 4
Analysis of Variance for Simple Effects for Each Condition

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>B for a₁ (I-E for Experimental Condition)</td>
<td>104.99</td>
<td>2</td>
<td>52.50</td>
<td>5.31</td>
</tr>
<tr>
<td>B for a₂ (I-E for the Control Condition)</td>
<td>22.04</td>
<td>2</td>
<td>11.02</td>
<td>1.12</td>
</tr>
<tr>
<td>Within Cell</td>
<td>761.13</td>
<td>77</td>
<td>9.88</td>
<td></td>
</tr>
</tbody>
</table>
Table 5
Inter-Judge Comparison of Mean Ratings for Pretest and Posttest Interpersonal Skills Rating (N=33)

<table>
<thead>
<tr>
<th>Small Group</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rater 1</td>
<td>Rater 2</td>
</tr>
<tr>
<td>I (N=6)</td>
<td>2.95</td>
<td>3.04</td>
</tr>
<tr>
<td></td>
<td>Rater 3</td>
<td>Rater 4</td>
</tr>
<tr>
<td>II (N=5)</td>
<td>2.88</td>
<td>2.94</td>
</tr>
<tr>
<td></td>
<td>Rater 5</td>
<td>Rater 6</td>
</tr>
<tr>
<td>III (N=4)</td>
<td>2.87</td>
<td>2.99</td>
</tr>
<tr>
<td></td>
<td>Rater 7</td>
<td>Rater 8</td>
</tr>
<tr>
<td>IV (N=5)</td>
<td>2.17</td>
<td>2.97</td>
</tr>
<tr>
<td></td>
<td>Rater 9</td>
<td>Rater 10</td>
</tr>
<tr>
<td>V (N=4)</td>
<td>2.25</td>
<td>2.22</td>
</tr>
<tr>
<td></td>
<td>Rater 11</td>
<td>Rater 12</td>
</tr>
<tr>
<td>VI (N=4)</td>
<td>3.05</td>
<td>2.81</td>
</tr>
<tr>
<td></td>
<td>Rater 13</td>
<td>Rater 14</td>
</tr>
<tr>
<td>VII (N=5)</td>
<td>3.39</td>
<td>3.73</td>
</tr>
</tbody>
</table>
.72 for the seven training groups (see Table 6). According to Carkhuff's (1969b) research, an inter-judge reliability of .72 would not be considered as highly reliable. Carkhuff's raters usually obtain an inter-judge reliability at or above .85 (Cannon and Carkhuff, 1969). However, Table 6 indicates that five of the seven rho correlations were significant at the .01 level, and that the mean correlation of .72 was significant to the .05 level. Taken as a whole, the data indicate fairly good inter-judge reliability.

Analysis of Skills Data

In order to obtain a single pretest and a single posttest skill score for all experimental subjects, the ratings of those subjects having two trainers were averaged and the mean score designated as their skill score. The final skill score means and standard deviations for the three I-E groups are shown in Table 7.

To determine if a significant change in interpersonal skills occurred as a result of skills training, the pretest and posttest skills scores for the three experimental I-E groups were subjected to a repeated measures analysis of variance (Winer, 1971). The results of the analysis of variance for the skills data are shown in Table 8. The factor A main effect value is non-significant (F (2,42)=1.35, p=N.S.) indicating that the three
Table 6  
Small Training Groups Inter-Judge Reliability for Pretest and Posttest Interpersonal Skills Rating (N=33)

<table>
<thead>
<tr>
<th>Small Group</th>
<th>Rho</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>.43</td>
<td>6</td>
</tr>
<tr>
<td>II</td>
<td>.82</td>
<td>5</td>
</tr>
<tr>
<td>III</td>
<td>.90</td>
<td>4</td>
</tr>
<tr>
<td>IV</td>
<td>.80</td>
<td>5</td>
</tr>
<tr>
<td>V</td>
<td>.48</td>
<td>4</td>
</tr>
<tr>
<td>VI</td>
<td>.88</td>
<td>4</td>
</tr>
<tr>
<td>VII</td>
<td>.75</td>
<td>5</td>
</tr>
</tbody>
</table>

Range .43--.90  
Mean Rho .72 .05
TABLE 7
Mean Scores for Pretest and Posttest Interpersonal Skills and Standard Deviations (N=45)

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal</td>
<td>( \bar{X} ) 2.64</td>
<td>3.36</td>
</tr>
<tr>
<td>(N=15)</td>
<td>SD .28</td>
<td>.43</td>
</tr>
<tr>
<td>Moderate</td>
<td>( \bar{X} ) 3.00</td>
<td>3.58</td>
</tr>
<tr>
<td>(N=15)</td>
<td>SD .44</td>
<td>.70</td>
</tr>
<tr>
<td>External</td>
<td>( \bar{X} ) 2.94</td>
<td>3.42</td>
</tr>
<tr>
<td>(N=15)</td>
<td>SD .76</td>
<td>.71</td>
</tr>
</tbody>
</table>
Table 8
Analysis of Variance of Pretest and Posttest Interpersonal Skills Scores (N=45)

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (I-E Groups)</td>
<td>1.30</td>
<td>2</td>
<td>.65</td>
<td>1.35</td>
<td>NS</td>
</tr>
<tr>
<td>Subjects within Groups</td>
<td>20.36</td>
<td>42</td>
<td>.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B (Pre-Post)</td>
<td>7.92</td>
<td>1</td>
<td>7.92</td>
<td>41.68</td>
<td>.001</td>
</tr>
<tr>
<td>AB</td>
<td>.23</td>
<td>2</td>
<td>.12</td>
<td>.63</td>
<td>NS</td>
</tr>
<tr>
<td>B x Subjects Within Groups</td>
<td>8.10</td>
<td>42</td>
<td>.19</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
I-E groups (Internal, Moderate, and External) do not differ significantly with respect to their interpersonal skills. The factor B main effect is highly significant ($F(1,42)=7.92$, $p=.001$) indicating that, a highly significant change in ability to communicate occurred between the pretest and the posttest. While this change was highly significant, the AB interaction ($F(2,42=.12$, $p=N.S.$) was not significant. This indicates that there was no significant interaction between change in ability to communicate and belief in control. The change in interpersonal skills which the factor B main effect indicates therefore occurred independent of the control orientation of the subjects. Apparently, the three groups did not differ in their improvement in interpersonal skills.

**Summary of Results**

An analysis of variance performed on the I-E change scores of the experimental and control subjects indicated a significant interaction between condition and I-E. To probe this interaction, two analyses of variance for simple effects were performed. The results showed that the only significant changes in I-E occurred under the experimental condition and that those changes consisted of a significant shift towards internality in the moderate I-E group, no significant change in the
external I-E group, and a shift, which approached significance, in the internal I-E group in the external direction.

A second analysis of variance performed on the pretest and posttest skills scores of the experimental subjects indicated that a highly significant improvement in interpersonal skills occurred between testings in all three I-E groups.

Thus, while the first hypothesis of this study was confirmed and the second hypothesis was partially supported, the third and fourth hypothesis were not confirmed. More specifically, these results are summarized according to the hypotheses of this study as follows:

1. Participants in a human relations (experimental condition) training program showed a significant increase in their interpersonal skills.

2. While subjects under the experimental condition made significant changes in I-E, only the moderate I-E group made a significant shift towards internality, with the external I-E group showing no change and the internal I-E group showing a non-significant trend in the external direction.

3. At pretest, the external group of experimental subjects did not have significantly lower interpersonal skills than the internal group of experimental subjects.
4. At the posttest, the internal group of experimental subjects did not have a significantly greater increase in interpersonal skills than the external group of experimental subjects.
CHAPTER V

DISCUSSION

Skills Data

The results of the skills training data confirm the first hypothesis of this study, that human relations training, as advocated by Egan and Carkhuff, does effect a positive increase in experimental subjects' interpersonal skills, as measured by trainers' ratings. However, these same data fail to confirm the third and fourth hypotheses of this study, that there would be a significant difference in the initial skills level between I-E groups as well as in the amount of improvement in skills. While Table 8 shows that all three I-E groups are rated as having made significant increases in their level of interpersonal effectiveness, it also shows that the groups did not significantly differ in their initial skills level or in their degree of improvement.

Pretest means in Table 7 also indicate that the three I-E groups did not differ significantly in their initial level of interpersonal skills (I=2.64; M=3.00; E=2.94). Behaviorally, this means that experimental subjects tended to interact with others in the "good advice" to the "simple reflective" level of communication. They
would, at this level, tend to respond with advice and would occasionally communicate minimal understanding to others. Posttest means in Table 7 show that this pattern of communication changes for all three experimental I-E groups (I=3.36; M=3.58; E=3.42). Behaviorally, the experimental subjects would tend to communicate at or near the interchangeable level of communication. At this new level, they would be likely to accurately respond to others with real warmth and genuine understanding.

As mentioned above, the third and fourth hypotheses of this study were not supported by the data. Several factors may have contributed to this failure to find significance. It is possible that subtle differences in the interpersonal skills of the three I-E groups were not detected, while a gross change in overall level of skills was. Therefore, failure to detect differences between the groups might be an artifact of insensitive instrumentation.

However, it is also possible that the data accurately reflect a lack of difference between the I-E groups. Using Piagetian terminology, Wachtel (1973) has argued that normal subjects are more likely to accommodate themselves to their environment than are "disturbed" individuals who are likely to act in an "overassimilated" manner. It is therefore possible that for the normal subjects in this study their assimilated belief systems did not differentially mediate their interpersonal behavior.
Furthermore, given the "demand characteristics" of the experimental condition, any personality differences may have been washed out by the subjects' accommodations to skills training. This is not to say that personality differences in interpersonal behavior may not have existed between the three groups in non-training situations but rather that all three groups adapted to a rather stimulating environment.

In other words, while it might be fair to assume that the increase in interpersonal skills would likely lead to an overall improvement in the subjects' interpersonal relationships (see Carkhuff and Berenson, 1976), this is not necessarily the case. It is possible that even though all three groups have the same level of skills, if external subjects continue to believe that they have little influence on their environment, they may not use their skills in non-training situations.

However, while there was apparently significant improvement in the interpersonal skills of the experimental subjects, due to several design and methodological flaws, the validity of these results may be questioned. Specifically, because skills data was not collected on the control group subjects, it can only be assumed that the experimental and control groups were drawn from the same population with respect to their level of interpersonal skills. Furthermore, it can only be assumed that the
control group would not have experienced a comparable change in interpersonal skills. Because of this lack of data, it is not possible to unequivocally attribute the change in level of skills to skills training rather than to various confounds such as self-selection.

Another criticism, that might be made of the methodology used, was that the subjects may have been taught to take the test. That is, the behavioral scale used to evaluate interpersonal skills was constructed to pick up what was taught during training. Since the experimental subjects were trained in the very skills assessed by the behavioral scale, they were expected to and actually did show a marked improvement on the posttest.

While there is some validity to this criticism, Carkhuff (1969a,b) has shown that the skills measured by his scales actually are observable in the subjects' real interactions with others. In other words, Carkhuff's scales appear to validly measure skills that are transferred to real life situations as a result of training. Thus, it can be argued that Carkhuff's scales provide a valid assessment of the effectiveness of training.

A more serious problem with the skills data has to do with scoring. While the trainers were unaware of the specific hypotheses of this study, they did know that they were making pretest and posttest assessments. Therefore, as raters familiar with this approach, they probably
were aware that an increase in skills would be expected. Furthermore, as trainers of the very groups that they were rating, one may validly argue that the trainers may have been biased—the trainers might have a personal investment in seeing improvement in their trainees' skills. In other words, the only improvement in the subjects' interpersonal skill may have been in the minds of the trainer-raters. While this is a valid argument, and while having trainers rate their own groups may compromise the validity of the results of this study—the interjudge reliability data tends to support the validity of these results. Specifically, in five of the seven training groups (see Tables 5 and 6) the Spearman rank order correlations were significant at the .01 level with the mean rho correlation of .72 for the seven groups being significant at the .05 level. While this level of reliability indicates fairly good agreement between independent trainer assessments, which would tend to indicate that the data was validly reflecting actual change in social skills, it does not eliminate the possible role of trainer bias.

In conclusion, because of several design and methodological flaws of the study, the validity of the skills training data is in question. Although a very significant increase in interpersonal skills was found, these results can only be considered as suggestive. However, many better designed studies sighted above from the
literature have indicated the validity and effectiveness of the skills training approach. Therefore while the confounds of this study compromise the validity of the noted improvement of the subjects' skills, the established effectiveness of the skills training approach (see Carkhuff and Berenson, 1976) provides a background of support for that improvement.

**I-E Data**

The results of the I-E data indicate that skills training does have a significant effect on I-E. Table 4 shows that the experimental subjects made significantly greater changes in I-E than control subjects. (Although these changes in I-E may be attributed to skills training, the role of confounds such as self-selection must not be forgotten.) While there was significantly greater change in I-E under the experimental condition than under the control condition, many researchers have indicated that treatment can be for either better or worse (Bergin and Garfield, 1971; Carkhuff and Berenson, 1976a,b; Lieberman, Yalom, and Miles, 1973). Given the potential for both loss and gain, the question remains how to evaluate whether these changes in I-E were for better or worse.

Table 2 shows that these changes were not unidirectional. That is, while the moderate experimental group shifted in an internal direction, the internal
experimental subjects shifted in an external direction. Given this apparent convergence towards the mean with these two groups, it may not be accurate to characterize these changes as shifts towards greater internality or externality. Rather, it may be more accurate or at least more convenient to characterize these changes as movement towards a more moderate level of I-E.

Despite this moderation perspective, the question of the value of the I-E changes remains. Several factors suggest that the moderation effect was for the better. Specifically, the results of the skills data suggests that the experimental subjects made significant improvement in their interpersonal functioning. Given this apparent improvement in interpersonal skills and assuming that the corresponding changes in I-E were reflecting this improvement, then it may be argued that the changes in I-E are probably for the better. Furthermore, the overall movement of the experimental group, as a whole, was in the internal direction, while the internal I-E group, which would be least likely to suffer from a shift in the external direction, shifted in an external direction, its posttest mean score was still in the internal range (see Table 2). Taken together both the configuration of changes in I-E and the apparent improvement in interpersonal skills support the interpretation that the moderation effect of the experimental subjects was for the better.
Phenomenologically, as a result of skills training with its focus on interpersonal behavior and its consequences, internals may have come to believe that while they could have a positive influence on others, they did not exercise as much control or influence as they might have previously thought. For the moderate subjects, the moderation shift would probably mean that they came to believe that they had greater influence on others than they did prior to skills training. In other words, two of the three experimental groups may have been moving towards the belief that while they could have a genuine influence on their environment, that influence was only partial.

While the moderation effect appears to provide support for the second hypothesis of this study, data from Table 3 tends to limit the amount of that support. Table 3 indicates a differential responsiveness among the three I-E groups. Specifically, only the moderate personality group made a significant change in I-E ($F (1,77)=5.70, p=.05$) while the internal group ($F (1,77)=3.24, p=.10$) and the external group ($F (1,77)=2.62, p=.25$) did not.

Despite the fact that all three I-E groups apparently went through a significant improvement in interpersonal skills and that there was no significant difference in level of interpersonal functioning--only the moderate I-E group revised their beliefs in control to a significant degree.
From inspection of Table 2, it can be seen that the posttest mean I-E scores of the internal and moderate experimental groups approach identity (6.20 and 6.80 respectively). Given this apparent convergence in beliefs between the internal and moderate experimental groups and based on a moderation interpretation, it can be argued that the internal subjects needed to make less of a change in I-E to bring their belief system in line with a more moderate level of expectation. However, while the external group made a change in interpersonal behavior comparable to both the externals and moderates (Table 7), they did not make a comparable change in I-E (Table 2).

While the reasons for failure to find a significant change in I-E in the external group are not clear, there are several possible explanations for this lack of change. Spiegel has suggested that a "ripple effect" occurs when an individual after experiencing mastery in one area of his or her life, feels motivated to start making significant changes in other areas of their lives (Spiegel and Linn, 1969). The literature has indicated that people with an internal vs. external orientation differ in the number of areas in which they believe themselves to be effective. Therefore, given the fact that, by definition, external subjects probably feel less effective in more areas of their lives than either moderate
or internal subjects and that for a "ripple effect" to occur sufficient time has to elapse, it is possible that at the time of the posttest, a sufficient amount of time had not elapsed for the external subjects to generalize an increased sense of mastery. In other words, given a lag between behavior change and resultant personality change it may take externals longer to change I-E because they have more situations to generalize their new level of skills to than either internals or moderates.

Another possible explanation for a lack of significant change in I-E may be due to "dynamic" reasons. According to cognitive dissonance theory (Festinger, 1957), if an individual behaves in a way that conflicts with his belief and if there is insufficient external justification for the behavior, then he or she will experience dissonance and feel motivated to change his or her beliefs to conform with his or her behavior. It is possible that despite significant behavior change external subjects may have been able to rationalize this change and may not have felt motivated to change their beliefs.

A related "dynamic" reason for failure to find significant change in belief with the external group might be due to "resistance." Davis (1970) distinguished between two groups of external subjects—"defensive externals" and "congruent externals." The former group while espousing an external belief act like internals, while the
latter group's behavior coincides with their external expectancy. Davis suggests that the "defensive external" apparently while striving for success like an internal defend themselves against responsibility for failure by espousing an external belief. It therefore seems possible that another factor involved in not finding a significant change in I-E with the external subjects, despite their significant change in social skills, might be their resistance to acknowledging greater responsibility for possible failures.

Carkhuff (Carkhuff and Berenson, 1976) has suggested that while interpersonal skills are important, they may be insufficient to help some people to fully develop their human potential. He recommends training in other areas of life such as physical and intellectual skills development. This is in line with Lazarus' (1976) multi-modal hypothesis that the more modalities that are incorporated into a treatment program, the better the outcome.

What the data may be indicating is that skills training may be insufficient to lead to a significant change in I-E with external subjects. What might be needed to effect significant change in belief for external subjects is the incorporation of more cognitive elements into the training that would facilitate and reinforce greater "self-attribution."
Parenthetically, it might be added that while the external group did not make a significant change in I-E (F (1,77)=2.62, p=.25), their posttest mean changed in the predicted direction. What this non-significant difference may be reflecting is the relative though insufficient positive effect of skills training.

In partial support of the second hypothesis of this study, several things may be concluded. Skills training appears to have had a significant effect on I-E, that is, significant behavior change appears to lead to significant personality change. While the direction of these changes were not all in the predicted direction, some were, nonetheless, significant. Furthermore, given that skills training resulted in a genuine improvement in interpersonal functioning and that the configuration of changes in I-E reflected this improvement, then it would appear that a moderate level of I-E may be more optimal than either extremes of internality or externality. However, despite these apparent gains—skills training may not be sufficient to overcome an external belief system or, at least, it may take longer for externals to make a significant shift in an internal direction than expected.

**Summary and Conclusion**

The data indicates that interpersonal skills training resulted in a significant increase in social
functioning. Furthermore, while skills training apparently resulted in a significant change in I-E, it may not be sufficient in overcoming an external belief system. Moreover, I-E did not significantly differentiate initial skills level or amount of increase in skills.

Although these results tend to indicate that significant behavior change leads to significant personality change, because of the quasi-experimental design used as well as various confounds of this study, the generalizability of these results is limited. If future studies use an experimental design and control for confounds, the validity of these results can be strengthened. Furthermore, some measure of interpersonal behavior in non-training situations would also serve to clarify the relationship between behavior and belief. Finally, the validity of the moderation interpretation needs to be re-searched.

The experimenter would like to suggest that while extreme externality may be pathologic in its posture of helplessness and avoidance of responsibility, extreme internality may be potentially pathologic in flaunting reality. The most mature position might be to have a generally internal locus of control with a slight admixture of externality and a recognition of uncertainty.
REFERENCES


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SCALES FOR ASSESSMENT OF INTERPERSONAL FUNCTIONING*

SCALE 1

EMPATHETIC UNDERSTANDING IN INTERPERSONAL PROCESSES: A SCALE FOR MEASUREMENT

Level 1

The verbal and behavioral expressions of the first person either do not attend or detract significantly from the verbal and behavioral expressions of the second person(s) in that they communicate significantly less of the second person's feelings than the second person has communicated himself.

Examples: The first person communicates no awareness of even the most obvious, expressed surface feelings of the second person. The first person may be bored or uninterested or simply operating from a preconceived frame of reference which totally excluded that of the other person(s).

In summary, the first person does everything but express that he is listening, understanding, or being sensitive to even the feelings of the other person in such a way to detract significantly from the communications of the second person.

Level 2

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

Examples: The first person may communicate some awareness of obvious surface feelings of the second person, but his communications drain off a level of the affect and distort the level of meaning. The first person may communicate his own ideas of what may

*From Carkhuff (1969b).
be going on, but these are not congruent with the expressions of the second person.

In summary, the first person tends to respond to other than what the second person is expressing or indicating.

Level 3

The expressions of the first person in response to the expressed feelings of the second person(s) are essentially interchangeable with those of the second person in that they express essentially the same affect and meaning.

Example: The first person responds with accurate understanding of the surface feelings of the second person but may not respond to or may misinterpret the deeper feelings.

In summary, the first person is responding so as to neither subtract from nor add to the expressions of the second person; but he does not respond accurately to how that person really feels beneath the surface feelings. Level 3 constitutes the minimal level of facilitative interpersonal functioning.

Level 4

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

Example: The facilitator communicates his understanding of the expressions of the second person at a level deeper than they were expressed, and thus enables the second person to experience and/or express feelings he was unable to express previously.

In summary, the facilitator's responses add deeper feeling and meaning to the expressions of the second person.

Level 5

The first person's responses add significantly to the feeling and meaning of the expressions of the second person(s) in such a way as to (1) accurately express feelings levels below what the person himself was able to express or (2) in the event of ongoing deep self-exploration on the second person's part, to be fully with him in his deepest moments.
Example: The facilitator responds with accuracy to all of the person's deeper as well as surface feelings. He is "together" with the second person or "tuned in" on his wave length. The facilitator and the other person might proceed together to explore previously unexplored areas of human existence.

In summary, the facilitator is responding with a full awareness of who the other person is and a comprehensive and accurate empathic understanding of his deepest feelings.
SCALE 2

THE COMMUNICATION OF RESPECT IN INTERPERSONAL PROCESSES: A SCALE FOR MEASUREMENT

Level 1

The verbal and behavioral expressions of the first person communicate a clear lack of respect (or negative regard) for the second person(s).

Example: The first person communicates to the second person that the second person's feelings and experiences are not worthy of consideration or that the second person is not capable of acting constructively. The first person may become the sole focus of evaluation.

In summary, in many ways the first person communicates total lack of respect for the feelings, experiences, and potentials of the second person.

Level 2

The first person responds to the second person in such a way as to communicate little respect for the feelings, and potentials of the second person.

Example: The first person may respond mechanically or passively or ignore many of the feelings of the second person.

In summary, in many ways the first person displays a lack of respect or concern for the second person's feelings, experiences, and potentials.

Level 3

The first person communicates a positive respect and concern for the second person's feelings, experiences, and potentials.

Example: The first person communicates respect and concern for the second person's ability to express himself and to deal constructively with his life situation.
In summary, in many ways the first person communicates that who the second person is and what he does matter to the first person. Level 3 constitutes the minimal level of facilitative interpersonal functioning.

Level 4

The facilitator clearly communicates a very deep respect and concern for the second person.

Example: The facilitator's responses enables the second person to feel free to be himself and to experience being valued as an individual.

In summary, the facilitator communicates a very deep caring for the feelings, experiences, and potentials of the second person.

Level 5

The facilitator communicates the very deepest respect for the second person's worth as a person and his potential as a free individual.

Example: The facilitator cares very deeply for the human potentials of the second person.

In summary, the facilitator is committed to the value of the other person as a human being.
SCALE 3

FACILITATIVE GENUINENESS IN INTERPERSONAL PROCESSES: A SCALE FOR MEASUREMENT

Level 1

The first person's verbalizations are clearly unrelated to what he is feeling at the moment, or his only genuine responses are negative in regard to the second person(s) and appear to have a totally destructive effect upon the second person.

Example: The first person may be defensive in his interaction with the second person(s) and this defensiveness may be demonstrated in the content of his words or his voice quality. Where he is defensive he does not employ his reaction as a basis for potentially valuable inquiry into the relationship.

In summary, there is evidence of a considerable discrepancy between the inner experiencing of the first person(s) and his current verbalizations. Where there is no discrepancy, the first person's reactions are employed solely in a destructive fashion.

Level 2

The first person's verbalizations are slightly unrelated to what he is feeling at the moment, or when his responses are genuine they are negative in regard to the second person; the first person does not appear to know how to employ his negative reactions constructively as a basis for inquiry into the relationship.

Example: The first person may respond to the second person(s) in a "professional" manner that has a rehearsed quality or a quality concerning the way a helper "should" respond in that situation.

In summary, the first person is usually responding according to his prescribed role rather than expressing what he personally feels or means. When he is genuine his responses are negative and he is unable to employ them as a basis for further inquiry.

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Level 3

The first person provides no "negative" cues between what he says and what he feels, but he provides no positive clues to indicate a really genuine response to the second person(s).

Example: The first person may listen and follow the second person(s) but commits nothing more of himself.

In summary, the first person appears to make appropriate responses that do not seem insincere but that do not reflect any real involvement either. Level 3 constitutes the minimal level of facilitative interpersonal functioning.

Level 4

The facilitator presents some positive cues indicating a genuine response (whether positive or negative) in a nondestructive manner to the second person(s).

Example: The facilitator's expressions are congruent with his feelings, although he may be somewhat hesitant about expressing them fully.

In summary, the facilitator responds with many of his own feelings, and there is no doubt as to whether he really means what he says. He is able to employ his responses, whatever their emotional content, as a basis for further inquiry into the relationship.

Level 5

The facilitator is freely and deeply himself in a nonexploitative relationship with the second person(s).

Example: The facilitator is completely spontaneous in his interaction and open to experiences of all types, both pleasant and hurtful. In the event of hurtful responses the facilitator's comments are employed constructively to open a further area of inquiry for both the facilitator and the second person.

In summary, the facilitator is clearly being himself and yet employing his own genuine responses constructively.
SCALE 4

FACILITATIVE SELF-DISCLOSURE IN INTERPERSONAL PROCESSES: A SCALE FOR MEASUREMENT

Level 1

The first person actively attempts to remain detached from the second person(s) and discloses nothing about his own feelings or personality to the second person(s), or if he does disclose himself, he does so in a way that is not tuned to the second person's general progress.

Example: The first person may attempt, whether awkwardly or skillfully to divert the second person's attention from focusing upon personal questions concerning the first person, or his self-disclosures may be ego shattering for the second person(s) and may ultimately cause him to lose faith in the first person.

In summary, the first person actively attempts to remain ambiguous and an unknown quantity to the second person(s), or if he is self-disclosing, he does so solely out of his own needs and is oblivious to the needs of the second person(s).

Level 2

The first person, while not always appearing actively to avoid self-disclosures, never volunteers personal information about himself.

Example: The first person may respond briefly to direct questions from the client about himself; however, he does so hesitantly and never provides more information about himself than the second person(s) specifically requests.

In summary, the second person(s) either does not ask about the personality of the first person, or, if he does, the barest minimum of brief, vague, and superficial responses are offered by the first person.
Level 3

The first person volunteers personal information about himself which may be in keeping with the second person's interests, but this information is often vague and indicates little about the unique character of the first person.

Example: While the first person volunteers personal information and never gives the impression that he does not wish to disclose more about himself, nevertheless, the content of his verbalizations is generally centered upon his reactions to the second person(s) and his ideas concerning their interaction.

In summary, the first person may introduce more abstract, personal ideas in accord with the second person's interests, but these ideas do not stamp him as a unique person. Level 3 constitutes the minimum level of facilitative interpersonal functioning.

Level 4

The facilitator freely volunteers information about his personal ideas, attitudes, and experiences in accord with the second person's interests and concerns.

Example: The facilitator may discuss personal ideas in both depth and detail, and his expressions reveal him to be a unique individual.

In summary, the facilitator is free and spontaneous in volunteering personal information about himself, and in so doing may reveal in a constructive fashion quite intimate material about his own feelings, and beliefs.

Level 5

The facilitator volunteers very intimate and often detailed material about his own personality, and in keeping with the second person's needs may express information that might be extremely embarrassing under different circumstances or if revealed by the second person to an outsider.

Example: The facilitator gives the impression of holding nothing back and of disclosing his feelings and ideas fully and completely to the second person(s). If some of his feelings are negative concerning the second person(s), the facilitator employes them
constructively as a basis for an open-ended inquiry.

In summary, the facilitator is operating in a constructive fashion at the most intimate levels of self-disclosure.
SCALE 5

PERSONALLY RELEVANT CONCRETENESS OR SPECIFICITY OF EXPRESSION IN INTERPERSONAL PROCESSES:

A SCALE FOR MEASUREMENT

Level 1

The first person leads or allows all discussion with the second person(s) to deal only with vague and anonymous generalities.

Example: The first person and the second person discuss everything on strictly an abstract and highly intellectual level.

In summary, the first person makes no attempt to lead the discussion into the realm of personally relevant specific situations and feelings.

Level 2

The first person frequently leads or allows even discussions of material personally relevant to the second person(s) to be dealt with on a vague and abstract level.

Example: The first person and the second person may discuss the "real" feelings but they do so at an abstract, intellectualized level.

In summary, the first person does not elicit discussions of most personally relevant feelings and experiences in specific and concrete terms.

Level 3

The first person at times enables the second person(s) to discuss personally relevant materials in specific and concrete terminology.

Example: The first person will make it possible for the discussion with the second person(s) to center directly around most things that are personally important to the second person(s), although there
will continue to be areas not dealt with concretely and areas in which the second person does not develop fully in specificity.

In summary, the first person sometimes guides the discussions into consideration of personally relevant specific and concrete instances, but these are not always fully developed. Level 3 constitutes the minimal level of facilitative functioning.

Level 4

The facilitator is frequently helpful in enabling the second person(s) to fully develop in concrete and specific terms almost all instances of concern.

Example: The facilitator is able on many occasions to guide the discussion to specific feelings and experiences of personally meaningful material.

In summary, the facilitator is very helpful in enabling the discussion to center around specific and concrete instances of most important and personally relevant feelings and experiences.

Level 5

The facilitator is always helpful in guiding the discussion, so that the second person(s) may discuss fluently, directly, and completely specific feelings and experiences.

Example: The first person involves the second person in discussion of specific feelings, situations, and events, regardless of their emotional content.

In summary, the facilitator facilitates a direct expression of all personally relevant feelings and experiences in concrete and specific terms.
SCALE 6

CONFRONTATION IN INTERPERSONAL PROCESSES:
A SCALE FOR MEASUREMENT

Level 1

The verbal and behavioral expressions of the helper disregard the discrepancies in the helpee's behavior (ideal versus real self, insight versus action, helper versus helpee's experiences).

Example: The helper may simply ignore all helpee discrepancies by passively accepting them.

In summary, the helper simply disregards all of those discrepancies in the helpee's behavior that might be fruitful areas for consideration.

Level 2

The verbal and behavioral expressions of the helper disregard the discrepancies in the helpee's behavior.

Example: The helper, although not explicitly accepting these discrepancies, may simply remain silent concerning most of them.

In summary, the helper disregards the discrepancies in the helpee's behavior, and, thus, potentially important areas of inquiry.

Level 3

The verbal and behavioral expressions of the helper, while open to discrepancies in the helpee's behavior, do not relate directly and specifically to these discrepancies.

Example: The helper may simply raise questions without pointing up the diverging directions of the possible answers.

In summary, while the helper does not disregard discrepancies in the helpee's behavior, he does not point up the directions of these discrepancies. Level 3 constitutes the minimum level of facilitative interpersonal functioning.

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Level 4

The verbal and behavioral expressions of the helper attend directly and specifically to the discrepancies in the helpee's behavior.

Example: The helper confronts the helpee directly and explicitly with discrepancies in the helpee's behavior.

In summary, the helper specifically addresses himself to discrepancies in the helpee's behavior.

Level 5

The verbal and behavioral expressions of the helper are keenly and continually attuned to the discrepancies in the helpee's behavior.

Example: The helper confronts the helpee with helpee discrepancies in a sensitive and perceptive manner whenever they appear.

In summary, the helper does not neglect any potentially fruitful inquiry into the discrepancies in the helpee's behavior.
IMMEDIACY OF RELATIONSHIP IN INTERPERSONAL PROCESSES: A SCALE FOR MEASUREMENT

Level 1

The verbal and behavioral expressions of the helper disregard the content and affect of the helpee's expressions that have the potential for relating to the helper.

Example: The helper may simply ignore all helpee communications, whether direct or indirect, that deal with the helper-helpee relationship.

In summary, the helper simply disregards all of those helpee messages that are related to the helper.

Level 2

The verbal and behavioral expressions of the helper disregard most of the helpee expressions that have the potential for relating to the helper.

Example: Even if the helpee is talking about helping personnel in general, the helper may, in general, remain silent or just not relate the content to himself.

In summary, the helper appears to choose to disregard most of those helpee messages that are related to the helper.

Level 3

The verbal and behavioral expressions of the helper, while open to interpretations of immediacy, do not relate what the helpee is saying to what is going on between the helper and the helpee in the immediate moment.

Example: The helper may make literal responses to or reflections on the helpee's expressions or otherwise open-minded responses that refer to no one specifically but that might refer to the helper.
In summary, while the helper does not extend the helpee's expressions to immediacy, he is not closed to such interpretations. Level 3 constitutes the minimum level of facilitative interpersonal functioning.

Level 4

The verbal and behavioral expressions of the helper appear cautiously to relate the helpee's expressions directly to the helper-helpee relationship.

Example: The helper attempts to relate the helpee's responses to himself, but he does so in a tentative manner.

In summary, the helper relates the helpee's responses to himself in an open, cautious manner.

Level 5

The verbal and behavioral expressions of the helper relate the helpee's expressions directly to the helper-helpee relationship.

Example: The helper in a direct and explicit manner relates the helpee's expressions to himself.

In summary, the helper is not hesitant in making explicit interpretations of the helper-helpee relationship.
HELPEE SELF-EXPLORATION IN INTERPERSONAL PROCESSES: A SCALE FOR MEASUREMENT

Level 1

The second person does not discuss personally relevant material, either because he has had no opportunity to do such or because he is actively evading the discussion even when it is introduced by the first person.

Example: The second person avoids any self-descriptions or self-exploration or direct expression of feelings that would lead him to reveal himself to the first person.

In summary, for a variety of possible reasons the second person does not give any evidence of self-exploration.

Level 2

The second person responds with discussion to the introduction of personally relevant material by the first person but does so in a mechanical manner and without the demonstration of emotional feelings.

Example: The second person simply discusses the material without exploring the significance or the meaning of the material or attempting further exploration of that feeling in an effort to uncover related feelings or material.

In summary, the second person responds mechanically and remotely to the introduction of personally relevant material by the first person.

Level 3

The second person voluntarily introduces discussions of personally relevant material but does so in a mechanical manner and without the demonstration of emotional feeling.

Example: The emotional remoteness and mechanical manner of the discussion give the discussion a quality of being rehearsed.
In summary, the second person introduces personally relevant material but does so without spontaneity or emotional proximity and without an inward probing to discover new feelings and experiences.

Level 4

The second person voluntarily introduces discussions of personally relevant material with both spontaneity and emotional proximity.

Example: The voice quality and other characteristics of the second person are very much "with" the feelings and other personal materials that are being verbalized.

In summary, the second person introduces personally relevant discussions with spontaneity and emotional proximity but without a distinct tendency toward inward probing to discover new feelings and experiences.

Level 5

The second person actively and spontaneously engages in an inward probing to discover new feelings and experiences about himself and his world.

Example: The second person is searching to discover new feelings concerning himself and his world even though at the moment he may perhaps be doing so fearfully and tentatively.

In summary, the second person is fully and actively focusing upon himself and exploring himself and his world.
APPENDIX B
Rating Guide for the Interpersonal Skills Scale*

Sample Statement: "I'm so down and I don't even know why . . . I mean, I shouldn't be down just because . . . (pause) there's just no reason for it."

<table>
<thead>
<tr>
<th>Response Classification Level</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>(refer to above statement for all examples)</td>
<td></td>
</tr>
<tr>
<td>1. Cliche Response: Not related to other's statement.</td>
<td>1.0</td>
</tr>
<tr>
<td>e.g., &quot;I know lots of people who get sad feelings too.&quot;</td>
<td></td>
</tr>
<tr>
<td>Cliche Response: Somewhat related to other's statement.</td>
<td>1.5</td>
</tr>
<tr>
<td>e.g., &quot;What do you think causes people to get depressed?&quot;</td>
<td></td>
</tr>
<tr>
<td>2. Advice Response: Poor advice: no understanding.</td>
<td>2.0</td>
</tr>
<tr>
<td>e.g., &quot;You should think of the good things in your life.&quot;</td>
<td></td>
</tr>
<tr>
<td>Advice Response: Good advice: no understanding.</td>
<td>2.5</td>
</tr>
<tr>
<td>e.g., &quot;You know what's on your mind. Just say it!&quot;</td>
<td></td>
</tr>
<tr>
<td>3. Interchangeable Response: Simple reflective with understanding shown.</td>
<td>3.0</td>
</tr>
<tr>
<td>e.g., &quot;You're feeling down.&quot;</td>
<td></td>
</tr>
<tr>
<td>Interchangeable Response: Complete understanding of feeling and message of other.</td>
<td>3.5</td>
</tr>
<tr>
<td>e.g., &quot;You're pretty down and you just don't know why.&quot;</td>
<td></td>
</tr>
<tr>
<td>4. Additive Response: High understanding; beginning initiation.</td>
<td>4.0</td>
</tr>
<tr>
<td>e.g., &quot;You can't let yourself think about the things that are causing you to feel so bad.&quot;</td>
<td></td>
</tr>
<tr>
<td>Additive Response: High Understanding; high initiation.</td>
<td>4.5</td>
</tr>
<tr>
<td>e.g., &quot;You're feeling really low . . . you have an idea why . . . but it's pretty painful to think about it.&quot;</td>
<td></td>
</tr>
</tbody>
</table>

*This scale is based on the work of Carkhuff (1969b).
APPENDIX C
Interpersonal Skills: A Rating Scale*

Use the following rating scale to rate interpersonal skills:

1.0 / 1.5 / 2.0 / 2.5 / 3.0 / 3.5 / 4.0 / 4.5 / 5.0 /

Very Subtractive Moderately Minimally Markedly Extremely
tractive Subtractive facilitative facilitative Facilitative

Self-presentation Skills:

___ Self-disclosure: Trainee appropriately discloses himself to others with the goal of fostering relationships. This is done in a sense of mutuality and emerges from the ongoing context of the relationship.

___ Concreteness: He deals in specific, concrete feelings and behavior; he deals in relevant behavior (not "storytelling"); he deals in specific details and specific instances

___ Expression of feeling: He expresses his emotions as they arise in a constructive non-manipulative manner; directly communicating his feelings.

Responding Skills:

___ Primary Accurate Empathy: Trainee communicates an accurate understanding of the feelings, behavior, and experiences which the other person explicitly communicates. He experiences the "world" of the other and communicates this understanding.

___ Genuineness: He responds in a spontaneous, role-free manner. He is assertive in communicating without being duly aggressive.

___ Respect: (warmth, being "for"): He communicates respect for the other person (especially through his efforts to understand the other person's experience). He is unconditional or conditional in his regard as the phase and content of the relationship demands.

*This scale is based on the work of Egan (1976).
Challenge Skills:

**Advanced Accurate Empathy:** Trainee accurately communicates not only what the other person states and expresses but also what he implies or leaves unstated or doesn't clearly express.

**Confrontation:** He invites the other person to examine his behavior and its consequences more carefully; he challenges the strengths rather than the weaknesses of the other; he points out the discrepancies in the other's lifestyle.

**Immediacy:** He explores the here-and-now, the relationship between himself and others, in a direct and constructive manner.
APPENDIX D
THE ROTTER INTERNAL-EXTERNAL LOCUS OF CONTROL SCALE*

Instructions: Please check the alternative that best describes what happens to you or how you feel. There are no right or wrong answers.

1. ___ A. Children get into trouble because their parents punish them too much.
   ___ B. The trouble with most children nowadays is that their parents are too easy with them.

2. ___ A. Many of the unhappy things in people's lives are partly due to bad luck.
   ___ B. People's misfortunes result from the mistakes they make.

3. ___ A. One of the major reasons why we have wars is because people don't take enough interest in politics.
   ___ B. There will always be wars, no matter how hard people try to prevent them.

4. ___ A. In the long run people get the respect they deserve in this world.
   ___ B. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

5. ___ A. The idea that teachers are unfair to students is nonsense.
   ___ B. Most students don't realize the extent to which their grades are influenced by accidental happenings.

6. ___ A. Without the right breaks one cannot be an effective leader.
   ___ B. Capable people who fail to become leaders have not taken advantage of their opportunities.

7. ___ A. No matter how hard you try some people just don't like you.
   ___ B. People who can't get others to like them don't understand how to get along with others.

*From Rotter (1966).
8. **A.** Heredity plays the major role in determining one's personality.
**B.** It is one's experiences in life which determine what they're like.

9. **A.** I have often found that what is going to happen will happen.
**B.** Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

10. **A.** In the case of the well prepared student there is rarely if ever such a thing as an unfair test.
**B.** Many times exam questions tend to be so unrelated to course work that studying is really useless.

11. **A.** Becoming a success is a matter of hard work; luck has little or nothing to do with it.
**B.** Getting a good job depends mainly on being in the right place at the right time.

12. **A.** The average citizen can have an influence in government decisions.
**B.** This world is run by the few people in power, and there is not much the little guy can do about it.

13. **A.** When I make plans, I am almost certain that I can make them work.
**B.** It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

14. **A.** There are certain people who are just no good.
**B.** There is some good in everybody.

15. **A.** In my case getting what I want has little or nothing to do with luck.
**B.** Many times we might just as well decide what to do by flipping a coin.

16. **A.** Who gets to be boss often depends on who was lucky enough to be in the right place first.
**B.** Getting people to do the right thing depends upon ability; luck has little or nothing to do with it.
17. A. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.
   B. By taking an active part in political and social affairs the people can control world events.

18. A. Most people don't realize the extent to which their lives are controlled by accidental happenings.
   B. There really is no such thing as "luck."

19. A. One should always be willing to admit mistakes.
   B. It is usually best to cover up one's mistakes.

20. A. It is hard to know whether or not a person really likes you.
    B. How many friends you have depends upon how nice a person you are.

21. A. In the long run the bad things that happen to us are balanced by the good ones.
    B. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

22. A. With enough effort we can wipe out political corruption.
    B. It is difficult for people to have much control over the things politicians do in office.

23. A. Sometimes I can't understand how teachers arrive at the grades they give.
    B. There is a direct connection between how hard I study and the grades I get.

24. A. A good leader expects people to decide for themselves what they should do.
    B. A good leader makes it clear to everybody what their jobs are.

25. A. Many times I feel that I have little influence over the things that happen to me.
    B. It is impossible for me to believe that chance or luck plays an important role in my life.

26. A. People are lonely because they don't try to be friendly.
    B. There's not much use in trying too hard to please people, if they like you, they like you.
27. ___A. There is too much emphasis on athletics in high school.
   ___B. Team sports are an excellent way to build character.

28. ___A. What happens to me is my own doing.
   ___B. Sometimes I feel that I don't have enough control over the direction my life is taking.

29. ___A. Most of the time I can't understand why politicians behave the way they do.
   ___B. In the long run the people are responsible for bad government on a national as well as on a local level.
The thesis submitted by Michael J. Banks has been read and approved by the following committee:

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The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the Committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

April 3, 1979

Date

Director's Signature