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The Effects of Interpersonal Skills Training on Locus of Control, Dogmatism, and Self Esteem

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THE EFFECTS OF INTERPERSONAL SKILLS
TRAINING ON LOCUS OF CONTROL,
DOGMATISM, AND SELF-ESTEEM

by

Michael J. Banks

A Dissertation Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy

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LIFE

The author, Michael Banks, was born in Chicago, Illinois, on May 13, 1948.

He attended grade and high schools in Chicago, and graduated from Leo High School in 1966.

In June, 1970, he received a Bachelor of Arts degree in History from Loyola University of Chicago, as well as being commissioned a second lieutenant in the United States Army Reserves.

In June, 1974, he received a Master of Arts degree in Counseling Psychology from Loyola University of Chicago.

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CHAPTER I

INTRODUCTION

For many years, a great deal of conflict and closed-minded bias has existed between the traditional intrapsychic and behavioral orientations in psychology. The former group tended to focus almost exclusively on internal determinants of behavior, while the latter group emphasized external factors. However, contemporary psychology appears to be moving towards a significant change in perspective. There appears to be more open communication between the two groups. Whether this more open communication will lead to a rapprochement between the two viewpoints (Wachtel, 1977) or to a dialectical synthesis of the two (Kanfer, 1979), is not clear. What is clear is that a new paradigm appears to be emerging.

While this emerging viewpoint has been called a cognitive-behavioral perspective, it has not congealed into a definite paradigm with clearly delimited parameters (Mahoney, 1977). Despite this lack of clarity, one relationship has been repeatedly stressed. Many authors from different perspectives have suggested a complex interdependence between environmental, behavioral, cognitive,

and biological variables (see Bandura, 1977; Bowers, 1973; Endler & Magnusson, 1975; Marchenbaum, 1977; Perls, 1973; Wachtel, 1977).

The nature of this complex system is such that a significant interaction between people's beliefs and their behavior (see Bandura & Barab, 1971; Baron, Kaufman, & Stauber, 1969; Estes, 1972; Kaufman, Baron, & Kopp, 1966) as well as between interpersonal behavior and environmental responses (see Bell, 1968, 1971; Kelley & Stahelski, 1970; Patterson, 1975; Raush, 1965; Thomas & Martin, 1976) have been consistently found. In other words, people's beliefs influence their behavior, their behavior influences their environment, and their environment influences their beliefs and behavior.

Given these complex interdependent relationships, the question of the nature of the change process comes to mind. While it seems logical to assume that changes in one subsystem of this complex network might facilitate changes in other subsystems. It is also equally possible that changes in one subsystem may be inhibited by other subsystems. Clinical examples of the latter have indicated that when many people who have been hospitalized with emotional problems recover, and return to their previous environment, they often revert to their former patterns (Haley, 1963).

In answer to the question on the nature of the

change process, many authors (see Bertalanffy, 1968; Haley, 1963, 1973, 1976; Horowitz, 1973; Marris, 1974; Palazzoli, Boscolo, Cechin, & Prata, 1978; Watzlawich, Weakland, & Fisch, 1974) have suggested that lasting change is not automatic and that there appears to be systematic forces of checks and balances which influence and are an integral part of the change process. In other words, change is not automatic; there is likely to be some resistance.

Given, again, this network of interdependent relationships and the ecological nature of the change process, the present study attempts to probe and explore this network as well as the dynamics of change. Specifically, this study examines the relationships between three elements within the individual's belief system (i.e., Internal-External Locus of Control; Dogmatism; and Self-Esteem); the relationship between the belief system and behavior (i.e., interpersonal skills); and the relationship between behavior change and the belief system.

CHAPTER II

REVIEW OF RELATED LITERATURE

Three Components of Belief

Rokeach (1968) has stated that a "belief system may be defined as having represented within it, in some organized psychological but not necessarily logical form, each and every one of a person's countless beliefs about physical and social reality" (p. 2). Given that by definition the belief system represents the totality of an individual's beliefs, Internal-External Locus of Control (I-E), Dogmatism (Dg), and Self-Esteem (S-E) may be thought of as three aspects or components of a person's belief system. While these three aspects of belief are not exhaustive, they may be considered as representative samples of the state of a person's belief system.

The first component of belief to be examined is locus of control. Rotter (1966) distinguishes between two groups of people on the I-E continuum, "externals" who perceive reinforcements as dependent on luck or others and "internals" who perceive reinforcements 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).

Given this difference in expectancy, Rotter believes that externals will tend to develop and adapt poorly to their environment, while internals will tend to learn more adaptive behavior and become more autonomous. If this generalization is valid, it would seem that people are handicapped by an external belief.

Parenthetically, 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 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, this study will deal with locus of control and not with his distinctions.

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.

Katovsky, Crandall, and Good (1967) also compared children's scores on the Crandall scale with some 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, socio-economic 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).

To summarize, the research indicates that social factors also play a significant role in control expectations, with membership in socially disadvantaged groups correlating positively with externality.

Miscellaneous Differences in I-E

Numerous studies have indicated significant differences between people maintaining internal vs. external

beliefs in control. These have included: achievement behavior (Coleman et al., 1966; McGhee & Crandall, 1968; Harrison, 1968; Nowicki & Roundtree, 1971), attitude change (Ritchie & Phares, 1969; Ryckman, Rodda & Sherman, 1972; McGinnies & Ward, 1974; Sherman, 1973; Snyder & Larson, 1972), birth control practices (Bauman & Udry, 1972; Lundy, 1972; MacDonald, 1970), cognitive awareness (Lefcourt & Wine, 1969; Lefcourt, 1967; Lefcourt, Lewis & Silverman, 1968; DuCette & Wolk, 1973; Wolk & DuCette, 1974), information seeking (Seeman, 1963; Seeman & Evans, 1962; Davis & Phares, 1967; Phares, 1968; Williams & Stark, 1972), perceptual sensitivity (Getter, 1966; Rothschild & Horowitz, 1970; Ude & Vogler, 1969), resistance to subtle influence (Gore, 1962; Biondo & MacDonald, 1971), and social conformity (Crowne & Liverant, 1963; Tolor, 1971).

Pines and Julian (1972) have interpreted some of these differences as reflecting different strategies used by internals and externals to reach important goals. They suggest that an internal strategy may be characterized as being responsive to the informational demands of a task while an external strategy may be characterized as being oriented towards the social demands of the situation.

Overall, these differences indicate that people with an internal orientation tend to exhibit better learning and acquisition of material, actively seek information, are more alert and attentive and evidence greater attempts

at self-mastery than people with a more external orientation. On the other hand externals tend to be more easily influenced by others and conform more to societal pressures than internals.

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.

In addition to these, numerous other studies have consistently found a positive relationship between externality and maladjustment and anxiety (see Joe, 1971; Lefcourt, 1976; Phares, 1976). However, 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 externally oriented.

Harrow and Ferrante (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 a shift towards a more normal locus of control (i.e., less extreme internality) with the manic group.

In regards to depression, several correlational

studies have found a significant relationship between externality and self-report measures of depression (see Calhoun, Cheney, & Davis, 1974; Naditch, Gargen, & Michael, 1975; Warehime & Foulds, 1971). In addition to this, and in support of Seligman's (1975) position on "learned helplessness," Hiroto (1974) found that external beliefs, chance conditions and inescapable pretreatment learning all retard the development of escape behavior.

However, while it appears that externality and depression are related, Phares (1978) cautions that it is impossible to "assert with confidence that depression relates to an external orientation and is unrelated to internal beliefs" (p. 286). He suggests that a variety of factors may be confounding this relationship, including the potentially pessimistic wording of external items (Lamont, 1972), the possible relationship between internality and social desirability, as well as possible differences between assuming responsibility for failures and successes. Furthermore, he suggests that defensive externals (who act like internals while espousing external beliefs) may seriously distort the relationship between depression and externality.

Similarly, the relationship between I-E and alcoholism and drug abuse is far from clear-cut. While Norwicki and Hopper (1974) and Palmer (1971) reported that alcoholics or heavy drinkers were found to be externally oriented. Goss and Morosko (1970) found that a sample of

262 alcoholic outpatients were significantly more internal than Rotter's (1966) general norms. Similar results were reported in the above-mentioned study by Distefano et al (1971) as well as by Gozali and Sloan (1971).

In a comparative study between narcotics users and college students, Bergins and Ross (1973) found that the drug users had significantly more internal I-E scores than the college sample. However, these differences may have been due to a lack of adequate matching between groups (see Phares, 1976). In fact, Strassberg and Robinson (1974) found that among a group of drug users those who had a more external orientation were also considered more maladjusted.

Phares (1976) has suggested that the apparent contradiction in results between alcoholic groups may be due to chronic alcoholics having a history of participation in treatment programs that reinforce the espousal of internal attitudes. However, Bergins and Ross (1973) have suggested that "internal control can additionally be conceptualized as a consequence or by-product of substance abuse. Perhaps a term such as 'pseudo-internality' should be used to distinguish drug-engendered internality from its conventional, socially learned counterpart" (p. 90).

Related to this, Lefcourt (1976) has stated that "alcoholics and drug addicts often are known to deny the fact that they have become dependent upon a drug. It is, consequently, not accidental that an important element in

recovery for both alcoholics and drug addicts is the open admission of addiction. Perhaps the more internal responses of these addicts reflect a tendency to deny the very helplessness or slavishness to the drug in question that is so evident to everyone but the addict himself" (p. 92).

While these differences do not refute Shybut's argument that severity of psychopathology is related to externality, they may indicate that different diagnostic groups would require different treatment approaches, depending on their control orientation (some tentative support for this comes from Abramowitz, Abramowitz, Roback & Jackson, 1974; Friedman & Dies, 1974; Helweg, 1974; Jacobson, 1974; Kilman, Albert, & Sotile, 1975). Furthermore, while the data on I-E and adjustment tends to support Rotter's hypothesis that people are handicapped by an external orientation, because a great deal of the data is correlational, it is difficult to tell whether externality leads to maladjustment or vice-versa. Finally, it seems likely that those diagnostic groups that might be called "pseudo-internal," may also be handicapped by their own denial of their difficulties.

In other words, while it seems highly probable that people are likely to be handicapped by an external belief system, it also seems likely that in some situations an internal orientation may be a handicap.

Dogmatism: Open Mind, Close Mind

The second component of belief systems to be discussed is dogmatism. In his seminal work on dogmatism, Rokeach (1960) articulated his theoretical position on the nature of cognitive structure. He suggested that all of a person's beliefs may be organized into two interdependent parts--a belief system and a disbelief system. The belief system consisting of "all the beliefs, sets, expectancies, or hypotheses, conscious and unconscious, that a person at a given time accepts as true of the world" (p. 33). While the disbelief system consists of "a series of subsystems rather than merely a single one, and contains all the disbeliefs, sets, expectancies, conscious and unconscious, that, to one degree or another, a person at a given time rejects as false" (p. 33).

Rokeach suggests that the belief-disbelief dimension has several additional properties. These include: isolation, the degree of communication among beliefs; differentiation, the extent of articulation or richness of detail; and comprehensiveness, the range or total number of disbelief systems.

In addition to this, he suggests that there are levels of belief within the system. These levels include: the most central region which deals with the person's "primitive beliefs" about the nature of the physical world,

social reality, and the nature of the self; the intermediate region which deals with the person's beliefs regarding positive and negative authority in his or her life; and, the peripheral region which contain the individual's "derived" beliefs which emanate from acceptance of various authorities (see Rokeach, 1968, for a slight revision of this structural organization).

The nature of this central-peripheral dimension is such that central beliefs are most resistant to change and peripheral beliefs are easiest to change. Furthermore, a change in a central belief will result in greater systemic change within the belief system than a change in any other level of belief.

From these basic dimensions, Rokeach proposed differential relationships among dimensions to distinguish between the open and closed mind. He characterized a system as closed (the person characterized as dogmatic) to the extent that "there is a high degree of rejection of all disbelief subsystems, an isolation of beliefs, a high discrepancy in degree of differentiation between belief and disbelief systems, and little differentiation within the disbelief system" (p. 61).

Futhermore, he assumes that "the more closed the system, the more will the world be seen as threatening, the greater will be the belief in absolute authority, the more will other persons be evaluated according to the authorities

they line up with, and the more will peripheral beliefs be related to each other by virtue of their common origin in authority, rather than by virtue of intrinsic connections" (p. 62).

Conversely, a system may be characterized as being open, "where rejection of disbeliefs is low; where there is a communication among beliefs and between beliefs and disbeliefs; where there is little discrepancy in the degree of differentiation between belief and disbelief systems; and where there is a relatively high degree of differentiation within the disbelief system" (Erlich, 1978, p. 136).

Additionally, "the world is seen to be a more friendly place by the relatively open person. He should thus be more free and more impervious to irrelevant pressures. For him, the power of authority is still there, but depends upon the authority's cognitive correctness, accuracy, and consistency with other information he has about the world" (Rokeach, 1960, p. 63).

Finally, and similarly to Marris (1974), Rokeach believes that the cognitive structure serves two powerful and conflicting motives--the need to know or understand and the need to protect or ward off threats. He states that

to the extent that the cognitive need to know is predominant and the need to ward off threat absent, open systems should result. In the service of the cognitive need to know, external pressures and irrational internal drives will often be pushed aside, so that information received from outside will be discriminated, assessed, and acted on according to the objective require-

ments of the situation. But as the need to ward off threat becomes stronger, the cognitive need to know should become weaker, resulting in more closed belief systems. Under threat, information and source should become inseparable and should be evaluated arbitrarily in line with the rewards and punishments meted out by authority (p. 68).

It can be seen that Rokeach's conceptualization has some definite parallels with Rotter's I-E distinctions. However, internality and open-mindedness as well as externality and closed-mindedness are not identical. Despite this, it does seem likely that a person is likely to be handicapped with a dogmatic or closed belief system.

Antecedents of the Open and Closed Mind

As with the I-E literature, several studies indicate significant differences in the backgrounds of people with open vs. closed belief systems. Rokeach and Kemp (1960) found very significant correlations between dogmatism and anxiety among various samples from the United States and England. In addition to this, the authors found that the more dogmatic subjects reported a significantly higher incidence of childhood anxiety indicators (i.e., thumb-sucking, nail-biting, nightmares, etc) than the more open-minded subjects.

In a replication of this study, Hanson and Clune (1973) with a sample of seventh and eighth grade students also found a significant difference in the number of anxiety indicators reported by high vs. low dogmatic

subjects. While these two studies support the hypothesis that dogmatism may be a defense against anxiety, the question remains as to what contributed to these early experiences of anxiety.

Not surprisingly, Lesser and Steininger (1975) found low, positive and significant correlations between college students Dg scores and the Dg scores of their parents. These correlations ranged from .20 to .40 with the highest correlations being between husbands and wives. The authors suggest that while the data supports the hypothesis that dogmatism develops within the family, family experiences are one source of influence, but not the only source.

Other authors have also found a significant relationship between parental attitudes (Rebhun, 1967), child rearing practices (Anderson, 1967), and parental level of dogmatism (Bolmeier, 1966), with the level of their children's dogmatism. Ehrlich (1973) suggests that parents can create a warm, loving, supportive environment or a rejecting, neglectful, and cold, or even worse, an inconsistent environment. He concludes that both rejection and inconsistency seem directly related to such concomitants of dogmatism as anxiety, negative self-attitudes, and the rejection of others.

While the data indicates that the familial environment is one source of influence on dogmatism levels, as

Lesser and Steininger cautioned, it is not the only influence. Sticht and Fox's (1966) work indicates that stability of the social network is another factor influencing level of dogmatism. They found that college students who had relatively stable social networks (changed permanent residences three or less times during their lifetime) were significantly more open-minded than college students with less stable social networks (seven to twenty changes in permanent residences). Additionally, it was found that the more mobile group was significantly more anxious than their more stationary counterparts.

Related to the stability of the social network, Frumkin (1961) found an inverse relationship between Dg scores and social class as measured by the Hollingshead-Redlich Index. In addition to this, Alter and White (1966) found regional differences in Dg scores. What this data suggests is that in addition to familial factors, social factors such as social class, regional norms, and the stability of the social network all play a role in the development of cognitive structure.

Overall, the data on antecedents of cognitive structure closely parallel the literature on the antecedents of I-E, with people having external orientations and closed belief systems, as well as, those with internal orientations and open belief systems coming from apparently similar backgrounds.

Dogmatism: Learning and Resistance

Another area in which differences in cognitive structure has been noted to have an effect is in the area of change and the resistance to change. While Rokeach (1960) suggested that dogmatic persons are highly resistant to change, Ehrlich and Lee's (1969) review of the literature indicates that this is not always the case.

In one of the first studies to test the influence of cognitive structure on learning, Ehrlich (1961a) found with a sample of students enrolled in an introductory sociology course, a significant negative correlation between dogmatism scores and test performance. Ehrlich concluded that "subjects low in dogmatism entered the sociology classroom with a higher level of learning, learned more as a result of classroom exposure, and retained this information to a significantly greater degree than more dogmatic subjects" (p. 149).

While these results were duplicated in a follow-up study, five years later (Ehrlich, 1961b), Costin (1965), in a replication of Ehrlich's design, failed to find a significant correlation between dogmatism and classroom performance with a group of psychology students. Costin suggested that these results might indicate that there was more than one kind of closed-mindedness and/or that the content of learning was the significant intervening variable.

Other studies have contributed to these contradictory results. While Franklin (1961) and Zagona and Zurcher (1965) both found that more open-minded subjects had higher grades than their more closed-minded counterparts, Christensen (1963) reported no significant correlations between dogmatism and two postcourse measures of academic performance. Furthermore, Baker (1964) found that, in a concept-learning task, closed-minded subjects performed significantly better than the more open-minded subjects of the study.

From 1963 to 1965, Dg scores were gathered on 2,099 students in 14 introductory psychology classes of seven different instructors (White & Alter, 1967). Six of the 14 correlations between dogmatism and examination grades were significant at the .05 level with an average correlation of $-.18$.

In a second and far more complex correlational study, Rokeach and Norrell (1966) examined the relationship between dogmatism and classroom performance for 798 subjects in 33 courses with six groups of curricular majors, four of which were subdivided into male and female majors. The authors found that 17 of the 33 courses provided at least one significant correlation between course grade and Dg scores with or without control for sex and major. The total analysis performed by sex and major for each course

yielded 20 low but significant negative correlations between grades and level of dogmatism.

Ehrlich and Lee (1969) after reviewing these studies stated that, "the number of positive results are beyond chance, and the on-again-off-again character of the findings strongly indicates the presence of uncontrolled, intervening variables" (p. 251). They suggest that the presence or absence of five intervening variables may account for some of these shifting results.

First, numerous studies (see Jacoby, 1967; Mikol, 1960; Pyron, 1966a; Pyron, 1966b; Pyron & Lambert, 1967; Rokeach, Oram, Laffey, & Denny, 1960; Rokeach, Swanson, & Denny, 1960; Rokeach & Vidulich, 1960; Vacchiano, Shiffman, & Strauss, 1967; Zagona & Kelly, 1966; Zagona & Zurcher, 1965) have indicated that open and closed groups respond differently in novel situations. Specifically, dogmatic groups tend to reject the novel, the unconventional, and the new while taking a rather conservative stance by going along with tradition. More open groups, on the other hand, are more accepting of the new and adapt better to novel situations.

A second intervening variable which has been found to differentiate between high and low dogmatic groups is the authority source of the new belief (see DiRenzo, 1967; Kemp, 1962; McCarty & Johnson, 1962; Norris, 1965; Powell, 1962; Vidulich & Kaiman, 1961). This research indicates

that dogmatic subjects are more influenced by the status of an authority and will change in accordance with the demands of an authority. While less dogmatic subjects' learning tends to be more directed by the requirements of the situation rather than authority demands.

Thirdly, belief congruence, the principle that the more similar a belief is with one's own belief the greater the degree of acceptance has also differentiated between open and closed groups. Several studies (see Adams & Vidulich, 1962; Costin, 1968; Kleck & Wheaton, 1967; Miller, 1965; Pyron & Kafer, 1967) have indicated that closed groups do not learn belief-incongruent materials as well as open groups. In addition to this, under conditions of high centrality, the fourth mediating factor, beliefs are not only more resistant to change (Rokeach, Reyher, & Wiseman, 1968) but also closed groups are likely to change their problem-solving behavior (White, Alter, & Rardin, 1965).

The final intervening variable suggested by Ehrlich and Lee, Syndrome relevance, refers to the interaction between the method of presentation of information and the individual's cognitive structure. The data indicate that open groups are likely to be more responsive to an open-ended presentation of information, while closed groups are apparently more responsive to a more dogmatic approach (McGuckin, 1967; Rokeach, Oram, Laffey, & Denny, 1960; Zagona & Zurcher, 1964).

In line with the role of these intervening variables, Ehrlich (1971) reanalyzed Rokeach and Norrell's (1966) data, arguing that control for the centrality of the materials being learned had not been taken. Positing that college major was an indicator of centrality, Ehrlich found that in nonmajor areas, significant negative correlations between dogmatism and grades occurred 10 percent of the time. While in major area classes, there were significant negative correlations 35 percent of the time.

It therefore seems generally correct to conclude that, "closed-minded persons are less able than open-minded persons to learn new beliefs and to change old beliefs. Nevertheless, the principle remains to be qualified by a consideration of five intervening variables: the authority-source of the new beliefs, the syndrome relevance of their mode of communication, the belief congruence and novelty of the new beliefs, and their centrality to the individual" (Ehrlich & Lee, 1969, p. 258).

Dogmatism and Adjustment

Unlike the I-E literature which indicates that in some situations both an internal and external orientation may be maladaptive, the data on dogmatism indicates fairly consistently that a closed belief system is a sign of poor adjustment.

In two early factor-analytic studies Rokeach

(Rokeach & Fruchter, 1956; Fruchter, Rokeach, & Novak, 1958) found that dogmatism and anxiety emerged together as part of a single factor. Additionally, this factor was also loaded on self-rejection and paranoid tendencies. This relationship between anxiety and dogmatism has been found fairly often in most of the pertinent literature (Norman, 1966; Rebhun, 1966; Sticht & Fox, 1966). Given the consistency of this finding, it seems safe to conclude that dogmatism may be considered as a defense against anxiety (Rokeach, 1960).

In addition to this relationship, other studies have contributed elements to the profile differences between open and closed groups. Plant, Telford, and Thomas (1965) found significant differences between open and closed groups of college freshmen on 5 scales of the California Psychological Inventory (CPI). Based on these differences the authors concluded that "the nondogmatic subjects would be described as being outgoing and enterprising, clam and patient, mature and forceful, efficient and clear thinking, planful and responsible, and more likely to succeed in an academic setting than would the highly dogmatic subjects . . . the dogmatic college freshmen would be described as being impulsive, defensive, and conventional and stereotyped in thinking" (pp. 73-74).

Similarly, Vacchiano, Strauss, and Schiffman (1968) discussed a "relatively consistent dogmatic personality

pattern" which emerged from correlations between the Dg scale and various personality measures. They concluded that the dogmatic subject

. . . ha[s] a need to receive support, encouragement, and understanding from others; an intolerance for understanding the feelings and motives of others; and an avoidance in changing . . . environment or daily routine. . . . lacks self-esteem, is doubtful about . . . self-worth, is anxious, lacks confidence in himself, lacks either self-acceptance or self-satisfaction, is non-committal and defensive, and is dissatisfied with his behavior, his physical state, his own personal worth, and his adequacy. Personality maladjustment and instability appear to underlie dogmatism (p. 84).

Research with different populations has also shown high levels of dogmatism to be a handicap. Ehrlich and Bauer (1966) found that among psychiatric patients length of hospital stay was related to level of dogmatism. Specifically, while 51 percent of low dogmatic patients were discharged in less than three weeks, only 27 percent of high dogmatic patients were discharged in this time. Furthermore, twice as many closed-minded patients remain hospitalized for over seven weeks as open-minded patients. The authors stated that "the high-dogmatic patient is more likely than the low-dogmatic patient to be diagnosed as functionally psychotic, as having a definite thinking disorder, and as having greater social and occupational impairment. Prognosis is poorer for the high-scoring patients, and they are more frequently given drug therapy and more drugs. Finally, they are retained in the

hospital longer than low-scoring patients" (p. 258).

Of related interest, Butts and Chotlos (1974) found that both a group of hospitalized patients in two different alcoholism treatment programs as well as a group diagnosed as schizophrenic were significantly more dogmatic than a normal control group.

In a different context, Hallenbeck and Lundstedt (1966) found a significant difference in adjustment to gradual blindness between open and closed groups. Significant correlations were found between dogmatism, denial, and depression. The authors suggested that the closed-minded person is less willing to accept major changes of the self than the more open-minded person.

While many of these studies indicate a positive correlation between dogmatism and negative self-attitudes, several other studies have indicated that positive self-attitudes may be independent of dogmatism level (see Hamilton, 1971; Ohnmacht & Muro, 1967; Pannes, 1963). In fact, Lee and Ehrlich (1971) in a correlational study, with a shortened version of the Dg scale without self-belief items, found significant correlations which confirmed theoretical expectations. However, the authors speculated, that because these correlations were not sizeable, that there might be two types of dogmatism, one characterized by negative self-attitudes, the other by positive ones.

Overall, the bulk of the data on the open and closed

mind indicates that in most contexts, dogmatism is related to poor adjustment and that people are apparently handicapped by a closed belief system.

Self-Esteem: Orientation
Towards the Self-as-Object

The third component of belief systems, self-esteem, is an integral part of the self-concept. Rosenberg (1979) defines the self-concept as "the totality of the individual's thoughts and feelings having reference to himself as an object" (p. 7). Given this definition, the self-concept may be considered as a subsystem of the total belief system.

In delineating this component of belief systems, Rosenberg distinguished three broad regions under the rubric "self-concept": the Extant Self (how people see themselves); the Desired Self (how they would like to see themselves); and the Presenting Self (how they show themselves to others). In addition to these three major aspects of the "self-concept," Rosenberg suggests that it has two primary motives: Self-Esteem (a positive or negative orientation toward the self-as-object) and Self-Consistency (a desire to act in accordance with the self-concept).

Finally, he states that there are four principles that govern self-concept formation: Reflected Appraisals (people are influenced by the attitudes of others towards the self and come to view themselves as they are viewed by

others); Social Comparisons (people learn about themselves through comparisons with others which leads to positive, neutral, or negative self-ratings); Self-Attribution (people draw conclusions about themselves based in part by observing their behavior and its outcomes); and Psychological Centrality (people differ in the relative value that they attribute to different aspects of the self-concept with more central aspects being more resistant to change). This last principle closely resembles Rokeach's discussion of the central peripheral dimension.

Given the complexity of the self-concept, this study will only focus on the role of self-esteem but from within the framework provided by Rosenberg. He states that "self-esteem signifies a positive or negative orientation toward an object. When we characterize a person as having high self-esteem, we are not referring to feelings of superiority, in the sense of arrogance, conceit, contempt for others, overweening pride; we mean rather, that he has self-respect, considers himself a person of worth. . . . The term 'low self-esteem' . . . means that the individual lacks respect for himself, considers himself unworthy, inadequate, or otherwise seriously deficient as a person" (p. 54).

Antecedents of S-E

Despite the importance of the principle of

reflected appraisals and the role of significant others in the development of the self-concept, Rosenberg (1979) argues that "not all significant others are equally significant and those who are more significant have greater influence on . . . self-concepts" (p. 83). Specifically, he found a significant relationship between the individual's S-E and the opinion of valued as well as respected others--that is, those people who the individual stated were important to him or her as well as those whose opinions were thought to be correct. Not surprisingly, in rank-order of importance, those significant others were found to be the child's mother, followed by the father, sisters and brothers, teachers, friends, and finally classmates.

However, Rosenberg points out that "the child who has come to the conclusion that one of his significant others . . . thinks poorly of him is much more likely to decide that he 'doesn't care' what they think; and if, indeed, he is successful in internalizing this valuation, then he can very effectively protect his self-esteem" (pp. 87-89). In other words, while the opinions of others have an impact, the individual is not a passive recipient of that information and he or she may actively select that information which either enhances or protects S-E. Rosenberg (1979) concludes that "the more the other person criticizes or disapproves of him, the more will the individual try to shrug it off, discount their judgment, with-

draw affect from them. Although he will not be entirely successful, the inclination is there. In the long run, then, he is likely to end up caring most about the opinions of those who, in his view, think well of him" (p. 90).

Given that significant others can have a significant effect on the individual's S-E, Coopersmith's (1967) study on the antecedents of S-E indicates the important role of child-rearing practices in the development of S-E. He found that the mothers of children with high S-E tended to have high S-E themselves, while, the mothers of children with low S-E were not only themselves low in S-E but were also apt to be considered emotionally unstable. He found that the fathers of high S-E children took a more active and supportive role in rearing their children than the fathers of low S-E children.

His data further indicated that the most notable antecedents of high S-E were directly related to parental behavior and the consequences of the rules and regulation that parents establish for their children. Specifically, he found that high S-E in children was related to definite and consistently enforced limits on behavior as well as less drastic forms of punishment, attitudes of total or near total acceptance of children and considerable flexibility for individual behavior within established limits.

When Rosenberg's and Coopersmith's conclusions on S-E development are combined, it can be seen how the

selectivity of the individual child within a supportive context provided by a high S-E family can lead to a high level of S-E. Furthermore, the high S-E familial environment closely parallels the more internal I-E familial environment.

Another factor that is related to S-E is social class. Rosenberg's data indicates that social class has no significant impact on the level of S-E of children, has some modest association for adolescents, and a very significant effect on the S-E level of adults. Specifically, Rosenberg found that S-E was positively related to education, occupation, and income. Luck and Heiss (1972) in a study with adult males also found that S-E was positively related to occupational achievement, income, and prestige level of occupation.

Rosenberg's data indicates that to a large extent the child's interpersonal environment is socioeconomically homogeneous, while the adult's interpersonal environment is relatively more heterogeneous. Given this difference, social comparisons based on social class will have little impact on the S-E of children, but for adults, a significant portion of their social comparisons is related to their social class which does have an impact on their S-E.

In regards to the principle of reflected appraisals, the social status of a child within the context of his or her significant others is not important. However, with

adults, people do interact according to the individual's social status and it therefore has an influence on adult S-E. Additionally, to some extent social class is something achieved by the adult while it is something ascribed to the child. Therefore, due to the role of self-attribution, social status which is earned by adults will influence their level of S-E, while the social status which is conferred on the child will not. Parenthetically, academic success which is earned by the child and S-E are related for the child (see Purkey, 1970).

Finally, Rosenberg suggests that social class has greater impact on adult S-E than on children's S-E because social status is psychologically more central for adults than children. He concludes that "the general principles governing self-esteem formation among children and adults are . . . identical. But one cannot understand the significance of a social structural variable for the individual without learning how this variable enters his experience and is processed within his own phenomenal field. . . . The differential association of social class to self-esteem for children and adults stems from the different social experiences and psychological interpretations associated with this structural fact in these age groups" (pp. 146-47).

Another area that is related to S-E is minority group status. While one might assume that minority group status might be associated with lower levels of S-E, the

data does not support that assumption. In regards to Black youth, the data consistently indicates equal to higher levels of S-E to that of comparable White samples.

McDonald and Gynther (1965) found that a group of black high school seniors had a significantly higher level of S-E than their white peers. While Coleman and his associates (1966) in a national study indicated no difference in the "academic self-concept" of blacks and whites, McDill, Meyers, and Rigsby (1966) found that when blacks and whites were matched on a number of variables, blacks showed higher academic self-concepts. Furthermore, several large sample studies (Bachman, 1970; Hunt & Hardt, 1969) have found that when class, I.Q., and family structure are controlled, blacks have higher levels of S-E than whites.

Comparable results have been reported with adult samples. In one study (Middleton, 1972), while black S-E was found to be lower than white S-E, when socioeconomic factors were controlled, blacks had significantly higher S-E than whites. Kohn (1969), in a nationwide study, found blacks to be non-significantly more self-deprecatory but significantly more self-confident than whites.

The data is not as clear with Latin-Americans as it is with blacks. While numerous studies (Coleman, et al., 1966; Hishiki, 1969; Peterson & Ramirez, 1971; Zirkel & Moses, 1971) indicate that Spanish-Americans have lower S-E than Anglo-Americans, other studies (Carter, 1968; Healey &

DeBlassie, 1974) have indicated that the S-E of Latinos is equal to or higher than the S-E of Anglos. Given these equivocal results, it is difficult to conclude what effects does minority group status have on the S-E of Spanish-Americans.

One minority group, in which the data is far less equivocal, are Jews. Of the small number of studies that have dealt with the level of S-E of Jewish subjects, most have indicated that Jews had somewhat higher S-E than non-Jewish whites (see Anisfield, Bogo, & Lambert, 1962; Bachman, 1970).

Rosenberg (1979) suggests that several factors may account for minority groups having satisfactory S-E levels. Specifically, he points out that "the conversion of society's attitude toward one's group . . . into the individual's attitude toward the self is logically compelling only if certain assumptions are sound. . . . First . . . the individual knows how the broader society feels about his group. . . . Second . . . he accepts the societal view of his group. . . . Third . . . he believes the societal view of the group's characteristics apply to the self. . . . Fourth . . . he is critically concerned with the majority attitudes" (p. 157). In addition to these, he suggests that minority group members would have to make direct comparisons between themselves and the majority.

Rosenberg's data indicates that the first four

assumptions are generally not met and that, at least among children, the majority of minority group members do not compare themselves with whites but with members of their own group. However, while membership in a minority group, per se, does not appear to be related to lower levels of S-E, the direct experience of being different from those around one does.

Rosenberg has discussed the negative impact of contextual dissonance on S-E. He states that contextual dissonance occurs when "people who have been socialized in one culture or subculture find themselves in environments in which other groups norms prevail. In these groups, both the qualities of others and of the self are implicated in defining the individual as different" (1979, p. 113). Examples of this would include blacks in a white environment, Catholics in a Protestant environment, the poor in a rich environment, etc. The experience of contextual dissonance is likely to be very different for the individual than contextual consonance (e.g., Latinos in a Latin environment, Jews in a Jewish environment, etc.).

Rosenberg's (1979) data indicates that dissonant contexts have negative effects on people's S-E. Namely, he found that individuals who were in a dissonant context due to differences in religious, racial, and/or socio-economic backgrounds consistently had lower S-E than members of their own groups who were in consonant contexts.

Several other studies (see Bachman, 1970; Crain & Weissman, 1972; St. John, 1975) support Rosenberg's position on the effects of contextual dissonance on S-E.

Several possible reasons for these results have been suggested

First . . . the consonant context is a congenial communications environment. Within it, the individual is protected from the prejudice of the outside world. . . . Second, the consonant context represents a familiar, comfortable environment, for it is the culture into which the individual has been socialized . . . the individual in the consonant environment is likely to have a feeling of belongingness, the one in the dissonant context to feel strange, 'out of it,' somehow 'wrong.' . . . Third, the dissonant context may represent an infelicitous comparison reference group . . . [it] may also represent an environment of inconsistent reflected appraisals. . . . In such an environment there may well be a disconcerting mismatch between the individual's taken-for-granted self-concept, representing his fundamental framework for dealing with his world, and the messages about himself returned to him by others (Rosenberg, 1979, p. 125).

To briefly summarize the data on the antecedents of global S-E, first, significant others and child-rearing practices play an important role in the development of S-E, but it is important to note that the individual, within limits, actively selects those significant others who enhance his or her S-E. Second, while the four principles of self-concept formation (reflected appraisals, social comparisons, self-attribution and psychological centrality) are important both to the child's and the adult's level of S-E, only socioeconomic factors appear related to adult S-E. Third, contrary to the common wisdom, minority group status,

per se, does not appear to be directly related to lower levels of S-E. However, to the extent that prejudice and discriminatory practices result in lower socioeconomic status adult S-E is likely to be affected. Finally, the direct experience of being different due to one's religion, race, and/or class in some negative contexts appears to be related to lower levels of S-E.

S-E Differences

Given the many factors which contribute to the development of S-E, the question arises as to what are some of the likely consequences of high vs. low S-E. High and low S-E groups have been found to consistently differ in their reports of anxiety and depression. As might be expected, low S-E subjects have been found to be significantly more depressed (e.g., Beck, 1967; Kaplan & Pokorny, 1969; Luck & Heiss, 1972; Rosenberg, 1965) and more anxious (e.g., Kaplan and Pokorny, 1969; Luck & Heiss, 1972; Rosenberg, 1965) than high S-E subjects. Conversely, high S-E subjects have been found to be significantly happier (Bachman, 1970) and "better adjusted" (Coopersmith, 1967; Rosenberg, 1965) than their low S-E counterparts.

In addition to these differences, Fitts (1972) cites evidence from numerous unpublished studies which indicate that low S-E groups drop-out of school significantly more than higher S-E groups. While high S-E groups have

been found to not only perform better academically but also have more positive social relationships as well (see Combs, 1964; Shaw, Edson, & Bell, 1960; Shaw & McCuen, 1960; Williams & Cole, 1968).

Overall, this small sample of S-E differences tend to indicate that low S-E groups appear to function poorly, experience more "failure" and "unhappiness" and less "success" than high S-E groups.

A second question which arises is how exactly does S-E contribute to these differences. Another area of difference between S-E groups, that may provide some answers to this question, deal with research on success and failure experiences. Numerous studies (Fitch, 1970; Leventhal & Perloe, 1962; Silverman, 1964; Stotland & Hillman, 1962; Stotland, Thorley, Cohen, & Zander, 1957) have found that high S-E subjects tend to be more sensitive to success and favorable feedback and less sensitive to failure and negative feedback than low S-E subjects. While just the obverse has been found with low S-E subjects. Furthermore, high S-E groups tend to evaluate their performance more favorably even when their objective performance is equivalent to low S-E groups (Shrauger, 1972). In addition to these differences, Shrauger and Patterson (1974) found that high S-E subjects evaluated others more frequently on dimensions on which they themselves compared favorably than did low S-E subjects. In other words, these groups appear

to assimilate data which is not only congruent with their self-image but also appears to maintain it.

Of related interest, Mischel, Ebbeson, and Zeiss (1973) point out that after a success experience, people tend to engage in behaviors which perpetuate the positive affect induced by success. However, given the differential responsiveness of high and low S-E groups to success and failure experiences, it can easily be seen how low S-E groups are more prone to depression, anxiety, etc.

Belief Systems Nexus: Similarities and Differences

Overall the data has indicated definite similarities between and among the three assessed components of belief. Specifically, individuals with an internal orientation appear to come from similar backgrounds as individuals with high S-E as well as those with an open orientation. The same parallels also hold true for individuals with an external orientation, low S-E, and high Dg. Furthermore, the literature fairly consistently indicates that an internal orientation, low Dg, and high S-E are all related to better adjustment than an external orientation, high Dg, and low S-E.

In addition to these parallels, numerous studies (see Chandler, 1976; Clouser & Hjelle, 1970; Fish & Karabenick, 1971; Ryckman & Cannon, 1975; Ryckman & Sherman, 1973; Sherman, Pelletier, & Ryckman, 1973) have indicated

significant correlations between and among these three variables. Given these significant associations as well as the noted consequences of differences in these three belief continua, two clusters of belief components appear to emerge: one characterized by a sense of internal or personal control of events, openness to experience, and a sense of positive self-worth; the other characterized by a sense of external control or lack of personal control, guardedness, and a sense of worthlessness.

While the data indicates significant associations between and among these variables, it is also important to point out some of the differences between and among them. Rosenberg (1979) suggests that while I-E and S-E may be related they are not identical. He states that:

a major reason is that some people do not stake themselves on competence and mastery. To them being lovable, moral, self-sacrificing and helpful are major concerns; they may be quite contented to leave the mastery of life's harsh problems and challenges to others. On the other hand, there are those abundantly endowed with ability and talent who are confident of their ability to succeed in most tasks but who lack self-respect because they cannot be first in everything, cannot command the love of another, or are overwhelmed by a denigrated social identity element (pp. 31-32).

Maccoby and Jacklin (1974) provide some empirical support for Rosenberg's distinction. The authors found that while girls and women have an equivalent level of S-E to that of boys and men, women score more externally than men. The authors suggest the role of sex-role socialization and sexist discrimination as factors contributing to

these I-E differences between the sexes. Similarly, while the I-E literature indicated that various socially disadvantaged groups have a more external orientation than others, the S-E literature indicated that minority group members tended to have the same level of S-E as majority group members.

In a similar vein, Lee and Ehrlich (1971) have speculated that Dg and S-E may not be inversely related. Ehrlich (1978) reports that he and Lee have isolated individuals with high Dg levels and strong positive self-attitudes, as well as those with high Dg levels and strong negative self-attitudes. He suggests that:

the critical issue may be beliefs about verification. For some persons, there may be a relative emphasis placed on authority as compared with a personal test for validating information received. Thus, closed-minded persons whose verification beliefs require reference to authority may have negative self-attitudes. Closed-minded persons whose verification beliefs require some mode of personal test may have positive self-attitudes (p. 159).

In sum, while it is important to be aware of the similarities between and among the three assessed components of belief, the differences are equally important. Moreover, it is important to stress a semantic as well as empirical point. The two above-mentioned belief system clusters do not represent a static typology but rather points of convergence in a changeable matrix of belief.

Belief System Change

Several studies have important implications for belief system change. In one study, Lefcourt (1967) found that externally oriented subjects exhibited a marked shift to a more internal orientation when they were informed that achievement reinforcement was available. Lefcourt suggested that the lack of goal striving of externally oriented subjects was due to their being less perceptive than more internally oriented subjects. 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 problems became more internally oriented than a comparable group going through traditional psychotherapy.

A second therapy study provides even more direct support for Lefcourt's arguments. Dua (1970) contrasted the effects on I-E of an action-oriented approach directed at improving interpersonal skills with a re-education 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 in comparison to an untreated control group both the action-

oriented approach and the re-education approach lead to a decrease in external orientation. However, it was the more action-oriented skills training approach which produced the most significant change.

Two studies that deal with different populations indicate that learning skills which result in increased effectiveness as helpers lead to a more internal orientation. Gottesfeld and Dozier (1966) found that people from East Harlem, an urban ghetto, who were trained and then worked as community organizers became increasingly more internally directed. Similarly, Martin and Shepel (1974) found that nurses who received training in personal counseling skills made a significant shift towards internality.

In addition to these studies, several other researchers have found that college students who have participated in various encounter study group experiences also evidenced a significant movement towards an internal orientation (Diamond & Shapiro, 1973; Foulds, 1971; Foulds, Guinan & Warehime, 1974a), increased S-E (Martin & Fischer, 1974) and decreased Dg (Foulds, Guinan, & Warehime, 1974b).

These studies have several factors in common which may have contributed to significant change in belief. First, because of the action-oriented nature of these approaches, the individual was encouraged to take a direct and active role in his or her own training or treatment.

This active role is likely to lead to greater self-attribution which is likely to facilitate behavior and belief system change (Davidson & Valins, 1968, 1969). Secondly, and in line with Lefcourt's suggestions, the explicit nature of most of these approaches help to make social cues more explicit and as a result enable the individual to "see" the path to social reinforcement. Finally, learning more effective behaviors is not only likely to influence the individual's environment but also their belief system.

Interpersonal Skills Training

Human beings are, among other things, social animals and a great deal of their reinforcement come from their interactions with others. The individual generally has a strong desire for positive interpersonal relationships. However, despite this strong desire, people do not always get what they want. Several theories have discussed the likely consequences of frustration of important need areas. Specifically, social learning theory makes 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/her 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).

While 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), it seems likely that for individuals with an external orientation, a low sense of S-E and/or a high level of Dg, interpersonal relationships are likely to be problematic. Therefore, 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 economical. 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 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. 130-31).

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 and a heightened sense of S-E. Furthermore, with its emphasis on empathy, skills training is likely to increase the individual's understanding of others which Marris (1974) believes is an adaptive alternative to dogmatism.

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

In one study, Pierce and Drasgow (1969) made comparisons of different modes of treatment with neuropsychiatric in-patients. They found that subjects in a training

group showed significantly more improvement than drug-therapy, group-therapy, or 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).

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 effecting significant belief system changes. 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 belief appear to have a point of convergence. It seems that what is needed to help change an external orientation to an internal one, is to show the individual that reinforcement is not up to luck but is contingent, in part, upon what he or she does. Systematically training individuals in those skills which they need to deal effectively with their environment seems to be a direct way to change not only control orientation but also the individual's sense of self-worth. Furthermore, with increased effectiveness, the need to take a defensive dogmatic stance is likely to be diminished.

Purpose of the Study

The present study attempts to probe the relationship between behavior change and belief system. Specifi-

cally, the relationship between elements within the belief system (i.e., I-E, S-E, and Dg); the role of the belief system on level of interpersonal skills; as well as, the effect of increased interpersonal functioning on the belief system.

Specific Hypotheses

1. Subjects completing a human relations training class (experimental I 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. At pretest, the external experimental I subjects will have a significantly lower level of interpersonal skills than internal experimental I subjects.
3. At pretest, the low S-E experimental I subjects will have a significantly lower level of interpersonal skills than high S-E experimental I subjects.
4. At pretest, the high Dg experimental I subjects will have a significantly lower level of interpersonal skills than low Dg experimental I subjects.
5. At posttest, the internal experimental I subjects will show a greater increase (over pretest level) in interpersonal skills than the external experimental I subjects.
6. At posttest, the high S-E experimental I

subjects will show a greater increase (over pretest level) in interpersonal skills than the low S-E experimental I subjects.

7. At posttest, the low Dg experimental I subjects will show a greater increase (over pretest level) in interpersonal skills than high Dg experimental I subjects.

8. Internal subjects will have significantly lower Dg scale scores than external subjects.

9. Internal subjects will have significantly higher S-E scale scores than external subjects.

10. At posttest, the experimental I subjects and subjects completing a counseling skills training course (experimental II condition) will score significantly lower on the Dg scale than control I and II subjects.

11. At posttest, the experimental I and II subjects will score significantly higher on the S-E scale than control I and II subjects.

12. At posttest, the experimental I and II external subjects will become significantly more internal than control I and II external subjects.

CHAPTER III

METHOD

Subjects

Subjects were 140 students who enrolled into one of three psychology courses: Psychology 378--Laboratory in Interpersonal Relations; two sections of Psychology 376--Counseling I; and Psychology 395--Field Study in Psychology. There were 54 male subjects ranging in age from 20 to 46 years with 13 to 21 years of formal education. There were 86 female subjects ranging in age from 19 to 48 years with 13 to 20 years of formal education. (For a further description of the subjects see Table 1.)

The students were classified into one of four conditions depending upon which course they took. Those subjects enrolling in the human relations training course (Psychology 378) and the experiential training section of the counseling course (Psychology 376) were designated as Experimental groups I and II, respectively. While those who enrolled in the didactic section of the counseling course and the field study course (Psychology 376 and 395) were designated as the Control groups I and II.

The subjects were further classified along the I-E

Table 1
 Mean and Standard Deviations for Age and Years of
 Formal Education

Group		Males	Females	All Subjects
Experimental I	N	15	30	45
Age	X	25.27	27.60	26.60
	SD	4.23	6.63	6.05
Education	X	15.73	15.70	15.71
	SD	2.25	2.05	2.10
Experimental II	N	15	21	36
Age	X	25.00	24.90	24.94
	SD	7.13	7.93	7.50
Education	X	15.67	14.81	15.17
	SD	2.13	1.50	1.81
Control I	N	14	21	35
Age	X	20.71	23.19	22.20
	SD	2.40	5.46	4.61
Education	X	13.93	14.48	14.26
	SD	1.14	1.21	1.20
Control II	N	10	14	24
Age	X	20.70	21.86	21.38
	SD	0.95	3.08	2.46
Education	X	14.60	14.64	14.63
	SD	0.52	0.84	0.71

continuum into three I-E groups. Those subjects scoring in the lowest third on the Rotter (1966) scale were classified as Internals (0 to 7 on the Rotter), those scoring in the middle third were classified as Moderates (8 to 10 on the Rotter) and those receiving the highest scores were classified as Externals (11 to 21 on the Rotter). In addition to I-E classification, a median-split was used to further classify the experimental I subjects into high and low levels of Dg and S-E.

All subjects were thus classified into one of four conditions (Experimental I or II or Control I or II) and into one of three I-E groups (Internal, Moderate, or External) with the experimental I subjects also being classified into different levels of Dg and S-E.

Instruments

The I-E scale developed by Rotter (1966) was used to assess subjects' 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," vs. "People's misfortunes result from the mistakes they make." and "It is hard to know whether or not a person really likes you." vs. "How many friends you have depends on how nice a person you are." This questionnaire is shown in Appendix D.

The second instrument used was the Dogmatism (Dg) scale (Form E) developed by Rokeach (1960) to assess differences in the openness or closedness of belief systems. The Dg scale consists of 40 Likert-type items. Responses are scored along a +3 to -3 agree-disagree scale, with the 0 point excluded. These scores are converted to a 1 to 7 point scale by adding the constant 4 to each score. The range of possible scores is therefore from 40 to 280 with high scores indicating a closed orientation. Some examples are: "The main thing in life is for a person to want to do something important." "A person who thinks primarily of his own happiness is beneath contempt." "Most people just don't know what's good for them." This instrument can be found in Appendix E.

The third measure used was the Revised Janis-Field Scale (Eagley, 1967). This is a 20 item, five-point Likert scale used to measure S-E. Scores may range from 20 to 100 with high scores indicating a high level of S-E. A copy of this scale can be found in Appendix F.

While the I-E, Dg, and S-E scales were used as pretest and posttest measures for all subjects, a five point behavioral rating scale, was used as a pretest and posttest instrument with the Experimental I group only. This scale was used to assess nine basic interpersonal skills (see Egan, 1976 and Carkhuff, 1969b). The mean of the scale, 3.0, refers to a 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 scale, a copy of Carkhuff's scoring norms (1969, pp. 315-329) are shown in Appendix A as well as an example rating guide (Appendix B).

Procedures

The experimenter administered the I-E, Dg, and S-E scales 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 statements they agreed with most or best described their experience.

After the first meeting of their classes, the experimental I and II subjects were randomly assigned to their permanent small skills training groups of 5 to 7 members with one or two trainers. (Because of a lack of a sufficient number of trainers experimental II subjects did not have a regular trainer.)

The training received by the experimental I 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 (e.g., confrontation, immediacy, etc.) within the context of an open group (see Egan, 1976). In addition to this, the subjects read materials on the skills and did pertinent workbook assignments (Egan, 1975b, 1976; Wood, 1974).

The experimental II subjects received training similar to that of the subjects under the first condition. However, while the emphasis in training for the first group was the development of skills useful in peer relationships, the training focus under the second condition was the development of communication skills useful in a helping relationship.

The training methodology in this group closely paralleled that used in the first condition. Experimental II subjects received didactic instruction in the form of lectures on therapy and counseling as well as experiential step-by-step practice in eight basic helping skills (Egan, 1975a). The subjects practiced these skills while role-playing helpers and clients.

The trainers of each of the small groups made an assessment of the subjects' interpersonal skills, after the second and last meeting of their small training groups. All trainers made independent evalua-

tions and were blind to the subjects' tests scores as well as the hypotheses of the study.

The subjects in the third condition went through a traditional didactic academic course which reviewed various theories on counseling and psychotherapy. However, subjects in this condition did not receive any direct experiential training in either social or helping skills.

Subjects in the fourth condition, the field study course, worked as volunteers in an applied setting for various agencies in the community. As part of their learning experience, these students participated in a weekly support group with their peers in which they discussed their experiences and expressed their feeling within the context of a peer support group.

To reiterate, subjects in both experimental conditions received systematic training in either interpersonal or helping skills as well as appropriate didactic input. Subjects in the third condition received didactic input on various theories of counseling and psychotherapy while subjects in the fourth condition had a supportive group experience without systematic skills training.

At the end of the semester, all subjects were retested with the I-E, Dg, and S-E scales. Prior to taking this posttest, none of the subjects knew that they would be asked to retake the scales that they had taken earlier as a pretest. There was a 13 week time lapse between the

pretest and posttest and during this period, there was no contact between the experimenter and the subjects.

Scoring

Both pretest and posttest interpersonal skills scores were based on trainers' ratings of the experimental I 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. In order to obtain a single pretest and a single posttest skill score for all experimental I subjects, the ratings of those groups having two trainers were averaged and the mean score designated as their skill score. Since the trainers were familiar with the Carkhuff and Egan assessment procedures, no special training was given to them for this study. They were simply asked to rate subjects' skills according to the method shown in Appendix C.

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 groups, the I-E change scores were subjected to an analysis of variance unweighted means solution (Winer, 1971). The pretest and posttest means and change scores for these data are presented in Table 2. Results of the analysis of variance for the I-E data are shown in Table 3. The factor A main effect is non-significant ($F [2,128] = 1.44, p. = .25$) indicating that the Internal, Moderate, and External subjects do not significantly differ with respect to changes in their level of I-E. The factor B main effect is non-significant ($F [3,128] = 1.66, p. = .25$). This shows that the groups under the different conditions (Experimental I and II or Control I and II) do not significantly differ with respect to their changes in level of I-E. Furthermore, the AB interaction is also non-significant ($F [6,128] = 1.27, p. = N.S.$) and this indicates that there was no interaction between level of I-E and condition.

Table 2
 Mean I-E Pretest, Posttest and Change Scores
 for I-E and Condition

		N	Pretest	Posttest	Change
Experimental I (N=45)	Internal	19	5.37	5.89	+0.53
	Moderate	10	8.70	6.20	-2.50
	External	16	12.81	9.63	-3.19
Experimental II (N=36)	Internal	13	4.92	5.23	+0.31
	Moderate	12	9.08	10.58	+1.50
	External	11	14.18	12.73	-1.45
Control I (N=35)	Internal	14	5.29	4.86	-0.43
	Moderate	11	9.45	8.36	-1.09
	External	10	13.70	13.00	-0.70
Control II (N=24)	Internal	3	5.33	4.67	-0.67
	Moderate	8	9.00	9.63	+0.63
	External	13	13.92	13.85	-0.08

Table 3

Analysis of Variance of I-E Change Scores as a
Function of Skills Training
(Unweighted Means Solution)

Source of Variation	SS	df	NS	F	P
I-E (A)	34.54	2	17.27	1.44	.25
Condition (B)	59.98	3	19.99	1.66	.25
AB	91.67	6	15.28	1.27	
Within Subjects (N=140)	1,538.09	128	12.02		

The data thus fails to support the twelfth hypotheses of this study. Specifically, the I-E groups did not differ in their changes of I-E and the type of learning experience which the subjects had did not cause significantly different changes in I-E.

Analysis of Dg and S-E Data

In order to determine the effects of skills training on Dg and S-E, as well as the relationship between I-E and Dg and S-E, the pretest and posttest Dg and S-E scores were each subjected to a repeated measures analysis of variance unweighted means solution (Winer, 1971). The pretest and posttest means and change scores for the Dg data are presented in Table 4. The results of the analysis on Dg scores are shown in Table 5. The factor A main effect is very highly significant ($F [2,128]=6.10, p. = .005$) which indicates that the I-E groups differ very significantly in their levels of Dg. The factor B main effect is non-significant ($F [3,128]=2.09, p. = .11$) which indicates that the subjects under the four conditions of this study did not differ in their Dg level. None of the other F ratios were significant which means that there were no significant changes in the Dg level of any of the subjects under any of the four conditions in the study.

However because the factor A main effect was significant, a Neuman-Keuls post-hoc analysis was performed

Table 4
 Mean Dogmatism Pretest Posttest and Change
 Scores for I-E and Condition

		N	Pretest	Posttest	Change
Experimental I (N=45)	Internal	19	124.68	125.05	+0.37
	Moderate	10	131.50	132.40	+0.90
	External	16	146.63	142.69	-3.94
Experimental II (N=46)	Internal	13	129.85	121.69	-8.16
	Moderate	12	153.92	143.58	-10.34
	External	11	147.18	152.73	+5.55
Control I (N=35)	Internal	14	140.71	144.64	+3.93
	Moderate	11	133.45	137.91	+4.46
	External	10	155.10	155.90	+0.80
Control II (N=24)	Internal	3	122.00	121.67	-0.33
	Moderate	8	139.63	134.13	-5.50
	External	13	136.08	137.77	+1.69

Table 5

Analysis of Variance of Dg Scores as a Function
of I-E and Skills Training
(Unweighted Means Solution)

Source of Variation	SS	df	MS	F	P
<u>Between Subjects</u>					
I-E (A)	12,278.07	2	6,139.04	6.10	.005
Condition (B)	6,312.94	3	2,104.31	2.09	.11
AB	5,299.60	6	883.27	.88	
Subj. w/groups (error between)	128,765.40	128	1,005.98		
<u>Within Subjects</u>					
Pre/Post (C)	44.22	1	44.22	.28	
AC	126.79	2	63.40	.41	
BC	393.08	3	131.03	.84	
ABC	811.77	6	135.30	.87	
Cx subj. w/groups (error within)	19,909.00	128	155.54		
(N=140)					

to further probe this result. The Neuman-Keuls analysis of significant differences in Dg levels of the three I-E groups is summarized in Table 6. The data supports the eighth hypothesis that internal subjects are significantly less dogmatic than their more external peers ($p. = .05$).

The pretest and posttest means and change scores for the S-E data are presented in Table 7. The results of the analysis on S-E scores which is summarized in Table 8 closely parallel the results of analysis on Dg scores. The factor A main effect is very highly significant ($F [2,128] = 6.43, p. = .005$) indicating that the I-E groups differ significantly in their levels of S-E. Data from a Neuman-Keuls post-hoc analysis, which was used to probe this difference, is shown in Table 9. The results of this analysis which supports hypothesis 9 indicates that both Internal and Moderate subjects have a significantly higher level of S-E than External subjects ($p. = .05$).

In addition to this, the factor C main effect approaches significance ($F [1,128] = 3.89, p. = .06$) which indicates that a near-significant pretest-posttest change in S-E occurred. However, because none of the other F ratios were significant, this near-significant change in S-E occurred independent of condition and level of I-E. By inspection of the cell means (Table 7), it can be seen that in most cases the level of S-E increased at posttest.

Table 6
 Neuman-Keuls Post-hoc Analysis of
 Mean Dg Scores

I-E Groups		Internal	Moderate	External
	Means	128.79	138.32	146.76
Internal	128.79	-	9.53	17.97*
Moderate	138.32		-	8.44
External	146.76			-

*P=.05

Table 7
 Mean S-E Pretest Posttest and Change
 Scores for I-E Condition

		N	Pretest	Posttest	Change
Experimental I (N=45)	Internal	19	77.00	76.42	-0.58
	Moderate	10	77.07	78.50	+1.43
	External	16	63.88	68.94	+5.06
Experimental II (N=36)	Internal	13	79.00	79.64	+0.64
	Moderate	12	70.18	73.91	+3.73
	External	11	66.90	69.40	+2.50
Control I (N=35)	Internal	14	76.15	76.69	+0.54
	Moderate	11	77.25	77.67	+0.42
	External	10	69.09	69.18	+0.09
Control II (N=24)	Internal	3	73.67	78.00	+4.33
	Moderate	8	76.75	76.00	-0.75
	External	13	72.31	72.23	-0.08

Table 8
 Analysis of Variance of S-E Scores as a Function
 of I-E and Skills Training
 (Unweighted Means Solution)

Source of Variation	SS	df	F	P
<u>Between Subjects</u>				
I-E (A)	2,922.83	2	1,461.42	6.43 .005
Condition (B)	88.26	3	29.42	
AB	815.29	6	135.88	
Subj. w/groups (error between)	29,085.50	128	227.23	
<u>Within Subjects</u>				
Pre/Post (C)	110.27	1	110.27	3.89 .06
AC	7.50	2	3.75	
BC	29.61	3	9.87	
ABC	170.35	6	28.39	1.00
C x subj. w/groups (error within)	3,626.60	128	28.33	

Table 9
Neuman-Keuls Post-hoc Analysis of Mean S-E Scores

I-E Groups		External	Moderate	Internal
	Means	68.99	76.00	77.07
External	68.99	-	7.01*	8.08*
Moderate	76.00		-	1.07
Internal	77.07			-

*p=.05

In sum, Internal subjects were found to be significantly more open-minded than External subjects as well as both Internal and Moderate subjects having a significantly higher level of S-E than External subjects. While there was no significant pretest-posttest change in the Dg levels of the subjects, there was a near-significant change in the S-E levels of the subjects. However, this occurred independently of condition and level of I-E.

Inter-Judge Reliability for Skills Data

Mean skills scores for the six training groups having two rater-trainers are shown in Table 10. 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 .92 to .99 with a mean rank-order correlation of .96 for the six training groups (see Table 11). According to Carkhuff's (1969b) research, an inter-judge reliability of .96 would be considered as highly reliable. Carkhuff's raters usually obtain an inter-judge reliability at or above .85 (Cannon and Carkhuff, 1969). In addition to this, Table 11 indicates that all of the six rank-order correlations were significant at either the .01 or .05 level. Taken as a whole, the data indicates excellent inter-judge reliability.

Table 10
 Inter-Judge Comparison of Mean Ratings for Pretest
 Posttest Interpersonal Skills Ratings (N=28)

Small Group	Pretest		Posttest	
I (N=5)	Rater 1 3.11	Rater 2 2.94	Rater 1 3.77	Rater 2 3.62
II (N=4)	Rater 3 3.24	Rater 4 3.83	Rater 3 3.73	Rater 4 4.20
III (N=4)	Rater 5 2.67	Rater 6 2.50	Rater 5 4.03	Rater 6 3.15
IV (N=5)	Rater 7 2.97	Rater 8 2.61	Rater 7 4.83	Rater 8 4.02
V (N=5)	Rater 9 2.49	Rater 10 2.80	Rater 9 3.81	Rater 10 3.48
VI (N=5)	Rater 11 3.77	Rater 12 2.97	Rater 11 4.18	Rater 12 3.71

Table 11
 Small Training Groups Inter-Judge Reliability for
 Pretest and Posttest Interpersonal
 Skill Ratings (N=28)

Small Group	Rho	P	N
I	.92	.05	5
II	.92	.05	4
III	.97	.05	4
IV	.99	.01	5
V	.97	.01	5
VI	.98	.01	5

Range .92-.99
 Mean Rho .96

Analysis of Skills Data

In order to obtain a single pretest and a single posttest skill score for all experimental I subjects, the ratings of those subjects having two trainers were averaged and the mean score designated as their skill score. The final skill score pretest and posttest means for the various belief system configurations of experimental I subjects are shown in Table 12.

To determine if skills training effected a significant change in interpersonal functioning as well as the effects of the individual's belief system on that possible change, the pretest and posttest skill scores for the experimental I subjects were subjected to a repeated measures analysis of variance unweighted means solution (Winer, 1971). The results of the analysis of variance for the skills data are summarized in Table 13. The factor A main effect is non-significant ($F [2,33]=0.21, p.=NS$) as are the factor B main effect ($F [1,33]=0.13, p.=NS$) and factor C main effect ($F [1,33]=0.05, p.=NS$). What this indicates is that the subjects' level of I-E (Internal, Moderate, or External), S-E (High or Low) or Dg (High or Low) does not result in significantly different levels of interpersonal skills. In addition to this, it can be seen that none of the interactions among the three components of belief resulted in any significant differences in skills level.

Table 12
Mean I-E, S-E, D_g Pretest and Posttest Skill Scores

	N	Pretest	Posttest
Internal	19	2.75	3.49
Moderate	10	2.78	3.89
External	16	2.81	3.71
High S-E	23	2.89	3.64
Low S-E	22	2.66	3.76
High D _g	23	2.71	3.73
Low D _g	22	2.84	3.67

Table 13

Analysis of Variance of Skills Scores

(Unweighted Means Solution)

Source of Variation	SS	df	MS	F	P
<u>Between Subjects</u>					
I-E (A)	.41	2	.21	.53	
S-E (B)	.05	1	.05	.13	
Dg(C)	.02	1	.02	.05	
AB	.54	2	.27	.68	
AC	1.34	2	.67	1.68	.25
BC	.02	1	.02	.05	
ABC	.91	2	.46	1.15	
Subj. w/groups	13.19	33	.40		
<u>Within Subjects</u>					
Pre/Post (D)	11.55	1	11.55	88.85	.001
AD	.32	2	.16	1.23	
BD	.41	1	.41	3.15	.09
CD	.11	1	.11	.85	
ABD	.02	2	.01	.08	
ACD	.57	2	.29	2.19	.25
GCD	.25	1	.25	1.97	.25
ABCD	2.02	2	1.01	7.77	.005
D x subj. w/groups	4.41	33	.13		

In other words, none of the three components of belief nor any configuration of belief system resulted in any significant between subject differences in interpersonal skills. Thus the data fails to support the second, third, and fourth hypotheses of this study.

However, the within subjects data indicates that the factor D main effect is very highly significant ($F [1,33]=88.85, p=.001$) indicating that regardless of belief system configuration and in support of the first hypothesis, the subjects had a very highly significant increase in their interpersonal skills. In addition to this, there is a near-significant BD interaction ($F [1,33]=3.15, p=.09$). A Neuman-Keuls analysis (Table 15) indicated that not only were the posttest skill scores of both the high S-E and low S-E subjects significantly higher than their pretest scores, but also that the high S-E subjects' pretest scores were significantly higher than the pretest skill scores of the low S-E subjects. However, this pretest difference between S-E groups was not maintained at posttest. In other words, the post-hoc analysis of the near-significant BD interaction shows that the S-E groups differ in their level of skills at pretest, but that this difference is not maintained and that both groups make significant gains in their skills.

Finally, of the remaining within subjects interactions, only the ABCD interaction was significant

($F [2,33]=7.77, p=.005$). This indicates a complex fourth order interaction between the various level of I-E, S-E, Dg, and time (Pre and Post). With the exception of a very highly significant increase in skills across all groups, no clearly interpretable pattern could be determined from the data. This was due to the complexity of the interaction and the fact that some of the cells had only one member (see Table 14).

Summary of Results

An analysis of variance performed on the I-E change scores of the experimental I and II and the control I and II subjects indicated that no significant changes in I-E occurred regardless of I-E level or condition.

A second and third analysis of variance performed on the pretest and posttest Dg and S-E scores, respectively, indicated significant differences in the level of Dg and S-E between I-E groups. Neuman-Keuls analysis of these data indicated that internal subjects were significantly less dogmatic than external subjects and that both internal and moderate subjects had a significantly higher level of S-E than external subjects. In addition to this, a near-significant increase in S-E occurred independent of condition and level of I-E.

A fourth analysis of variance performed on the pretest and posttest skills scores of the experimental I

Table 14
 Mean I-E, S-E, and Dg Interaction Pretest
 and Posttest Skill Scores

			N	Pretest	Posttest
Internal (N=19)	High S-E (N=12)	High Dg	(4)	2.63	2.81
		Low Dg	(8)	2.96	3.85
	Low S-E (N=7)	High Dg	(4)	2.60	3.59
		Low Dg	(3)	2.81	3.72
Moderate (N=10)	High S-E (N=8)	High Dg	(4)	3.13	3.89
		Low Dg	(4)	2.88	4.10
	Low S-E (N=2)	High Dg	(1)	2.06	4.22
		Low Dg	(1)	3.03	3.36
External (N=16)	High S-E (N=3)	High Dg	(2)	3.00	4.17
		Low Dg	(1)	2.75	3.00
	Low S-E (N=13)	High Dg	(8)	2.86	3.68
		Low Dg	(5)	2.62	3.09

Table 15
 Neuman-Keuls Post-hoc Analysis of S-E Pretest
 and Posttest Mean Skill Scores

S-E Groups		2	1	3	4
	Means	2.66	2.89	3.64	3.76
Pretest Low S-E (2)	2.66	-	.23*	.98**	1.10**
Pretest High S-E (1)	2.89		-	.75**	.87**
Posttest High S-E (3)	3.64			-	.12
Posttest Low S-E	3.76				-

*p=.05

**p=.01

subjects indicated that a very highly significant improvement in interpersonal skills occurred between testings in all belief groups. Furthermore, this analysis indicated a near-significant interaction between S-E level on change in skills. A Neuman-Keuls analysis of this result indicated not only a significant increase in skills for both S-E groups at posttest but also that low S-E subjects had a lower level of social skills than high S-E subjects at pretest.

Thus, while the first, third, eighth, and ninth hypotheses of this study were confirmed, the data does not support the remaining hypotheses. More specifically, these results are summarized according to the hypotheses of this study as follows:

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

2. At pretest, the external group of experimental I subjects did not have a significantly lower level of interpersonal skills than the internal group of experimental I subjects.

3. At pretest, the low S-E experimental I subjects had a near-significantly lower level of interpersonal skills than high S-E experimental I subjects.

4. At pretest, the high Dg experimental I subjects did not have a significantly lower level of inter-

personal skills than the low Dg experimental I subjects.

5. At posttest, the internal experimental I subjects did not show a greater increase in interpersonal skills than the external experimental I subjects.

6. At posttest, the high S-E experimental I subjects did not show a greater increase in interpersonal skills than the low S-E experimental I subjects.

7. At posttest, the low Dg experimental I subjects did not show a greater increase in interpersonal skills than the high Dg experimental I subjects.

8. Internal subjects were found to have significantly lower Dg scale scores than external subjects.

9. Internal and moderate subjects were found to have significantly higher S-E scale scores than external subjects.

10. At posttest, experimental I and II subjects did not score significantly lower on the Dg scale than control I and II subjects.

11. At posttest, the experimental I and II subjects did not score significantly higher on the S-E scale than control I and II subjects.

12. At posttest, the experimental I and II external subjects did not become significantly more internal than control I and II subjects.

CHAPTER V

DISCUSSION

Skills Data

The results of the skills training data strongly confirm the first hypothesis of this study. Namely, human relations training, as advocated by Egan and Carkhuff, does affect a positive increase in the experimental I subjects' interpersonal skills, as measured by trainers' ratings. In addition to this, the results also provide some tentative support of the third hypothesis of this study, that is, at pretest low S-E subjects' scores were somewhat lower than high S-E subjects. However, these same data fail to confirm all the other skills hypotheses. Specifically, the various levels of I-E, S-E, and Dg failed to significantly differentiate skills improvement, and only S-E appears to have somewhat of an influence on pretest skills level (see Table 12).

In regards to the highly significant change in rated behavior, pretest means in Table 12 indicated that the experimental I subjects, regardless of level of I-E, S-E, and Dg, all tended to interact with others in the "good advice" level of communication (see Appendices A and B)

prior to skills training. At this level, they would tend to respond to others with advice and would rarely communicate a minimal understanding of others. However, at post-test, this pattern of communication changed significantly for all experimental I groups. Behaviorally, after skills training, the experimental I subjects would be much more likely to communicate at the "interchangeable" level of communication. At this new level, they would be likely to accurately respond to others' thoughts and feelings with real warmth and genuine understanding.

As mentioned above, most of the pretest and all of the posttest skills-belief system hypothesis 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 functioning of the various belief groups were not detected by the behavioral rating scale, while a gross change in the overall level of skills was. Therefore, failure to detect differences between the various groups might be an artifact of insensitive instrumentation.

Similarly, the three scales used to assess I-E, S-E, and Dg are all measures of general attitudes and beliefs. As such, these scales may show modest correlations across a wide range of situations, but fail to make accurate predictions of behavior in more specific situations. In other words, the specific interpersonal skills which

were rated may not have been mediated by the general attitudes and beliefs assessed.

However, it is also possible that the data are accurately reflecting a lack of difference between the various 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 "over-assimilated" manner. It is therefore possible that for the normal subjects in this study that their assimilated belief systems did not differentially mediate their interpersonal behavior. Furthermore, given the "demand characteristics" of the experimental I condition, any personality differences may have been washed out by the subjects' accommodations to the skills training. This is not to say that personality differences in interpersonal behavior may not have existed between the various groups in non-training situations but rather that all groups adapted to a rather stimulating environment.

In other words, while it might be fair to assume that the increase in interpersonal functioning 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 the experimental I groups have the same level of skills, if a subject believes that in most situations those

skills will have little influence on his or her environment, he or she may not use his/her skills in non-training situations. Therefore, while in the training situation individual differences may become suppressed, in non-training situations belief system differences may emerge.

While there was apparently significant improvement in the rated interpersonal functioning of the experimental I subjects, due to the quasi-experimental design used as well as some methodological flaws, the validity of these results may be questioned. Specifically, because skills data was only collected on the experimental I subjects, it can only be assumed that the subjects under the other conditions were drawn from the same population with respect to their level of interpersonal skills. Furthermore, it can only be assumed that the subjects in the control groups did not experience a comparable change in either their interpersonal or helping skills and that the experimental II subjects did experience a comparable increase in their helping skills. Because of this lack of data, it is not possible to unequivocally attribute the change in level of skills to training rather than to various confounds such as self-selection.

One answer to this question is that despite the validity of this criticism, the effectiveness of this training approach has been repeatedly demonstrated (see Carkhuff, 1969a,b; Carkhuff & Berenson, 1976). Given this

demonstrated effectiveness, it seems reasonable that the above-mentioned assumptions are valid.

Another criticism, that might be made of the methodology used, is that the subjects may have been taught to take the test. That is, in fact, what actually happens. The behavioral scale used to evaluate interpersonal skills was constructed to pick up what was actually taught during training. Since the experimental I 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 also some merit 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 the rating scale provides a valid assessment of the effectiveness of training.

Another and potentially 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 of their own groups. Furthermore, as raters familiar with this approach, they probably were aware that an increase in skills would be expected. Therefore, as trainers

of the very groups that they were rating, one may validly argue that the trainers may have been biased, that is, the trainers might have a personal investment in seeing improvement in their trainees' skills. In other words, the only improvement in the subjects' interpersonal skills may have been in the minds of the trainer-raters and not in the subjects' actual behavior.

While this is a very valid argument, and while having trainers rate their own groups may seriously compromise the validity of the results of this study, the inter-judge reliability data tends to undercut this criticism. Specifically, in all of the training groups (see Table 11) the Spearman rank order correlations were significant at either the .01 or .05 level with the mean rho correlation of .96 for the six groups. This level of reliability indicates excellent agreement between independent trainer assessments, which would tend to indicate that the data was validly reflecting an actual change in social skills.

In sum, despite some design and methodological problems, it seems safe to conclude that the significant rated improvement in social skills most probably represents a valid assessment of actual behavior change. However, with one exception, the three measures of belief generally failed to differentiate skills level and rate of improvement. This may be due to the general nature of the scales

used. Whether these hypotheses would be supported with more specific measures needs to be determined. Parenthetically, and in support of the general vs. specific interpretation, the one belief system hypothesis which was supported involved the S-E scale which contains several items which deal specifically with interpersonal relationships. This general vs. specific issue will be further discussed in the next section.

Belief System Data

Two general categories of results can be seen in the belief system data. The first category deals with the significant results which deal with the structure of belief systems. The second category of results which are non-significant involve changes in that structure.

Specifically, Table 6 and 9 show that internal subjects relative to their more external counterparts report a significantly lower level of Dg and a significantly higher level of S-E. These results confirm the eighth and ninth hypotheses of this study as well as providing additional support to the validity of the I-E, Dg and S-E constructs. That is, these results conform with theoretical expectations regarding belief system structure. People who tend to believe that they are in control of their lives also tend to not only think well of themselves, but also tend to think in a relatively openminded fashion. People who tend

to believe that they are not in relative control of their lives tend to think poorly of themselves as well as tend to think in a relatively rigid and closeminded fashion.

While the above-mentioned skills training data indicated that a highly significant change in behavior occurred, the belief system data does not show a comparable change in belief system structure. Specifically, Tables 3 and 5 indicate that no significant changes occurred in either I-E or Dg. While, Table 8 indicates that a near-significant change in S-E. This change occurred independent of condition. In other words, skills training did not appear to result in a significant change in belief systems.

There are several possible explanations for this lack of significant belief system change despite significant behavior change. One possible explanation for the failure to find significant belief system change may be related to the notion of "orders of abstraction" (Korsybinski, 1933). As mentioned above, all three belief system scales are measures of generalized factors and are therefore by definition non-specific. It is therefore possible that skills training may have effected some very specific cognitions that the subjects had without significantly influencing more global or generalized beliefs. If we were to think of an individual's belief system as being hierarchically organized as suggested by Rosenberg

(1979) and Rokeach (1960, 1968, 1973), than specific cognitions and general cognitions would represent different "levels of abstraction." Thus while skills training may have had an immediate effect on some specific concrete level, this effect may not have effected a change on a more general level.

A second and somewhat related explanation has to do with the process of generalization. Spiegel has suggested that a "ripple effect" occurs when individuals after experiencing mastery in one area of their life, feel motivated to start making significant changes in other areas of their life (Spiegel & Linn, 1969). Given that the experimental I subjects experienced a significant increase in interpersonal functioning in the training situation, it is likely to take some time to generalize those changes across different areas of their lives. Furthermore, assuming that skills training effected situation-specific cognitions and that it will take time to generalize the new level of skills across situations, it is also likely to take time to affect generalized or cross-situational beliefs. More simply, given a lag between behavior change and resultant belief system change, it may take subjects longer to change cross-situational beliefs than more situation-specific ones.

Another way to interpret the data is that it may be accurately reflecting the stability of the subjects'

belief systems and that in point of fact, there was no change. One of the presuppositions of this study has been that lasting change is not automatic and that there are likely to be systemic forces of checks and balances which may resist change. One "dynamic" explanation of this resistance has been offered by cognitive dissonance theory (Festinger, 1957). If a person behaves in a way that conflicts with his/her beliefs and if there is insufficient external justification for this behavior, then he/she will experience dissonance and feel motivated to change his/her beliefs to conform with his/her behavior. Given this, it is possible that despite significant behavior change, the experimental subjects may have been able to attribute this change to external factors and thereby avoid changing their beliefs.

A related "dynamic" reason for the failure to find a significant change in belief is also related to resistance. Davis (1970) distinguished between two groups of external subjects--"defensive externals" and "congruent externals." The former group espouses an external belief but 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. If therefore seems possible that one factor in-

volved in not finding a significant change in the I-E scores of the external subjects, despite their significant change in social skills, might be due to their resistance to acknowledging greater responsibility for possible failure. Somewhat similar arguments have been suggested by Epstein (1973) in regards to the consistency of S-E and by Ehlich and Lee (1969) in regards to Dg.

A final factor which may be related to a failure to find a significant change in belief system may be related to interpersonal "resistance." From the literature on the three belief system components, it was shown that significant others play an important role in the development of the belief system. However, in addition to playing an important role in its development, significant others also play an important role in the maintenance of the belief systems. It is therefore possible that another factor involved in the failure to find a significant change in belief was due, in part, to the "resistance" of significant others. That is, within the context of established relationships, certain behavioral patterns may be maintained and reinforced while deviance from those patterns may be resisted and punished (see Bandler, Grindler, & Satir, 1976; Haley, 1963, 1973, 1976; Mash, Hamerlynck, & Handy, 1976; Mash, Handy, & Hamerlynck, 1976). Because of this possible resistance, the generalization of the newly developed social skills to non-training situations

may be impeded while the stability of established interpersonal patterns as well as the structure of the belief system may be maintained.

Carkhuff (Carkhuff & 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.

Another presupposition of this study has been that a complex interdependent relationship exists between environmental, behavioral, cognitive, and biological variables. What the data may be indicating is that skills training alone, may be insufficient to lead to a significant change in the subjects' belief systems. What might be needed to effect lasting significant belief system change may be the incorporation of additional modalities into the training process. This expansion of the focus of training might increase the impact of training on the network of interdependent variables.

Parenthetically, it might be added that while the external subjects under the experimental I and II conditions did not make a significant change in I-E (see Table 3), by inspection of Table 2, it can be seen that

their posttest means changed in the predicted direction and their mean change scores were greater than the external subjects under the control I and II conditions. In regards to Dg, although there was no significant change in Dg levels under any condition (see Table 5), Table 4 indicates that the experimental subjects' posttest means and mean change scores moved more in the predicted direction than those of the control subjects. Similarly with the S-E data, while a near-significant change in S-E occurred independent of the subjects' condition (see Table 8), by inspection of Table 7, it can be seen that the posttest means and mean change scores of the experimental I and II subjects moved more in the predicted direction than the control I and II subjects' scores. It is important to stress that while none of these differences were significant and may be due to chance, they were in the predicted direction and may be reflecting the relative though insufficient positive effect of skills training on the subjects' belief systems.

In regards to the two categories of belief system data, the results on structural aspects provide very strong evidence for the internal consistency of belief systems. That is, the different levels of I-E, Dg, and S-E tend to cluster together according to theoretical expectations. However, with one exception, none of the change in belief system hypotheses were confirmed. While the reasons for

this stability are not clear, several possible factors were suggested. It appears that while skills training is effective in influencing behavioral change, it may not be sufficient to make significant changes in belief systems or, at least, it may take longer to make a significant shift in generalized beliefs than anticipated within the design of this research.

Summary and Conclusions

The results of this study tend to generate more questions than answers. The data indicates that interpersonal skills training resulted in a significant increase in social functioning. In addition to this, the internal consistency of belief systems was also supported. However, the three assessed components of belief systems do not appear to differentially mediate interpersonal functioning. Moreover, skills training does not appear sufficient to influence those three components.

Although these results tend to indicate that significant behavior change does not lead to significant belief system change, because of various design and methodological factors, this conclusion may not be valid. To clarify some of the issues raised in this study, future studies might include more situation-specific measures of belief as well as more global scales. This would help answer the "orders of abstraction" question as well as

further explore the structural and change aspects of belief systems. In addition to this, a long-term posttest assessment would not only further probe the relationship between change and stability but might also settle the insufficient time issue. Some measure of interpersonal behavior in non-training situations may also serve to clarify the relationship between behavior and belief. By the same token, some assessment of interpersonal relationships and the reactions of significant others to increased social functioning may shed some light on the relationship between interpersonal systems, belief systems, and behavior change. Finally, training groups which vary in the number of modalities that they focused on might facilitate understanding of what might constitute a sufficient intervention.

The experimenter would like to suggest that there are no panaceas and that no one approach to training or treatment is likely to be totally sufficient. Given the proposed network of complex interdependent relationships and the ecological nature of the change process, it is probably better to make direct interventions at the nodal point of any system. That is, the place at which the maximum number of functions essential to the existence of the system converge, and which, if modified, result in maximum systemic change (Bertalanffy, 1968). In other words, if the nodal point within a particular system

happened to be the individual's belief system then a cognitively oriented approach might be stressed. If, however, the nodal point happened to be in some other modality then interventions could be directed at that site. The importance of this, is that by increasing our awareness of the significant processes that are involved in the maintenance and change of any system, we, as people-helpers, can make more effective interventions, and thereby help ourselves and others to fully utilize our human resources.

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APPENDIX A

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 on going 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.

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 employs 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.

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.

SCALE 7

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 behavior 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.

SCALE 8

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."

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

*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:

<u>1.0</u>	<u>/</u>	<u>1.5</u>	<u>/</u>	<u>2.0</u>	<u>/</u>	<u>2.5</u>	<u>/</u>	<u>3.0</u>	<u>/</u>	<u>3.5</u>	<u>/</u>	<u>4.0</u>	<u>/</u>	<u>4.5</u>	<u>/</u>	<u>5.0</u>	<u>/</u>
Very		Sub-		Moderately		Minimally		Markedly		Extremely							
tractive		tractive		Subtractive		facilita-		facilita-		Facilita-							
						tive		tive		tive							

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 "story-telling"); 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.

APPENDIX E

THE ROKEACH DOGMATISM SCALE*

Directions: Please answer all questions. There are no right or wrong answers. Select the number for the response which best represents your attitude or belief.

+3 Strongly agree +2 Moderately agree +1 Agree -1 Disagree

-2 Moderately disagree -3 Strongly disagree

1. ___ The United States and Russia have just about nothing in common.
2. ___ The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.
3. ___ Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.
4. ___ It is only natural that a person would have a much better acquaintance with ideas he believes in than with ideas he opposes.
5. ___ Man on his own is a helpless and miserable creature.
6. ___ Fundamentally, the world we live in is a pretty lonesome place.
7. ___ Most people just don't give a "damn" for others.
8. ___ I'd like it if I could find someone who would tell me how to solve my personal problems.
9. ___ It is only natural for a person to be rather fearful of the future.
10. ___ There is so much to be done and so little time to do it in.
11. ___ Once I get wound up in a heated discussion I just can't stop.
12. ___ In a discussion I often find it necessary to

*From Rokeach (1960).

repeat myself several times to make sure I am being understood.

13. ___ In a heated discussion I generally become so absorbed in what I am going to say that I forget to listen to what others are saying.
14. ___ It is better to be a dead hero than a live coward.
15. ___ While I don't like to admit this even to myself, my secret ambition is to become a great man, like Einstein, or Beethoven, or Shakespeare.
16. ___ The main thing in life is for a person to want to do something important.
17. ___ If given the chance I would do something of great benefit to the world.
18. ___ In the history of mankind there have probably been just a handful of really great thinkers.
19. ___ There are a number of people I have come to hate because of the things they stand for.
20. ___ A man who does not believe in some great cause has not really lived.
21. ___ It is only when a person devotes himself to an ideal or cause that life becomes meaningful.
22. ___ Of all the different philosophies which exist in this world there is probably only one which is correct.
23. ___ A person who gets enthusiastic about too many causes is likely to be a pretty "wishy-washy" sort of person.
24. ___ To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.
25. ___ When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do.
26. ___ In times like these, a person must be pretty selfish if he considers primarily his own happiness.

27. ___ The worst crime a person could commit is to attack publicly the people who believe in the same things he does.
28. ___ In times like these it is often necessary to be more on guard against ideas put out by people or groups in one's own camp than by those in the opposing camp.
29. ___ A group which tolerates too many differences of opinion among its own members cannot exist for long.
30. ___ There are two kinds of people in this world: those who are for the truth and those who are against the truth.
31. ___ My blood boils whenever a person stubbornly refuses to admit he's wrong.
32. ___ A person who thinks primarily of his own happiness is beneath contempt.
33. ___ Most of the ideas which get printed nowadays aren't worth the paper they are printed on.
34. ___ In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted.
35. ___ It is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects.
36. ___ In the long run the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.
37. ___ The present is all too often full of unhappiness. It is only the future that counts.
38. ___ If a man is to accomplish his mission in life it is sometimes necessary to gamble "all or nothing at all."
39. ___ Unfortunately a good many people with whom I have discussed important social and moral problems don't really understand what's going on.
40. ___ Most people just don't know what's good for them.

APPENDIX F

THE REVISED JANIS-FIELD SCALE*

Directions: Please answer all questions. There are no right or wrong answers. Place the number in the blank for each question which best describes your experience or feelings. Wording for responses should be adjusted to fit each question.

e.g. 1--Very often 2--Fairly often 3--Sometimes 4--Once in a great while

5--Practically never

1. ___ How often do you have the feeling that there is nothing you can do well?
2. ___ When you have to talk in front of a class or a group of people your own age, how afraid or worried do you usually feel? (e.g, very afraid)
3. ___ How often do you worry about whether other people like to be with you?
4. ___ How often do you feel self-conscious?
5. ___ How often are you troubled with shyness?
6. ___ How often do you feel inferior to most of the people you know?
7. ___ Do you ever think that you are a worthless individual?
8. ___ How much do you worry about how well you get along with other people?
9. ___ How often do you feel that you dislike yourself?
10. ___ Do you ever feel so discouraged with yourself that you wonder whether anything is worthwhile?
11. ___ How often do you feel that you have handled yourself well at a social gathering?
12. ___ How often do you have the feeling that you can do everything well?

*From Eagley (1967).

13. ___ When you talk in front of a class or a group of people of your own age, how pleased are you with your performance? (e.g., very pleased)
14. ___ How comfortable are you when starting a conversation with people whom you don't know? (e.g., very comfortable)
15. ___ How often do you feel that you are a successful person?
16. ___ How confident are you that your success in your future job or career is assured? (e.g., very confident)
17. ___ When you speak in a class discussion how sure of yourself do you feel?
18. ___ How sure of yourself do you feel when among strangers?
19. ___ How confident do you feel that some day the people you know will look up to you and respect you?
20. ___ In general, how confident do you feel about your abilities?

APPROVAL SHEET

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

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

10/17/77
Date

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Director's Signature