





This is to certify that the

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"An Investigation of the K Scale of the MMPI  
as a Measure of Defensiveness in Protestant  
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## ABSTRACT

### AN INVESTIGATION OF THE K SCALE OF THE MMPI AS A MEASURE OF DEFENSIVENESS IN PROTESTANT THEOLOGICAL SEMINARY STUDENTS

by Walter Kania

## THE PROBLEM

This study was undertaken in order to test out the validity of the **K** scale as a measure of defensiveness in a population of protestant theological seminary students to determine whether high **K** subjects reflect defensiveness against psychological weakness or reflect personality integration, and seek to give meaning to the interpretation of high **K** scores typically received by subjects in this population.

The hypotheses to be tested in this study were as follows:

1. The **K** scale is a measure of psychological health in a normal population.
  - A. High **K** scores will be positively related to high self-disclosure on Jourard's Self-Disclosure Scale.
  - B. High **K** scores will be positively related to openness



- or low dogmatism on Rokeach's Dogmatism Scale.
- C. High K scores will be negatively related to defensiveness on Heilbrun's Adjective Check List.
2. The K scale is a measure of self concept and self acceptance.
- A. High K scores will be positively related to high self concept and high self acceptance.
3. The K scale is a measure of adjustment.
- A. High K scores will be positively related to adjustment as measured by Bills' Index.
4. The K scale will differentiate persons with regard to religious belief.
- A. High K scores will tend to reflect a liberal theological position.
5. The K scale is a measure of ego strength.
- A. High K scores will be positively related to high ego strength.

## THE METHODOLOGY

Three seminaries were selected each of which represented a conservative, moderate, or liberal point along a continuum of religious belief. Of all the first-year seminarians 90 percent of them completed a test battery consisting of a separate K scale, the

Religious Belief Inventory, Heilbrun's Defensiveness Scale (Adjective Check List), Rokeach Dogmatism Scale, Jourard's Self-Disclosure Scale, Bills' Index of Adjustment and Values, and the IPAT Anxiety Scale. The MMPI had previously been administered to all subjects as a part of normal orientation procedures.

These instruments were scored and several statistical analyses were employed. Pearson Product-Moment Correlations were run on all variables to discover the precise relationships between variables. Subjects' K scores were then grouped into categories suggested for interpretive purposes in the MMPI Handbook. An analysis of variance was made on these K groups. A multiple regression analysis was made and an analysis of variance was made on seminary groups. Finally an item count of K scale responses was made.

## THE RESULTS

The results of the analyses justified the following conclusions in the test of the hypotheses:

Hypothesis 1. A. Rejected.

B. Accepted at the .02 level.

C. Rejected at the .05 level. The relationship is in a direction opposite of that predicted.

Hypothesis 2. A. Both accepted. Self concept at the .01

level and self acceptance at the .10 level.

Hypothesis 3. A. Accepted at the .05 level.

Hypothesis 4. A. Rejected.

Hypothesis 5. A. Accepted at the .01 level.

The analysis of variance conducted among the seminaries as groups revealed mean differences in Suspiciousness (IPAT sub-scale) at the .05 level, ego strength at the .01 level, the K scale at the .05 level and religious belief at the .01 level. The results indicated that the selection of seminaries along a theological continuum was accurate. The same progression from conservative to liberal was in evidence in the progressive increase in K scores. Ego strength varied with the moderate seminary having low ego strength and both the conservative and liberal having nearly equivalent high ego strength scores. There was also a progression of suspiciousness or paranoid insecurity from the moderate to liberal to conservative. The major differences in means is between the conservative which is high and the moderate and liberal which are more nearly equivalent.

The multiple regression analysis demonstrated a predictive value of "guilt proneness" for K scale scores which was significant at the .02 level.

The conclusion provides an interpretation of the results.

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by

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## CHAPTER 1

### THE PROBLEM

#### Introduction and Background of the Study:

The Minnesota Multiphasic Personality Inventory emerged early in the 1940's as a psychometric device designed to assess personality. Its wide acceptance and use since its birth has created and given rise to volumes of research, studies, and normative data. While used originally in psychiatric settings its subsequent development gave rise to widespread use as a selection and screening instrument, and as a diagnostic tool for guidance, counseling, and psychotherapy. Masses of data concerning the MMPI have been accumulated and efforts to clarify and sharpen this instrument as a diagnostic tool have continued.

The clinical scales of the MMPI while widely accepted have been called into question for their weakness of being labeled according to arbitrary, non-static psychiatric categories. As a result scale names were augmented and identified by scale numbers and profile analyses rather than separate scale analyses became the vogue for interpretation.

Still another problem became reflected in the development of the validity scales. Interpretation of the clinical profiles must of

necessity deal with the problem of validity. Did the subject indeed understand what he read? What was his frame of mind? Was he careless or reluctant to be frank? Did he seek to disguise himself?

It is known that factors of literacy and attitude do affect the **MMPI** test results. But beyond the obvious, conscious variables are some other factors affecting results? There is a great susceptibility of structured personality inventories to an unconscious deceiving of oneself and role-playing that becomes operative in persons who are on the conscious level quite honest and very sincere in the responses that they make.

#### The K Scale:

The K Scale as a validity scale was developed with the purpose of devising a scale that would enable the clinician to evaluate the influence of one's attitudes toward the testing situation that affect the test results. It was obvious that one of the most significant difficulties of such structured personality tests as the **MMPI** is this susceptibility to unconscious self-deception, role-playing, faking, lying or conscious distortion of test results in a desired direction.

There is a tendency whether conscious or unconscious to present a certain picture of oneself that has a marked influence on one's scores. Two basic directions of this tendency can be identified: (1) the tendency to be defensive or appear in too-favorable a

light, (2) the tendency to be too honest or self-critical. The extremes of these positions can be labeled as attempts to fake bad or lie good.

Much research has been devoted to the means of dealing with these factors that can have an invalidating effect upon test scores.<sup>1</sup> It is believed by the creators of the MMPI to be a better procedure to seek not to eliminate the sources of errors, if indeed that were even possible, but rather to seek to recognize, understand, and manipulate and correct for such "K" attitudes.<sup>2</sup>

The construction of the K scale was accomplished in the following manner.<sup>3</sup> The item response frequencies of clinically diagnosed abnormals whose profiles were normal were studied in an attempt to find discriminating items. These profiles were assumed to result from a defensive attitude or an attempt to look good even though one was really not well. These "defensive" clinical cases were then contrasted with the item replies of general Minnesota normals and the first 22 items of the K scale evolved.

High scores on these items reflected a tendency to conceal

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<sup>1</sup>G. S. Welsh and W. G. Dahlstrom (Eds.), Basic Readings on the MMPI in Psychology and Medicine (Minneapolis: University of Minnesota Press, 1956), p. 12.

<sup>2</sup>W. Grant Dahlstrom and George Schlager Welsh, An MMPI Handbook, A Guide to Use in Clinical Practice and Research (Minneapolis: University of Minnesota Press, 1960), p. x.

<sup>3</sup>Welsh and Dahlstrom, p. 22.

personality deviations while those whose scores were low tended to get elevated scores on the clinical scales. It was difficult to discern, however, in the low score cases whether the elevation reflected genuine pathology or a type of "faking bad." To correct for this phenomena a set of eight items known to be relatively unaffected by faking were used that did discriminate between normals and abnormals. These eight items were added to the 22 and represent what is the present structure of the K scale.

Those who receive high scores on the K scale reflect an attitude of defensiveness. The high K scorer "not only denies personal inadequacies, tendencies toward mental disorder, and any trouble in controlling himself, particularly with regard to temper, but also withholds criticism of others. Low scores are obtained by admitting a variety of difficulties... 'a peculiar kind of exhibitionism which takes the form of an urge to display one's troubles and confess one's weaknesses.'"<sup>4</sup> Low K scorers tend to reflect unusual frankness or self-criticism.

The K scale is designed to be used as a suppressor variable, i.e., to act as a correction device to counter the influence of one's attitudes. Therefore, its utility is evidenced when clinical scores are altered to reflect the contamination caused by these effects. Specifically, K scale weights are assigned to and are used to alter

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<sup>4</sup>Dahlstrom and Welsh, p. 51.

the clinical scales 1, 4, 7, 8, 9, (Hs, Pd, Pt, Sc, Ma). The use of the K correction gives weights of .5K to scale 1, .4K to scale 4, 1K to scale 7, 1K to scale 8, and .2K to scale 9. It becomes apparent from the size of the weight that these clinical scales scores are increased upward in the direction of increased pathology.

Importance of the Study:

While the K scale was developed to compensate for attitudes of defensiveness, concealing, distorting, or denying, one can and should raise serious questions about whether this scale has any validity outside of the population with whom it was standardized. For example, does defensiveness manifest itself in the same way in different segments of the population? This is an apparent assumption underlying the development of the K scale. Perhaps the defensiveness of psychiatric patients differs from the defensiveness of normal persons.

It is known, for example, that some of the variance in the K scale is related not to defensiveness, but to status in social and economic structures.<sup>5</sup> While one might postulate that socioeconomic level varies with or contributes to defensiveness it becomes apparent that one needs a more adequate empirical basis for drawing conclusions about what is reflected in the K scale.

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<sup>5</sup>Welsh and Dahlstrom, p. 39.

Normative K scores for the original MMPI Minnesota Male population reflect a mean of 13.45 (T score--52) with a standard deviation of 5.66. In the most exhaustive study of male college students with a N of 5,035, Goodstein found slight elevations in the K scale norms. The mean for this group selected geographically among various college groups was 14.5 (T score--54) with a standard deviation of 4.6.<sup>6</sup> This represents only a slight elevation for college groups above that of the general population. The influence of K on clinical scores would be slightly increased over that of the general population but would not be significantly different.

An investigation of K scale scores for protestant theological seminary students reflects a curious elevation in excess of one half of a standard deviation above that of the general population. A recent collection of normative data from 16 protestant theological seminaries with a sample of 555 revealed a K score mean of 17 (T score--59) with a standard deviation of 8. While this difference is noted and can be attributed to the homogeneity of the population it becomes apparent that the difference reflected may be of significance.

The use of the K scale in a normal population assumes that: K measures defensiveness, that postures of defensiveness will operate to lower scores on the clinical scales, and that the practice

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<sup>6</sup>Ibid., p. 576.

of using K corrections will provide a more accurate clinical assessment of the individual. If it is not true, however, that the K scale is a measure of defensiveness in a normal population, then the use of the K correction operates in direct opposition to the desired test validity.

It is interesting to notice that the Handbook for the MMPI clearly expresses the fact that "changes resulting from the K correction can make for either greater accuracy or greater error in mirroring personality status."<sup>7</sup> It is also clearly noted by the developers of the MMPI that adequate empirical evidence concerning the use of K as a suppressor variable is lacking.<sup>8</sup> Each clinical setting in which the MMPI is used is unique. It is recommended that non-test information be compared with MMPI results drawn both with and without the use of K. One must determine in any particular setting whether or not the use of the K scale is appropriate. Notions are alluded to that the clinical setting itself with the diversity of motivations and types of problems presented or treated may be of crucial significance in the applicability of the K corrections.

This statement follows--"We would urge any MMPI worker who has an opportunity to evaluate this problem in his own setting

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<sup>7</sup>Dahlstrom and Welsh, p. 152.

<sup>8</sup>Ibid.

and obtain new data to make his findings available through suitable publication channels."<sup>9</sup> This study is such an effort.

It would seem important and appropriate therefore, to seek to determine whether the K scale of the MMPI has any value or validity as a measure of defensiveness in this unique but assumedly normal population. The manual of the MMPI asserts that high K scale scores represent defensiveness against psychological weakness. If this is true it would seem important that those responsible for the education of clergymen be conscious of the personality structures of those whom they seek to train.

Is the K scale in fact measuring defensiveness against psychological weakness? Does not the data gathered by Barron concerning ego strength tend to demonstrate that K appears to measure a capacity rather than a weakness? Ego strength as defined in the scale measured by Barron<sup>10</sup> correlates negatively with every clinical scale of the MMPI which would seem to affirm the fact that the opposite of pathological tendencies are being measured by the K scale in that there is a singular positive correlation of the ego strength scale with the K scale.

A survey of protestant theological seminaries conducted in 1961 by the American Association of Theological Schools (AATS)

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<sup>9</sup>Ibid.

<sup>10</sup>Welsh and Dahlstrom, p. 230.



reveals that aside from the recently developed Theological School Inventory, a study of motivations, the MMPI is the most widely and most commonly used psychological test.<sup>11</sup> Its use varies from its use as a screening and selection device to its utility for diagnosis, guidance and counseling.

This study should result in increasing the diagnostic value of the K scale and its use in the scoring and interpretation of the MMPI profile. Decisions must be made whether or not the K corrections are to be used in the scoring of clinical scales. A conclusion regarding the appropriateness of the use of the K scale in this population should be reached.

In a study of Presbyterian seminaries conducted by Morse in 1963, a call was issued for a re-examination of K scale scores and the use of the K corrections in this population.<sup>12</sup> This was a simple reverberation of the statements of all professional psychological personnel who work with this population.

This study will also acquire data to help interpret what are the generally high scores of protestant seminarians on the K scale.

It should help to decide whether high K scores do reflect

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<sup>11</sup>H. A. DeWire, Ministry Studies Board Newsletter (Dayton, Ohio, 1962), No. 1, pp. 2-4.

<sup>12</sup>P. K. Morse, "The SVIB and MMPI as Measures of Persistence Toward the Ministry as a Vocational Goal," Dissertation Abstract, XXIII, (1963), p. 3239.

defensiveness against psychological weakness or whether the K scale may indeed measure a psychological capacity rather than a weakness or deviation.

The known personality structure of protestant theological seminary students should indeed have an effect on what sort of clinical training and experience should be required of students if creative, constructive, and redemptive human relationships are the desired end of theological training. There should result some rich implications for what curriculum ought to include. This study should also provide some basis for guiding or directing persons with certain personality structures into appropriate expressions of the ministry for which the student is preparing.

The need for self-understanding and the crucial importance of providing insight into and understanding of the personality of clergy is reflected in this comment: "The minister cannot know his people unless he knows himself and recognizes how much of his thinking is colored by his emotions. It may be difficult for him to admit the extent to which hostility motivates him to subtle aggressions when his role does not permit its free expression in open ways. He needs to be aware of the meaning of his over-reactions and see how fanatical dogmatism may reflect his inability to endure uncertainty. More attention must be given to the emotional training of young ministers with expert counselors in theological seminaries to screen candidates and assist them in

self-understanding."<sup>13</sup>

While this comment speaks of exaggerated reactions it highlights what transpires continuously at a much more subtle but nevertheless significant level of one's emotional life and behavior.

Finally this study should open research on the K scale to other populations. It should also open the door for longitudinal studies on personality change that results from curricular or clinical experience.

#### The Problem:

The basic problem under investigation in this study is whether high K scale scores in protestant theological seminary students reflect defensiveness. This study will seek to determine whether the K scale indicates that one is concealing threatening or anxiety evoking information about himself. It will control for religious belief by determining whether there are personality correlates of theological position. It will also attempt to discern what the K scale appears to measure and reveal whether particular items are responsible for elevations or dips in K scale scores.

The procedure to be used will be to test the concurrent validity of the K scale by using the results of Bills' Index of Adjustment and Values, Rokeach Dogmatism Scale, Jourard's

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<sup>13</sup>R. C. Hodsden, "The Emotions of the Minister," Pastoral Psychology, II, (No. 14, 1951), pp. 32-37.

Self-Disclosure Scale, Heilbrun's Defensiveness Checklist and the IPAT Anxiety Scale. Students will rate their own theological position and be categorized theologically by the Religious Belief Inventory. They will also complete a separate K scale. The results of this testing will then be compared with K scale scores drawn from their current MMPI profile scores.

Definition of Terms:

It would seem helpful to clarify some terms that will be used throughout this study in order that they may be understood.

1. "Defensiveness"--defensiveness will be viewed as a construct, an attitude, or a pattern of responses to certain threatening (actual or perceived) stimuli. It is a part of one's total personality functioning and is assumed to be reflected in, or be responsible for motivating certain types of behavior. One's conscious or unconscious willingness to distort, deny, or avoid responses that reveal the truth about him is an aspect of his personality. The tendency to conceal, deny, distort, or avoid responses that reveal certain "undesirable" parts of one's personality can be called defensiveness. We can view the defensive individual as described by Page and Markowitz as "one who fails to ascribe to himself characteristics of a generally valid but socially unacceptable nature."<sup>14</sup>

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<sup>14</sup>Dahlstrom and Welsh, p. 517.

2. "Normal"--in making an assumption concerning the normality of this unique population it would be important to have a common basis for viewing what is meant by the use of this term. In one sense the term normal is employed in its broadest context as in the original selection of populations in the development of the MMPI. By normal it is simply implied that this is a random personality group whose conflicts or behavior have not created enough stress or deviancy to require treatment or confinement.

3. "High K scores"--the arbitrariness of this phrase calls for specific definition. The MMPI Handbook quotes raw scores of from 8 to 15 points (T score of approximately 42 to 55) as being the typical normal range of K scores.<sup>15</sup> The range of 15 to 25 (T score 55 to 74) is where highly defensive normal subjects are known to appear and very high scores over 25 raw score points (T score of 75 plus) reveal extreme facades of adequacy and freedom from personal defects.

Although this population would be expected to have at least slight elevations because of its placement in the category of upper status college students, the term high K score will be used to identify persons whose K score is in the range defined by the Handbook to be in the range where highly defensive subjects appear, a T score of 55 to 74. More will be said of this in a later chapter

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<sup>15</sup>Ibid., p. 148.

when the subjects will be categorized into K score groups that will define a normal range, a high and low range, and extremes.

4. "Self-disclosure"--while there appears to be a self-explanatory dimension of this phrase let us specify its use in this context. "Self-disclosure" is used to define the process and/or the extent to which one reveals or makes known, or permits others to discover information about himself. It is the extent to which one permits himself to be known. The basic element of self-disclosure is awareness by others of who it is that we really are, our real selves, our spontaneous thoughts, feelings, values, wishes and actions that are a part of our being. It might be considered the equivalent of uncensored self. Self-disclosure can be considered as the antonym for repression or self-alienation. It is the free uninhibited expression of who one is. More will be said later when the theoretical bases of Jourard's scale are discussed.

5. "Openness"--openness is here used in the context of one's ability, capacity, or willingness to receive and integrate new information about one's self and his world. It refers to the flexibility of one's belief system, and is related to his tolerance. It speaks of the extent to which one is governed by internal self-actualizing forces rather than by irrational forces. The more open a person the clearer and more accurate is his perception of self and the world. This implies the ability to change, to grow, and

to mature with little resistance.

6. "Closedness"--this term is the adverse of openness. It speaks of an inability to allow new information, undistorted, about one's self and world into one's personality structure and belief system. This construct will be related to dogmatism, to rigidity, to intolerance and to action or belief based on inaccurate and prejudiced or distorted perception. More will be said on openness and closedness when Rokeach's dogmatism scale is discussed.

7. "Liberal"--the "liberal" will be defined as one who takes a naturalistic, rational approach to the Christian faith. He is one who tends to see man as the source and the object of faith.

This definition and label will result from two sources. One will be the student's own self-rating of his theological position. The other will be the result of, and be determined on the basis of his score on the Religious Belief Inventory in which a group of beliefs has been identified, judged, and validated as being characteristic of liberal theological views. These two indices will be correlated to insure that they may both be considered to describe the same phenomena.

8. "Conservative"--the "conservative" student is defined as one who tends to endorse the supernatural approach to the interpretation of the Christian faith. He tends to allow for the miraculous as a necessary and integral part of his faith. Rather than focusing on man he places God as revealed in Jesus Christ as

the source and object of his faith.

The "conservative" category will be given credence again by the student's own self-evaluation of his theological views. He will also be assigned this category on the basis of his score on the Religious Belief Inventory in which a group of belief statements have been identified, judged, and validated as being characteristic of a conservative theological view.

Theoretical Considerations:

Theories of personality tend to agree that certain behavior manifested by persons results from the existence of actual or perceived threat. The threat is viewed as having damaging or destructive effects on the personality, the self, or the ego, and is therefore handled in some manner that becomes a consistent pattern of response. This behavior is variously defined: as patterns of defense mechanisms by Freud and the psychoanalytic school,<sup>16</sup> security operations by Sullivan,<sup>17</sup> or preservation of the self by Rogers<sup>18</sup> and the school of phenomenology.<sup>19</sup>

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<sup>16</sup>Otto Fenichel, The Psychoanalytic Theory of Neurosis (New York: W. W. Norton and Co., Inc., 1945).

<sup>17</sup>Harry Stack Sullivan, The Interpersonal Theory of Psychiatry (New York: W. W. Norton and Co., Inc., 1953).

<sup>18</sup>Carl R. Rogers, On Becoming a Person (Boston: Houghton Mifflin Company, 1961).

<sup>19</sup>"Perceiving, Behaving, Becoming," 1962 Yearbook of the Association for Supervision and Curriculum Development (Washington, D.C.: Association for Supervision and Curriculum Development, 1962).



In the analytic framework defensive behavior is motivated by the external world which acts on the ego and compels it to develop repressing forces against the id. Defensive or protective attitudes are developed against painful perceptions and these defenses against perceptions and affects seem to be performed in the service of defense against instincts. Believing the instincts to be dangerous, the ego experiences their awareness as a need for defensive behavior. While anxiety may be partially reduced it will remain at a high but perhaps tolerable level until the instinct which gave rise to the anxiety is relieved through some type of discharge.

Self theory contends that tensions arise when the organism strives to satisfy needs not consciously admitted, and to respond to experiences denied by the conscious self. Anxiety is felt when the individual is aware of this tension or discrepancy. Sullivan states that anxiety appears when anything spectacular happens that is not welcome to the self.<sup>20</sup> Defensive behavior develops in order to maintain the structures of the self, and as Rogers suggests, the more perceptions of experiences inconsistent with the self there are, the more rigid is the organization of the self-structure. When the self cannot defend itself any longer against deep threats, a psychological breakdown or disintegration occurs.

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<sup>20</sup>Harry Stack Sullivan, Conceptions of Modern Psychiatry (New York: W. W. Norton and Co., Inc., 1953),

While wide divergences exist between theoretical frameworks with regard to origins and means by which emotional disorder develops and the appropriate corrective procedures to be undertaken, there is a reference in the concept of defensiveness to a general and common ingredient or construct of human personality. In the analytic school the development of defensive behavior is seen as flowing out of repression while phenomenologists attribute defensive behavior to the exclusion of experience from one's awareness. Differing conceptual characters are used here to describe the same basic process.

Defensiveness can be viewed as operating in the service of maintaining an integrating function to the ego or self. It attempts to reduce anxiety caused by conflict or the denial of experience in order to enable the personality to continue to function.

It becomes clear at this point that we expect the more rigid, closed, or dogmatic individual to be more defensive. He must deny to his awareness the eruption of instinct as the reality of his experience. Either the analytic framework or the framework of phenomenology becomes authenticated and relevant in this setting.

It also becomes clear that self-concept, acceptance of self, and the discrepancy between the real and the ideal self become reflective indicants of defensive behavior.

Both the analytic framework and the phenomenological

framework become relevant for this study because of the commonness of the dynamics used to describe the personality characteristic we refer to as defensiveness.

We can see more clearly then, the relationships we seek to validate. If our theory holds true we would expect that more defensive persons tend to be more closed or high in dogmatism, more concealed, i.e., reveal less of themselves to others, more rigid, i.e., inflexible, less satisfied with who they are, and less accepting of themselves and other people. If we can extend our theory to include an assumption about general belief systems, we would also expect those who are more conservative, theologically, to be more defensive and less open to change as well.

If we assume that the K scale accurately reflects what we have defined as defensiveness, then we would expect persons with high K scores to reflect the directions of the attributes we mention in the above paragraph.

### Hypotheses:

The hypotheses to be tested in this study are as follows:

1. The K scale is a measure of psychological health in a normal population.
  - A. High K scores will be positively related to high self-disclosure on Jourard's Self-Disclosure Scale.
  - B. High K scores will be positively related to openness or low dogmatism on Rokeach's Dogmatism Scale.

C. High K scores will be negatively related to defensiveness on Heilbrun's Checklist.

2. The K scale is a measure of self-concept and self-acceptance.

A. High K scores will be positively related to high self-concept and high self-acceptance.

3. The K scale is a measure of adjustment.

A. High K scores will be positively related to adjustment as measured by Bills' Index.

4. The K scale will differentiate persons with regard to religious belief.

A. High K scores will tend to reflect liberal theological position.

5. The K scale is a measure of ego strength.

A. High K scores will be positively related to high ego strength.

Assumptions:

This study is based on the following assumptions:

1. Protestant theological seminary students are a unique but a normal population.

2. It is important that clergymen who function in the realm of human dynamics and human need are of sound psychological health themselves.

3. The creative quality of relationships in which

clergymen engage is dependent on their own personality structure.

4. Openness, tolerance, flexibility, self-disclosure, and non-defensive behavior are positive qualities to be nurtured and developed.

5. The sample used is representative of protestant theological students in general.

Limitations:

1. The primary limitations of this study are the limitations of the testing instruments themselves. There are no presently available instruments that purport to tap the construct which we label "defensiveness." Inferences must be drawn from the theoretical structures provided. While this method is reputable and appropriate it nevertheless suffers from the danger of inferring inappropriately. Concurrent validity implies the use of other valid measures; it assumes that the measures concurrent with the instrument or data under examination have a meaningful and significant relationship to that instrument or data.

Perhaps the weakest instrument in use in this study is Jourard's Self-Disclosure Scale. While it poses only as a research scale and presumes only to be that, its very limited use and attempts at development and standardization impose limits on conclusions that might be drawn from its results. This is not considered detrimental to the study, however, since this instrument is not used in isolation.

Another limitation imposed on this study is that which is an integral part of all self-report inventories. The bias likely to originate from the tendency to "fake good," the invalidating effect of response set, or the tendency to give socially desirable answers will be somewhat operative in the results. It should be noted, however, that the development of the psychological instruments used in this study have also been conscious of, and concerned themselves with these effects in varying degrees in the development of the instrument. It is this very problem, the need to correct for such a tendency, that underlies the development of the K scale and is under investigation in this study.

A part of the assumption of this study is that if the K scale indeed measures such a construct of defensiveness through a self-report system then other self-report systems ought to confirm or deny such a proposition. It would be important to note that the participants in this study had no apparent cause to be threatened by the nature of the study. The respondents were instructed that all results would be reported anonymously and that their own careers would in no way be jeopardized by the results. The study was officially endorsed and made possible by their own academic and ecclesiastical groups. Participants were observed to appear positively motivated and unthreatened.

2. Only first year seminary students are included in this study. While this may appear to be a limiting factor it is considered

significant in that students are tested early in their seminary career before the impacts of curriculum and other experiences are able to make their mark on these people. It also has the advantage of making possible other studies that might measure changes which occur and seek to define the nature of these changes.

3. Selection error may be operative in this study. The method used to select this sample will be discussed under methodology.

4. Sample size may affect the theological dimension of the study since there are unequal numbers of students drawn from representative seminaries. If groups could have been equivalent in number better control of the theological dimension might have been exercised. This is not considered to be of crucial importance since theological position is determined by an inventory and a self-rating. Aside from this more empirical means of dichotomizing the sample into more liberal or more conservative groups there are valid and appropriate procedures to test the differences among groups of unequal size.

5. While labels are helpful for identification and classification it should be recognized that at best they are arbitrary and that there are no clear cut dimensions or boundaries. People within categories differ from one another. This study suffers from the limits imposed on all research that deals with the dynamic human personality.

**Organization of the Thesis:**

The structure of this dissertation is organized as follows:

Chapter I views the problem, its historical context and related questions of the study.

Chapter II involves a review of the literature related to the study and alludes to the theory undergirding the study.

Chapter III describes the methodology of the study and includes the theoretical consideration of the instruments used and the purpose of the study.

Chapter IV contains the analysis of the data and a report of the statistical results.

Chapter V which concludes the study is devoted to the summary statements and conclusions drawn on the basis of the study.



## CHAPTER .II

### REVIEW OF THE LITERATURE

This chapter seeks to review basic studies that deal directly with or bear some relationship to the K scale. Some deal directly with the K scale and measures of defensiveness while others declare properties of the K scale other than defensiveness. The value of the literature lies in its contribution to the theoretical structure of this study, the unfolding of significant implications for this study, and the inferential value to be gleaned.

This review focuses primarily on the K scale of the MMPI and related research. Some studies of significance that reflect on the relationship of personality and theological belief will also be uncovered.

A quick overview of research reveals a paucity in the area of defensiveness. One finds that there are little ongoing research efforts related to this construct. The difficulty of describing, identifying, and dealing with this construct of personality may be responsible.

#### Defensiveness and the K Scale:

Smith in his study of defensiveness sought to test out the

hypothesis that defensive individuals would be low in insight, using the K scale as a measure of defensiveness.<sup>1</sup> His conclusions were somewhat unexpected. He found that: "(1) Individuals who behave defensively in groups are low in insight. (2) The K scale is not an adequate measure of defensiveness on normal populations. (3) Greater caution should be exercised in the use of clinically derived measures on normal populations."<sup>2</sup> He determined that it is defensive for abnormal population subjects to obtain high K scale scores but was by contrast a sign of health for subjects in a normal population. High K scores actually seem to be related to accurate self-insight.

King and Schiller sought to test out the concurrent validity of the K scale by gathering data from a group of problem drivers who were administered a battery of tests in a real life setting which was conducive to eliciting defensive behavior. The conclusion drawn was that the pattern of correlations among the tests suggested the interpretation that high scores on the K scale are more closely related to one's level of ego strength than they are to defensive behavior.<sup>3</sup> This is something of a curious conclusion since one

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<sup>1</sup>E. E. Smith (Fels Group Dynamics Center, U. of Delaware), "Defensiveness, Insight and the K Scale," Journal of Consulting Psychologists, XXIII, (June, 1959), pp. 275-277.

<sup>2</sup>Ibid., p. 277.

<sup>3</sup>G. F. King and M. Schiller (Michigan State University), "A Research Note on the K Scale of the MMPI and 'Defensiveness'," Journal of Clinical Psychology, XV, (1959), pp. 305-306.

would expect some relationship between defensiveness and ego strength in that defenses require the presence of ego strength to maintain them.

Heilbrun sought to demonstrate that the assumption that K measures defensiveness in a normal population is not valid and that the K scale is rather a measure of health in a normal population. The results of his study were that K could be considered a measure of psychological health only in the case of females. The relation of the K scale to his check list suggested that the K scale was a better measure of defensiveness for more maladjusted subjects in a normal population than for better adjusted subjects in a normal population.<sup>4</sup>

That high K subjects tend to exhibit attributes viewed in a positive and healthy non-defensive framework is somewhat verified by Gough, McKee, and Yandell. In their Institute for Personality Assessment and Research study high K normal subjects were characterized as being enterprising, ingenious, resourceful, aggressive, clear-thinking, energetic, rational, versatile, and high in initiative. It should be noted, however, that these same subjects were also seen as immature, impulsive, outspoken, and tense significantly more often than subjects in general. There was also reported some tendency to rate them as more arrogant,

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<sup>4</sup>A. B. Heilburn, Jr. (State University of Iowa), "The Psychological Significance of the MMPI K Scale in a Normal Population," Journal of Consulting Psychologists, XXV, (No. 6, 1961), pp. 486-491.

clever, inventive, and quick.<sup>5</sup>

This evaluation was made in contrast to low K subjects who were rated as awkward, cautious, peaceable, inhibited, retiring, and shallow. They were seen as being slow in personal tempo, submissive and compliant in respect to authority, conforming, and neat in their manner of dress.

These same high K normal subjects were also viewed as taking an ascendant role in relation with others, competitive with peers, conversationally facile, with a tendency to be ostentatious and exhibitionistic. The picture given by these subjects is one of poise, reserve, and comfort in social relations. These people are reported as usually having the social skills and experience to carry off successfully the moment-to-moment requirements of a social situation, or if they have qualms and insecurities to cover them under a facade of imperturbability.<sup>6</sup>

This evidence gives a descriptive quality to high K subjects in a normal population but leaves one in something of a quandary with regard to the relationship of these personal qualities to defensiveness. One could make a case for either position.

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<sup>5</sup>H. G. Gough, M. G. McKee and R. J. Yandell, "Adjective Check List Analyses of a Number of Selected Psychometric and Assessment Variables." Officer Education Research Laboratory. Technical Memorandum, OERL-TM-55-10, (May, 1955).

<sup>6</sup>J. Black and D. Bailey, "Q-Sort Item Analyses of a Number of MMPI Scales." Officer Education Research Laboratory. Technical Memorandum, OERL-TM-55-7, (May, 1955).

Leary in describing a functional theory and methodology for personal evaluation made use of a hate-love dimension and the relationship between L (a validity scale which measures more naive distortions and defensiveness) and K scales in his evaluation. He found that an elevated K in conjunction with a low F (a validity scale designed to discover a failure to understand the questions, poor cooperation, or clerical error) indicated helpful, friendly, outgoing patterns.<sup>7</sup>

Perseveration measures imply a construct of rigidity or one's inability to shift. Weisgerber found that perseverative college students scored considerably lower on K than the more flexible students and appeared neurotic, socially nonparticipating and lacking in self-confidence.<sup>8</sup> This gives considerable credence to the notion that higher K subjects may indeed be more flexible and less dogmatic.

Some studies suggest that K is really a measure of psychological strength rather than psychological weakness. Wiener found that non-hospitalized veterans with schizophrenic episodes had higher K scores than a similar group who required care on an in-patient basis. He suggested the presence of a control factor

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<sup>7</sup>T. Leary, Interpersonal Diagnosis of Personality: A Functional Theory of Methodology for Personal Evaluation (New York: Ronald, 1957).

<sup>8</sup>C. A. Weisgerber, "The Relationship of Perseveration to a Number of Personality Traits and to Adjustment," Journal of Genetic Psychology, XXX, (1954), pp. 3-13.

that operated among the non-hospitalized patients and that the K score differences may in fact reflect this greater psychological stability.<sup>9</sup>

Sweetland and Quay in an experiment with hypnotic dreams discovered that symbolized dreams were produced by well-adjusted people rather than maladjusted people and that K scores correlated high with dream symbolization which was produced only by well-adjusted people. They discussed the possibility that the K scale measures something in addition to test-taking attitude and that K scores when within normal range may possibly be a measure of personality integration.<sup>10</sup>

Gowan in a study of education students at the University of California at Los Angeles whose K scores had a mean of 18.7 (T score 62) used the MMPI scales, the California Psychological Inventory, the Guilford-Zimmerman, and a Teacher Prognosis scale, and from the results suggested: "(1)K represents more than a test-taking attitude. (2) High K scores tend to distinguish individuals who are well-adjusted, responsible, controlled, possessed of security and status, characterized by a well-functioning ego, friendly, and non-extrapunitive. (3) Such persons are rarely found with elevations in the psychotic triad: K essentially means the

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<sup>9</sup>D. N. Wiener, "A Control Factor in Social Adjustment," Journal of Abnormal Social Psychology, XLVI, (1951), pp. 3-8.

<sup>10</sup>A. Sweetland and H. Quay (Florida State University, Tallahassee), "A Note on the K Scale of the MMPI," Journal of Consulting Psychologists, XVII, (1953), pp. 314-316.

opposite of these. (4) High K persons tend to be empathic and to make good counselors and teachers. (5) Moderate (T-65) elevations of K, characteristic of college students in general and teaching candidates in particular, is no indication of an attempt to 'fake good.'<sup>11</sup>

Comrey who has conducted factor analyses of the MMPI scales completed an analysis of the thirty items of the K scale and found eight factors which emerged with the following labels: cynicism, euphoria, shyness, hospitalization, hostility, family dissension, feelings of inadequacy, and worry. As a result of the analysis he concluded that "the present use of the K scale as a corrective device is regarded as undesirable."<sup>12</sup>

An interesting result of K scale scores came about in a study conducted by Fields in which applicants to the University of Arkansas medical school were given the MMPI. The 79 males who were admitted were given the MMPI again in the context of reduced stress. A comparison of the resultant profiles revealed no significant differences at the .01 level, except for the K scale which showed an increase in value significant at the .05 level on the

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<sup>11</sup>J. C. Gowan (Los Angeles State College, California), "Relation of the 'K' Scale of the MMPI to the Teaching Personality," California Journal of Educational Research, VI, (1955), pp.208-212.

<sup>12</sup>A. L. Comrey (University of California at Los Angeles), "A Factor Analysis of Items on the K Scale of the MMPI," Education and Psychological Measurement, XVIII, (1958), pp. 633-639.

second administration.<sup>13</sup> Less defensiveness and less anxiety would be expected yet K scale scores increased.

Collier who made one of the earliest studies on the K scale conducted a study which was largely inconclusive in terms of providing positive evidence of what K was meaning. She was able to discern though that the verbal behavior of K score deviants was a part of a long-standing, deeply ingrained personality characteristic rather than some constructed defense evoked out of the situation in which the subject was placed.<sup>14</sup>

Studies related to therapy are enlightening. One would expect persons with high K scores to be defensive and therefore resistant to therapy. Mick used the K scale as a measure of defensiveness and found a low correlation between the K scale and resistance to therapy.<sup>15</sup> Another inquiry by Sullivan, Miller and Smelser revealed that of two groups, the group of clients who stayed in therapy had higher K scores than those who left early.<sup>16</sup>

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<sup>13</sup>Sidney J. Fields, "Personality Inventory Profile During and After Real Life Stress," Journal of Medical Education, XXXIII, (1958), pp. 221-224.

<sup>14</sup>Mary E. Collier (Jeffrey), "Some Factors Influencing Answers on the Multiphasic K Scale," (unpublished Ph.D. dissertation, University of Minnesota, 1946).

<sup>15</sup>R. M. Mick, "A Study of Resistance During Psychotherapy," Dissertation Abstract, XVI, (1956), p. 1174.

<sup>16</sup>C. L. Sullivan, Christine Miller and W. Smelser, "Factors in Length of Stay and Progress in Psychotherapy," Journal of Consulting Psychologists, XXII, (1958), pp. 1-9.



The literature cited thus far would tend to support the notion that in a normal population the K scale scores are not measures of defensiveness. It must be made clear that while this research seeks to test such a hypothesis and is inclined to agree with this conclusion there is evidence existing which gives credence to an opposing hypothesis.

Dahlstrom and Welsh in their comment on accessibility state that the "K scale should be one of the first points in the MMPI to be examined in evaluating accessibility. Marked elevation on K is very frequently associated with guardedness and reserve. This defensiveness affects both the profile itself and the free and easy exchange of information in the usual diagnostic interview. Rapport with high K clients may be difficult and tenuous and often the clinician must struggle to circumvent the facade of personal adequacy and freedom from stress or difficulties that the client typically erects. This evasiveness in personal and emotional matters is in sharp contrast with the behavior of the low K client who often talks freely about his difficulties, complaints, insecurities and limitations."<sup>17</sup>

Palola, Jackson and Kelleher used the MMPI to measure defensiveness among active and inactive alcoholics. The results revealed that AA members had relatively higher self-protective feelings, i. e., they accepted the problem of alcoholism and

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<sup>17</sup>Dahlstrom and Welsh, pp. 277-278.

suicidal behavior, but were unwilling to admit any unhappiness with their lot in life.<sup>18</sup>

Page and Markowitz who investigated the relationship between defensiveness and rating scale bias found that subjects who were selected in part on the basis of their high K responses were likely to introduce a defensive bias in describing their reaction to failure. The persons tended to bolster sources of information which reflected favorably upon themselves while evaluating negatively sources of evidence suggesting their inadequacies.<sup>19</sup>

In the study quoted previously by Sweetland and Quay it was found that high K subjects avoided reporting extrapunitive material and had more "no feeling" dreams.<sup>20</sup>

The IPAR study by Gough, McKee and Yandell also cited above noted that high K subjects were reserved in their relationship to the interviewer and described them as difficult to approach, aloof, and unwilling to admit fault in self, in family, or in

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<sup>18</sup>E. G. Palola, J. K. Jackson, and D. Kellehen (University of Washington School of Medicine), "Defensiveness in Alcoholics: Measures Based on MMPI," Journal of Health and Human Behavior, II, (No. 3, 1961), pp. 185-189.

<sup>19</sup>H. A. Page and Gloria Markowitz, "The Relationship of Defensiveness to Rating Scale Bias," Journal of Psychology, XLI, (1955), pp. 431-435.

<sup>20</sup>A. Sweetland and H. Quay, "An Experimental Investigation of the Hypnotic Dream," Journal of Abnormal and Social Psychology, XLVII, (1952), pp. 678-682.

circumstances. There is a tendency to minimize, to tone down, to smooth over. For them hatred may be admitted as "not liking," fears take the form of "uneasiness" or being "bothered about," and extreme positions on almost any point are eschewed.<sup>21</sup>

Nakamura obtained differences between test and retest scores on the MMPI from 125 experimental subjects and 78 control subjects in a college population. The experimental subjects were those referred to the counseling bureau for violation of university regulations. The fact of referral for disciplinary reasons was considered a justifiable reason to warrant the assumption that the student would consider it to be to his advantage to present a good impression on the test. The results tended to support the validity of the K scale as a corrective measure for defensive test-taking attitude.<sup>22</sup>

One sees quite readily that there is an inconclusive characteristic to the research that deals with the K scale as it relates to defensiveness. A review of this literature declares that the weight of the evidence leans toward viewing the K scale as something other than a measure of defensiveness; however, the continuing review of related literature more persistently bears

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<sup>21</sup>Gough, McKee and Yandell.

<sup>22</sup>C. Y. Nakamura (University of California in Los Angeles), "Validity of K Scale (MMPI) in College Counseling," Journal of Counseling Psychology, VII, (1960), pp. 108-115.

out the notion of inconclusiveness.

The Relationship of Self-Concept to Adjustment, Defensiveness and the K Scale:

That self-concept, acceptance, and the self-ideal self discrepancy are significant measures of adjustment is an almost unanimous conclusion.

In a study of the relationship between self-portrayal and psychopathology Gavales found that self-ratings were more discriminative than clinical ratings on the more general and subjective characteristics of persons. Among patient groups there was a difference with regard to the accuracy of self-portrayal but normals were significantly more accurate than all diagnostic groups. His results supported the hypothesis that accuracy in self-portrayal is related to psychological health while inaccuracy and distortion are related to psychopathology.<sup>23</sup>

The major findings of a study by Calvin and Holtzman were:

(1) The tendency to enhance self is inversely related to maladjustment, the more poorly adjusted the individual, the more self-depreciative he appears. (2) Maladjustment as judged within a restricted normal range by an individual's associates is directly related to maladjustment as measured by a typical personality inventory such

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<sup>23</sup>Daniel Gavales (University of Houston), "Relationship Between Self-Portrayal and Psychopathology," Dissertation Abstract, XXI, (1961), p. 2001.

as the MMPI. (3) Individuals who manifest poor insight regarding their own level of adjustment are more likely to be maladjusted than are those who show good insight.<sup>24</sup>

That the correlation between the self-ideal congruence and total adjustment is positive and highly significant was borne out in a study by Hanlon, Hofstoetter and O'Conner. Using the California Test of Personality as the criterion for adjustment they concluded that the use of measures of self-ideal congruence in evaluating the extent of personality maladjustment appears justified. Maladjustment in an individual need not require that his self-concept be negatively related to his ideal self, it requires only that the correlation be minimal before signs of maladjustment are already considered manifest. A positive correlation of .27 between self-concept and ideal self warrants the judgment that maladjustment is present.<sup>25</sup>

Raymaker developed a modified self-concept measure and contrasted the self-concept and self-ideal descriptions on 60 college students and 40 delinquents. He confirmed the hypothesis that the discrepancy between the self-concept and the self-ideal concept is

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<sup>24</sup>A. D. Calvin and W. H. Holtzmann, "Adjustment and the Discrepancy between Self-Concept and Inferred Self, "Journal of Consulting Psychologists, XVII, (1953), pp. 39-44.

<sup>25</sup>T. E. Hanlon, P. R. Hofstoetter and J. P. O'Conner, "Congruence of Self and Ideal Self in Relation to Personality Adjustment, "Journal of Consulting Psychologists, XVIII, (1954), pp. 215-218.

associated with maladjustment. The greater the discrepancy the more marked the maladjustment. He also confirmed that the K scale related negatively to the magnitude of the self and self-ideal discrepancy. The K scale, he concluded, is associated with adjustment. It is significantly and inversely related to self-concept and self-ideal concept discrepancy scores.<sup>26</sup>

Block and Thomas used a self and ideal self sort as a measure of satisfaction with self and found a correlation of .33 with the K scale. The degree of self-satisfaction was found to be curvilinearly related to the social dimension of adjustment and the degree of self-satisfaction was found to be ordinarily related to the conceptual dimension of ego control.<sup>27</sup>

Using normal subjects also, Berger found a strong positive relationship between K score and the degree of self-acceptance. Self acceptance was declared most clearly and sensitively reflected in the K scale values. Males who had shown high acceptance of others had high scores on K and on scales one and

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<sup>26</sup>H. Raymaker, "Relationship Between Self-Concept, Self-Ideal Concept and Maladjustment" (Ph. D. dissertation, Vanderbilt University, 1956), Dissertation Abstract, XVII, (1957), pp. 409-410.

<sup>27</sup>J. Block and H. Thomas, "Is Satisfaction With Self a Measure of Adjustment," Journal of Abnormal Social Psychology, LI, (1955), pp. 254-259.

three.<sup>28</sup>

Taking three self-concept scales (Berger, Bills, and Phillips) Omwake concluded that there is a marked relation between the way an individual sees himself and the way he sees others. Those who accept themselves tend to be acceptant of others and to perceive others as accepting themselves. Those who reject themselves hold a correspondingly low opinion of others and perceive others as being self-rejectant. All these measures of self-acceptance agreed closely while attitudes toward others on the three scales agreed less well.<sup>29</sup>

The one study which even hints a word of caution concerning the self and ideal self discrepancy was conducted by Chodorkoff. Students were rated on clinical evaluations of projective and biographical material with regard to their adjustment. There appeared a curvilinear relationship between adjustment as measured by clinical evaluations and correspondence between the perceived self and ideal self. The most adjusted persons showed the greatest correspondence while the poorer adjusted showed the least

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<sup>28</sup>E. M. Berger, "Relationship Among Acceptance of Self, Acceptance of Others, and MMPI Scores," Journal of Counseling Psychology, II, (1955), pp. 279-283.

<sup>29</sup>K. T. Omwake, "The Relation Between Acceptance of Self and Acceptance of Others Shown by Three Personality Inventories," Journal of Consulting Psychologists, XVIII, (1954), pp. 443-446.

correspondence.<sup>30</sup>

Wylie who studied the relationship between defensiveness and self-concept discrepancies concluded that defensiveness will be a function of discrepancies with and/or discrepancies between the self-concept and the self-ideal concept rather than being predictable simply from the experimenter's knowledge of objective reality or from the subject's insight into objective reality.<sup>31</sup>

While Gough's study indicates that bright sophisticated subjects who want to make a favorable impression "stress, among other things descriptions of self as even-tempered, accepting, patient, unassuming, self-reliant, optimistic and conscientious,"<sup>32</sup> Rosen was able to confirm the fact that in this same normal group high K persons do perceive themselves as Gough described. He concluded, however, that high K subjects are not necessarily faking the pattern deliberately. The high K subject has a view of himself that is distinctly accepting and favorable and when he is asked to describe himself as favorably as possible he merely

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<sup>30</sup>B. Chodorkoff, "Adjustment and the Discrepancy Between the Perceived and Ideal Self," Journal of Clinical Psychology, X, (1954), pp. 266-268.

<sup>31</sup>R. C. Wylie, "Some Relationships Between Defensiveness and Self-Concept Discrepancies," Journal of Personality, XXV, (1957), pp. 600-616.

<sup>32</sup>H. G. Gough, "On Making a Good Impression," Journal of Educational Research, XLVI, (1952), pp. 33-42.



accentuates his usual self-description. Persons who on a regular administration of the MMPI had high K scores shifted relatively little from their self-descriptions to either of the instructions for ideal descriptions on the MMPI.<sup>33</sup>

Some lesser studies but with some significant results also verify the relationship of K and self-concept. Cuadra discovered a relationship between K and self-maintenance;<sup>34</sup> Gynther found that self-descriptions and the MMPI do agree;<sup>35</sup> Zuckerman and Monashkin found high self acceptance to be correlated with K in a group of psychiatric patients.<sup>36</sup> Piety found significant correlations between the favorability of self-concept descriptions and scores on the validity scales of the MMPI which, of course, includes the K scale.<sup>37</sup>

#### The K Scale, Intelligence and Socioeconomic Status:

Some attempts have been made to demonstrate the

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<sup>33</sup>E. Rosen, "Self-Appraisal and Perceived Desirability of MMPI Traits," Journal of Counseling Psychology, III, (1956) pp. 44-51.

<sup>34</sup>C. A. Cuadra, "A Psychometric Investigation of Control Factors in Psychological Adjustment" (Ph.D. Dissertation, University of California, 1953).

<sup>35</sup>M. D. Gynther (Washington University Medical School), "Degree of Agreement Among Three Interpersonal System Measures," Journal of Consulting Psychology, XXVI, (1962), p. 107.

<sup>36</sup>M. Zuckerman and I. Monashkin, "Self-Acceptance and Psychopathology," Journal of Consulting Psychology, XXI, (1957), pp. 145-148.

<sup>37</sup>K. R. Piety, "The Role of Defense in Reporting Self-Concept," Dissertation Abstract, XVIII, (1958), pp. 1869-1870.

relationship between intelligence and MMPI scores. Evidence is really inconclusive and contradictory, but it is generally agreed that correlations of intelligence with K and other MMPI scales are reflecting socioeconomic factors rather than intelligence. It should be mentioned, however, that in a study by Williams and Lawrence intelligence was found to be positively related to K.<sup>38</sup> Gough found that among males the most consistent correlations between educational level and the MMPI are those involving the F and K scales and scale 5. The high education groups earn lower values on L and higher ones on K and scale 5.<sup>39</sup>

Trumball studied the relationship between personality and intelligence and concluded that there are statistically significant relationships between those two factors.<sup>40</sup> Brower was able to find a slight relationship,<sup>41</sup> and Winfield found no relationship at all.<sup>42</sup>

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<sup>38</sup>H. L. Williams and J. F. Lawrence, "Comparison of the Rorschach and MMPI by Means of Factor Analysis," Journal of Consulting Psychology, XVIII, (1954), pp. 193-197.

<sup>39</sup>H. G. Gough, "Some Personality Differences Between High Ability High School Students Who Do and Do Not Go to College," American Psychologist, IX, (1954), p. 559.

<sup>40</sup>R. Trumball, "A Study of Relationships Between Factors of Personality and Intelligence," Journal of Social Psychology, XXXVIII, (1953), pp. 161-173.

<sup>41</sup>D. Brower, "The Relation Between Intelligence and MMPI Scores," Journal of Social Psychology, XXV, (1947), pp. 243-245.

<sup>42</sup>D. L. Winfield, "The Relationship Between I.Q. Scores and MMPI Scores," Journal of Social Psychology, XXXVIII, (1953), pp. 299-300.

It becomes apparent that any relationship that can be seen between intelligence and personality is more clearly and deeply related to socioeconomic factors which would affect opportunities for use of one's ability and personality.

Perlman made use of original data from subjects who were in the original Minnesota Normative group and learned that persons from the lower class had consistently received higher T scores on the clinical scales where scores resulted primarily through a willingness to admit symptoms. Denial patterns used by middle class persons resulted in lower scale values than those which were earned by presumably less defensive working class people. K scale scores were found to be significantly related to status. He also took different classes of adult normals and patients and found that the St scale correlated .53 with the K scale in both populations.<sup>43</sup>

The MMPI Handbook states that some variance on the K scale reflects socioeconomic status and an elevation of 55 or 60 T score points from a college student might be considered typical and not necessarily be an attempt to consciously deceive or cover up. It goes on to state that a general elevation such as found in college populations still reflects defensiveness but should be viewed as part of a general self-concept in which self-enhancement and personal reserve are but a part.<sup>44</sup> Evidence from several sources

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<sup>43</sup>M. Perlman, "Social Class Membership and Test-Taking Attitudes" (M. A. thesis, University of Chicago, 1950).

<sup>44</sup>Dahlstrom and Welsh, p. 145.

indicates that middle and upper class test subjects are more sensitive than lower class subjects to the unfavorable implications of what they say about themselves on the MMPI.

Nelson verified this observation in a study of social status and psychiatric syndromes. He concluded that lower status persons are generally freer from inhibition, self-constraint, and control than the person of higher status. The findings on the K scale had similar impact.<sup>45</sup> Schmidt indicates that the K factor aside from elevating rather than changing an MMPI profile contributes little if anything to differential diagnosis. He also noted that K may well be related to socioeconomic influence as there is a correlation of K with urbanization.<sup>46</sup>

The Handbook declares that "in low status subjects the K scores may be a part of the way he always thinks and talks about himself and his family, while in higher socioeconomic groups, in subjects who have been long conditioned to guard against saying or revealing things that might provide others with a basis for criticism or attack a low K score may reflect a marked departure from established patterns and habits... the average or below average

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<sup>45</sup>S. E. Nelson, "The Development of an Indirect, Objective Measure of Social Status and Its Relationship to Certain Psychiatric Syndromes" (Ph.D. dissertation, University of Minnesota, 1952).

<sup>46</sup>H. O. Schmidt (Norwich, Mass. State Hospital), "Notes on the MMPI: The K-Factor," Journal of Consulting Psychology, XII, (1948), pp. 337-342.

scores on K obtained from subjects of the higher socioeconomic levels have interesting and important implications. In a clinical setting one meaning of such a low K score is that the subject has found his various personality defenses useless or inadequate and is at that time relatively defenseless... In middle or upper status backgrounds low K scores are related to low ego strength, inadequacy of defenses and acuteness of psychiatric disturbances."<sup>47</sup>

It is curious to note two important phenomena. Since K as well as the clinical scales seem to vary and be affected by socioeconomic status one wonders what general changes in socioeconomic levels in our whole culture will bring in K scores. It would seem that significant changes in our socioeconomic level may indeed affect scores and the meaning attributed to scores on particular clinical scales. It is generally remarked that the description of character disorder of 25 years ago is radically different from character disorders created in and emerging from today's society. The importance of the nature of our culture may be of great importance in terms of its effects on MMPI results. As society and people change norms may also need to change.

Socioeconomic status has been demonstrated to be a crucial ingredient of K scale variance yet socioeconomic status cannot be assumed to be a static factor.

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<sup>47</sup>Dahlstrom and Welsh, p. 146.

The other important observation is that while we assume that the subjects are at least middle class by virtue of education, status, and profession and we have been concerned primarily with the meaning of high K scores, low K scores in this population will also be meaningful.

The K Scale, Ego Strength and Other Variables:

The relationship of K scale scores, ego strength, and defensiveness is an important relationship to consider. In the analytic framework the healthy personality is the personality with the strong ego, with the capacity to meet and pacify the demands of impulse and conscience, within the limitations of reality. In its attempt to meet the demands placed on it the ego will ultimately choose certain mechanisms to cope with anxiety created by the conflicts with which it must deal. Why the ego chooses certain defenses rather than others is not clear. But it is clear that the capacity to erect them, maintain them, or change them to more adequate or more appropriate means involves what we have called ego strength.

High K scores are generally related to high ego strength. In fact K scale values of psychiatric and counseling cases typically rise after successful therapy.<sup>48</sup> The implication of course is that successful therapy resulted in an increase in ego capacity or ego

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<sup>48</sup>Ibid., p. 147.

strength.

The study cited by Williams noted that patients who will tend to deny concern with themselves, dissatisfaction, pessimism, and worry achieve high scores on ego strength. The description of these persons as a factor correlated .51 with K and .71 with ego strength.<sup>49</sup>

Barron developed a scale that measures ego strength or general capacity for personality integration and learned that the only positive correlation he could find on the MMPI was that of .31 between his ego strength scale and the K scale. All other scales had negative correlations and he suggests that his scale picks up the general factor of psychopathology on the MMPI.<sup>50</sup>

Ends and Page in a study that examined the functional relationships among measures of anxiety, ego strength, and maladjustment concluded that ego strength may be measuring defenses against anxiety and depression and that the relationship between ego strength and adjustment is relatively constant.<sup>51</sup>

King and Schiller noted that in situations eliciting defensive behavior, the level of ego strength is related to the use of

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<sup>49</sup>Williams and Lawrence.

<sup>50</sup>Frank Barron (University of California at Berkeley), "An Ego Strength Scale Which Predicts Response to Psychotherapy," Journal of Consulting Psychology, XVII, (1953), pp. 327-333.

<sup>51</sup>E. J. Ends and C. W. Page, "Functional Relationships Among Measures of Anxiety, Ego Strength and Adjustment," Journal of Clinical Psychology, XIII, (1957), pp. 148-150.

rationalization as a defense mechanism rather than denial or projection.<sup>52</sup>

Kleinmuntz took 50 college students and rescored their MMPI for ego strength and K and found that both scales do tend to broadly discriminate between adjusted and maladjusted college students. The mean difference between the two groups was significant beyond the .001 level of confidence. Mean ego strength scores for the adjusted students was much higher than that of the maladjusted students; and the mean K scale score of the adjusted was also much higher than that of the maladjusted.<sup>53</sup> The correlation of .32 (high ego strength with high K) and .48 (low ego strength with low K) between ego strength and K for adjusted and maladjusted students respectively, lends additional evidence that ego strength is in some measure an index of defensiveness.

Therapy and prognosis studies bear out the importance and the relationship of ego strength, health and the K scale. Glasscock found that state hospital patients who showed high K and F scores on the MMPI obtained after admission were much less likely to leave the hospital on parole than other patients, or if paroled to

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<sup>52</sup>G. F. King and M. Schiller (Michigan State University), "Ego Strength and Type of Defensive Behavior," Journal of Consulting Psychology, XXIV, (1960), pp. 215-217.

<sup>53</sup>Benjamin Kleinmuntz (Carnegie Institute of Technology), "An Extension of the Construct Validity of the Ego Strength Scale," Journal of Consulting Psychology, XXIV, (1960), pp. 463-464.



stay out and make a successful adjustment.<sup>54</sup> Feldman suggested that initial values on K may bear a relationship to the way an individual reacts to treatment and the amount of benefit he obtains from it and that high values of L and K were indications of better prognosis.<sup>55</sup>

In thinking of ego strength the Handbook notes that the lack of defense and self discipline in the middle class subjects with average-below average K scores may be a distinct liability as clinical work with such a person proceeds to therapy.<sup>56</sup> The notion here is clear that persons with a low capacity for personality integration, those with low ego strength and low K, are not the most likely subjects to succeed in therapy.

The influence of response set and social desirability on the K scale of the MMPI is demonstrated by adequate research. Fricke offered a response set explanation to account for the repeated findings that relatively well-adjusted and successful persons obtain more abnormal scores on the subtle scales of the MMPI than maladjusted and unsuccessful persons. He assembled

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<sup>54</sup>E. M. Glasscock, "An Investigation of the Value of the MMPI as a Prognostic Instrument" (Ph.D. dissertation, Washington University, 1954), Dissertation Abstract, XV, (1955), pp. 874-875.

<sup>55</sup>M. J. Feldman, "The Use of the MMPI Profile for Prognosis and Evaluation of Shock Therapy," Journal of Consulting Psychology, XVI, (1952), pp. 376-382.

<sup>56</sup>Dahlstrom and Welsh, p. 146.

evidence through an analysis of the subtle and obvious scales which supported his formulation of a response set interpretation of the K scale. He confirmed his original suggestion that the K scale with 29 of its 30 items scored false was essentially a measure of the response set to answer false to personality test items.<sup>57</sup>

Hanley verified this notion and concluded that both acquiescence and social desirability play their part in the results.<sup>58</sup> Fordyce also found a high correlation between K and social desirability.<sup>59</sup>

Freedman, Webster and Sanford report a negative correlation between K and authoritarianism as measured by the California F scale.<sup>60</sup> Jensen also demonstrated a negative relationship between K and authoritarianism.<sup>61</sup> Inasmuch as

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<sup>57</sup>B. G. Fricke, "Subtle and Obvious Test Items and Response Set," Journal of Consulting Psychology, XXI, (1957), pp. 250-252.

<sup>58</sup>C. Hanley, "Deriving a Measure of Test-Taking Defensiveness," Journal of Consulting Psychology, XXI, (1957), pp. 391-397.

<sup>59</sup>W. E. Fordyce (VA Hospital, Seattle, Washington), "Social Desirability in the MMPI," Journal of Consulting Psychology, XX, (1956), pp. 171-175.

<sup>60</sup>M. Freedman, H. Webster and N. Sanford, "A Study of Authoritarianism and Psychopathology," Journal of Psychology, XLI, (1956), pp. 315-322.

<sup>61</sup>A. R. Jensen, "Authoritarian Attitudes and Personality Maladjustment," Journal of Abnormal Social Psychology, LIV, (1957), pp. 303-311.

authoritarianism and dogmatism are related we would expect a similar negative relationship.

Anxiety is also, curiously, not related to high K scores. While one would expect defensive persons to be anxious one can postulate that if defenses work at all there should be a reduction in anxiety level. Jensen's (above) study shows a high negative correlation ( $-.74$ ) between Taylor's Manifest Anxiety Scale and K. Martin found no relationship between anxiety and the K scale,<sup>62</sup> and Matarazzo found a high negative correlation of  $-.71$ .<sup>63</sup>

Chodorkoff set out to test two hypotheses: (1) The greater the degree of anxiety present in an individual the more defensive he will be, (2) the greater the degree of threat experienced the more defensive he will be. The author obtained perceptual defense scores from a word association test, an accuracy of Self Description Scores, the Elizer RCT Scale and seven of Eihlers signs to measure anxiety, but the results failed to support the hypotheses.<sup>64</sup>

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<sup>62</sup>Barclay Martin (University of Washington), "The Measurement of Anxiety," Journal of General Psychology, LXI, (1959), pp. 189-203.

<sup>63</sup>J. D. Matarazzo (Washington University, St. Louis), "MMPI Validity Scores as a Function of Increasing Levels of Anxiety," Journal of Consulting Psychology, XIX, (1955), pp. 213-127.

<sup>64</sup>Bernard Chodorkoff (VA Hospital, Dearborn, Michigan), "Anxiety, Threat, and Defense Reactions," Journal of General Psychology, LIV, (1956), pp. 191-196.

The following theoretical formulation of the relationship between anxiety, threat and defensiveness is suggested.

In a relatively normal group of subjects anxiety level and degree of defensiveness remain unrelated. The degree of threat is related to the extent of the reaction to threat, but is not related to the direction of that reaction, i. e. , sensitization or avoidance.

The direction of reaction to threat is, however, related to adjustment; the less adequately adjusted the individual, the more he will tend to avoid the threatening stimuli; the more adequate the adjustment of the individual, the more he will tend to sensitize to these. Sensitizing is less defensive behavior, avoidance is more defensive behavior.<sup>65</sup>

#### The Relationship of Religious Beliefs to Personality:

Saunders examined personality profiles of seminary students from a conservative and from a liberal theological seminary and reported the following results: (1) There is little difference in the personality profiles on three of the four scales between these two groups. They can be characterized generally as "extraverted" as opposed to "introverted," "feeling" as opposed to "thinking" in regard to making decisions, and as following "intuition" as opposed to "sensation" in their response

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<sup>65</sup>Ibid. , p. 195.

to stimuli. (2) The fourth scale does discriminate conservative from liberal students. Liberal students are less judgmental and open-minded; conservative students tend to be quick in forming judgments.<sup>66</sup>

In a more expansive study Ranck found support for his hypothesis that there would be a relationship between conservative religious belief and authoritarianism. The following personality characteristics were associated with students who had conservative religious beliefs: aggression and submission, racial prejudice, punitiveness, stereotypy, projectivity, and identification with power figures. Liberal students were found to display few characteristics in the above description.<sup>67</sup>

In another study that sought to find personality discriminations based on religious belief, Withrow was able to draw the following conclusions: (1) The two theological orientations are basically different in mood and concept. (2) Significant statistical differences exist between the conservative and liberal groups on five variables on the Edwards Personal Preference Schedule; Heterosexuality, Order, Deference, Intraception, and Abasement. (3) There is a

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<sup>66</sup>David R. Saunders, "Evidence Bearing on Use of the Myers-Briggs Type Indicator to Select Persons for Advanced Religious Training: A Preliminary Report," Research Bulletin (Princeton: Educational Testing Service, 1957).

<sup>67</sup>James G. Ranck, "Religious Conservatism--Liberalism and Mental Health," Pastoral Psychology, XII, (No. 112, 1961), pp. 34-40.

definite relationship between the statistical results and the theological emphases peculiar to each orientation.<sup>68</sup>

Abasement, introspection, identification with power figures, aggression and authoritarianism can be clearly presumed to be related to closed-mindedness, dogmatism, rigidity, and defensiveness. High K scores should reflect such tendencies and the K scale should discriminate according to personality based on religious belief.

#### Summary:

This chapter reviewed the literature concerning the K scale and the related variables under study. Studies on defensiveness and the K scale indicate that it is uncertain whether the K scale measures defensiveness in a normal population. High K scores were found to correspond to accurate self-insight, level of ego strength, psychological stability and personality integration, good adjustment, receptivity to therapy, and a likelihood of continuance in therapy. Other studies indicate that high K subjects are likely to be inaccessible, defensively biased, and defensive.

Studies related to self concept bear out the notion that the self-ideal self discrepancy is a measure of adjustment. Studies

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<sup>68</sup>Quentin Withrow, "A Study of the Possible Correlation Between Theological Orientations and Certain Variables of Personality" (unpublished Ph.D. thesis, University of Southern California, 1960).

relating self concept to the K scale indicate that K and self concept and self acceptance bear a positive relationship to each other ( .33). Defensiveness was found to be a function of self concept discrepancies, and high K subjects were seen to hold high views and high acceptance of themselves.

The evidence regarding the K scale and intelligence is inconclusive. It was held to be likely that intelligence measures are a function of socioeconomic status which does tend to reflect itself in the level of K scores.

Ego strength would appear to be related to K score levels. K values rose in clients who successfully completed therapy. Barron found a correlation of .31 between K and ego strength and a negative correlation of ego strength with every clinical scale on the MMPI. Studies reported that there appears to be a constant relationship between ego strength and adjustment.

The research on anxiety reflects the notion that there is no relationship between anxiety and K scale scores. There were some discriminations made between personality and religious belief but they were not supported with any measure of significance.

## CHAPTER III

### METHODOLOGY AND PROCEDURE

The design of this study emerges out of the findings, implications, and notions alluded to in the research studies reported in Chapter II. The design of this research will include a description of the sample selected, the instruments used for measurement, and the procedures to be used in making an analysis of the data which was collected.

#### The Protestant Theological Seminaries:

The population of particular concern in this study is that of protestant theological seminary students who are presently involved in their first year of theological study in some graduate professional theological seminary under accreditation of the American Association of Theological Schools.

The seminaries from which the sample was drawn were selected to represent some point or segment along a continuum of theological belief. It was determined to be important to select such a sample in order to be representative of the general population under investigation.

In order to control for geographical influences approximately



eight seminaries from various regions of the country were scanned for an analysis of the states which might be represented by the students in that particular school. It was found, almost without exception, that at least one half of the students in a particular school came from a state or region other than that in which the seminary was located. In each case there appeared to be a diversity of regions and states represented in any particular seminary.

While there may be some exceptions to what was uncovered, especially among denominational bodies whose strength or prominence has a geographical limitation, that was not considered particularly significant. The evidence furnished by this exploration was adequate to justify a study conducted within a single region, the Midwest, which could be held to be representative of the United States as long as the schools selected were divergent with regard to theological belief.

#### Sample Selection:

The first step in the selection of the sample was to consider seminaries in the Midwest and rate them according to whether their traditional theological position was considered conservative, moderate, or liberal. Six schools were selected with two schools judged to represent each of the three positions on the theological continuum. Three schools were selected from among the six and were to be contacted and asked to participate in the study. Each

of the other three schools were auxiliary and to be used in the event that the first seminary of their particular theological tradition would not agree to participate.

Next a check of the accuracy of the ratings of the traditional theological positions was made on three scales of the Theological School Inventory designed by Education Testing Service which are known to discriminate persons on a theological continuum. Mean scores on the FL (Flexibility), CC (Concept of Call), and SL (Special Leading) scales were used to test the prior judgment and the prior judgments were confirmed by the mean scores on these scales.

It was determined that each of these seminaries made use of the MMPI as a standard testing instrument for all of their entering Junior class (first year seminarians) in the fall of 1964.

The Presidents and/or Deans of Western Theological Seminary, in Holland, Michigan, of the Reformed Church in America; United Theological Seminary in Dayton, Ohio, of the Evangelical United Brethren Church; and McCormick Theological Seminary in Chicago, Illinois, of the United Presbyterian Church, U.S.A. were then contacted and made aware of the nature of study. All three schools agreed to participate in the research.

TABLE 3:1

SEMINARIES INCLUDED IN THE SAMPLE

Seminary	Theological Position Assigned	Number of Students
Western	Conservative	22
United	Moderate	38
McCormick	Liberal	30
	Total	90

The next step in the selection of the sample was to limit the sample to male, first year seminary students whose academic program was designed to fulfill all the requirements for the Bachelor of Divinity degree. Only males were used because there is a known variance in male and female norms and the data would be more accurate if confined and limited to a sample of males only. Separate data and analyses would be necessary if females had been included. First year students were selected first of all because they were likely to be more heterogeneous at the outset of their seminary experience than at the conclusion or at any point in between. There is a press toward conformity and homogeneity, a regression toward the mean, that results from a communal type of life and experience. This group would also be largely free from influences of curriculum, clinical training, pastoral experience, etc., which would presumably tend to press the individual toward a more open,

empathic, questioning posture. A third reason is that this also opens an opportunity for research on this same sample at the conclusion of their theological training or at any point in the future. In effect, a longitudinal opportunity is established.

Next, testing times were arranged for all of the first year seminarians to be administered the tests. This occurred in each seminary at approximately the end of the first half of the year. The writer personally administered the instruments to the subjects with standardized instructions and testing conditions. A small number of students in each seminary, who could not be present for the group testing, were administered the tests at a later time under the same standardized instructions by the administrative Dean or testing director of the seminary. The standardization of instructions and administration of the tests was accomplished in order that error variance that might result from differences in presentation or administration might be controlled.

#### Dimensions of the Sample:

There was a total of 100 students who were enrolled in the three seminaries as Junior males working toward the B.D. degree. Of this number 90 actually completed all of the tests which were administered. Table 3:1 reflects that information. This represents 90 percent of the total possible and available sample selected. It can be readily seen that the participation was not selective but

generally inclusive. The few students who did not participate in the study who were enrolled in the seminary as Juniors were unable to participate because of health and medical reasons, or because of their unavailability.

In every case in which students did not participate in the study judgments were made by the administrative officials regarding their non-participation. It is unfortunate that they are not a part of the study because it may be that these persons represent particular defensive patterns or behavioral reactions that are crucial ingredients of the study itself. Greater accuracy would have resulted from their inclusion and a greater certainty regarding the results could have been obtained.

Since the researcher was present during the administration of the instruments used in the study it was possible to check over the answer sheets as they were completed and minimize errors, omissions, or other contaminating effects.

The educational level of these students is considered a constant since the standard requirement for admission to a graduate theological seminary accredited by AATS is the completion of four years of college. Experience in the ministry would be similar since none of the persons would be likely to be in seminary if they had already met the requirements for ordination. There is a variable of age in this sample. The age range is from 21 to 42. The mean age is 25.6. However, it should be noted that 87 percent of the

sample falls within the age range of 21 to 31. This would indicate that the sample consists primarily of a single generation and that the effects of age on the results is minimal. Another variable is that of the marital status of the subject. Of the total sample 45 are single and 45 are married. Each of the seminaries had a nearly equal number of single and married students. While marital status is not considered a crucial variable it is necessary for the application of normative data. The effect of marital status is considered negligible.

#### Liberal and Conservative Subjects:

This sample was selected with the intention of having a continuum of theological belief represented. In order to provide for this seminaries judged to fall at a particular location on the continuum were selected. While the theological reputation of a seminary becomes a source of identity of a subject with a theological position other factors are also of importance. In order to locate one's position theologically it is not sufficient to choose certain known traditional schools and expect them to be representative. Some more adequate empirical criteria must be used. It is possible, for example, that some subject of a liberal theological position may be studying at a traditionally conservative seminary.

In order to provide an empirical basis of assigning persons to a conservative or liberal theological category two indices were

used. On a Data Sheet each subject was asked to identify what he considered to be his own theological position by evaluating whether he considered himself in the conservative or in the liberal stream of theological position. Then subjects completed the Religious Belief Inventory<sup>1</sup> (RBI) to identify their position on the conservative-liberal continuum.

An accurate picture of representative theological positions was considered reflected in the selection of the sample, from the self-ratings, and from the scores of the RBI. A fairly precise assignment of persons to conservative or liberal categories could be achieved on a fairly sound empirical basis.

#### The Religious Belief Inventory:

The Religious Belief Inventory was developed by Toch and Anderson to describe the content and nature of religious belief and to investigate the nature of the relationship between belief and denominational affiliation and the nature of changes that occur in religious belief. Its original structure provides for the identification of four religious classifications within the two major divisions of conservative and liberal. The conservative group includes the orthodox and fundamental while the liberal includes liberal and secular. Whereas this study is concerned with reflecting a continuum

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<sup>1</sup>Hans H. Toch and Robert T. Anderson, "Religious Beliefs and Denominational Affiliation," Religious Education, (May-June, 1960), pp. 193-200.

rather than a category this instrument was scored to reflect only the degree of conservatism or liberalism.

Statements of belief were constructed by the author under the headings of major doctrinal concerns. These items were screened and pre-tested by a judgment of clergy as to whether the item reflected conservative or liberal belief, and there emerged a unanimous judgment on 101 items. A check of these items in another area with another group of clergy yielded the same results. Then a short form of 60 items was constructed that represented relatively pure expressions of the dimensions under study. This Inventory of 60 items was the instrument selected for use in this study.

#### The K Scale:

The MMPI which had been administered to these subjects was completed just prior to the beginning of the fall term of 1964, or during the fall orientation period. While the reliability of the K scale is reported as .76 it was felt important and helpful to extract the K scale from the test booklet and administer it as a separate scale at the same time that the other testing instruments were being completed. If reliability measures hold up and the effect of drawing out the scale by itself can be considered minimal it is considered desirable to have a K score secured under the same personal and non-personal testing conditions in which the other scores are



secured. Since we are testing concurrent validity even more credence is given to the practice.

The reliability of the K scale between these two testing periods is .66. Since this figure is not significantly different from the reported reliability of the K scale and the difference may be accounted for merely by the time span, the separate K results are considered appropriate. In this study, however, the analyses will be made on both K scale scores for each subject.

Preference will be given to the separate K scale scores since they were received at the same testing time as the scores on the other variables were received and also because scores on this separate administration are available on all subjects. Hypotheses will be tested on the separate K scale scores.

TABLE 3:2

A REPORT OF DIFFERENCES ON THE  
TWO ADMINISTRATIONS OF THE K SCALE

Measures	Separate K	MMPI K
Mean	61.057	59.333
Standard Deviation	7.452	8.575
Variance	55.525	73.533

The Dogmatism Scale:

The form of the Dogmatism Scale used as developed by

Milton Rokeach includes the last and latest revision of 40 items plus the 22 items of the Gough-Sanford rigidity scale now known as the flexibility scale of the California Psychological Inventory with 14 additional dummy items.<sup>2</sup>

This Dogmatism Scale was revised progressively in order to bring about an increase in reliability and to include the refinements in the thought and experience of the authors. While the original scale consisted of 66 items the revisions resulted in the use of the best 40 items. This form was found to have corrected reliabilities of .81 for a sample of English colleges (n-80) and .78 for English workers (n-60). Other studies with samples of subjects at Ohio State University and Michigan State University and a Veterans Administration domiciliary report reliabilities which range from .68 to .93.

The authors consider the reliability quite satisfactory since the scale includes a collection of diverse items that appear largely unrelated. Item analyses bear out the fact that subjects agree or disagree with these items in a consistent manner and show that high and low dogmatism subjects have a consistent and significant difference in their responses to a majority of the items.<sup>3</sup>

The authors made use of two methods to establish validity:

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<sup>2</sup> Milton Rokeach, The Open and Closed Mind (New York: Basic Books, Inc., 1960), p. 89.

<sup>3</sup> Ibid., p. 90

(1) validation by the method of known groups and (2) validation through theoretical considerations. Three hypotheses were constructed to test out the validity: (1) That dogmatism is related to some independent measure of authoritarianism, (2) that the relation of dogmatism to opinionation ought to be a function of positive relations to both right and left opinionation and (3) that the greater the pressure toward commitment, the greater the dogmatism and opinionation.

A test of the hypothesis determined that (1) The Dogmatism Scale measures authoritarianism to the same extent as the F scale but does it independently of the left-right continuum; (2) Dogmatism is relatively independent of position left or right on a continuum and intolerance is positively related to it; (3) General authoritarianism and intolerance were reflected in the Dogmatism Scale and the differences in amount of pressure exerted in different groups played an important role in determining dogmatism and opinionation.

The primary purpose of this scale then is to measure differences in the open or closed nature of belief systems, general authoritarianism and general intolerance.

For the purposes of this study it is important to note the significance of dogmatism and its relationship to defensiveness. The thought of Rokeach and the underlying foundation of this scale declares that threat leads to dogmatism in individuals and thus to institutions. In any individual "the more closed the belief-disbelief

system, the more do we conceive it to represent in its totality, a tightly woven network of cognitive defenses against anxiety. . . Indeed we suggest that, in the extreme, the closed system is nothing more than the total network of psychoanalytic defense mechanisms organized together to form a cognitive system and designed to shield a vulnerable mind."<sup>4</sup>

It should be apparent now that if the K scale does measure defensiveness we would expect a correspondence between high dogmatism and high K scores. We would also anticipate that the more conservative or more radically liberal the individual the more likely is his belief system apt to be closed and therefore appear higher in dogmatism.

The Gough-Sanford Rigidity (Flexibility) Scale:

The development of this Flexibility Scale now incorporated as a part of the California Psychological Inventory<sup>5</sup> was accomplished through the technique of internal consistency analysis. Items were assembled which had some theoretical or predicted relevance to a trait of personality or behavioral pattern. Each item is then given a scoring weight by the experimenter. Then this group of items is administered to sample subjects and scores are given. Those with

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<sup>4</sup>Ibid., p. 70.

<sup>5</sup>Harrison G. Gough, California Psychological Inventory Manual (Palo Alto, California: Consulting Psychologists Press, Inc., 1957).

both the high and the low scores are identified. Then an analysis is made to sift out those items which best discriminate between the two extremes in the sample. The best items are then incorporated into the final version of the scale.

There is always a danger that the scorer might make a wrong decision either about the inclusion of an item in the preliminary scale or about how the item should be scored. This is an inherent limitation of the technique of internal consistency. However, careful checks were made on the Flexibility Scale to determine its empirical validity. Subjects were secured by nomination and other non-test methods and the power of the completed scale to identify these subjects was studied. An acceptable level of validity resulted.

Two University of California samples were used to establish validity. In a sample of 40 graduate students there emerged a correlation of  $-.48$  with a staff rating of rigidity. In another sample of 40 medical school seniors there resulted a  $-.36$  correlation of this scale with a staff rating of rigidity. A testing of a group of 180 college students resulted in a correlation of  $-.58$  with the California F (Authoritarian personality) scale.

Reliability measures for this scale come from two studies conducted with over 200 high school juniors. Using the test retest method, with a one year lapse and an oral and written administration, coefficients of  $.67$  and  $.60$  were produced with females and males, respectively. A coefficient of  $.49$  resulted from a group of 200

prisoners with a lapse of from 7 to 21 days.

High scorers tend to be seen as "insightful, informed, adventurous, confident, humorous, rebellious, idealistic, assertive and egoistic; as being sarcastic and cynical; and as highly concerned with personal pleasure and diversion."<sup>6</sup> Low scorers tend to be seen as "deliberate, cautious, worrying, industrious, guarded, mannerly, methodical and rigid; as being formal and pedantic in thought; and as being overly deferential to authority, custom and tradition."<sup>7</sup>

This scale called Flexibility is designed to indicate the degree of flexibility and adaptability of a person's thinking and social behavior. It can be more clearly seen that persons who tend to be more rigid will also appear as more defensive. One will come to expect that if indeed rigidity is related to defensiveness then a highly rigid person will be more highly defensive.

Bills' Index of Adjustment and Values:

The underlying theory of Bills' Index of Adjustment and Values<sup>8</sup> suggests that one's behavior is generally consistent with one's perceptions about the world in which he lives, and that one's

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<sup>6</sup> Ibid., p. 13.

<sup>7</sup> Ibid.

<sup>8</sup> Robert E. Bills, Index of Adjustment and Values--Adult Form (University, Alabama: University of Alabama).

behavior is the effort which a person makes to maintain or enhance his self organization. Much of a person's behavior is aimed at bridging the gap between the present organization of his self and the view he holds of himself, ideally. Both personal dissatisfaction and personal maladjustment result when there is a sufficient discrepancy between who one thinks he is and who he would like to be.

Another dimension of adjustment is reflected in relationship to one's peers in which an individual may perceive himself as being more or less adequate than his peers. Good social adjustment results from a combination of high self-perception and a similar perception of other persons. Persons who are well adjusted socially cannot be maladjusted personally.

This instrument is designed to measure self concept, self acceptance, one's concept of his ideal self, the discrepancy between the self concept and the concept of his ideal self, and perceptions of other people and how they accept themselves.

The Index of Adjustment and Values (IAV) makes use of a Likert type rating method employing a five-point scale. The values are used as numerical weights to arrive at a total score.

The reliability of this instrument was established by the split-half and test-retest methods over a six week period of time. All reported coefficients were significantly different from zero at less than the .01 level. An odd-even corrected reliability of .91 is

reported for the acceptance of self scores and .88 for the discrepancy score on a sample of 237 students. On a sample of 175 students the test-retest results after six weeks produced a coefficient of .83 for acceptance of self and .87 for the discrepancy scores. With a group of 100 college students an odd-even corrected reliability of .53 was found for the perceived self and a coefficient of .77 for the ideal self. The test-retest reliability on another group of 160 students was .90 for the perceived self and .92 for the ideal self.

This instrument was constructed through a selection of certain self descriptive words found in Allport's<sup>9</sup> list of traits. The attempt was to secure words born out from client-centered interviews that were meaningful to persons. The original list contained 124 words which was further refined by eliminating words which produced variable results from a first to a second administration with the same group of subjects. The result was the retention of 49 words which compose the present index.

Aside from the beginning effort in establishing content validity in the construction of the index, there are concurrent validity studies reported. Small but significant correlations are established with the Phillips Questionnaire, the California Test of Personality and the Washburne S-A Inventory. The self scales of

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<sup>9</sup>G. W. Allport and H. S. Odbert, Trait Names: A Psychological Study," Psychological Monographs, (1936), No. 211.



the IAV and the Berger scales reflect an average but significant correlation. A test of subjects with the Rorschach resulted in the confirmation of the fact that subjects who are high in acceptance of self are distinguished from subjects who are low in self acceptance on Rorschach characteristics. Studies related to the IAV also establish the validity of the IAV as a measure of certain personality constructs. Renzaglia concluded that reliable and valid samples of the self concept, self satisfaction, and the ideal self concept can be elicited from this instrument.<sup>10</sup>

Heilbrun's Defensiveness Scale:

Heilbrun developed a Defensiveness Scale<sup>11</sup> from the Adjective Check List (ACL) by taking the self description of a group of subjects at the maladjusted end of a normal population adjustment range. This involved 50 male college students who sought help for personal adjustment problems at the counseling service. Their self descriptions were scored for the number of adjectives that were included in a group of 75 judged to reflect most favorably on the endorser and 75 judged to reflect least favorably on the subject. A favorability count was arrived at by subtracting the unfavorable

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<sup>10</sup>G. A. Renzaglia, "Some Correlates of the Self Structure as Measured by an Index of Adjustment and Values" (unpublished Ph.D. dissertation, University of Minnesota, 1952).

<sup>11</sup>Harrison G. Gough and Alfred B. Heilbrun, Jr., Adjective Check List Manual (Palo Alto, California: Consulting Psychologist Press, 1965).

from the favorable. It was assumed that subjects who gave more favorable self descriptions represented a more defensive group since all subjects were maladjusted. After chi-square analysis was made to determine which adjectives of the 300 discriminated in a reliable fashion between high-low favorability subjects, 61 adjectives emerged. This new group was cross-validated on a new sample and 28 adjectives were found to have discriminating power.

The reported reliability of this scale for male college students is .67 on a 10 week test-retest procedure. A validity attempt was conducted by scoring the scales on the ACL administered to normal subjects under a standard condition, a defensiveness-inducing condition, and an ideal self description condition. It was postulated that if this scale measured defensiveness there would result a progressive increase over these three conditions. The increase did appear. In order to determine whether adjustment rather than defensiveness was being measured, the Defensiveness Scale means of poorly adjusted counseling service males were compared to the scale means of the normal group and the means were almost identical indicating that Defensiveness Scale scores are not measures of adjustment level.

High scorers on this scale are apt to be self controlled and resolute in both attitude and behavior and insistent and even stubborn in seeking their objectives. Low scorers tend to be anxious and

apprehensive, critical of self and others, and given to complaints about their circumstances. They have more problems with their peers and tend to dwell on them and give them the center of their attention.

Jourard's Self-Disclosure Scale:

Self-disclosure consists essentially of the process of making the self known to other persons, persons to whom one communicates information about oneself. Jourard contends that accurate portrayal of one's self to others is an identifying characteristic of healthy personality, and that neurosis or maladjustment result from and is related to the inability of an individual to know his real self and to make it known to others. The self-other process (self-disclosure) is a crucial ingredient of self knowledge and self awareness.

Jourard constructed a sixty item questionnaire (the Self-Disclosure Questionnaire)<sup>12</sup> with ten questions in each of the categories of information revealed in the areas of attitudes and opinions, tastes and interests, work (or studies), money, personality, and body. A Likert type rating scale is used for responses which are totaled and yield a self-disclosure score. Seventy unmarried college students of both sexes were used to test out the reliability of the questionnaire. Using the odd-even method of split reliability there emerged a resultant correlation of .94 which was considered

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<sup>12</sup>Sidney M. Jourard, The Transparent Self (Princeton, New Jersey: D. Van Nostrand Co., Inc., 1964), p. 160.

adequate support for the contention that the subjects were responding in a consistent manner over all target persons and all aspects of the self. No validity measures are reported. The only suggested validity is that of theoretical formulation and face validity.

The contention maintained in this study in the use of this scale is that persons who are high in self-disclosure will tend not to be defensive and that defensive persons will tend to be low in self-disclosure.

IPAT Anxiety Scale:

The IPAT Anxiety Scale<sup>13</sup> was developed to provide a means of securing clinical information about anxiety rapidly, objectively, and in a standard fashion. From a sixteen major dimension category of four to five thousand personality items forty items were sifted out in five categories, twenty of which manifestly refer to anxiety in an overt, conscious, symptomatic manner, and twenty of which are more cryptic hidden probes. Responses are keyed to the nature of the question and are each assigned a weight. A total anxiety score and sub-score for each category of defective integration, ego-weakness, suspiciousness, guilt proneness, and frustrative pressure are yielded.

Two types of validity are reported (1) construct or internal

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<sup>13</sup>R. B. Cattell and I. H. Scheier, Handbook for IPAT Anxiety Scale Questionnaire (Champaign, Ill.: Institute for Personality and Ability Testing, 1963).

validity and (2) external validity, that of psychiatric evaluation of anxiety. In reporting construct validity, use is made of factor loading, correlation of items with the total score, and emergence of a common factor in the items. These three methods of testing construct validity are reported as .85 to .90. The external validity measure consists of consensus of psychiatric diagnoses as to anxiety level which correlates higher with these test scores than any other known personality factor. Correlations fall between .30 and .40. This is considered high with the low inter-clinical reliability that exists. A comparison of normals (n-795) with out patient anxiety hysterics and anxiety neurotics (n-59) reveals a difference of about 20 raw score points.

Reliability studies produce coefficients on a test-retest method over one and two weeks of .93 and .87, respectively. This is considered the most important measure since the anxiety level is expected to fluctuate over periods of time. Split-half techniques reflect reliability coefficients ranging from .80 to .91. A study of medical students who have a restricted, collective range of anxiety relative to the general population had a coefficient of .60 over a two year interval. This would indicate that while appreciable changes can occur in a person's anxiety level, there is a strong tendency for a person to persist at his earlier levels.

This measure of anxiety is included in this study to discover whether there is any relationship between anxiety and defensiveness

and the other variables that are being measured. It is also included because a subscale is a measure of ego strength.

Hypotheses to be Tested:

The instruments discussed in the preceeding portions of this chapter will be used to test the following hypotheses and to provide some meaningful basis for understanding what it is that is being reflected in K scale scores.

The hypotheses to be tested in this study are as follows:

1. The K scale is a measure of psychological health in a normal population. The specific means of testing this hypothesis will be to test out the relationship of self-disclosure, openness (low dogmatism) and defensiveness as they relate to scores on the K scale. It is assumed that self-disclosure and openness are positive measures of psychological health and that non-defensive behavior also has a positive relationship to psychological health. Defensive behavior is presumed to result from the need to check repressed impulse in the analytic school and the failure to integrate information about one's self and the world in the phenomenological school. Both imply and suggest the absence of adequate or appropriate means of dealing with conflict.

2. The K scale is a measure of self concept and self acceptance. It is hypothesized here that those subjects who receive high K scores will also be subjects who hold a high self concept and who maintain

a high level of self acceptance.

3. The K scale is a measure of adjustment. As it was stated in a prior section, the discrepancy that exists between one's self concept and his ideal self is a measure of adjustment. What is hypothesized here is that high K scores will be related to better adjustment as measured on Bills' IAV.

4. The K scale will differentiate persons with regard to religious belief. It is hypothesized that high K scores will tend to reflect a liberal theological position.

5. The K scale is a measure of ego strength. The hypothesis suggested here is that there will be a positive relationship between high ego strength and a high K score.

#### Analysis of the Data:

There will be several common statistical models that will be used in this study to test these hypotheses and give meaning to K scale scores in this population.

The first statistical model to be employed and the one used to test the hypotheses will be that of Pearson Product-Moment Correlation Coefficient. This model is considered the most appropriate model because of the precision it provides in testing out the relationship of one variable to another. It was decided that any models which would require that the data be grouped would tend to cloud rather than clarify the relationships, at least in the initial

analysis.

The next statistical means that will be used to analyze the data is that of multiple regression analysis. This method of analysis will be used to determine whether any relational values lend themselves to predictive purposes. If any of these variables have a predictive relationship to K scale scores the results of this analysis will indicate that fact.

Two additional analyses will be made. Since there are three seminaries used in this sample which were selected because they represented a liberal, moderate, or conservative position on a theological continuum, an analysis of variance will be made on all variables to test out whether there are significant mean differences between the groups on the variables used in this study.

An analysis of variance will also be conducted on defined K categories on all the variables used in this study to determine whether there may be said to be characteristic differences between different K groups. The analysis will be run on the separate administration of the K scale which was a part of the test battery. A grouping of K scores will be made. The results of the separate administration of the K scale will be categorized (or grouped) according to groupings suggested for interpretation purposes in the MMPI Handbook.

The K groupings are as follows:



TABLE 3:3  
HANDBOOK GROUPINGS OF  
K SCALE SCORES

Handbook Categories	
K Values <sup>a</sup>	
Extreme	75 and over
High	56 - 74
Normal	42 - 55
Low	0 - 41

<sup>a</sup>T scores

Hypotheses will be tested on the basis of K categories suggested in the Handbook.

Finally an item count will be made on the K scale on the separate administration only to determine whether there are particular preferences made with respect to the items of affirmative or negative responses.

Because of the low reliabilities of some of the instruments and the variance caused by basic and subtle differences in human personality a .10 level of significance is selected as an appropriate level of confidence for the acceptance of the hypotheses.

### Summary:

In this chapter we have made an examination of the methods to be followed in conducting the study. A sample selection was made which was considered representative of the population under study. Schools were selected to represent a theological continuum

from liberal to conservative. Geographical and denominational factors were given careful consideration.

The subjects were tested with instruments selected to reflect certain variables considered of importance for an evaluation of the meaning of K scale scores in this population. These included a separate K scale, a Religious Belief Inventory, Rokeach Dogmatism Scale, Heilbrun's Defensiveness Scale, Bills' Index of Adjustment and Values, Jourard's Self-Disclosure Scale and the IPAT Anxiety Scale.

Then the hypotheses were restated and the methods to be used in the analysis of the data and the testing of the hypotheses were outlined. This included the Pearson Product-Moment Correlation, multiple regression analysis, an analysis of variance on seminary groups, and an analysis of variance on K scores as grouped for interpretation in the Handbook. All hypotheses were to be tested on the separate K groups.

## CHAPTER IV

### ANALYSIS OF RESULTS

Hypotheses regarding the relationship of K scale scores and psychological health, self-disclosure, dogmatism, defensiveness, self concept, self acceptance, adjustment, religious belief, and ego strength were examined in this study in a sample of first year protestant theological seminary students selected to represent positions along a theological continuum.

Each of the hypotheses and problems relevant to the hypotheses were tested statistically with models that would treat the data in a meaningful manner.

#### Hypotheses:

The following hypotheses were tested in this study:

1. The K scale is a measure of psychological health in a normal population.
  - A. High K scores will be positively related to high self-disclosure on Jourard's Self-Disclosure Scale.
  - B. High K scores will be positively related to openness or low dogmatism on Rokeach's Dogmatism Scale.

- C. High K scores will be negatively related to defensiveness on Heilbrun's Check List.
- 2. The K scale is a measure of self concept and self acceptance.
  - A. High K scores will be positively related to high self concept and high self acceptance.
- 3. The K scale is a measure of adjustment.
  - A. High K scores will be positively related to good adjustment as measured by Bills' IAV.
- 4. The K scale will differentiate persons with regard to religious belief.
  - A. High K scores will tend to reflect a liberal theological position.
- 5. The K scale is a measure of ego strength.
  - A. High K scores will be positively related to high ego strength.

Relevant Problems:

The problems relevant to this study focus primarily on the K scale as a measure of defensiveness and its relationship to selected variables included in the hypotheses. There is also a concern to discern what it is that is being measured by the K scale. The relationship of anxiety and the K scale and the other variables under study has also been analyzed. A concern was held for testing

out the differences between the three schools selected as the representative sample. Still another problem was that of discerning what kinds of general statements could be made about scores that fall within a particular range on the K scale. Interpretive statements are called out of the analysis of K scores. Finally, the problem of item preferences that affect K scores has been considered.

#### Results of the Analysis:

The following table is a report of normative means and standard deviations used in the interpretation of the instruments employed in this study. It also includes the resultant means and standard deviations of this sample.

Norm group mean and standard deviation spaces which are vacant indicate that there are no means or standard deviations reported or available for these particular instruments.

It can be seen from the table that normative mean scores and those for the seminary group are nearly identical on self concept, self acceptance, ideal self, single self-disclosure, and anxiety. The seminary group has higher K scores, ego strength, and dogmatism than the normative group. The self-ideal self discrepancy score (adjustment) is lower for the seminary group. (Higher scores on this scale indicate poorer adjustment.)

TABLE 4:1

REPORT AND COMPARISON OF NORMATIVE MEANS  
AND STANDARD DEVIATIONS AND THE  
MEANS AND STANDARD DEVIATIONS  
OF THIS SAMPLE

Variable	NORM GROUP		SEMINARY GROUP	
	Mean	Standard Deviation	Mean	Standard Deviation
1. Religious Belief			55.5	6.4
2. Separate K <sup>a</sup>			61.1	7.5
3. MMPI K <sup>a</sup>	52.00		59.3	8.6
4. Barron's Ego Strength	44.33	6.21	60.4 <sup>b</sup>	5.2
5. Heilbrun's Defensiveness			54.1	8.9
6. Rokeach Dogmatism <sup>c</sup>	142.6	23.3	153.1	21.1
7. Rigidity Scale <sup>d</sup>			91.6	12.8
8. Self Concept	185.8	19.2	187.2	19.3
9. Self Acceptance	171.9	24.7	169.1	23.0
10. Ideal Self	221.3	16.9	218.6	13.5
11. Ideal Self Discrepancy	43.8	16.7	31.7	18.4
12. Jourard's Self Disclosure				
Married			278.4	79.66
Single	248.5	68.60	250.98	66.83
13. IPAT Anxiety	5.1	2.1	5.16	2.4
14. IPAT Ego Weakness			4.7	2.2

<sup>a</sup>T Score

<sup>b</sup>Includes only 66 observations

<sup>c</sup>From Open and Closed Mind

<sup>d</sup>CPI Flexibility Scale

The following two tables present the results of the computation of **Pearson Product-Moment** correlations on the variables of importance to the hypotheses. Significance levels are noted.

It should be noted that the negative relationships of **K** with adjustment, self integration, ego weakness, suspiciousness, guilt proneness, and tension are to be understood as a positive relationship because of the scoring procedures, i. e., higher **K** has a positive relationship to good adjustment, better self integration, high ego strength, greater trust, the absence of guilt proneness, and the absence of tension as revealed in this table. This would be true of all negative correlations reported with these variables.

This analysis reflects that higher **K** scores relate to higher defensiveness, lower dogmatism, lower rigidity, higher self concept, higher self acceptance, better adjustment, less self-disclosure, lower anxiety, higher self integration, less ego weakness, less suspiciousness, less guilt proneness, less tension, and more ego strength.

TABLE 4:2  
CORRELATION MATRIX

	Defen- sive- ness	Dog- ma- tism	Rigid- ity	Self Con- cept	Self Accep- tance	Adjust- ment	Self Disclo- sure	Anx- iety
Separate K	<u>.33</u>	-. <u>37</u>	-.08	<u>.31</u>	<u>.35</u>	-. <u>34</u>	-.16	-. <u>67</u>
Defen- siveness	1.00	-.07	<u>.27</u>	<u>.57</u>	<u>.49</u>	-. <u>49</u>	-.06	-. <u>38</u>
Dogma- tism		1.00	<u>.52</u>	-.05	-.08	.09	.03	<u>.32</u>
Rigidity			1.00	<u>.38</u>	<u>.22</u> <sup>a</sup>	-. <u>21</u> <sup>a</sup>	.02	-.00
Self Concept				1.00	<u>.81</u>	-. <u>75</u>	.01	-. <u>55</u>
Self Accep- tance					1.00	-. <u>76</u>	.07	-. <u>52</u>
Adjust- ment						1.00	.05	<u>.57</u>
Self Disclo- sure							1.00	-.07
Anxiety								1.00

<sup>a</sup>Significant at .05 level.

All underscored correlations are significant at the .01 level or more.

All correlations not marked are not significant.



TABLE 4:3  
CORRELATION MATRIX

	Self Inte- gration	Ego Weak- ness	Suspi- cious- ness	Guilt Prone- ness	Ten- sion	Ego <sup>a</sup> Strength	MMPI K
Separate K	-. <u>27</u>	-. <u>28</u>	-. <u>51</u>	-. <u>53</u>	-. <u>46</u>	.05	.66
Defen- siveness	-.20 <sup>b</sup>	-.26 <sup>c</sup>	-.24 <sup>d</sup>	-. <u>29</u>	-. <u>35</u>	.02	.22 <sup>d</sup>
Dogmatism	.04	.02	. <u>27</u>	. <u>33</u>	.13	-.11	-.16
Rigidity	-.19 <sup>b</sup>	-.00	.12	.01	-.10	-.27 <sup>c</sup>	.06
Self Concept	-. <u>41</u>	-. <u>36</u>	-. <u>30</u>	-. <u>40</u>	-. <u>28</u>	-.15	.21 <sup>d</sup>
Self Acceptance	-. <u>33</u>	-. <u>41</u>	-. <u>31</u>	-. <u>39</u>	-. <u>33</u>	-.21 <sup>d</sup>	.16
Adjustment	. <u>37</u>	. <u>42</u>	. <u>25</u>	. <u>43</u>	. <u>37</u>	.12	-. <u>31</u>
Self Disclosure	.20	.03	.21	.10	.09	.13	.05
Anxiety	. <u>61</u>	. <u>46</u>	. <u>59</u>	. <u>79</u>	. <u>57</u>	.02	-.50
Self Integration	1.00	.17	.24 <sup>d</sup>	. <u>45</u>	. <u>28</u>	-.08	-.16
Ego Weakness		1.00	.23 <sup>d</sup>	.26 <sup>c</sup>	.22	.12	-.10
Suspiciousness			1.00	. <u>50</u>	. <u>35</u>	.02	-. <u>46</u>
Guilt Proneness				1.00	. <u>46</u>	.02	-. <u>42</u>
Tension					1.00	.16	-. <u>39</u>
Ego Strength						1.00	.15
MMPI K							1.00

<sup>a</sup>These figures include an n of 66 for Barron's scale.

<sup>b</sup>Significant at .10 level

<sup>c</sup>Significant at .02 level

<sup>d</sup>Significant at .05 level

All underscored items are significant at the .01 level or more.

All correlations not marked are not significant.

In order to test the hypotheses of this study two procedures were used. One procedure involved the grouping of K scores and the testing of the K group means through an analysis of variance. The method of grouping K scores was in accordance with the categories used in interpreting K scale scores in the Handbook. These categories are as follows:

1. 42-55, Normal
2. 56-74, Defensive
3. 75 plus, Extremely defensive

It should be noted that no subjects in this study scored in the category of 42 or below so this category will not be included in the analyses.

Since the analysis of variance procedure is an appropriate statistical model for the testing of the differences in group means it is considered an appropriate test for the hypotheses. All hypotheses are concerned with the relationship of certain designated variables to high K groups. The analysis of variance procedure provides a certain clarity about K groupings suggested for interpretive purposes in the Handbook.

The Pearson Product-Moment Correlation Coefficient provides a certain precision in the measure of the relationship of continuous variables. It will also be reported here in the testing of the hypotheses. The value of the two statistical procedures is the precision each provides for the variables and groupings in this

particular study.

Hypotheses Tested and Results:

Hypothesis 1. The K scale is a measure of psychological health in a normal population.

A. High K scores will be positively related to high self-disclosure on Jourard's Self-Disclosure Scale.

TABLE 4:4

K SCALE CATEGORIES  
AND MEANS FOR  
JOURARD'S SELF  
DISCLOSURE SCALE

K Levels	Mean	F Statistic	df	Significance Level
3. Extremely Defensive	226.00	.83	2/87	--
2. High Defensive	260.25			
1. Normal Defensive	276.42			

The correlation matrix reports a correlation of  $-.16$  between K scale scores and scores on Jourard's Self-Disclosure Scale. This result is in a direction opposite of that predicted by this hypothesis.

The affirmation of the relationship cannot be made at a level of great enough significance to warrant the acceptance of the negative relationship.

This hypothesis is considered rejected.

B. High K scores will be positively related to openness or low dogmatism on Rokeach's Dogmatism Scale.

TABLE 4:5

K SCALE CATEGORIES AND MEANS FOR  
ROKEACH DOG MATISM SCALE

K Levels	Mean	F Statistic	df	Significance Level
3. Extremely Defensive	128.00	4.7	2/87	.02
2. High Defensive	150.83			
3. Normal Defensive	161.15			

The correlation matrix reports a correlation of  $-.37$  between high K scores and high dogmatism. This is significantly different from zero at the .01 level of significance.

This hypothesis was accepted in that the high K groups were less dogmatic and more open than the normal K group. The extreme K group was even less dogmatic and more open than either K group.

C. High K scores will be negatively related to defensiveness on Heilbrun's Scale.

TABLE 4:6

K SCALE CATEGORIES AND MEANS FOR  
HEILBRUN'S DEFENSIVENESS SCALE

K Levels	Mean	F Statistic	df	Significance Level
3. Extremely Defensive	60.67	3.53	2/87	.05
2. High Defensive	55.28			
1. Normal Defensive	50.62			

The correlation matrix reports a correlation of .33 between high K scores and defensiveness. This is significantly different from zero at the .01 level of confidence.

This hypothesis was considered rejected and the relationship proved to be significant in the opposite direction at the .05 level.

Hypothesis 2. The K scale is a measure of self concept and self acceptance.

A. High K scores will be positively related to high self concept and high self acceptance.

TABLE 4:7

K SCALE CATEGORIES AND MEANS  
FOR SELF CONCEPT

K Levels	Mean	F Statistic	df	Significance Level
3. Extremely Defensive	212.33	5.20	2/87	.01
2. High Defensive	189.16			
1. Normal Defensive	179.77			

TABLE 4:8

K SCALE CATEGORIES AND MEANS  
FOR SELF ACCEPTANCE

K Levels	Mean	F Statistic	df	Significance Level
3. Extremely Defensive	188.67	2.85	2/87	.10
2. High Defensive	171.33			
1. Normal Defensive	161.58			

The correlation matrix reports a correlation of .31 of K with self concept and a correlation of .36 of K with self acceptance. Both coefficients are significantly different from zero at more than

the .01 level of significance.

This hypothesis is considered accepted. The relationship between K and self concept is accepted at better than the .01 level of significance and the relationship of K and self acceptance is accepted at better than the .10 level but less than the .05 level of significance.

Hypothesis 3. The K scale is a measure of adjustment.

A. High K scores will be positively related to adjustment as measured by Bills' Index.

TABLE 4:9  
K SCALE CATEGORIES AND ADJUSTMENT  
MEANS ON BILLS' INDEX

K Levels	Mean	F Statistic	df	Significance Level
3. Extremely Defensive	13.33	4.43	2/87	.05
2. High Defensive	29.36			
1. Normal Defensive	39.23			

The correlation matrix reports a correlation of-.34 between K scale scores and adjustment scores. It should be noted that low adjustment scores reflect better adjustment than higher adjustment scores. This correlation is significantly different from zero at

more than the .01 level of significance.

This hypothesis is considered accepted at better than the .05 level and approaches closely the .01 level of significance.

Hypothesis 4. The K scale will differentiate persons with regard to religious belief.

A. High K scores will tend to reflect a liberal theological position.

TABLE 4:10

K SCALE CATEGORIES AND  
RELIGIOUS BELIEF MEANS

K Level	Mean	F Statistic	df	Significance Level
3. Extreme Defensive	58.33	.64	2/84	--
2. High Defensive	55.05			
1. Normal Defensive	56.31			

The correlation between K scale scores and religious belief was  $-.06$ . The F statistics and the correlation coefficient demonstrate no relationship between these two variables.

This hypothesis is considered rejected.



Hypothesis 5. The K scale is a measure of ego strength.

A. High K scores will be positively related to high ego strength.

Two scales were used to test out this hypothesis. One is Barron's Ego Strength Scale which is extracted from the MMPI and the other is a sub-scale of the IPAT Anxiety Scale. The correlation between the two scales is .05.

TABLE 4:11

K SCALE CATEGORIES AND MEANS OF  
IPAT EGO STRENGTH SCALE

K Levels	Mean	F Statistic	df	Significance Level
3. Extreme Defensive	3.33	1.98	2/87	--
2. High Defensive	4.46			
3. Normal Defensive	5.31			

The correlation matrix reports a correlation of  $-.28$ . It should be noted that high ego strength on this scale is reflected at the low end of the scale while low ego strength is reflected in a higher score. This correlation coefficient is significant at beyond the .01 level.

While the analysis of variance fails to provide evidence

sufficient enough to warrant the acceptance of the hypothesis, the correlation coefficient does provide evidence to support the relationship.

This hypothesis is accepted.

The testing of this hypothesis with Barron's Ego Strength Scale produced the following results.

TABLE 4:12

K SCALE CATEGORIES AND MEANS OF  
BARRON'S EGO STRENGTH SCALE

K Levels	Mean	F Statistic	df	Significance Level
3. Extreme Defensive	60.44	2.73	2/63	--
2. High Defensive	61.42			
1. Normal Defensive	58.25			

The correlation of K with Barron's Ego Strength Scale is .05. This indicates no relationship. The hypothesis tested with Barron's Scale is rejected.

Results on Analysis of Seminary Groups:

An analysis of variance was conducted between the seminary groups on all variables used in this study. The following table

reveals: less suspiciousness in United, McCormick as the next least suspicious, and a larger difference and more suspiciousness in Western; ego strength is higher in Western and McCormick than in United; there is a progressive increase in K scale scores with Western having the lowest, United the next highest and McCormick the highest; there is also a progression of means on the Religious Belief Inventory with Western appearing as the most conservative, United more moderate, and McCormick as the most liberal.

TABLE 4:13  
VARIABLES THAT DIFFERENTIATED  
SEMINARY GROUPS

Variable	Seminary			F Statistic	df	Level of Signi- ficance
	Western (Conservative) Mean	United (Moderate) Mean	McCormick (Liberal) Mean			
Suspiciousness (IPAT)	5.73	4.26	4.7	3.41	2/87	.05
Barron's Ego Strength	62.91 <sup>a</sup>	58.92	62.19	5.23	2/82	.01
K Scale	55.05	60.14	61.64	4.17	2/84	.05
Religious Belief	58.05	56.50	52.43	6.20	2/87	.01

<sup>a</sup>This mean results from a prorating of scores. There is no certainty of accuracy with this measure.

Results of the Item Count:

The item count revealed that most subjects in this sample tended to deny the inquiries made in the following items:

- 148. It makes me impatient to have people ask my advice or otherwise interrupt me when I am working on something important.
- 89. It takes a lot of argument to convince most people of the truth.
- 267. When in a group of people I have trouble thinking of the right things to talk about.
- 180. I find it hard to make talk when I meet new people.
- 383. People often disappoint me.
- 138. Criticism or scolding hurts me terribly.
- 129. Often I can't understand why I have been so cross and grouchy.
- 398. I often think "I wish I were a child again."
- 183. I am against giving money to beggars.

There was a tendency to admit or respond affirmatively to these items:

- 96. I have very few quarrels with members of my family.
- 502. I like to let people know where I stand on things.
- 134. At times my thoughts have raced ahead faster than I could speak them.
- 272. At times I am all full of energy.
- 30. At times I feel like swearing.

No statements of significance can be made from this analysis.

Summary:

This chapter was devoted to a report of the analyses conducted with the data and a testing of all the hypotheses under consideration in this study.

The following table presents a summary of the hypotheses tested by the procedure of the analysis of variance. All hypotheses except those that postulate the relationship of K to self-disclosure, defensiveness, and religious belief are accepted at better than the suggested level of confidence. All of these same hypotheses tested by the correlation coefficient are accepted at the .01 level of confidence.

The hypothesized relationship of K and self-disclosure was rejected. While the hypothesis is rejected the relationship appears in a direction opposite to that which was predicted.

The hypothesized relationship of K to defensiveness is rejected but found to be significant at the .05 level through an analysis of variance in the direction opposite of that predicted. The correlation coefficient confirmed the relationship at the .01 level.

The hypothesized relationship of K and religious belief was considered rejected by the analysis of variance and by the correlation coefficient procedures. No relationship was demonstrated.

The predicted relationships of high K with openness,

high self concept, high self acceptance, good adjustment, and high ego strength are all accepted.

TABLE 4:14  
A SUMMARY OF HYPOTHESES TESTED

Hypotheses	Significance Level	Decision
1. A. K and Self-Disclosure	no significance	Reject <sup>a</sup>
B. K and Openness	.02	Accept
C. K and Defensiveness	.05	Reject <sup>a</sup>
2. A. K and Self Concept	.01	Accept
B. K and Self Acceptance	.10	Accept
3. A. K and Adjustment	.05	Accept
4. A. K and Religious Belief	no significance	Reject
5. A. K and Ego Strength	.01	Accept

<sup>a</sup>This relationship is in the direction opposite of that expressed in the hypothesis.

The analysis of variance conducted on seminaries revealed differences on the following variables.

TABLE 4:15  
A SUMMARY OF SEMINARY DIFFERENCES

Variable	Significance Level
Suspiciousness (IPAT)	.05
Barron's Ego Strength	.01
K Scale	.05
Religious Belief	.01

The multiple regression analysis on the data resulted in the variable "guilt proneness" as demonstrating predictive value for K scores. This was significant at the .02 level of significance.

No conclusive statements could be made on the basis of the item count.

## CHAPTER V

### SUMMARY AND CONCLUSIONS

#### Summary:

This study was undertaken in order to test out the validity of the K scale as a measure of defensiveness in a population of protestant theological seminary students to determine whether high K subjects reflect defensiveness against psychological weakness or reflect personality integration, and seek to give meaning to the interpretation of high K scores typically received by subjects in this population.

Psychoanalytic and self-theories were used as theoretical structures noting that the existence of defenses is commonly held by both schools as they result from threat either from unchecked impulses and the restraining forces used against them or from an inadequate perception of oneself and the world and the inability to integrate information. While in these schools of theory the purpose of defenses is that of adaptation, protection, and the continued functioning of the personality, defenses are viewed as inappropriate and ultimately disruptive or destructive even though they are temporarily adjustive.

The hypotheses to be tested in this study were as follows:



1. The K scale is a measure of psychological health in a normal population.

A. High K scores will be positively related to high self-disclosure on Jourard's Self-Disclosure Scale.

B. High K scores will be positively related to openness or low dogmatism on Rokeach's Dogmatism Scale.

C. High K scores will be negatively related to defensiveness on Heilbrun's Adjective Check List.

2. The K scale is a measure of self concept and self acceptance.

A. High K scores will be positively related to high self concept and high self acceptance.

3. The K scale is a measure of adjustment.

A. High K scores will be positively related to adjustment as measured by Bills' Index.

4. The K scale will differentiate persons with regard to religious belief.

A. High K scores will tend to reflect a liberal theological position.

5. The K scale is a measure of ego strength.

A. High K scores will be positively related to high ego strength.

Three seminaries were selected each of which represented

a conservative, moderate, or liberal point along a continuum of religious belief. Of all the first-year seminarians 90 percent of them completed a test battery consisting of a separate K scale, the Religious Belief Inventory, Heilbrun's Defensiveness Scale (Adjective Check List), Rokeach Dogmatism Scale, Jourard's Self-Disclosure Scale, Bills' Index of Adjustment and Values, and the IPAT Anxiety Scale. The MMPI had previously been administered to all subjects as a part of normal orientation procedures.

These instruments were scored and several statistical analyses were employed. Pearson Product-Moment Correlations were run on all variables to discover the precise relationships between variables. Subjects' K scores were then grouped into categories suggested for interpretive purposes in the MMPI Handbook. An analysis of variance was made on these K groups. A multiple regression analysis was made and an analysis of variance was made on seminary groups. Finally an item count of K scale responses was made.

The results of the analyses justified the following conclusions in the test of the hypotheses:

Hypothesis 1: A. Rejected.

B. Accepted at the .02 level.

C. Rejected at the .05 level.

Hypothesis 2: A. Both accepted. Self concept at the .01

level and self acceptance at the .10 level.

Hypothesis 3: A. Accepted at the .05 level.

Hypothesis 4: A. Rejected

Hypothesis 5: A. Accepted at the .01 level.

The analysis of variance conducted among the seminaries revealed mean differences in Suspiciousness (IPAT sub-scale) at the .05 level, ego strength at the .01 level, the K scale at the .05 level and religious belief at the .01 level. The results indicated that the selection of seminaries was accurate with regard to religious belief. Western was the most conservative, United was moderate and McCormick was liberal. The same progression from conservative to liberal was in evidence in the progressive increase in K scores from conservative to liberal. Ego strength varied with the moderate seminary having low ego strength and both the conservative and liberal having nearly equivalent high ego strength scores. There was also a progression of suspiciousness or paranoid insecurity from the moderate to liberal to conservative. The major differences in means is between the conservative which is high and the moderate and liberal which are more nearly equivalent.

The multiple regression analysis demonstrated a predictive value for K scale of "guilt proneness" which was significant at the .02 level.

The item count of K scale item response reflected denial response preferences for items 148, 89, 267, 180, 383, 138, 129,

398, 183, and an affirmative admission on items 96, 502, 134, 272, 30.

Conclusions:

The conclusions of this study suggest that:

Conclusion 1: There is no relationship between self-disclosure and high K scores in a sample of married seminarians. It is also suggested that there is a negative relationship between self-disclosure and K scale scores. These results would appear to suggest that there may basically be two levels of self-disclosure. The negative relationship in the single sample suggests that high K scorers do not disclose themselves as readily as low K scorers. Self-disclosure as measured here may be the unusual frankness or self criticality typically found in low K groups. There is a ready willingness to admit problems and confess personal concerns. This level of self-disclosure manifests itself in a basically unhealthy manner, and reflects a basic helplessness and groping for strength. The other level of self-disclosure suggested is one in which there is a healthy climate of reduced threat, free acceptance, and a willingness to disclose one's self without the accompanying loss of integration found in low K groups. It would appear that Jourard's scale may measure only one level of self-disclosure.

The relationship of psychological health to self-disclosure

may depend on whether one discloses himself out of a position of strength and integration or weakness and disintegration. Although the relationship suggested by Jourard may be correct, this scale fails to produce such evidence in its failure to discriminate between these two suggested levels.

Conclusion 2. There is a positive relationship between high K scores and low dogmatism or openness. This particular finding lends credence to the prior conclusion which suggested more than one level of self-disclosure. Low dogmatism here is synonymous with openness, the ability and the willingness to admit new truth, new information, new awareness of one's world and one's self. It can be noted that while self-disclosure refers to the process of giving of one's self, openness refers to the other directional process of receiving or integrating.

Conclusion 3. There is a positive relationship between high K scores and defensiveness in this population. This result reached in isolation might lead one to conclude that since the K scale measures defensiveness in this population that the K correction ought to be used in the correction (elevation) of clinical scales; however, the other results of this study offer a new interpretation. While the K scale does indeed measure defensiveness it is not a pathological type of defensiveness. It is a defensiveness that is a normal part of psychological health and good adjustment. It speaks of personality integration rather than defense against psychological

weakness. The results of this study indicate that it is inappropriate to elevate clinical scores based on K scores in this population.

Conclusion 4: The K scale in this population is a measure of one's self concept and self acceptance. This finding lends support to the conclusion that the K scale in this population is more a measure of psychological health than defense against weakness. That high K scorers have a correspondingly high self concept and are high in self acceptance is indicative of psychological health.

Conclusion 5: The higher the K score the better the personal adjustment of the individual. This finding also corresponds to the notion that K measures personality integration.

Conclusion 6: It would seem that a liberal theology tends to reflect better psychological health than a more conservative theology. While no relationship at the required level of significance can be demonstrated between K score and religious belief, high K scores tend to reflect the liberal theological position by seminary groups and low K scores tend to reflect the conservative theological position.

High ego strength is accompanied by a liberal position on the religious belief scale at more than the .01 level of significance. Paranoid insecurity is highest in the conservative seminary.

Conclusion 7: In his development of a scale to measure ego strength by selecting items out of the MMPI, Barron reports that high ego strength has a significantly positive relationship to high K



scores and that his measure of ego strength has a negative relationship to every clinical scale of the MMPI. In this study Barron's ego strength scale did not discriminate the K scale from the clinical scales of the MMPI. No relationship of any significance was found between ego strength and K scores. In fact, in contrast to his findings clinical scales 4, 5, and 9 bore positive relationships to ego strength although this was not at any selected level of significance.

Conclusion 8: Ego strength is a necessary and important part of healthy personality functioning. The higher the K score the more ego strength (as measured by the IPAT Scale) there is present in the subject. Defenses require psychic energy to be erected, and sustained, and still allow the individual to function in an adequate and adjustive manner. This may explain why K scores seem typically to rise after the successful conclusion of therapy. The defenses are healthy adjustive defenses of a more completely integrated personality.

Conclusion 9: Low anxiety and good adjustment appear to go hand in hand. There is a .57 correlation between anxiety and adjustment. (High anxiety scores indicate high anxiety and high adjustment scores indicate poor adjustment.) The higher the self concept and the higher the self acceptance the lower the anxiety level. The higher the anxiety level the lower the K score. More anxious subjects tend also to be more dogmatic.



Conclusion 10: The K scale scores in this population do not represent distortions about one's self but reflect a picture of an ingrained self concept. It should not be assumed that subjects in this population who receive high K scores are attempting to conceal personality deviations.

The Handbook notes that the high K scorer "not only denies personal inadequacies, tendencies toward mental disorder, and any trouble in controlling himself, particularly with regard to temper, but also withholds criticism of others."<sup>1</sup> This is not an accurate description of high K scorers in this population. In fact just the reverse appears to be true.

Conclusion 11: The K scale should not be applied to clinical scales for correction purposes in this population. Although K measures a particular type of defensiveness it is not a denial of pathological tendencies.

It would appear that seminary curriculum should provide structures and experiences for students that would enable them to reflect on their personality involvement that relates to their theology. While dogmatism and conservatism go hand in hand with anxiety level, it would seem helpful to provide opportunities for continued growth into greater openness and toward freer, more spontaneous personal behavior.

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<sup>1</sup>Dahlstrom and Welsh, pp. 51-52.

Conclusion 12: The presence of high anxiety in low K scorers tends to verify the notion of poor adjustment, inadequate resolution of conflicts, poor use of defensive or adaptive procedures, and a general failure to integrate or deal with threatening aspects of one's self or the world.

Defensiveness is conceived and used as a negative and condescending attribute of personality. The term is rarely used in the appropriate reference which refers to it as an adjustive technique. All behavior is adjustive in nature even that of the psychotic. Behavior represents a balance or compromise in the battle of conflicting demands of personal need and reality.

Defenses are necessary for the proper functioning of human personality. Some check on impulses and personal needs are required for life in a civilized culture that seeks to insure and respect the rights and needs of others.

The question regarding defenses ought to be a question of to what end the use or misuse of certain defenses may lead an individual. Inadequate or abnormal functioning of human personality represents an exaggeration of normal adaptive mechanisms or behavior patterns. If defenses are used in a manner that satisfies the conflicting demands then they serve a useful function in reducing anxiety and enabling the personality to function at a higher level of efficiency. The defense was important in carrying the personality through to a successful resolution of the threatening episode.

The defensiveness described and discovered here in the K scale score of subjects in this study is not disclosing the rigid, closed, crumbling ego that uses every means available to preserve a known structure in reaction to the threat of an unknown or unwelcome structure. It is a defensiveness of normal adaptive behavior and healthy personality functioning.

The defensiveness uncovered here is not the same as the defensiveness found in a population of known pathology. This study maintains that the defensiveness of normal persons is not the same as defensiveness of psychiatric patients.

Conclusion 13: Contrary to Heilbrun's study this study affirms the fact that the K scale is a measure of adjustment. The relationship of defensiveness and adjustment reveals that the more defensive he is the better is his adjustment. A serious question is raised here concerning the use of Heilbrun's scale as a measure of defensiveness and his conclusion that this scale is not a measure of adjustment.

The dogmatic person is in fact more anxious and more conservative, but this does not correspond with high defensiveness or high K scores. The instrument in question may indeed be this defensiveness scale. Contrary to the thought of Rokeach a closed system does not appear to represent greater defensiveness, but less successful defenses, for the equivalent state of high anxiety with dogmatism would lead one to consider that either the defenses

employed are not succeeding, thus there is no reduction in anxiety level, or the selected defenses are inadequate and inappropriate or dogmatism and defensiveness are not related in the way in which Rokeach suggests. Another alternative is the question raised concerning the types and functions of defenses in the well adjusted and the less well adjusted and the pathological personality. There is some justification for considering unique styles, purposes, or structures of defense in each group. No general statement is applicable to all these groups.

Conclusion 14: High K subjects are less dogmatic, more open, more flexible, think more highly of themselves, are more self accepting, less anxious, better adjusted, less guilty, more liberal, and possess more ego strength than normal or low K subjects in this population.

Conclusion 15: Lower scores on the K scale in this population tend to reflect the greater presence of guilt feelings in subjects who occupy this category.

#### Implications for Future Research:

The questions raised by defensiveness as a construct and function of human personality suggest a rich and rewarding area for future investigation. It has often been noted that knowledge of normal personality has come through generalized statements from the investigation of the abnormal personality. We have too long

ignored the uniqueness of the normal personality. The differences between the functioning of the normal and abnormal personality we always describe as differences in degree rather than in kind. This study would indicate that constructs of personality may not only function differently but have a different essence as well. Defensiveness in normal populations does not appear to be what defensiveness is in abnormal populations. There is a need for a theoretical basis for describing and defining defensiveness in a normal population of different levels of adjustment and attempting to discriminate not only between defenses of these groups but of investigating and defining defensiveness in a pathological group.

This study would appear to point to the need for a testing of the K scale in other populations to determine whether what was uncovered here is unique to this population or is more generally true in a more widely and comprehensively defined population.

The apparent discriminating power of the IPAT Anxiety Scale has been impressive in this study. While it was included almost as an after-thought, the further investigation of the relationship between anxiety, defensiveness, and adjustment might prove to be a fruitful exploration.

The results of the multiple regression analysis provide some food for thought. The small, and only, but significant predictive power of the subscale "guilt proneness" for K scale scores may provide another lead into the meaning of K scores

in this population. It is possible that the relationship of guilt feelings or the presence of real guilt is not only of importance for the K scale but may have relevance for other pathological or maladjustive behavior. One wonders whether the presence of and the need to work off guilt are of significance in adjustment level, the use of defenses, and even the selection of vocation.

Longitudinal studies might be conducted to determine what effect experiences, curriculum, and simple maturation have on the personalities of these subjects. It would be interesting and perhaps revealing to test these same persons at the end of their seminary training and discern what has happened in the psychodynamic structures of personality. The effort could be devoted to what was responsible for change and growth or the lack of such change or growth.

A validation of this study might be accomplished with students of every class level of the seminaries to determine whether these results are limited to junior seminarians or can be generalized to the whole population.

One further suggestion involves what might result from an attempt to learn which items are more often selected in other populations and whether the selection of particular items has any relationship to the particular level or category of a K score.

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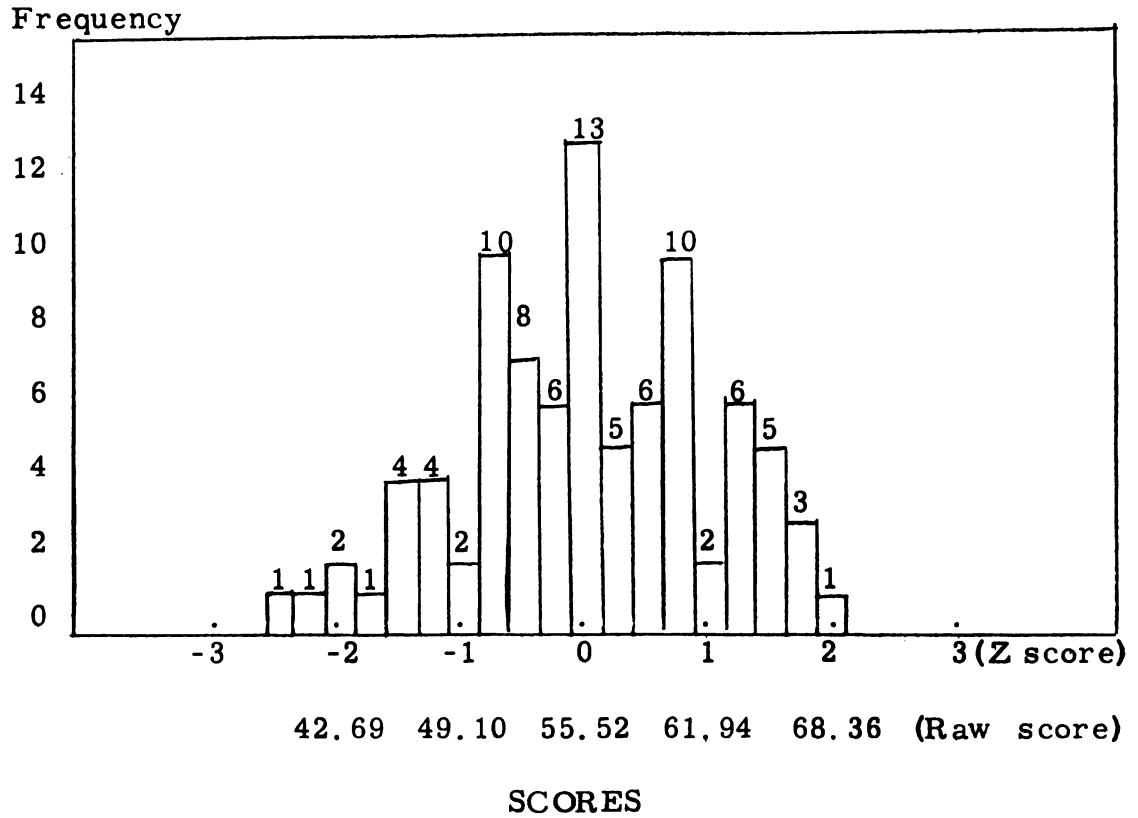
## APPENDIX A





GRAPH A:1

DISTRIBUTION OF SCORES ON THE  
RELIGIOUS BELIEF INVENTORY



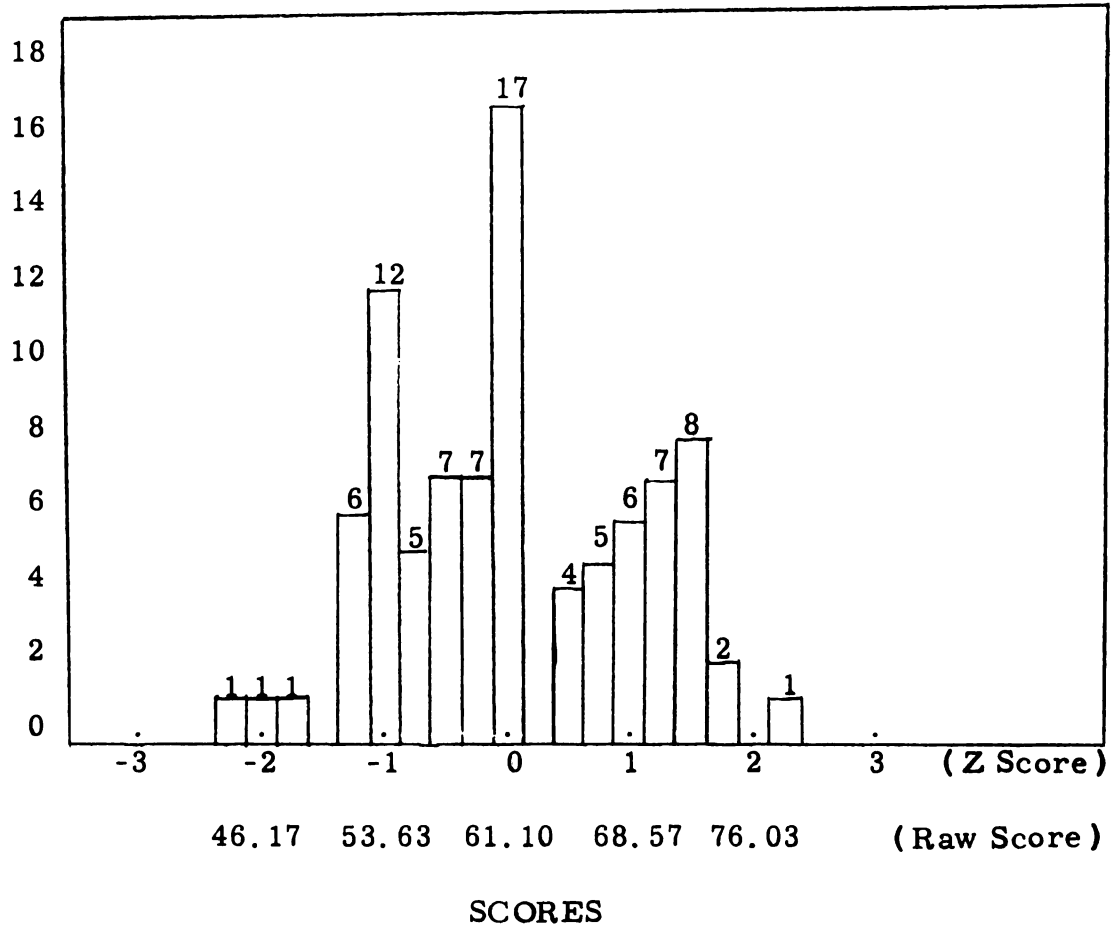
N--90	Lower Quartile--51.08
Mean--55.52	Median--55.36
Standard Deviation--6.48	Upper Quartile--60.84
Range--39.00 to 69.00	



GRAPH A:2

DISTRIBUTION OF SCORES ON  
THE SEPARATE K SCALE

Frequency



N--90

Mean--61.10

Standard Deviation--7.47

Range--44.00 to 77.00

Lower Quartile--55.05

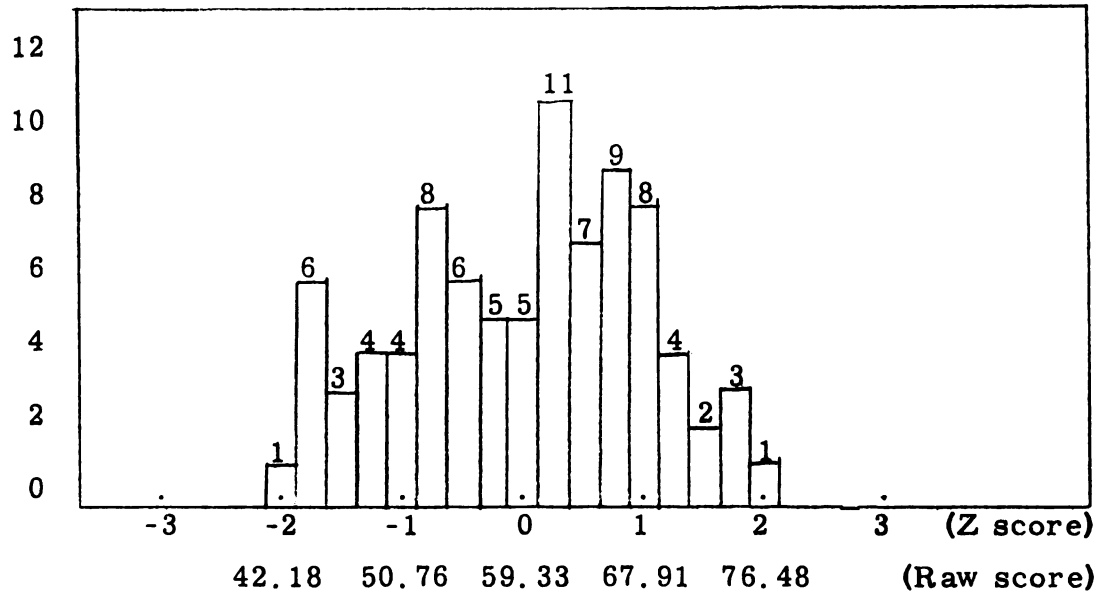
Median--61.12

Upper Quartile--67.73

GRAPH A:3

DISTRIBUTION OF MMPI K SCALE  
SCORES TAKEN AS A PART  
OF THE TOTAL MMPI

Frequency



SCORES

N--87

Mean--59.33

Standard Deviation--8.76

Range--42.00 to 77.00

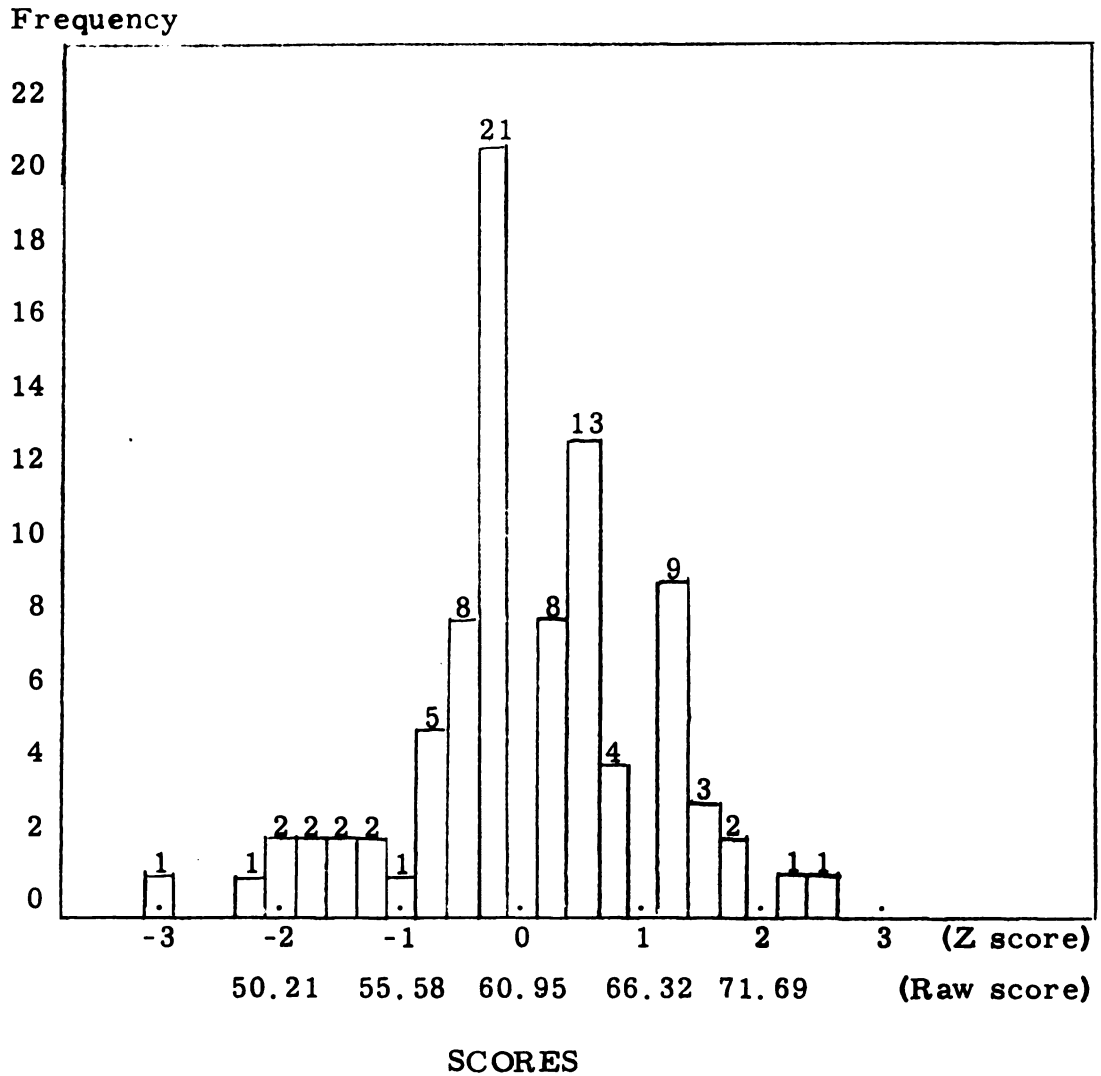
Lower Quartile--52.89

Median--60.91

Upper Quartile--66.23

GRAPH A:4

DISTRIBUTION OF SCORES  
ON BARRON'S EGO  
STRENGTH SCALE

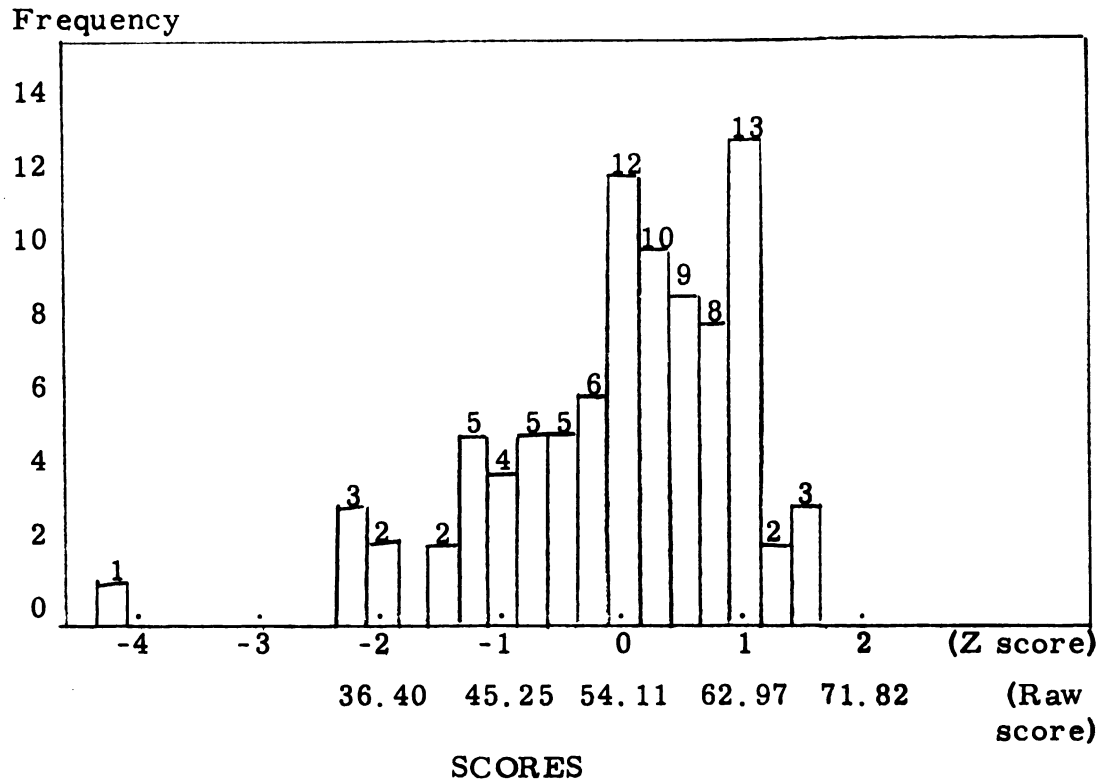


N--85	Lower Quartile--58.04
Mean--60.95	Median--59.96
Standard Deviation--5.37	Upper Quartile--63.97
Range--44.00 to 74.00	

NOTE: Scores for 19 persons from Western were prorated.  
There is no certainty concerning the accuracy of this distribution.

GRAPH A:5

DISTRIBUTION OF SCORES ON HEILBRUN'S  
DEFENSIVENESS SCALE



N--90

Mean--54.11

Standard Deviation--8.86

Range--17.00 to 68.00

Lower Quartile--48.65

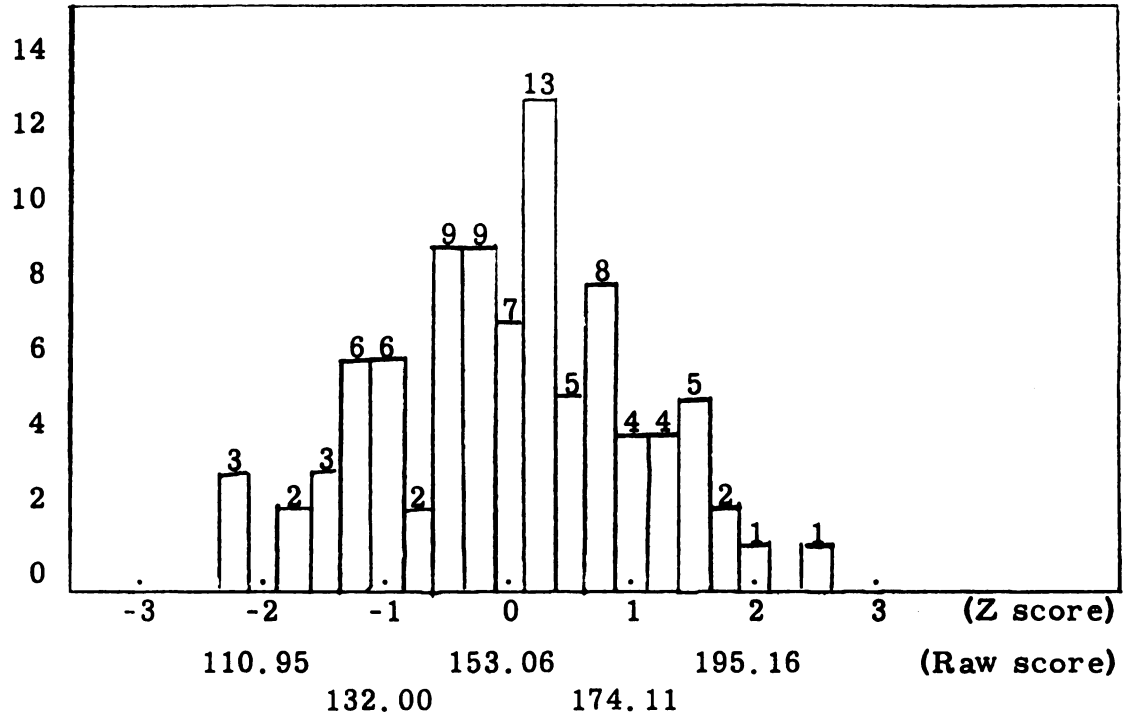
Median--56.10

Upper Quartile--60.03

GRAPH A:6

DISTRIBUTION OF SCORES ON  
ROKEACH DOGMATISM  
SCALE

Frequency



SCORES

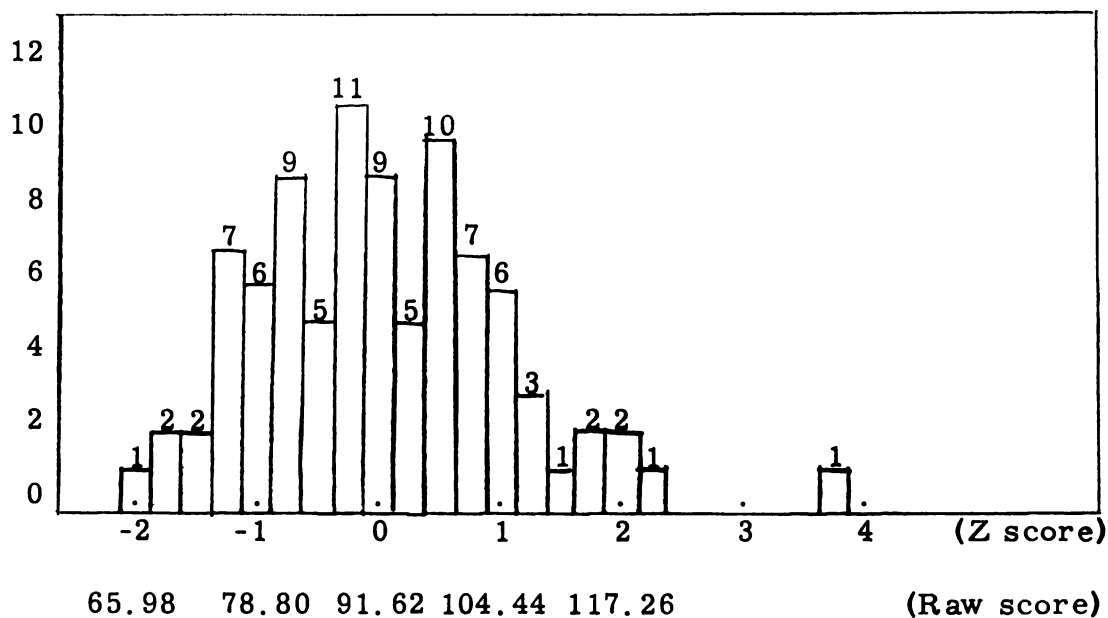
N--90	Lower Quartile--140.43
Mean--152.06	Median--153.06
Standard Deviation--21.05	Upper Quartile--167.66
Range--105.00 to 208.00	



GRAPH A:7

DISTRIBUTION OF SCORES ON THE  
RIGIDITY MEASURE\* OF  
ROKEACH DOGMATISM  
SCALE

Frequency



SCORES

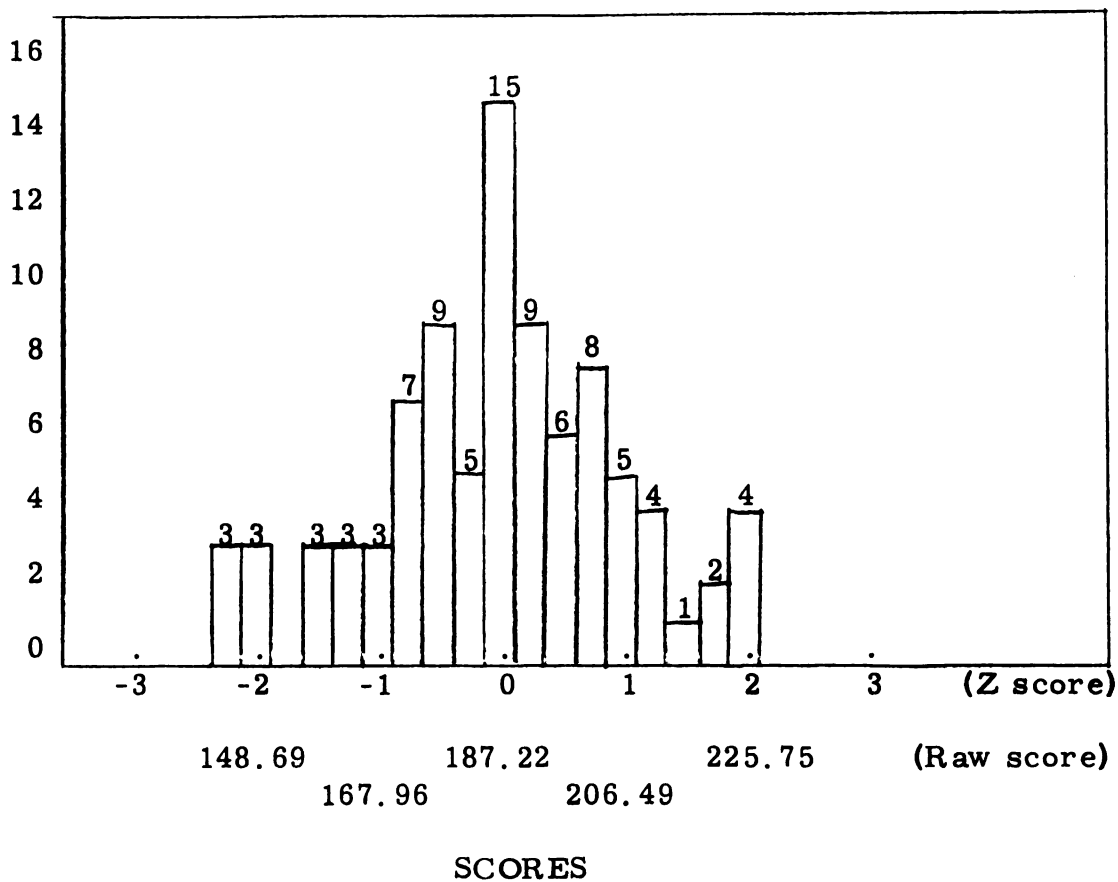
N--90	Lower Quartile--80.98
Mean--91.62	Median--91.62
Standard Deviation--12.82	Upper Quartile--99.80
Range--67.00 to 139.00	

\* The Flexibility Scale of the California Psychological Inventory.

GRAPH A:8

DISTRIBUTION OF SCORES ON THE  
SELF CONCEPT MEASURE OF  
BILLS' INDEX

Frequency



N--90

Mean--187.22

Standard Deviation--19.26

Range--145.00 to 228.00

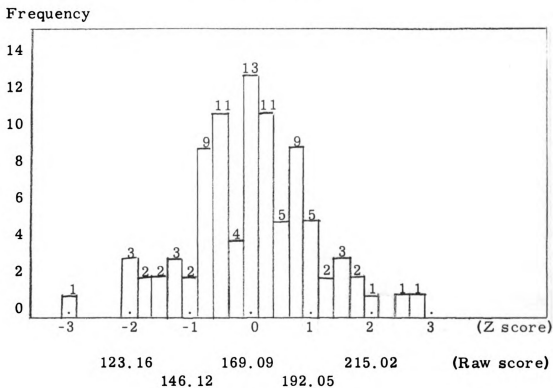
Lower Quartile--176.31

Median--187.46

Upper Quartile--200.47

GRAPH A:9

DISTRIBUTION OF SCORES ON THE  
SELF ACCEPTANCE MEASURE  
OF BILL'S INDEX

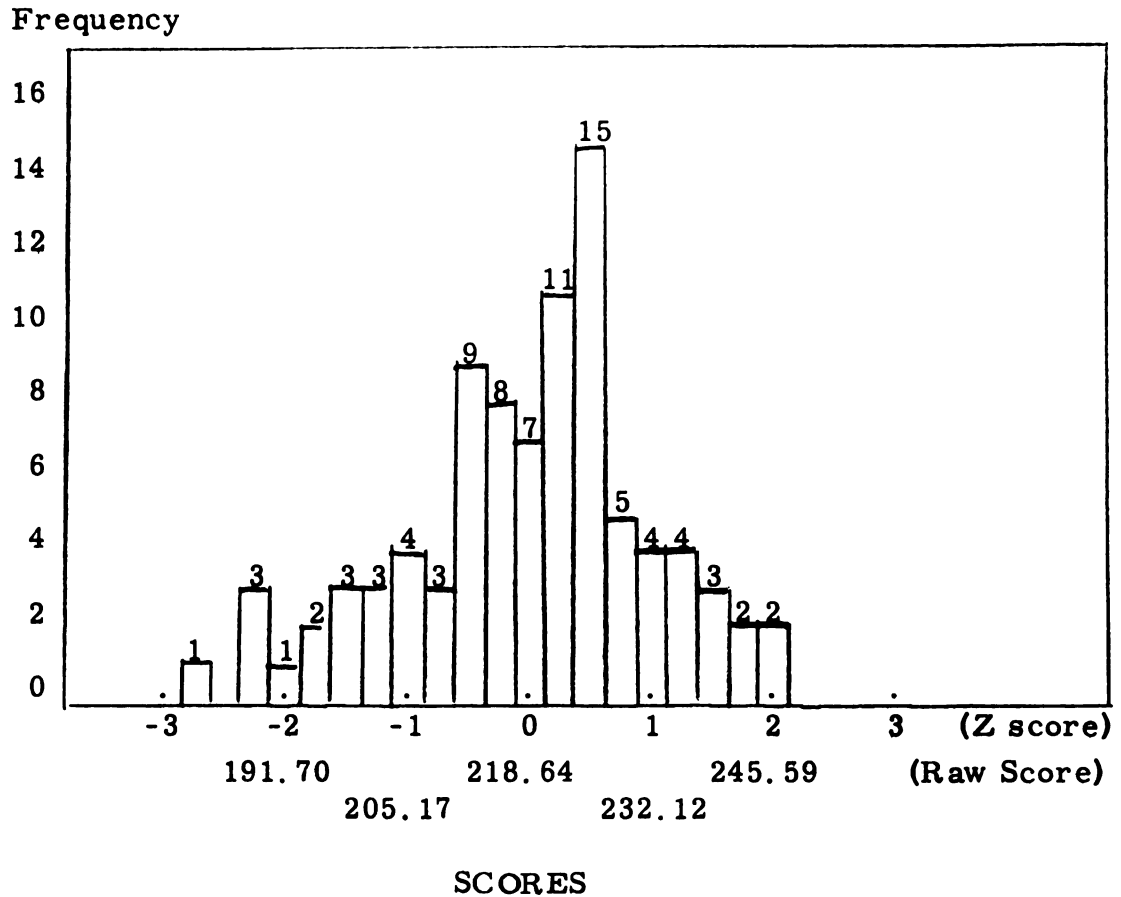


SCORES

N--90	Lower Quartile--155.02
Mean--169.09	Median--170.81
Standard Deviation--22.97	Upper Quartile--185.93
Range--102.00 to 230.00	

GRAPH A:10

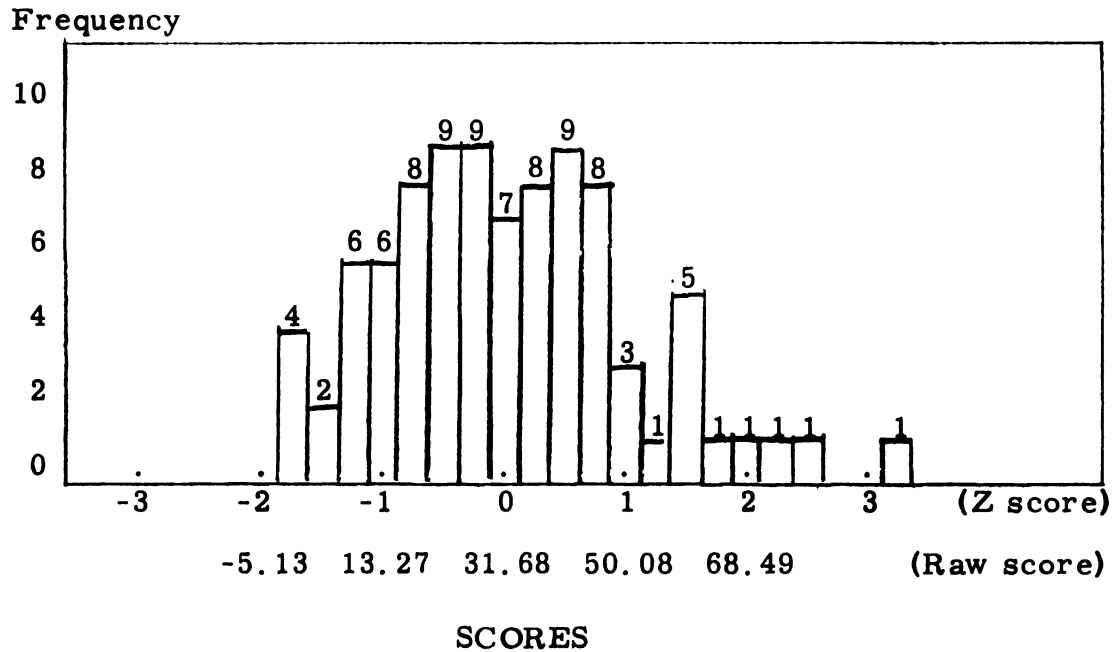
DISTRIBUTION OF SCORES ON  
BILLS' IDEAL SELF



N--90	Lower Quartile--211.91
Mean--218.64	Median--220.46
Standard Deviation--13.47	Upper Quartile--226.73
Range--183.00 to 245.00	

GRAPH A:11

DISTRIBUTION OF SCORES ON  
BILLS' IAV SELF IDEAL  
SELF DISCREPANCY  
(PERSONAL ADJUSTMENT)

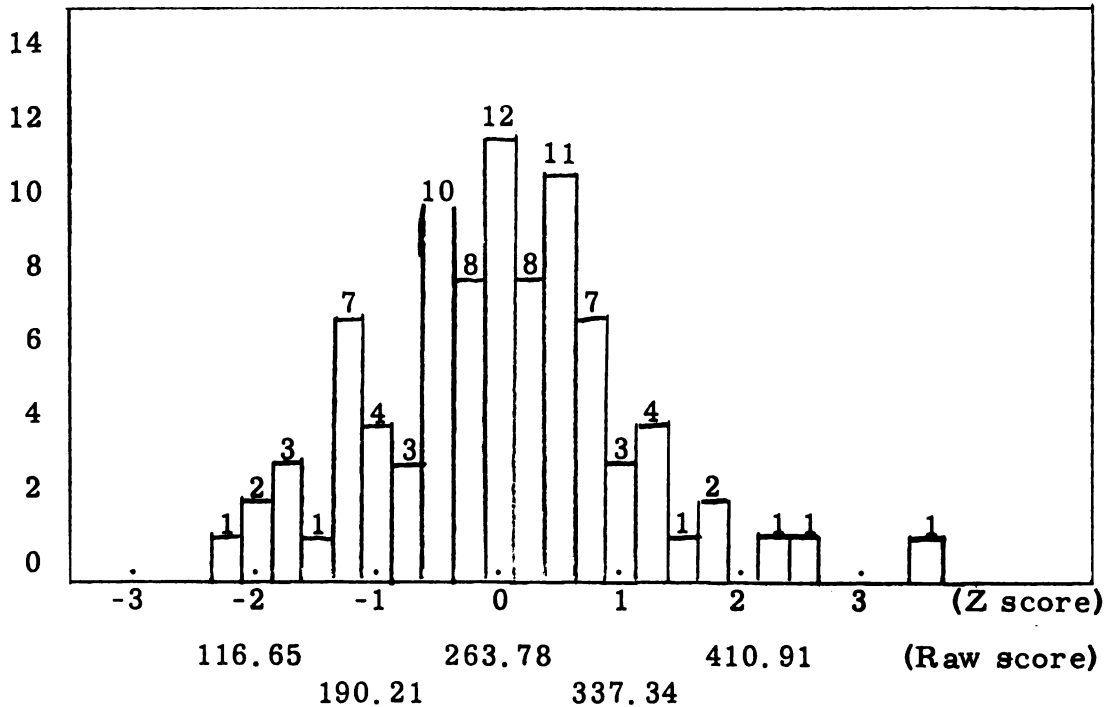


N--90	Lower Quartile--17.76
Mean--31.68	Median--29.68
Standard Deviation--18.41	Upper Quartile--42.17
Range-- .00 to 91.00	

GRAPH A:12

DISTRIBUTION OF SCORES ON  
JOURARD'S SELF  
DISCLOSURE  
SCALE

Frequency



SCORES

N--90

Mean--263.78

Standard Deviation--73.57

Range--96.00 to 522.00

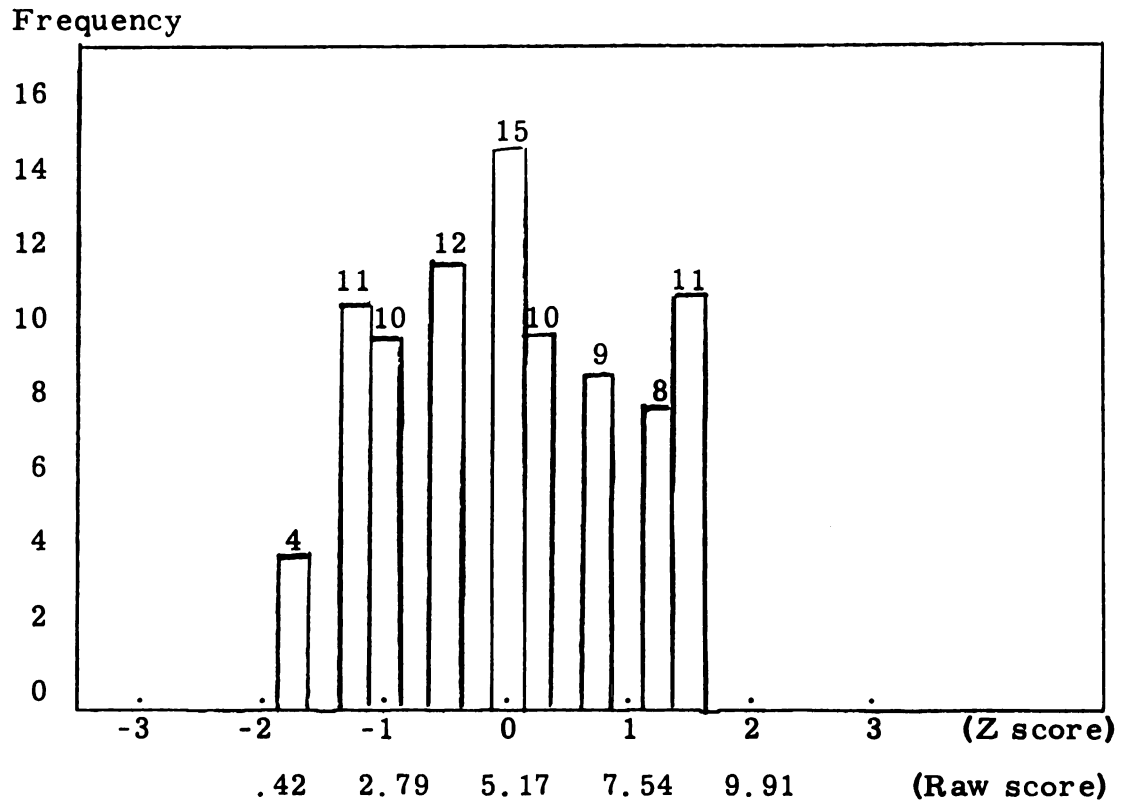
Lower Quartile--220.56

Median--263.78

Upper Quartile--303.32

GRAPH A:13

DISTRIBUTION OF SCORES ON  
IPAT ANXIETY SCALE



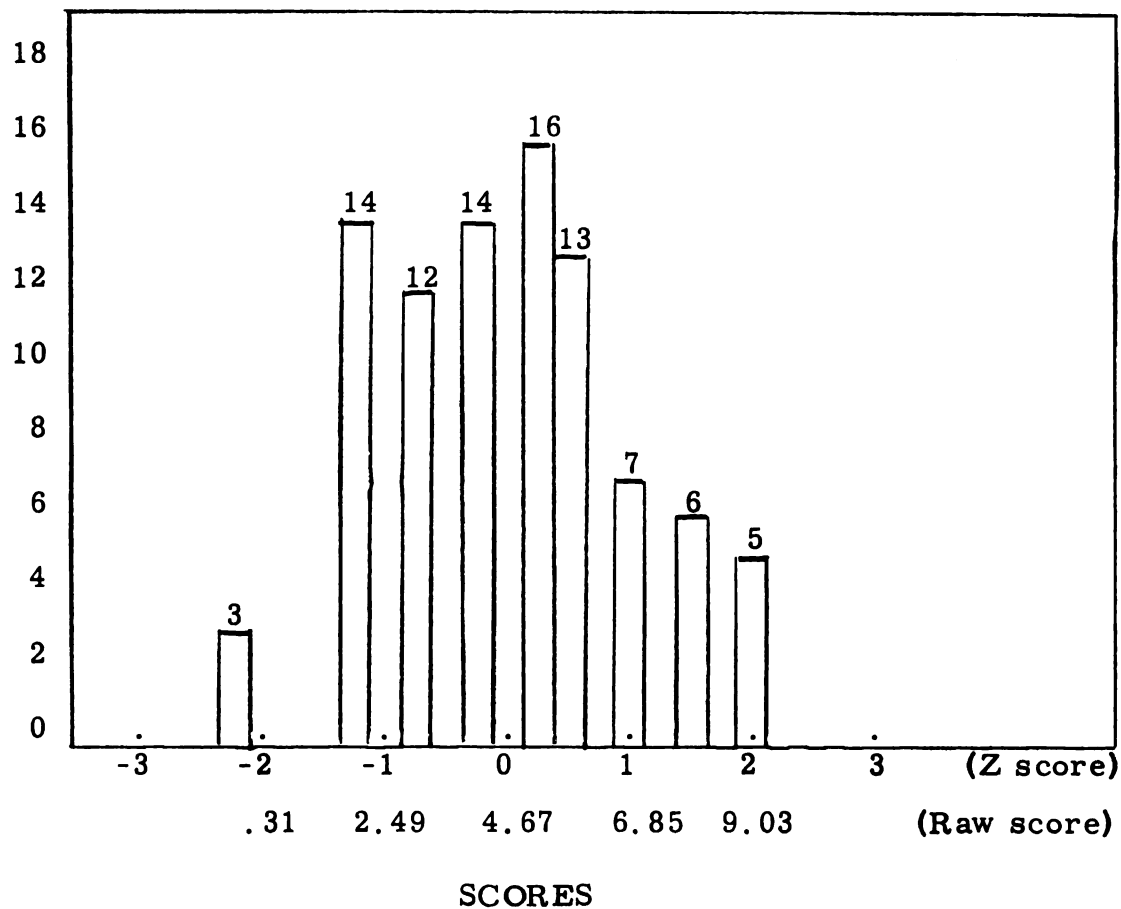
SCORES

N-90	Lower Quartile--3.06
Mean--5.17	Median--5.05
Standard Deviation--2.37	Upper Quartile--6.96
Range--1.00 to 9.00	

GRAPH A:14

DISTRIBUTION OF SCORES ON THE  
EGO WEAKNESS SUBSCALE OF  
THE IPAT ANXIETY SCALE

Frequency



N--90

Mean--4.68

Standard Deviation--2.18

Range-- .00 to 9.00

Lower Quartile--3.03

Median--4.95

Upper Quartile--5.99



## APPENDIX B

TABLE B:1

UPPER AND LOWER QUARTILES OF VARIABLES  
OF IMPORTANCE TO THE HYPOTHESES

Variable	Lower Quartile	Upper Quartile
1. Religious Belief	0- 51.1	60.8--
2. Separate K	0- 55.1	67.7--
3. MMPI K	0- 52.9	66.2--
4. Barron's Ego Strength	0- 58.0	64.0--
5. Heilbrun's Defensiveness	0- 48.7	60.0--
6. Rokeach Dogmatism	0-140.4	167.6--
7. Rigidity Scale <sup>a</sup>	0- 81.0	99.8--
8. Self Concept	0-176.3	200.5--
9. Self Acceptance	0-155.0	185.9--
10. Ideal Self	0-211.9	226.7--
11. Self-Ideal Discrepancy	0- 17.8	42.2--
12. Jourard's Self Disclosure	0-220.6	303.3--
13. IPAT Anxiety	0- 3.1	7.0--
14. IPAT Ego Weakness	0- 3.0	6.0

<sup>a</sup>CPI Flexibility



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