

SELF-CONCEPT AND DOGMATISM AS VARIABLES IN THE PREDICTION  
OF INTERNAL-EXTERNAL REWARD EXPECTANCIES

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TABLE OF CONTENTS

	Page
LIST OF TABLES . . . . .	iv
Chapter	
I. INTRODUCTION . . . . .	1
Review of Literature	
Statement of the Problem	
Hypothesis	
II. METHODS AND PROCEDURE . . . . .	26
Description of the Subjects	
Instruments	
Treatment of the Data	
III. RESULTS, INTERPRETATION, AND IMPLICATIONS . .	34
Results	
Interpretation	
Implications	
IV. SUMMARY AND CONCLUSIONS . . . . .	48
Summary	
Conclusions	
APPENDIX . . . . .	53
BIBLIOGRAPHY . . . . .	61

LIST OF TABLES

Table	Page
I. Simple Correlations for Self-Concept, Dogmatism, and Locus of Control . . . . .	34
II. Results of the Stepwise Regression Analysis .	36
III. Proportion of Variance Accounted for by Multiple Correlations . . . . .	36
IV. Means and Standard Deviations for Self- Concept, Dogmatism, and Locus of Control . . . . .	37

## CHAPTER I

### INTRODUCTION

In recent years there has been much research done in the area of self-concept, especially concerning the nature of the self-concept. Rogers is generally recognized for having collected the most systematic set of assumptions and constructs on self theory. As Rogers has stated:

The self-concept or self-structure may be thought of as an organized configuration of perceptions of the self which are admissible to awareness. It is composed of such elements as the perceptions of one's characteristics and abilities; the perceptions and concepts of the self in relation to others and to the environment; the value qualities which are perceived as associated with experiences and objects; and goals and ideals which are perceived as having positive or negative valence (14, p. 136-7).

A position similar in context to Rogers', with regard to the self, is that of Coleman, who asserted that the individual only gradually learns to differentiate the self from the total environment; the child matures and thus develops attitudes toward himself as a single entity. "It is this self-structure that provides the individual with a stable sense of his own identity and a central reference point for his adjustive behavior" (3, p. 63). It is further stated that through this self-structure the individual sets his goals and makes decisions (3, p. 63). Thus the child

develops, and a portion of the total perceptual field gradually becomes differentiated as the self. As a result of interaction with the environment, and of evaluational interaction with others, ". . . the structure of the self is formed--an organized, fluid, but consistent conceptual pattern of perception of characteristics and relationships of the 'I' or the 'me,' together with values attached to these concepts" (14, p. 498).

Another construct which has received considerable attention in the literature in the last few years is Rokeach's open versus closed belief system. In this system the term "closed" is synonymous with the term "dogmatic." Rokeach refers to this as a "belief-disbelief" system and has stated that ". . . it is not so much what you believe that counts, but how you believe" (16, p. 6). As this author stated:

The belief system is conceived to represent all the beliefs, sets, expectancies, or hypotheses, conscious and unconscious, that a person at a given time accepts as true of the world he lives in. The disbelief system is composed 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 (16, p. 33).

. . . . .  
 . . . a belief-disbelief system is conceived to be an organization of parts (wherein the rock-bottom units are single beliefs and disbeliefs) that may or may not be logically interrelated (16, p. 34).

Rokeach then stated that each disbelief subsystem gives rise to a negative strength, which determines the individual's

interaction with people and ideas which are different from his own. As this force increases with a disbelief system, the possibility of interaction with foreign ideas decreases (16, p. 330).

Therefore, these are not logical systems but psychological systems, the parts are not necessarily logically put together, and it is this quality of part segregation that makes possible certain predictions about individuals' behavior (16, p. 33).

More recent in origin is the concept of internal versus external control of reinforcement, which had its beginnings in the social learning theory of Rotter (18). In his theory Rotter hypothesized that internal-external control of reinforcement is a major variable in understanding various learning processes and situations and also individual differences in these situations (17). In Rotter's words:

In its simplest form, our basic hypothesis is that 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 situations. If he sees the reinforcement as being outside his own control or not contingent, that is depending upon chance, fate, powerful others, or unpredictable, then the preceding behavior is less likely to be strengthened or weakened . . . (17, p. 5).

When a reinforcement is perceived by the subject as following some action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of the forces surrounding

him. When the event is interpreted in this way by an individual, we have labeled this a belief in external control. If the person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this a belief in internal control (17, p. 1). ✓✓

Rotter has stated that one of the basic principles of social learning theory is that a major determiner of behavior is the individual's expectancy regarding the outcome of his behavior in any given situation; and that such expectancies might be referred to as self-concepts, or that a person's perception of himself in a situation is a major determiner of his behavior. Rotter expounded, "In this sense, every time we mention the word expectancy, since expectancy always deals with a person's expectancy of the outcome of his own behavior, one might put in parentheses self concept" (18, p. 240). It is pertinent to state that both self-concept and locus of control are results of learning and development.

Rogers stated that much of what occurs in therapy situations is in reference to the self-concept, positive rather than negative or ambivalent feelings and expressions of self (14, p. 136). From this more positive reference to the self Rogers stated, "The individual increasingly comes to feel that this locus of evaluation lies within himself. Less and less does he look to others for approval or disapproval; for standards to live by; for decisions and choices" (15, p. 492). Rogers continued by stating that the individual recognizes



that he may look within himself for decisions and live only in a way that is deeply satisfying to him (15, p. 492).

In line with Rotter's statements of internal versus external control of reinforcement, Rokeach expounded that

. . . the more open the belief-system, the more should the person be governed in his actions by internal self-actualizing forces and the less by irrational inner forces. Consequently, the more should he be able to resist pressures exerted by external sources to evaluate and to act in accord with their wishes. One important implication here is that the more open the person's belief system, the more strength he should have to resist externally imposed reinforcements, or rewards and punishments (16, p. 58).

Rogers has noted that as the self-concept becomes more positive, the individual will begin to be more inner directed (14). The more open the belief-system, Rokeach has stated, the more the person will rely on internal, self actualizing behavior (16). As Rotter noted in discussing internal-external control of reinforcement, the individual learns expectancies as he develops, and he behaves in accord with his perception of himself (17). It is felt that many things make up individual behavior and that theories of different aspects of behavior may overlap or engulf one another. It is thus important to determine relationships among theoretical positions. This study attempted to determine if an individual's control of reinforcement could be predicted from knowledge of his self-concept and belief system. These relationships may then be expanded into many areas. The results

of the present study should be specifically useful in the areas of guidance, counseling, and education.

Therefore, this study was designed to investigate the relationship of two variables, self-concept and open versus closed belief system, to a third variable, locus of control. Background, theory, and related concepts, and pertinent studies related to each of the three variables are presented in the review of the literature.

## Review of Literature

### Self-Concept

Wylie is in agreement with Rogers in her statement concerning the self-concept, ". . . the self as the individual who is known to himself" (24, p. 1). In discussing self-concept, Wylie noted that some of the major problems have been such things as which antecedent variables are important to study and what classification scheme is best to use (24, p. 13). Then there is the problem of type of construct to use, for example, psychological, physiological, or perhaps, field; each theorist employs the construct that he most believes in, adding his own inferences and predictions.

Wylie also pointed to the relative vagueness of most theories of personality, the ambiguity with which many theories are expressed. She noted that there may be no clear empirical referents, and thus experimental investigation is less valuable. As a result of all this, Wylie stated,

". . . directional hypotheses are not always clearly implied, and plausible interpretations of trends which go against the predicted direction are often possible" (24, p. 22).

This author pointed out that the self was an important variable in the psychological theory of James, and in the theories of the introspectionists. However, in the 1920's, 1930's, and 1940's, self-concept did not receive much attention as the behaviorists and functionalists were then dominant (24, p. 1).

"Recently, though, there has been a marked proliferation of self theories, traceable to a number of influences . . ." (24, p. 2). One of these influences was the later writings of Freud, who began to assign greater importance to ego development and functioning; the neo-Freudians also emphasized the importance of the self and the ego-ideal. Another important influence, stated Wylie, was the fact that clinicians began to realize that behavioristic models were too limited to explain and account for much of what they were observing in everyday behavior. The result of this, as observed by Wylie, is that within the last two decades all personality theories put forth have emphasized the importance of the emerging self (24, p. 2). Prominent among these theories of personality development is the view of Rogers.

Many theorists hold a similar view to that of Rogers, one example being Jung, who has noted that "The self is the mid-point of personality, around which all of the other

systems are constellated. It holds these systems together and provides the personality with unity, equilibrium, and stability" (8, p. 85). In conjunction with the preceding, "Adler's self is a highly personalized, subjective system which interprets and makes meaningful the experiences of the organism" (8, p. 117). Slightly different but with the same basic thought, Snygg and Combs believed that ". . . all behavior, without exception, is completely determined by and pertinent to the phenomenal field of the behaving organism (8, p. 470). In addition to Rogers' self-as-object, which assumes that the self is consciously experienced and can be directly communicated (8, p. 497), Combs and Snygg's ". . . self is both an object and process at one and the same time" (8, p. 470). This self is a process because it is an aspect of the phenomenal field, and it is also an object because it consists of self-experiences (8, p. 470).

Rogers based his therapy, which he referred to as client-centered, on the self-concept or the self of the person, feeling that the person's self represents the person as he is. The self is the person and is the key to successful therapy. Rogers, as most psychologists, felt that the self has its beginnings in infancy. Gradually, as the child develops, a portion of his world becomes recognizable as "me," "myself." Rogers made very clear his feeling that the development of the conscious self is not necessarily co-existent with the physical organism of the individual. An

object or experience is regarded as part of the self, to a considerable extent, when it is under control of the self. "Those elements which we control are regarded as part of the self, but when even such an object as a part of our body is out of control, it is experienced as being less a part of the self" (14, p. 497). As is apparent, Rogers uses the self as an awareness of functioning, an awareness of being (14, p. 497-498).

"As the infant interacts with his environment he gradually builds up concepts about himself, about the environment, and about himself in relation to the environment" (14, p. 498). Rogers stated that these concepts are nonverbal and may be unconscious, but nevertheless function as guiding principles. He also stated that the young child has certain values, such as "I like," or "I dislike," and therefore at the same time the child "experiences" he is aware of the value he places upon the experience, he either likes or dislikes it. The child appears to value self-enhancing experiences but places a negative value on threatening experiences or upon those experiences that do not enhance his self.

Rogers' next stage in the development of the self-concept is the social stage, or evaluation by others stage. A child learns such things as "good boy," and "naughty boy"; that ". . . stairs are dangerous, and candy tastes good" (14, p. 499). It is also at this time that Rogers felt that distorted symbolization of experience takes place. Although

it may be satisfying for a child to hit his smaller sibling, this behavior is not rewarded with love and acceptance. As Rogers stated the child's dilemma: "If I admit to awareness the satisfactions of these behaviors and the values I apprehend in these experiences, then this is inconsistent with my self as being loved or lovable" (14, p. 500). Therefore the child not only introjects his parents' attitudes, but, and Rogers felt this to be more important, the child accepts these attitudes as if they were based on his own experiences. As a result of this:

. . . the values which the infant attaches to experience become divorced from his own organismic functioning, and experience is valued in terms of the attitudes held by his parents, or by others who are in intimate association with him. These values come to be accepted as being just as "real" as the values which are connected with direct experience. The "self" which is formed on this basis of distorting the sensory and visceral evidence to fit the already present structure acquires an organization and integration which the individual endeavors to preserve. Out of these dual sources--the direct experiencing by the individual, and the distorted symbolization of sensory reactions resulting in the introjection of values and concepts as if experienced--there grows the structure of the self" (14, p. 501).

Studies have revealed that an individual's perception of himself is indeed influenced strongly by his parents' perception of him (10, 12).

As the organism grows and strives to achieve, Rogers noted that most of its behaviors are those which are consistent with that particular organism's self-concept. He felt that the person's needs are channeled and satisfied

through his self structure (14, p. 508). The concept of self, as seen by Rogers, then, is vast and encompasses many aspects of the individual's development.

Several investigators have sought to determine if, and to what extent, the self-concept is stable over a period of time. Although studies are limited, Engel tested 172 subjects over a two-year period. One group of subjects were tested in the eighth and tenth grades, the other group in the tenth and twelfth grades, respectively. No difference was found for the two age levels. The results confirmed the author's hypothesis that "crystallization of the self-concept is achieved earlier in development" (5, p. 212).

Using a Q-technique of 120 self-statements, Taylor investigated the stability of the self-concept. Subjects were 152 college undergraduates, five graduate students, and twenty adults. Results pertinent to the present investigation revealed (1) The self-concept remains relatively stable over time intervals up to seven and one-half months; (2) changes in external environment do not usually alter the self-concept significantly. It may be noted that the longest time interval used by this investigator was seven and one-half months (23).

#### Open Versus Closed Belief System

Rokeach, in his book The Open and Closed Mind, made apparent that long before the concept of dogmatism (open

versus closed belief system) was identified specifically as such, a number of characteristics associated with this phenomenon were noted:

. . . a closed way of thinking which could be associated with any ideology regardless of content, an authoritarian outlook on life, an intolerance toward those with opposing beliefs, and a sufferance of those with similar beliefs (16, p. 5).

This definition referred not only to single issues, but also to networks of issues. Rokeach stated very clearly that the open versus closed belief system is a continuum and not two groups of separate classifications (16, p. 5). Highly dogmatic persons are on the closed end of the continuum and low dogmatic persons are on the open end of this same continuum; any particular ideology, such as religious beliefs, or communism, may be on either end of the continuum depending upon individual difference.

According to the theory a person may espouse democratic and liberal ideas, and still be highly dogmatic in his beliefs. For example, a person may be active in civil rights, taking a militant stand against segregation, or he may advocate permissiveness with, and individual rights for, those accused of a crime, but as Rokeach has stated:

For a person espousing such beliefs may still strike us, from the way he espouses his beliefs, as authoritarian, intolerant of those who disagree with him and closed in his mode of thought and belief. The discrepancy we may note between what is said and the way it is said is a discrepancy between content and structure (16, pp. 14-15).



From this, Rokeach has concluded that it is how you believe that is important and not what you believe (16, p. 6). ←

Rokeach reported some very interesting experiments conducted to discern the differences between open and closed belief systems and between rigidity and dogmatism. Although it seems to be a common belief that rigidity and dogmatism are one in the same concept; this is not in accord with Rokeach's findings.

We have said that at first glance rigid and dogmatic thinking appear to be synonymous: They both refer to resistance to change. On second thought, however, we see possibly legitimate distinction between them: The first refers to the resistance to change of single beliefs (or sets or habits), and the second refers to the resistance to change of systems of beliefs (16, p. 183). ←

The results of one study indicated: "Dogmatic or closed thinking . . . can now with some empirical backing be said to refer to the resistance to change of total belief systems" (16, p. 193). It was further stated that open and closed subjects do not differ in analyzing ability, breaking down of individual beliefs, but do differ from each other in synthesizing ability, or integrating beliefs into a new system contradictory to their everyday system. Another interesting result was that high and low rigid subjects differ in analyzing ability but not in synthesizing ability. This is the opposite of the dogmatic subjects results (16, p. 193). However, even though dogmatic and rigid thinking are discriminable, they are not necessarily independent

processes. Rokeach reported correlations from .37 to .55 between the Dogmatism Scale and the Rigidity Scale (16, p. 193).

Another study conducted by Rokeach found that on various measures of attitude individuals scoring as highly dogmatic seemed to be "right authoritarian" and low dogmatic groups seemed to be "right anti-authoritarian." Both groups were seen as more right of center than left of center in their political affiliations (16, p. 104). In other words, both dogmatic and nondogmatic individuals were more conservative than liberal on the political continuum. It was also stated that highly dogmatic individuals score higher than low dogmatic individuals on measures of authoritarianism and intolerance (16, p. 105).

In a study by Pyron and Kafer (13) attitudinal rigidity was defined as ". . . the desire to maintain either the entire perceptual organization system intact and resistant to change, or to maintain certain areas of the system in an unchanging condition" (13, p. 463). This definition, it may be noted, is concordant with Rokeach's definition of the dogmatic individual. One of the three measures used in this study to measure attitudinal rigidity was the Dogmatism Scale. Sixty subjects heard twenty nonsense sentences read on tape; then they were presented only the stimulus element of the sentences and were to recall the correct response element. The authors attempted to differentiate interesting

from uninteresting nonsense sentences by judges' ratings. The results of this study indicated that subjects scoring low or more open on the Dogmatism Scale, tended to recall significantly more of the interesting nonsense sentences than did subjects who scored high or more closed.

These authors felt that rigid subjects would reject the nonsense sentences more than nonrigid subjects, ". . . since irrational and novel combinations of familiar elements might threaten the rigid subject's perceptual organization system" (13, p. 463). They further felt that nonrigid subjects could accept changes in their perceptual organizations, and thus would perceive more clearly than rigid subjects the nonsense sentences that were interesting. It was also felt that rigid subjects would tend not to differentiate between the interesting and uninteresting and would recall both equally well. This last expectation was supported in the results (13).

Lefcourt, investigating the clinical validity of the dogmatism concept, applied this to the classification of treatment groups in regard to readiness for therapy. Both Rokeach's definition of dogmatism and his Dogmatism Scale were employed. Lefcourt, defining dogmatism as does Rokeach, stated, ". . . dogmatism is a construct describing a highly general characteristic in a person's personality structure" (11, p. 327). At the Lexington, Kentucky, U.S. Public Health Service Hospital for narcotics addicts, every patient is

screened and placed in one of three groups for therapy: neurotic (considered treatable by therapy), character disorder (less amenable to treatment), and psychotic (least amenable to treatment by therapy). The author's major assumption was that the progression from the first group through the last group ". . . represents a dimension of potential change, or openness, the neurotic being most apt to change, the sociopath less likely, and the psychotic least apt to change in reaction to conventional psychotherapy" (11, p. 327). Potential for change was described as being readiness to learn, to shift values, and to develop new ideas. It was, therefore, hypothesized that the neurotic group would score lowest in dogmatism, the character disorder group next, and the psychotic group would score highest on this continuum. The hypothesis was statistically supported, the conclusion being that the Dogmatism Scale can be used to predict receptivity to and success in counseling. It was further stated that dogmatism is inversely related to learning, though this study was concerned with potential for learning, rather than learning per se (11).

#### Internal Versus External Control of Reinforcement

As previously stated, the concept of belief in internal versus external control of reinforcement had its beginnings in the social learning theory of Rotter (18). In social learning theory a reinforcement following a behavior or event

acts to strengthen the individual's expectancy that this particular event or behavior will again be followed by the same reinforcement. Therefore, Rotter stated that when a reinforcement is not seen as contingent upon one's own behavior, the occurrence of this reinforcement will not increase an expectancy as much as it will if seen as contingent; and also its nonoccurrence will not reduce an expectancy as much as it will if seen as contingent (17, p. 2).

Rotter felt that this concept makes up an important variable in personality dynamics.

A generalized attitude, belief, or expectancy regarding the nature of the causal relationship between one's own behavior and its consequences might affect a variety of behavioral choices in a broad band of life situations (17, p. 2).

Such generalized expectancies in combination with specific expectancies and the value of rewards are seen as being able to determine behavior in different situations (17, p. 2).

This concept is, therefore, a result of learning. Rotter noted that as an infant develops and obtains experience he ". . . differentiates events which are causally related to preceding events and those which are not" (17, p. 2). A further statement declared that depending upon an individual's development and history of reinforcement ". . . individuals would differ in the degree to which they attributed reinforcements to their own actions" (17, p. 2).

Rotter expounded that internal-external control posture constitutes an important personality variable applicable to

a wide band of situations (17, p 2). Single expectancies tend to generalize from specific events to events or situations which are similar or related in some way.

From social learning theory Rotter has espoused that the more clearly defined a specific situation is in regard to luck determined or skill determined, the less is the role of generalized expectancy in determining the behavior of the individual. Rotter mentioned that although almost no work prior to his own had been done in the area of belief in chance, luck, or skill, using a systematic theoretical approach, some work had been done concerning groups or entire societies and their beliefs in luck or skill (17, p. 2).

To further explain internal-external orientation, it might be noted that the theory is rich in descriptions of how both the internal and the external individual should react to various situations. Rotter felt that those persons at the internal end of his scale would most likely show more overt signs of achievement motive than those at the external end of the scale, due to the fact that the internal person will feel that this is a factor under his control; the external person will feel that this is not under his control, but is due to luck, chance, or perhaps, fate (17, p. 21). Wylie cited a study by Coopersmith (24) in which a significant positive correlation was obtained for achievement need and self-esteem. An interesting point was made when Rotter

stated that there are defensive externals; those who are originally internal in orientation, but maintain an external view as a defense against any failure. These people still strive to achieve, blaming failures on external sources (17, p. 21). Studies have borne out this relationship (4, 19).

Another variable related to internal-external orientation is resistance to subtle suggestion, or suggestibility. A study by Gore clarified this by noting that under overt suggestion, internals and externals showed no difference on length of stories for Thematic Apperception Test cards, but under subtle suggestion the internals were more negativistic and produced much shorter stories (6). Thus the internal individual may conform and go along with suggestion, if he has the choice, but if he does not see that this is to his advantage or if he sees a subtle attempt to manipulate him, he will probably react resistively (17, p. 24). It is pertinent to note that the concept of suggestibility or persuasibility is also related, negatively, to self-concept (24, p. 159).

It also has been demonstrated that lower socio-economic groups are more external in orientation (17, p. 24). Strickland found that the more internal a group of Negroes were, the more they participated in such activities as civil rights demonstrations, and that the more external their orientation, the more they just "watched" rallies and marches (22).

In 1963 Battle and Rotter sought to investigate the interaction of social class and ethnic group membership with internal versus external control posture. In their study they used a projective task devised by Battle, specifically for use by children, to measure locus of control. Subjects were eighty Negro and white sixth and eighth grade children. The results of this study indicated that middle-class children were significantly more internal than lower-class children, for both Negroes and whites. One interesting finding was that lower-class Negroes with higher IQ's were more external than middle-class Negroes with higher IQ's. This was interpreted to mean possibly that the brighter lower-class Negroes developed external attitudes as a defense against limited cultural or material gains or rewards. Sex was determined not to be related to internal-external control posture; and with class and race undifferentiated internal-external orientation was not related to intelligence, as measured by the California Test of Mental Maturity (1).

Using a relatively homogeneous sample of college students at a southern Negro college, Gore and Rotter (7, p. 18) found no difference between social class levels and internal-external locus of control. This sample, though, was predominantly lower-class. The social class difference found in Battle and Rotter's study may be relative to age



and grade level of subjects. However, this may have been due to extraneous variables in the studies cited.

Research studies have indicated that a subject's behavior changes under conditions of chance and skill; under chance conditions there is the tendency for the "gambler's fallacy" to be present (2). It has also been shown that subjects under chance conditions tend to be more passive in their approach to the task (17, p. 4).

The concept of alienation has been demonstrated to relate to internal-external control posture; the more the person feels alienated the more he feels unable to control his own future (17, p. 3). Seeman noted a relationship between powerlessness, alienation, and internal-external control posture (20).

Rotter (17, pp. 4-9) reported several studies which supported his hypothesis that ". . . learning under skill conditions is different from learning under chance conditions" (17, p. 5). Therefore, in these studies it was necessary to provide a similar sequence of reinforcement in both chance and skill, controlled by the experimenter, and without the subjects' knowledge of this control. One design employed a relatively ambiguous task in which one-half of the subjects were instructed that the task was skill determined, the other half that the task was chance determined. The other design employed in the studies was to use tasks which are culturally considered as chance or

skill, such as dice throwing (chance) and solving arithmetic problems (skill). Rotter stated that the results give clear-cut indications that "When a subject perceives the task as controlled by the experimenter, chance, or random conditions, past experience is relied upon less" (17, p. 8).

Two of the studies investigated were concerned with smoking and internal-external control. In 1963, Straits and Sechrest (21) found that smokers were more "chance oriented" than nonsmokers. These authors subscribed to the idea that the smoker may continue smoking in the face of medical evidence against its danger to health, by maintaining the attitude that life and all that goes with it is a gamble. In 1965, after the release of the Surgeon General's report on smoking and health, which indicated that smoking is dangerous to health, James, Woodruff, and Werner (9) conducted a study to investigate the relationship between locus of control and smoking behavior. Their findings indicated that males and females who smoke are more externally controlled than males and females who do not smoke; that smokers who believed the evidence in the government's report were more internal than those who didn't; and that males who stopped smoking were more internally oriented than those who did not stop smoking.

#### Synthesis

This review of literature on self-concept, open versus closed belief system, and internal versus external locus of

control has necessarily been primarily descriptive due to the lack of experimental investigation in this area. It has been stated that the self-concept is the individual's perception of himself (17, 24). As with all aspects of personality the self-concept develops over the years with learning. The individual matures and develops ideas concerning himself and also concerning his world around him. An open or a closed belief system is developed with the maturing person and his individual view of the world; the same may be said for internal versus external control of reinforcement. These latter two concepts are different in individuals because individuals have different subjective perceptions of what objectively appears to be the same thing.

#### Statement of the Problem

The problem of this study was to determine the relationship between the nature of an individual's self-concept and belief system to his orientation toward internal versus external control of reinforcement.

#### Hypothesis

The more positive the self-concept and the more open the belief system, then the more internally oriented an individual will be.

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## CHAPTER II

### METHODS AND PROCEDURE

#### Description of the Subjects

Subjects for this study were ninety individuals drawn from students enrolled for a freshman psychology course. All subjects were volunteers. The measuring instruments were administered to the subjects during their regularly scheduled class periods. One class period was required to administer all instruments. Class members not wishing to participate in the experiment were dismissed from the class during testing time. Subjects included an equal number of males and females.

The subjects were first given the Tennessee Self Concept Scale, then the Dogmatism Scale, and last the I-E Scale. The experimenter first described all instruments, then supplied each subject with test booklets and answer sheets. Subjects were informed that all results would be confidential and would not be connected with their performance in the course. Initials were used instead of names. All finished within the one hour allotted time.

### Instruments

The Tennessee Self Concept Scale and the Dogmatism Scale were used to predict subjects' performance on the I-E Scale.

#### Tennessee Self Concept Scale, Counseling Form

In 1955 Fitts (1) began work on the Tennessee Self Concept Scale to meet the need for a scale ". . . which is simple for the subject, widely applicable, well standardized, and multi-dimensional in its description of the self concept" (1, p. 1). The Tennessee Self Concept Scale is available in two forms, Counseling, and Clinical and Research. The difference between the forms is that the Counseling Form is quicker and easier to score, requires less sophistication in interpretation, and is easy to explain to counselees.

Originally, a large pool of descriptive items was collected both from other self-concept tests in use and from written self descriptions of patients and non-patients. By classifying items on the basis of what they themselves were saying, these items were divided into ninety positive and negative self statements, and ten self-criticism items. Therefore, the final scale contains 100 items, 90 self statements, and 10 statements which comprise a separate score, the Self-Criticism Score (1).

The single most important score is the Total Positive Score (Total P), which was used in the present study.

Persons with high scores tend to like themselves, feel that they are persons of value and worth, have confidence in themselves, and act accordingly. People with low scores are doubtful about their own worth; see themselves as undesirable; often feel anxious, depressed, and unhappy; and have little faith or confidence in themselves" (1, p. 2).

The standardization sample included 626 individuals from various areas of the country, representative of all social, economic, and intellectual levels, both Negro and white, in an age range from 12 to 68. Both sexes were equally represented.

The Total P Score is an aggregate score which yields a multidimensional self image. The components of this aggregate score are (1) Self-Identity, (2) Self-Satisfaction, (3) Behavior, (4), Physical Self, (5) Moral-Ethical Self, (6) Personal Self, (7) Family Self, (8) Social Self. Fitts reports that the reliability on this aggregate score is .92 (1, p. 14). Content validity is also considered to be high (1, p. 14); in the manual Fitts provides evidence from several studies indicating that the Scale's validity is high (1). Information is also provided on the Scale's correlations with other personality measures (1, p. 24). For example, Fitts reports a correlation of -.70 for the Total P Score and the Taylor Manifest Anxiety Scale (1, p. 27).

Responses are made by the individual on a five-point numbered scale; the value of the response being how much the individual feels that a statement is true of himself.



Dogmatism Scale, Form E

The primary purpose of this scale is to measure individual differences in openness or closedness of belief systems (3, p. 71).

Our general hypothesis is that the more closed the person's belief system, as measured by the Dogmatism Scale, the more resistance he will put up to forming new belief systems (3, p. 181).

Rokeach states that this scale should also measure general authoritarianism and general intolerance (3, p. 72).

The Dogmatism Scale, Form E, is the final edition of five revisions, and contains the best forty items taken from the previous Form D. These forty items, chosen on the basis of their reliability and theoretical formulations, were designed to differentiate openness and closedness. Rokeach states that the procedure in devising the Dogmatism Scale was deductive; the various characteristics defining open and closed systems were analyzed. The Dogmatism Scale's statements are an attempt to tap these characteristics. The individual responds along a six-point scale: +3, +2, +1, -1, -2, -3. The person responds as strongly agree (+3) on a continuum to strongly disagree (-3), for each item (3).

For all items, agreement is indicative of closed belief system, disagreement indicates open belief system; the score is the total of the items (see Appendix A). The author states, "Insofar as possible, we looked for statements that express ideas familiar to the average person in his everyday life" (3, p. 72). Rokeach's findings suggest that a person's

belief system is pervasive into other spheres of his being; such as his ideology, conceptual and perceptual framework, and esthetic foundations. It is also suggested that these spheres have structural commonality (3, p. 288). Therefore, the Dogmatism Scale may relate very well to other aspects of personality and functioning in everyday life. Rokeach states that correlations between the Dogmatism Scale and intelligence are close to zero, when intelligence is measured by tests such as the Wonderlic Test (3, p. 407).

Various studies by Rokeach support the construct validity of this instrument (3). Studies consistently show that dogmatic individuals are able to synthesize but not analyze, and that nondogmatic individuals are able to analyze better than they are able to synthesize (3, p. 286). Reliabilities are reported in the range from .68 to .93 (3, p. 90).

#### I-E Scale

In 1957 Phares (4, p. 9) made the first attempt to measure the belief in internal versus external control of reinforcement. Phares employed a Likert-type scale of twenty-six items to study chance and skill effects on expectancies for reinforcement. Of these twenty-six items, thirteen items were stated to be external attitudes and thirteen internal attitudes. This work was followed by James (4) who added six filler items to twenty-six internal and external items, in a Likert-type scale.

Later, Liverant, Rotter, and Seeman attempted to broaden the scale, by developing a 100 item forced-choice scale. This scale was later reduced to 60 items by Liverant on the basis of internal consistency data. However, as this did not seem to fit the purpose, Liverant, Rotter, and Crowne undertook the revision of Liverant's scale and produced the present I-E Scale (4, pp. 9-10). (See Appendix B.)

The items of the I-E Scale ". . . are concerned with the subject's expectations about how reinforcement is controlled" (4, p. 10). The test is therefore considered to be a measure of generalized expectancy, but none of the items directly asks for a preference for internal or external control of reinforcement. This scale consists of twenty-nine forced-choice items. Six of the items are filler items designed to make the test more ambiguous. The score is obtained by adding the total number of external choices. Rotter found that for samples from various different populations the means differed slightly; however for college students the means clustered around seven and eight (4, p. 15). The range on this scale is from zero to twenty-nine.

Validity and reliability on the I-E Scale have been taken from various strata within the population. Internal consistency data are relatively stable, with a split-half coefficient of .65, a Spearman-Brown coefficient of .79, and Kuder-Richardson coefficients from .69 to .73 (4, p. 13). Rotter states that due to the fact that the scale's items

are forced-choice and additive, not comparable, the norms must be interpreted as being somewhat limited. Split-half reliabilities and Kuder-Richardson coefficients are limited and may tend to underestimate internal consistency of this scale (4, p. 10). Test-retest reliabilities range from .69 to .79, and the I-E Scale is considered to have discriminant and construct validity (4).

#### Treatment of the Data

As previously stated, Rogers' self theory holds that the higher the self concept the more inner directed an individual will be (2). Rokeach theorizes a relationship between internal, self-actualizing forces and a person's openness of belief system (3). Therefore self-concept was considered to be the major predictor variable, belief system the second predictor variable, and locus of control was the criterion variable.

The data were analyzed by a stepwise regression analysis. This statistic, also referred to as multiple correlation, was used in order to determine the relationship of two variables, self-concept and dogmatism, to one variable, internal-external control posture. This statistic first yields a correlation between the major variable, self-concept, and the criterion variable, locus of control. The final step is to determine if by adding dogmatism as a variable, prediction of locus of control can be increased. \*

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## CHAPTER III

### RESULTS, INTERPRETATION, AND IMPLICATIONS

#### Results

The raw data were analyzed by the Computer Center at North Texas State University. As previously stated the data were analyzed by a stepwise regression analysis or multiple correlation: ". . . the multiple correlation coefficient gives an index of degree of predictability from more than one predictor to the criterion" (1, p. 53).

In the stepwise regression analysis simple correlations were yielded for each of the variables with each of the other variables. These are presented in Table I.

TABLE I  
SIMPLE CORRELATIONS FOR SELF-CONCEPT, DOGMATISM  
AND LOCUS OF CONTROL

Variables	Correlation	P
Self-Concept and Locus of Control	-.33	> .01
Dogmatism and Locus of Control	.23	> .05
Self-Concept and Dogmatism	-.11	

Table I indicates a significant negative correlation between self-concept and locus of control, which means that the higher the self-concept, the more internal the individual. The negative correlation is due to the direction of the scores; high self-concept scores are indicative of high self-concept; low I-E Scale scores are indicative of an internal locus of control. It is further noted that a significant correlation exists between dogmatism and locus of control, which indicates that the higher the dogmatism score, the higher the I-E Scale score, hence the more external the individual.

To determine the multiple correlation, the simple correlation between self-concept and internal-external locus of control was yielded. The next step was to add the effect of the second variable, dogmatism, to the obtained correlation of self-concept and locus of control. This was done in order to determine if the research hypothesis was correct. The research hypothesis stated that by adding the effects of dogmatism to the relationship between self-concept and locus of control, prediction of locus of control would be significantly increased. The multiple correlation is a statistic of prediction, in that two predictor variables, self-concept and dogmatism, were used to enhance the knowledge of the criterion variable, locus of control. The reason for using two variables to predict one criterion variable is an attempt to increase prediction of the criterion variable.

Table II shows the results of the stepwise regression analysis. As can be seen from the table, self-concept is a significant predictor of locus of control, although the

TABLE II  
RESULTS OF THE STEPWISE  
REGRESSION ANALYSIS

Variable	F level	P
Self-concept	10.873	> .01
Dogmatism	3.697	

effects of dogmatism did not significantly increase prediction. However, the multiple correlation of  $R^2 = .146$  is significant, and the null hypothesis of a multiple correlation of zero is rejected.

Table III gives the proportion of variance accounted for by the predictor variables. As Baggaley states,

TABLE III  
PROPORTION OF VARIANCE ACCOUNTED FOR BY  
MULTIPLE CORRELATIONS

Variable	Proportion of Variance
Self-Concept . . . . .	.1099
Dogmatism . . . . .	.1462

". . . the coefficient of multiple determination, gives the proportion of the total variance that is predicted by the predictor variables that have been employed" (1, p. 57).



Thus the multiple correlation is significant at greater than the 1 per cent level, although dogmatism did not significantly increase the prediction. This latter fact was shown in Table II. Table III shows the proportion of total variance accounted for by both variables. Self-concept accounts for approximately 11 per cent of the variance, and dogmatism for approximately 4 per cent more. Thus, although nearly 15 per cent of the total variance is accounted for by the predictor variables together, 11 per cent of this is due to self-concept alone.

Table IV shows the means, and standard deviations for the population used in this study. Fitts reports a mean of

TABLE IV  
MEANS AND STANDARD DEVIATIONS FOR SELF-CONCEPT,  
DOGMATISM, AND LOCUS OF CONTROL

Variable	Mean	Standard Deviation
Self-Concept	324.8	32.2
Dogmatism	152.6	24.5
Locus of control	9.7	4.5

345.6 for the Total Positive Score and a standard deviation of 30.7 for his normal population, on the Tennessee Self Concept Scale (3, p. 19). From Fitts' validation group the normal limits on this scale were set at 318 to 421, for the Total Positive Score (3, p. 20). The mean for the present

sample is low according to Fitts' normal population (see Table IV), but is within the normal limits. Therefore, this was not seen as confounding the results of the present study. Means and standard deviations for dogmatism and locus of control were not deviant from the standardization means, for the respective instruments.

### Interpretation

The results of this investigation reveal that self-concept is significantly correlated with internal-external control of reinforcement; and that dogmatism is significantly correlated with internal-external control of reinforcement. These results indicate that an individual who has a more positive self-evaluation, as measured by the Tennessee Self Concept Scale, will also be internally motivated and feel that he is responsible for his destiny. On the other end of the continuum, then, a person with a low self-evaluation will feel that fate, chance, luck, or powerful others are responsible for his destiny. It was also found that an individual with an open belief system, open to new experiences, will be internally controlled and that an individual with a lack of openness to experience, closed belief system, will feel that he has little control of his destiny, that destiny is due to fate. However, the research hypothesis was confirmed in that dogmatism, added to the effects of self-concept, did not significantly increase prediction of locus of control, over predictions obtained by self-concept alone.

The lack of a significant correlation between self-concept and dogmatism (see Table I) could be due to a number of factors. One of these may be incorrect theorizing. Rokeach notes that self-hate or low self opinion, theoretically, should accompany closed belief system (6, p. 69). However, a study by Rebhun seems to assert that dogmatism is a highly complex phenomenon, not amenable to one-to-one relationships with other variables. Rebhun's results indicated that closed-minded individuals tend to hold parental attitudes which foster closed-minded offspring. The offspring are encouraged not to question the parents' belief-disbelief system, and thus are themselves dogmatic. Rebhun's subjects were fathers and their sons (5).

In wanting their sons to follow their own dogmatic beliefs, it seems reasonable that these fathers would have had high opinions of their sons, thus fostering high self-concepts and closed belief systems in their offspring. However, the negative correlation of  $-.11$  (see Table I) between self-concept and dogmatism is in the direction of more positive self-concept, more open belief system.

As mentioned in Chapter I, Rotter states that there are defensive externals; those who are originally internal in orientation, but maintain an external view as a defense against any failure. These people strive to achieve, blaming failures on external sources. Defensive individuals seem to have a lower self-concept; however, the defensively

external individual might not have altered his belief system. Such an individual might still be open to new experiences especially those which would not seem personally threatening. It does not seem likely that this would be operative within enough individuals to explain the low correlation between self-concept and dogmatism. The nature of the measuring scale items would be of paramount importance here. Lacking empirical evidence, the Dogmatism Scale (see Appendix A) appears to have relatively few items which could be termed personally threatening.

To summarize, it seems likely that incorrect theorizing is responsible for the lack of a significant relationship between dogmatism and self-concept. However, it should be stated that the relationship that was yielded was in the direction of higher self-concept, more open belief system. The possibility remains that the results were in some way confounded by extraneous variables unknown to the investigator. Further research could answer these problems.

The results of this investigation seem to suggest that individuals who are more internally motivated are more open to new experience and have higher evaluation of self.

According to social learning theory, as an individual develops he acquires some generalized expectancies concerning his behavior. These expectancies are thus manifest in either internal or external control of reinforcement. Perhaps a part of developing internal direction is learning to be open to new experience or developing an open belief

system. Rokeach states that open individuals have developed a cognitive need to know and understand things and events (6, p. 67). Perhaps this is one reason why these individuals are inner directed; to accumulate knowledge satisfactory to their own cognitive structure, they are directed by themselves and reinforced by the efforts of their beliefs.

*Integration*  
"The more closed the system, the more is the acceptance of a particular belief assumed to depend on irrelevant internal drives and/or arbitrary reinforcements from external authority" (6, p. 61). This seems to be what Rotter is talking about when he states that externals are reinforced by fate, chance, or powerful others. Therefore, it could be assumed that when learning to rely on others for rewards, the individual is learning to be closed in his thinking. As Rokeach states, these closed individuals are not able to evaluate and seek information for its own merits, they must receive information from sources who represent, to them, authority. This seems to be saying that these authority figures are powerful others, as found in the structure of Rotter's external individual.

#### Implications

The results of this study seem to lend themselves to practical application in several major areas; counseling, theory, education, and child rearing. If Rotter is correct in saying that internal-external control of reinforcement

makes up an important personality variable, then the results of the present investigation could be very useful in counseling. Rogers' client-centered counseling technique relies heavily upon self-concept development, and the positive assertion of the self. Thus, through knowledge of an individual's self-concept the counselor could assess with a high degree of accuracy to what extent this person relied upon himself to control his destiny, or relied upon fate, chance, or luck. Rogers' goal in his counseling technique is that the individual should come to be and accept his unique self (10, p. 318). Tyler and Sundberg state that at the core of Rogers' theory is the concept that every individual is capable of ". . . constructive, self-directed change, and that every personality is basically good" (10, p. 318). These authors point out that when client-centered therapy is successful it is the self-concept of the individual that changes, toward a more positive assertion (10, p. 320). This being the case, it appears that a counselor might work toward this goal by way of locus of control. An individual with a low self-evaluation might be guided toward seeing himself as in control of his destiny. In other words, locus of control might be a tool toward a goal of higher self-evaluation. As the individual becomes more internally directed his self-concept should be strengthened.

Tyler and Sundberg report that about one-third of therapy cases are consistently classified as unsuccessful (10, p. 328).

It seems that an individual with an external locus of control, might feel that such things as counseling could not be of help as "fate" was responsible for his destiny. Generalizing from the results of this investigation, these individuals might not be open to new experience, and thus might even resist counseling. This seems to imply that counseling would be of little value to these people, unless the counseling was geared toward the individual desiring to participate in counseling. This point is partially illustrated in a study by Seeman and Evans.

Seeman and Evans, working with tuberculosis patients, derived an alienation scale composed of items taken from the I-E Scale. Their results indicated that the more alienated patients, those who felt that fate was responsible for their destiny, had less objective knowledge about tuberculosis. The patients who felt that this was out of their control did not possess the knowledge that the patients did who felt control over themselves and their outcomes (9). To generalize again, it seems that perhaps external individuals, and from the present study individuals with low self-concepts and closed belief systems, would not present themselves for therapy as they would see no need of it. Those individuals on the "borderline" of being externally controlled would seem to be those most likely to profit from therapy.

The second area of implication lies with theory construction. These findings lend support to the position that

many theoretical postulations overlap. Self-concept and internal-external locus of control are not mutually exclusive, they seem to incorporate some of the same phenomena in that self-concept was found, in this investigation, to be highly correlated with locus of control. Although social learning theory denies the existence of a single, total self-concept such as that measured by the Tennessee Self Concept Scale (8, p. 239), this appears to be an area fruitful for investigation.

The ideal might be to eliminate theoretical boundaries; the practical might be only to bring related concepts together, determine their commonalities, and build from these common entities a wider and more encompassing theory of personality. This would require research beyond the correlational stage; it would require descriptive research of various personality types and dynamics.

The findings of this investigation also lend themselves to implications for the academic setting. It has been suggested that externally controlled individuals are more passive in regard to their environment (7, p. 3), and that high achievers are also internally motivated (7, p. 3). This might bear important implications within the educational framework. The passive, apathetic child who does not achieve within the limits of his abilities might be approached by way of his belief in his own mastery of his environment, which would encompass the academic setting. Studies have indicated



that subjects respond differently in learning situations which they feel to be chance rather than skill controlled (2, 11). Phares found that under skill conditions, rather than chance conditions, reinforcement had greater effects in raising or lowering future expectancies for reinforcement (4). This, again, might generalize to the academic setting. Studies have indicated that internals tend to strive to achieve more than do externals (7, p. 22).

As has been previously discussed, the dogmatic, externally controlled individual appears to be under the control of powerful others or significant authorities in his life. This bears manifest implications for the classroom teacher, especially in the early grades. It seems many times that pupils are not taught to think for themselves, but to echo what the teacher, the authority, thinks and believes. It seems reasonable to assume that children could thus become externally controlled, as reward may perhaps be given out by the teacher as the child voices what the teacher wants to hear. This same thing seems to apply to parents. To become self-reliant and inner-directed it seems that children must be taught to think for themselves, thus they will be open to new experience and will be able to weigh opinions of others for merits of the opinion alone.

The results of the present investigation seem to imply that much work is needed in the areas of counseling, theory, and education, in regard to the belief in internal versus

external control of reinforcement. Broad generalizations have been asserted which need to be investigated through further research.

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## CHAPTER IV

### SUMMARY AND CONCLUSIONS

#### Summary

##### Purpose

The purpose of this study was to investigate the relationship of self-concept, and open versus closed belief system (dogmatism), to the variable of internal versus external control of reinforcement. The measuring instruments used were the Tennessee Self Concept Scale, the Dogmatism Scale, and the I-E Scale.

The specific hypothesis was that the more positive the self-concept and the more open the belief system, then the more internally oriented an individual will be.

##### Method

Subjects for the study were ninety volunteers enrolled for a freshman psychology course. The data were analyzed by a stepwise regression analysis, in which self-concept, measured by the Tennessee Self Concept Scale, was the major predictor variable, and dogmatism, measured by the Dogmatism Scale, was the second predictor variable. Internal-external control of reinforcement, measured by the I-E Scale, was the criterion variable that was to be predicted.

### Results

Results of the study yielded a relationship between self-concept and locus of control, significant at the .01 level of probability. Between dogmatism and locus of control the correlation was significant at the .05 level. However, the correlation between self-concept and dogmatism was insignificant. The stepwise regression analysis yielded a significant result, .01 level, for the multiple correlation. However, dogmatism did not significantly increase prediction of control of reinforcement over that prediction obtained with self-concept alone. The null hypothesis of a multiple correlation of zero was rejected, as this correlation reached significance.

The results were discussed in light of their meanings for counseling, theory, education, and child rearing. Using Rogers' theory of counseling, which relies on self-concept development (1), it was felt that knowledge of a relationship between self-concept and locus of control could aid in encouraging individuals to realize their potential and become more internally directed and self-actualizing.

The next aspect of the results had to do with theory. Very simply it was stated that theories of personality might need to be further investigated and perhaps revised to encompass more aspects of personality. It was felt that many theories are too narrow and exclusive of areas which need investigation; such an area is locus of control.

Implications for education, especially the lower grades, were next discussed. Many children are passive and apathetic, it is felt, concerning their academic performance as they feel that this is not under their control; it is under the control of chance, or fate. This was also thought to be related to development of dogmatism in young children. It was suggested that these children might be approached by way of their self-concepts to enable them to better adjust and achieve at their potential in the academic setting.

Last, dogmatism was discussed in light of child rearing practices. It was suggested that many children may become dogmatic as a result of never being taught or allowed to think for themselves.

### Conclusions

The results of this study indicate that self-concept is highly correlated with internal-external control posture; and that dogmatism is also correlated with control posture. The knowledge of these results may be of use in several areas.

It is concluded that knowledge of a relationship between self-concept and locus of control could be put to practical application within the framework of client-centered counseling. A more positive self-concept could be attained, perhaps, by enabling an individual to be more internally controlled. Theory construction could also make practical application from the knowledge of the relationships found in this study.

It is felt that self theories need to include locus of control in their framework, and that social learning theory needs to further investigate the role of a global self-concept in regard to a relationship between such a global self-concept and locus of control.

It is further concluded that educators need to be cognizant of how rewards are given out, and what type of behavior is rewarded. It is felt that many times young children are not encouraged to become self-directing, and internally controlled, as the reward structure is not set up in a manner conducive to this. This is also true in child rearing. Parents need to be cognizant of these relationships which, it appears, allow for dogmatic, externally controlled individuals.

The present study also indicated that dogmatism and self-concept are not related. It is concluded that this may be due to error in theory, testing, or may be due to extraneous variables that were operative in this study. Although, as previously stated, the multiple correlation was significant, dogmatism did not significantly increase prediction of the criterion variable over prediction obtained with self-concept alone. Thus, it is concluded that dogmatism does not add to the significance of prediction of control posture, when used in conjunction with self-concept.

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## APPENDIX A

### Dogmatism Scale

The following is a study of what the general public thinks and feels about a number of important social and personal questions. The best answer to each statement below is your personal opinion. We have tried to cover many different and opposing points of view; you may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others; whether you agree or disagree with any statement, you can be sure that many people feel the same as you do.

Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one.

Write +1, +2, +3, or -1, -2, -3, depending on how you feel in each case.

+1: I AGREE A LITTLE	-1: I DISAGREE A LITTLE
+2: I AGREE ON THE WHOLE	-2: I DISAGREE ON THE WHOLE
+3: I AGREE VERY MUCH	-3: I DISAGREE VERY MUCH

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 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 the others are saying.
14. It is better to be a dead hero than to be 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 thing 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 camps.
29. A group which tolerates too much difference 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 B

### The I.E. Scale

#### Instructions:

This is a questionnaire to find out the way in which certain important events in our society affect different people. Each item consists of a pair of alternatives lettered a or b. Please select the one statement of each pair (and only one) which you more strongly believe to be the case as far as you're concerned. Be sure to select the one you actually believe to be more true rather than the one you think you should choose or the one you would like to be true. This is a measure of personal belief: obviously there are no right or wrong answers.

Please answer these items carefully but do not spend too much time on any one item. Be sure to find an answer for every choice.

In some instances you may discover that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you're concerned. Also try to respond to each item independently when making your choice; do not be influenced by your previous choices.

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.
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 the 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 a local level.



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