THE RELATIONSHIP OF RESPONSES TO GEOMETRIC DESIGNS
TO INFERIORITY FEELINGS AND CERTAIN
PERSONALITY VARIABLES

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THE RELATIONSHIP OF RESPONSES TO GEOMETRIC DESIGNS TO INFERIORITY FEELINGS AND CERTAIN PERSONALITY VARIABLES

DISSERTATION

Presented to the Graduate Council of the North Texas State University in Partial Fulfillment of the Requirements

For the Degree of

DOCTOR OF EDUCATION

By

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Denton, Texas

January, 1967
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CHAPTER I

Introduction

Psychology is indebted to Alfred Adler (2) for his contribution of the concepts of inferiority and compensation. Adler's recognition of real and imaginary organic weakness resulted in the first formulation of the "inferiority complex" around 1912.

Like other attitudes, feelings of inadequacy are learned early in life as the outcome of social experience. Though the child possesses unusually strong physiological needs, these needs must always find expression within the cultural and social framework fashioned by parents and other adults.

By virtue of contacts with others the child may come to view himself as insufficient; that is, his self-image and his roles may become those of the ineffective or inadequate individual.

Feelings of inferiority may be generated in many situations. There are, however, three general aspects of personality in relation to which such attitudes most commonly arise: (1) constitutional defects, (2) intellectual ability and performance, and (3) social-emotional adjustments to others.

Constitutional defects such as crippled limb, blindness, deafness, or a facial or bodily anomaly readily and rapidly
engender a sense of being different from others. Such deficiencies subsequently serve as an obvious social stimulus to others, and their comments and conduct furnish the interactional foundation for an individual so handicapped to develop a view of himself as inferior.

The lack of expected intelligence or of special talent may give birth to a feeling of inadequacy. When a child does not measure up in intellectual performance to the ideals laid down by his parents and others, he may easily -- and largely from their attitudes and comments concerning him -- develop an abiding sense of inferiority.

A sense of inferiority may also develop in otherwise competent children in the course of their social and emotional training in the home, school, and in the peer group. If a child is constantly ridiculed or rebuked in the home, he may readily acquire the belief that he is unwanted. Too, oversolicitous parents who pamper their children may beget such a sense of dependency in the child that he is incapable of coping with circumstances in life. Frequent failures can, and do generate feelings of inferiority (10).

Continuing with causal considerations, Allport's comments merit consideration. Allport avers that all of us frequently experience failure. Our accomplishment falls short of our aspiration. Our performance fails to enhance our self-esteem and shocks our self-image. When this occurs we normally make concentrated efforts to change our goals, and cease worrying.
Often, however, when failures are recurrent and have appropriate significance, we cannot brush them aside. They remain as latent and haunting memories. And so a deep-seated sense of deficiency may develop and be steadily aggravated. This sense of deficiency may be due to different causes: physical weakness, unpleasant appearance, sexual impotence, social inadequacy (poverty, lack of education, awkwardness, poor vocabulary, slowness of wit). Or it may be due to feelings of unworthiness, of guilt and sin. As failures multiply, the "complex" deepens (1, p. 130).

Turning attention away from causes of inferiority feelings, attention will now be focused on characteristics of persons suffering from a sense of inadequacy. The perceptions of adequate people are characterized by an essentially positive phenomenal self, a capacity for acceptance, and a high degree of identification with others. It would be expected that the perceptions of inadequate people were characterized by the converse of these criteria. Combs and Snygg (3) feel that such is the situation.

Inadequate individuals see themselves in generally negative ways. In the light of their past experience, they have come to think of themselves as unworthy, unwanted, unacceptable, and unable. To be sure, this is not true of all of the perceptions such people have of themselves. It is, however, more likely to be true of those facets of self which appear most important or central to his self structure.

A self defined in negative terms is a poor instrument for dealing with the vicissitudes of life. It leaves one helpless and fearful before the demands of living. It provides but a shaky and tenuous foundation for effective existence. The smaller and
more insignificant the self, moreover, the larger, more overwhelming, and threatening are the problems with which such a person sees himself confronted (3, p. 267).

The necessity for self defense imposed upon the phenomenal self by threatening experiences markedly reduces the individual's ability to perceive effectively and efficiently. Such a situation makes it difficult, if not impossible to accept new or conflicting perceptions into the perceptual field. The basic need to maintain and enhance the phenomenal self requires self defense. Consequently, threatened people reject unflattering or self-damaging perceptions and seek those which assuage wounded self perceptions or help to bolster the self against threats. Subsequently, many important differentiations may not be accepted into the phenomenal field or, if already existing in the field, they may not be accepted into clear figure.

This inability to accept important aspects of his experience has unhappy effects upon the individual's capacity for effective behavior. He is forced to behave on the basis of restricted or partial evidence. Behavior originating from only part of the data must necessarily be less precise and effective than that arising from a wider, more inclusive frame of reference. ... Inability to accept the data of their experience often produces a rigid, vicious-circle kind of behavior which seems only to prove to inadequate persons their own inadequacies (3, p. 268-269).

Inadequate individuals are devoid of strong feelings of identification. They are basically isolated and lonely people. They have been unsuccessful in their relationships with others.
Extremely threatened people, like hardened criminals or certain kinds of psychotics, may even attempt to destroy any possibility of developing such identification. Other people are seen only as dangerous and so to be avoided, or as victims to be exploited.

Threatened individuals are likely to be egocentric. The many experiences of threat focus attention upon the self and its maintenance. This makes for little opportunity for broader, more outgoing kinds of perceptions required for identification.

An individual's self concept is to a great extent the product of how he has been treated by those important to him during his growing years. As he develops a self concept, he also develops a concept of what other people are like. He comes to feel that people are essentially friendly or unfriendly, warm or cold, interesting or frightening, pleasant or unpleasant. The same unsuccessful and unhappy relationship with an adult from which a child learns that he is unacceptable or unable may teach him also that people are unfriendly, menacing, and untrustworthy. Little wonder then that inferior people have little feeling of identification with other people. "A low opinion of self is likely to be associated with a fear and distrust of others. To feel unacceptable is to perceive others as unaccepting, as unfriendly. The inability to accept self is therefore strongly correlated with inability to accept others" (3, p. 270).
Having looked at the characteristics of inferiority and people suffering from inadequacy feelings from a phenomenological viewpoint, attention will now be directed to the characteristics of people entertaining inferiority feelings as seen by Horney (7). She asserts that feelings of inferiority and inadequacy may appear in a number of ways -- such as a conviction of incompetence, of stupidity, of unattractiveness -- and they may exist without any foundation in fact. Horney feels, furthermore, that inferiority feelings, perhaps the most common evil of our times, may actually weaken one's position for the reason that self-belittling leads to an impairment of self-confidence. Some self-confidence is a necessity for any achievement.

A sense of inferiority, which is related to the disparity between one's level of aspiration and one's accomplishment, is a learned trait, a way of thinking, and once it is aroused many minor matters that ordinarily would not affect the individual develop into major factors. The individual may assume an attitude and a manner in keeping with his sense of inadequacy. He may even associate his inferior attitude with his own mirrored image. In general such individuals report that the attitude of inferiority is an intrinsic part of their personalities, which they feel they will never lose. They are convinced that they are inadequate or inferior (8).
It appears plausible to assume that inveterate inferiority feelings will be reflected in certain responses given to geometric designs by persons suffering from such a sense of inferiority. That is, people will project their feelings and attitudes into geometric designs in much the same manner as they do in the Rorschach, Thematic Apperception Test, and other projective tests.

Statement of the Problem

The present investigation was initiated in order to determine the relationship of responses to geometric designs to inferiority feelings and certain personality variables. The major problem was divided into the following sub-problems:

1. What is the relationship of responses to geometric designs to selected clinical scales on the Minnesota Multiphasic Personality Inventory? (MMPI).

2. What is the relationship of responses to geometric designs to selected personality variables on the Edwards Personal Preference Schedule? (EPPS).

3. What is the relationship of responses to geometric designs to selected personality characteristics on the Guilford-Zimmerman Temperament Survey? (G-Z).

Hypotheses

The subjects in this study were divided into two major groups. Group L consisted of those subjects responding with the word "larger" to the geometric designs test. Group Sm
was comprised of those subjects responding with the word "smaller" to the geometric designs test. Group Sh was composed of subjects who shifted ("shifters") from "larger" to "smaller" or vice versa.

The hypotheses tested were the following:

1. Group Sm will score significantly higher on the Depression scale (MMPI) than will group L.
2. Group Sm will score significantly higher on the Social Introversion (MMPI) than will Group L.
3. Group Sm will score significantly higher on the Psychasthenia (MMPI) than will Group L.
4. Group L will score significantly higher on the Ego Strength (MMPI) than will Group Sm.
5. Group L will score significantly higher on Ascendance (G-Z) than will Group Sm.
6. Group L will score significantly higher on Sociability (G-Z) than will Group Sm.
7. Group L will score significantly higher on Emotional Stability (G-Z) than will Group Sm.
8. Group L will score significantly higher on Objectivity (G-Z) than will Group Sm.
9. Group Sm will score significantly higher on Abasement (EPPS) than will Group L.
10. Group Sm will score significantly higher on Deference (EPPS) than will Group L.
11. Group L will score significantly higher on Dominance (EPPS) than will Group Sm.

12. Group L will score significantly higher on Autonomy (EPPS) than will Group Sm.

Definition of Terms

MMPI scales defined (6):

**Depression**—measures poor morale of the emotional type with a feeling of uselessness and inability to assume a normal optimism with regard to the future; lack of self-confidence, tendency to worry, narrowness of interests, and introversion.

**Psychasthenia**—measures obsessive rumination, worry, lack of confidence and mild depression; the person is anxious, rigid, poor socializer and dependent.

**Social Introversion**—measures tendency to withdraw from social contact, self-depreciation, inhibition, ineffectiveness, and insecurity.

**Ego Strength**—measures physiological stability, good health, strong sense of reality, feelings of personal adequacy and vitality, emotional outgoingness and spontaneity, and intelligence (9, p. 233).

EPPS scales defined (4):

**Deference**—measures tendency to find out what others think, to follow and do what is expected, to let others make decisions.

**Autonomy**—measures tendency to say what one thinks, to be independent of others in making decisions, to feel free to do what one wants, to avoid situations where one is expected to conform, to do things without regard to what others may think.

**Dominance**—measures tendency to argue for one's point of view, to be a leader, to be regarded by others as a leader, to make group decisions, to persuade and influence others, to supervise and direct.
Abasement—measures tendency to feel guilty, to accept blame, to feel the need for punishment for wrongdoing, to feel better when giving in than when having one's own way, to feel timid, to feel inferior to others.

G-Z scales defined (5):

Ascendance—measures tendency toward social boldness; opposite to submissiveness.

Social Interest—measures tendency toward sociability, being at ease with others; opposite of shy and seclusive.

Emotional Stability—measures tendency toward optimism and cheerfulness; opposite to emotional instability and depression; relatively free of neurtoic tendencies.

Objectivity—realistically oriented; high scores mean less egoism; low scores mean touchiness or hypersensitivity.

Basic Assumptions

In the present study, it was assumed that the responses of the subjects were veridical and accurate on all the personality test items. Moreover, inasmuch as the authors of the MMPI, EPPS, and G-Z claim validity for their tests, the validity of the scales utilized in this study was presupposed.

Limitations of the Study

This study of the relationship of certain responses to geometric designs to inferiority feelings and certain personality variables was circumscribed by the following factors:

1. The study was restricted to students enrolled in freshman psychology, sociology, and English classes at North Texas State University.
2. On the MMPI, only the personality variables reflected in the Depression, Psychasthenia, Social Introversion, Ego Strength scales were considered in this study.

3. On the EPPS, only the personality variables revealed in the Deference, Autonomy, Dominance, and Abasement scales were considered in the present project.

4. On the G-Z, only the personality characteristics manifested in the Ascendance, Social Interest, Emotional Stability, and Objectivity scales were given consideration in the present undertaking.
CHAPTER BIBLIOGRAPHY


CHAPTER II

SURVEY OF THE LITERATURE

Freud (22) was a proponent of psychic determinism. Psychic determinism is the postulate that mental processes are never fortuitous, but are completely explicable in terms of their antecedents. That is to say, mental events just do not happen accidentally, they are caused. Moreover, the causes may be conscious or unconscious.

According to Freud (23) dreams are meaningful for the simple reason that they do not result from fortuity, but are caused by unconscious motives. Freud (24) also propounded the novel proposition that slips of the tongue, errors, accidents, and memory lapses are all the result of unconscious motives.

Psychologists frequently deem it desirable to uncover important features of an individual's personality--his dynamics, desires, needs, experiences, conflicts, and so forth. The projective techniques have been developed for precisely this purpose, to get at the fundamental organization of personality. There are many projective techniques. They all have one common feature: they present the subject with a relatively complex pattern of stimuli and permit a wide variety of responses. The rationale underlying projective techniques
is that the subject reveals his personality in the particular responses he makes. Anderson (4, p. 23) states that "projective tests, as such, test not only projection but practically all conceivable mental mechanisms, both expressive and defensive."

If an individual suffers from inveterate feelings of inferiority, it is expected that such feelings will be projected into many situations. Allport (2) points out that inferiority feelings sometimes develop into a generalized trait of personality, thus saturating one's attitude toward life in general.

An inferiority feeling is an emotional reaction to believed failure. The individual who is bothered by it feels inadequate or insecure, usually because of events early in his life. Frequently, the individual is not clearly conscious of the nature of his inadequacy. All he experiences is a vague unpleasantness, a dissatisfaction with himself, an irritability, or an unwholesome aggressiveness (34). An inferiority feeling is made manifest by a tendency to unfavorable self-evaluation, whether or not justified by the facts, and toward depressed feeling or shame as a result.

Some of the major symptoms of the individual who feels inferior follow (28, 34).

dissatisfied
depression
devaluation of self
derogation of self
devoid of self-confidence
recoils from competition
feels unattractive
feels small and insignificant
feels inadequate
feels stupid
unworthiness
daydreams
self-conscious
easily embarrassed
sensitive to praise and blame
worries about little mistakes

That individuals who perceive themselves as small and inadequate project such attitudes into the Rorschach is attested by Phillips and Smith (36, p. 142). Apropos to the matter of the moment is their assertion that

There are three groups of H or (H) contents which are developed by persons who feel themselves to be weak, ineffective, childlike and under the control of other (adult) persons. It should be noted that these individuals often act in an adult and responsible fashion although they conceive themselves as weak and immature. The first group of such contents expresses this self-conception most directly and includes such responses as 'baby,' 'child' and 'infant.' The second group consists of humanlike diminutives, e.g., 'elf,' 'gnome,' 'doll,' 'gremlin,' 'fairy,' 'imp,' 'pixie,' 'goblin,' 'hobgoblin,' 'puppet,' 'marionette' and 'Robin Goodfellow.' The third group is made up of (H) contents which originate or are popularized in the literature and mythology of childhood. Individuals who develop these contents typically both feel immature and act in an immature fashion. Typical of such contents are: 'Santa Claus,' 'Wizard of Oz,' 'Bugs Bunny,' 'Donald Duck.' Sensitivity to size -- in H and (H) as well as other content -- is related to attitudes of weakness and inferiority and may be expressed not only in the perception of diminutives but also of huge figures, e.g., 'giant,' 'ogre.'

Related to the above statement by Phillips and Smith to the effect that sensitivity to size is related to attitudes of weakness and inferiority is a statement made by Halpern
(4, p. 334). With reference to the interpretation of the Bender Gestalt Test, she states, "The size of the figures should also be evaluated. Very small figures would seem to reveal a tendency to pull back of the self and inhibit spontaneity and outgoingness. Such individuals fear to release their emotions or give them direct expression."

Conceivably, a person's perception of his own body characteristics might exert a pivotal and principal influence on the development of his self-concept. The specifications of such a conception have not been spelled out by personality theorists, with the possible exception of Freud's views on the impact of anatomical sex differences upon self-regard, and Adler's views on the role of constitutional inferiorities in the development of character. It seems safe to state, nevertheless, that self-concept theorists concur on the general conception that body characteristics which are held in low esteem by an individual may be expected to undermine his general self-regard, whereas body characteristics which are held in high esteem should enhance self-regard (48).

A series of studies by Jourard and his colleagues may offer some indirect support for the above stated thesis. Jourard and Secord (30) found a positive correlation between size of body parts and Body-Cathexis for those parts in both male and female subjects. They also found positive correlations to exist between Body-Cathexis and (Actual-Ideal) discrepancies in size of body parts in females (29). In still
another study, Secord and Jourard (38) found significant correlations between Body-Cathexis and Self-Cathexis. The findings of the three studies considered collectively are congruent with the assumption that deviations of body characteristics from subject's ideal may lead to lowered self-regard.

Assuming that a reciprocal relationship exists between perceived body characteristics and self-concept, it follows that a low self-concept should be projected as figures or objects that are small, weak, ineffective, inadequate. Machover's (33) Draw-A-Person Test rests upon the rationale that the figures drawn represent a projection of the drawer, holding that the body image and body parts are saturated with the emotional and ideational experiences associated with their development in the life space of the individual. The psychic values of the self and body as reference points are emphasized.

Buck's (17) House-Tree-Person Test is based upon the assumption that these figures are to be regarded as self-portraits as well as drawings of the specific objects. That inanimate objects can serve as representations for personality trait and conflict projection is evident, for example, from Fe reactions in the Rorschach.

The Deviation Hypothesis

In a 1957 publication, Berg (11) makes a cogent case for the Deviation Hypothesis and states his position with reference to the "unimportance of test item content." There are two facets in the formulation of the Deviation Hypothesis:
1. Deviant response patterns tend to be general; hence those deviant behavior patterns which are significant for abnormality (atypicalness) and thus regarded as symptoms (earmarks or signs) are associated with other deviant response patterns which are in noncritical areas of behavior and which are not regarded as symptoms of personality aberration (nor as indicators, signs, earmarks).

2. Stimulus patterns of any type and of any sense modality may be used to elicit deviant response patterns; thus particular stimulus content is unimportant for measuring behaviors in terms of the Deviation Hypothesis (pp. 154-161).

In another paper by Berg (12) he writes that several studies have shown that in relatively unstructured situations human responses frequently manifest marked departures from chance distribution. He cites data which demonstrate that such skewed response patterns or "sets" are quite stable and to some extent reflect personality characteristics. Since such sets have been found to be only moderately related to personality traits, Berg proposed that responses which deviate from the set should reveal more significant relationships to personality. A deviant response in such a situation is one which differs from a modal response or from a criterion group response at some established level of significance.

The Deviation Hypothesis is based upon biased responses. The emphasis is not upon the bias itself, however, but upon the departures from an established pattern of bias. In a "agree-disagree," "true-false," "heads-tails" response situation the responses rarely follow a normal distribution when the stimulus pattern is relatively unstructured. Rather than a 50-50 percentage distribution of responses, one frequently
finds 80-20 or some equally skewed distribution which is indicative of bias. The deviation Hypothesis does not concern itself with the 80 per cent who respond in the same way. The Deviation Hypothesis, rather, is chiefly interested in the 20 per cent who deviate from the larger group (10).

The persons who deviate from the established pattern of bias in such insignificant responses as responding 'tails,' 'dislike,' 'disagree,' and so on are not merely different in such minor non-critical aspects of behavior. They are also different in critical or significant aspects of behavior -- or so the Deviation Hypothesis would have it. The noncritical aspect of behavior is a reflection of a critical aspect; the two go hand in hand. The critical aspect is a personality manifestation" (10, p. 87).

In the light of the two aspects of the Deviation Hypothesis, no specific content is needed for personality and interest test, nor for a variety of other behavioral measures. What is needed are stimuli which will produce "response sets" (biases) from which deviant responses may be statistically identified. Such stimuli should be relatively unstructured since lack of structure facilitates the appearance of bias (10).

Assuming that the Deviation Hypothesis is valid, it should be possible to employ abstract designs as test items and be as successful measuring personality as with traditional verbal items. The Perceptual Reaction Test (PRT) (14), which consists of 60 abstract designs, was devised to elicit "set." Berg (10) reports that a number of experiments have been executed which indicate that a mere 60 designs of no special significance can do a good job of revealing certain personality traits.
In a study by Berg and Collier (13) groups of high anxiety subjects identified by the MAS and the Sway Suggestibility Test made significantly more extreme choices on the PRT when compared to low anxiety subjects. Lewis and Taylor (32) found comparable results with the same test. Their findings, however, demonstrated that the extreme choices were not preferences for extreme position (Berg and Collier), but were actually preferences for extreme option content in the PRT. Barnes (6) has published a rather detailed study of the diagnostic possibilities of the PRT. He tested both normals and psychiatric patients. By identifying the deviant responses, Barnes was able to construct clinical scales. He concluded that "response set on the PRT is related to personality factors, that it has a degree of reliability which compares well with other tests of personality factors, and that it can be used to assess personality disorder" (6, p. 290).

Hesterly and Berg (27) utilized the PRT to assess maturity in relation to schizophrenia. The PRT responses of groups of normal children aged eight, ten, and twelve, were compared with normal adults. The younger age groups were found to have response patterns most different from adults with the difference diminishing for the older age group. Whereas immaturity is commonly associated with schizophrenia, it was hypothesized
that no significant difference would be found for the deviant response patterns of adult schizophrenics and normal young children. The hypothesis was upheld.

Inasmuch as particular stimulus content is unimportant, it should not come as a surprise to find a relationship between behavior disorders and responses to other content. Wallen (44), for example, conducted a study in order to determine whether neurotic males differ from normal males in their food aversions. Using a check-list of commonly liked foods, it was ascertained that the neurotics had significantly more aversions than did the normals. Gough (25), too, found that neurotic males disliked significantly more foods than did normal males.

In a later study, Wallen (43) administered a short food aversion check-list to Marine recruits who were later discharged on psychiatric grounds. He found a significantly greater number of food aversions in various clinical diagnostic categories such as epilepsy, various types of neuroses, and intra-cranial injury, etc., when compared to normal males. Altus (3), in a comparison of number of food aversions and scores on a test of adjustment, obtained an $r$ of .497 between the two measures for data derived from Army illiterates. In a study conducted by Smith, Powell, and Ross (39), high-anxiety subjects (according to MAS) showed significantly more food
aversions than did low-anxiety subjects. Although the above studies were not initiated as investigations of the Deviation Hypothesis since they antedate publications of this concept, they exemplify the unimportance of particular item content.

A variety of stimuli employed to elicit responses involve noncritical areas of behavior in that the responses are not regarded in themselves as symptoms. Deviant response patterns in noncritical aspects of such behavior, however, are indices of deviations in critical areas. Studies by Taylor (41) and Spence and Taylor (40) corroborate the above contention. They found that anxious subjects were consistently and significantly superior in all measures of eyeblink conditioning and extinction compared to nonanxious subjects. Voth (42) employed the autokinetic phenomenon in order to elicit responses from psychiatric patients and normal subjects. He found that distinctive patterns of deviant responses were characteristic of certain patient groups. The movement is more pronounced in schizophrenia, epilepsy, psychasthenia, neurasthenia, and anxiety states. In the manic-depressive and involutional psychoses, and in conversion reaction, movement is, as a rule, either absent or much less extensive. In studies by Price and Deabler (37) and Freeman and Josey (21) the Archimedes spiral after-effect was utilized to differentiate organics and patients with memory impairment and normals.
Berg (10) states that

By its use of a wide range of content and its use of atypical responses, the MMPI moved in the direction of deemphasizing item content. This is particularly borne out in the use MMPI makes of subtle items, that is, items which are quite unrelated in terms of face validity to the personality dimensions they measure.

If it is only the deviant responses that are important, no matter how elicited, and not the test item content, one should be able to obtain a fairly definite relationship between valid clinical scales and a simple count of the number of deviant responses (pp. 93-94).

Indeed, an investigation by Barnes (5) was dedicated to determining the relationship between clinical scales on the MMPI and a simple count of the number of deviant responses. The atypical responses were drawn from all of the MMPI scales and no attention was given to the content. Barnes found the simple atypical response total correlated .93 with the Sc scale and .87 with the Pt scale. In another publication, Barnes (7) reported that atypical "true" answers on the MMPI regardless of item content represented the psychotic factor of Wheeler, Little, and Lehner (46); atypical "false" answers had a heavy loading for the neurotic factor.

Inasmuch as the authors of the MMPI claim validity for their test, and whereas the literature is rather replete with validation studies on the MMPI, its validity is presently presupposed. Therefore, no attempt will be made to pad the present project with an excessive enumeration of validation studies. However, it is deemed desirable to report a few representative studies...
Hathaway and McKinley (45) report very high correlations between the D and Pt scales. They state that

The compliant factors involved in psychasthenia are dynamically related to depression so that many persons tend to have the psychasthenic type of fears in greater degree as their morale becomes lower, and conversely to be reactively more depressed as they are troubled by psychasthenia (45, p. 86).

Self-confidence is one of the attributes scrutinized in evaluating an individual's self-structure. Zuckerman and Monashkin (50), using a population of psychiatric patients, found that low self-satisfaction was related to F, and to scales Hs, D, Pt, Sc, and Si. Peaks on D and Pt were significantly more frequent in the group with low self-acceptance. Leary (31) noted that patients who employ techniques of self-effacement and self-depreciation appear on the MMPI with a peak on either scale D or Pt. Block and Thomas (16) studied the relationship between MMPI scores and comparisons of self-descriptions and ideal self-descriptions obtained on an eighty-item Q sort. Large disparities between self-descriptions and ideal self-descriptions were construed as indices of low self-satisfaction. Low self-satisfaction was significantly correlated with the F scale and with scales 1, 2, 4, 7, and 8.

Concerning the Si scale, Dahlstrom and Welsh (19) assert that

In addition to items with face validity that describe the person's uneasiness in social situations or in dealings with others, there are items covering a variety of special sensitivities, insecurities, and
worries. The high scorer on scale Q also denies many impulses, temptations, and mental aberrations. The conservative nature of many of the replies is striking, and a strong self-depreciatory trend is evident (19, p. 77).

Not only were peaks on the D and Pt scales found to be related to low self-acceptance in the Zuckerman and Manashkin (50) study cited above, the Si scale was also found to be related to low self-satisfaction. Berger (15) utilized a discrepancy score between self-ratings and ideal self-ratings and found high self-acceptance related positively to K and negatively to scales D, Pa, Pt, Sc, and Si.

Barron (8) found relatively high negative correlations between the Es scale and most of the measures of psychopathology. A correlation of about -.60 was obtained between Es and Hs, Es and D, Es and Pt, Es and Hy, and Es and Sc. What is suggested is that the prediction scale is detecting a general factor of psychopathology in the MMPI, reflecting degree of maladjustment regardless of differential diagnosis. In another study by Barron (9) Q-sort items descriptive of personal inferiority were found to be significantly and negatively related to Es.

EPPS

Edwards (20) has presented evidence for EPPS validity based on agreement between self-ratings and test scores and on correlations between EPPS and other personality measures. He shows coefficients of correlation between EPPS variables
and the Guilford-Martin Personnel Inventory (GMPI). For example, Deference correlates positively and significantly with the GMPI variables Cooperativeness and Agreeableness. Autonomy is related negatively and significantly to Cooperativeness and Agreeableness.

Merrill and Heathers (35) obtained tetrachoric correlations between MMPI and EPPS variables on a college counseling center sample. They found that Abasement correlated positively with non-K-corrected Pt and Sc. Abasement was most clearly related to the clinical scales. Table I depicts the inter-correlations of the EPPS and the MMPI scales. Although the correlations between the scales on the EPPS and the MMPI on a college counseling center sample were not high, where relationships were found they tended to be consistent with MMPI research data.

Allen (1), using a sample of college sophomores consisting of 82 males and 48 females, found significant correlations to exist between certain EPPS variables and MMPI scales. Abasement and S1 produced a correlation of .32, which was significant at the 1 per cent level. Dominance was found to be significantly (1% level) but negatively related to S1. Finally, Autonomy and Sc eventuated in an r of .29, significant, also, at the 1 per cent level. Allen concluded that, "in general the EPPS and MMPI are fairly independent in regard to the areas each presumes to assess (1, p. 311)."
TABLE I

INTERCORRELATIONS OF THE MMPI AND EPPS SCALES
OF MERRILL AND HEATHERS STUDY
(TETRACHORIC r's)*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>-02</td>
<td>-02</td>
<td>-30**</td>
<td>31**</td>
</tr>
<tr>
<td>Psychasthenia</td>
<td>-31**</td>
<td>-02</td>
<td>-37***</td>
<td>50***</td>
</tr>
<tr>
<td>Social Introversion</td>
<td>09</td>
<td>04</td>
<td>-48***</td>
<td>50***</td>
</tr>
<tr>
<td>Manifest Anxiety</td>
<td>-25**</td>
<td>-12</td>
<td>-35***</td>
<td>44***</td>
</tr>
</tbody>
</table>

* decimals omitted
** significant at 5 per cent level
*** significant at 1 per cent level

The validity of the EPPS was assessed by Caputo, Plapp, Hanf, and Anzel (18) utilizing a sample composed of nursing students. Two groups were differentiated on the basis of EPPS scores and subsequently tested on three behavioral and projective measures. It was predicted that differences between groups on the Epps should also be found on the other measures, and the EPPS need scores should show higher correlations with corresponding than with non-corresponding scores on the other measures. Essentially negative results cast doubt on the validity of the EPPS, although some support was obtained for need Autonomy. Interestingly enough, need Autonomy was also found by Zuckerman (49) to be capable of differentiating a "rebellious" group from three "dependency" groups.
Williams, et al. (47) conducted a study which was concerned with manifest needs and manifest anxiety. Abasement was found to be the only manifest need for which significant differences existed for both men and women. The finding that both men and women nonanxious subjects scored significantly lower than anxious subjects on Abasement suggests that the nonanxious groups may be characterized by a more favorable self-concept than the anxious group.

G-Z

The most significant studies of validity on the Guilford-Zimmerman are those reported in the manual (26). A perusal of the pertinent literature reveals a paucity of validity studies on the G-Z.

Summary

In this section, discussion of psychic determinism and projective techniques prefaced the remarks and research concerning the Deviation Hypothesis. Psychic determinism, projection, and the Deviation Hypothesis are not unrelated.

A multiplicity of studies seems to substantiate the thesis that particular item content for objective personality and similar tests is inconsequential. Since a wide variety of content may be employed with equal effectiveness, verbal content of the traditional type used in personality tests is not a sine qua non. In fact, any content which produces deviant response patterns will, judging from the existing evidence, suffice.
All of the MMPI scales utilized in the present undertaking have received experimental support for their validity. A few studies indicate that certain of the clinical scales on the MMPI are correlated with certain EPPS variables. Additionally, Abasement and Autonomy received some support from studies concerned with their validity. A survey of the literature revealed few studies concerned with the validity of the G-Z. The most significant studies relating thereto are reported in the G-Z manual.
CHAPTER BIBLIOGRAPHY


CHAPTER III

METHOD

Subjects

The subjects in the present study were both male and female students enrolled in freshman courses in psychology, sociology, and English at North Texas State University during the spring and summer sessions of 1966. That is not to say that all students were freshmen. Of the 226 subjects participating in this study, 141 were freshmen, 56 were sophomores, 25 were juniors and 4 were seniors. Table II displays the distribution.

TABLE II

CLASSIFICATION OF STUDENTS IN TERMS OF PERSONALITY TESTS

<table>
<thead>
<tr>
<th>Test</th>
<th>Freshmen</th>
<th>Sophomores</th>
<th>Juniors</th>
<th>Seniors</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
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<td>50</td>
<td>14</td>
<td>10</td>
<td>1</td>
<td>75</td>
</tr>
<tr>
<td>EPPS</td>
<td>46</td>
<td>20</td>
<td>8</td>
<td>0</td>
<td>74</td>
</tr>
<tr>
<td>G-Z</td>
<td>45</td>
<td>22</td>
<td>7</td>
<td>3</td>
<td>77</td>
</tr>
<tr>
<td>Total</td>
<td>141</td>
<td>56</td>
<td>25</td>
<td>4</td>
<td>226</td>
</tr>
</tbody>
</table>
Criterion Instrument

A new geometric-designs test was devised for use as the basic criterion in the present undertaking. The test consisted of a series of ten pairs of figures or geometric designs presented in booklet form (see Appendix A). The booklet was composed of paper that was approximately four and one-half inches wide by eight and one-half inches long. Each page in the booklet contained but one pair of figures or designs which differed only in terms of size. The larger design was approximately three-fourths of an inch high. The smaller design was roughly half as high as the larger. The larger figure was placed to the left with the smaller figure to the right of it. The distance between the figures varied from one-fourth an inch to one-half an inch. The words "One (figure) is ______________ than the other" accompanied each pair of designs or figures. The statement was structured in this manner in an attempt to elicit either "larger" or "smaller."

Page one of the booklet consisted simply of two vertical lines differing only in length. The longer line was placed to the left with the shorter line to the right of it. The statement "One line is __________ than the other" attended the lines. Page two of the booklet depicted two squares along with the statement "One square is __________ than the other." On page three of the booklet were circles; page four, triangles; page five, rectangles; page six, stick people; page seven, diamonds; page eight, hearts; page nine, hexagons; page ten, cones.
In addition to the geometric-designs test, the Minnesota Multiphasic Personality Inventory, the Edwards Personal Preference Schedule, and the Guilford-Zimmerman Temperament Survey were administered to selected subjects. Table III summarizes the number of subjects according to sex and test taken.

**TABLE III**

**NUMBER OF MALES AND FEMALES TAKING PERSONALITY TESTS**

<table>
<thead>
<tr>
<th>Test</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMPI</td>
<td>28</td>
<td>47</td>
<td>75</td>
</tr>
<tr>
<td>EPPS</td>
<td>32</td>
<td>42</td>
<td>74</td>
</tr>
<tr>
<td>G-Z</td>
<td>55</td>
<td>22</td>
<td>77</td>
</tr>
<tr>
<td>Total</td>
<td>115</td>
<td>111</td>
<td>226</td>
</tr>
</tbody>
</table>

**Procedures for Collecting Data**

The students in a class were tested simultaneously. First, each person in the class was given a booklet containing the geometric designs and a sheet of notebook paper on which to record his responses. The students were then told that the test was a test of perception. Specifically, the instructions were as follows: "This is an experiment in perception. It is designed to see how people perceive objects. You are to
state with one word only the relationship that exists between two objects or designs."

Subsequent to the administration of the geometric-designs test, each person in the class was given a personality test. Three freshman psychology classes were administered the MMPI. The EPPS was given to two freshman psychology classes and one freshman sociology class. The G-Z was administered to four freshman English classes. The small sizes of the English classes necessitated testing a fourth class in order to increase the N. Thus, each class tested was given the geometric-designs test and one of the three personality tests. Relative representativeness of classes was presupposed. It was hoped that by utilizing just one personality test in each class there would be a minimization of test-taking fatigue and monotony and a maximization of cooperation from the subjects.

Procedure for Treatment of Data

The subjects in this study were divided into two major groups. Those subjects responding with the word "larger" or "longer" to all ten geometric designs constituted Group L. Group Sm consisted of those subjects responding "smaller" or "shorter" to all ten geometric designs. For the sake of completeness, a third group, designated Group Sh, was comprised of those subjects who shifted ("shifters") from "larger" to "smaller" or vice versa. Table IV shows number of subjects according to sex and group taking personality tests.
The raw scores of Groups L, Sm, and Sh on the previously
designated personality variables constituted the basic data
of the present inquiry. The data were statistically analyzed
by simple analysis of variance to be described in the suc-
cceeding chapter. The statistical computations were carried
out at the Computer Center at North Texas State University.

### TABLE IV

NUMBER OF SUBJECTS ACCORDING TO SEX AND GROUP
TAKING PERSONALITY TESTS

<table>
<thead>
<tr>
<th>Groups</th>
<th>MMPI</th>
<th>EPPS</th>
<th>G-Z</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sex</td>
<td>Total P</td>
<td>Sex</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
</tr>
<tr>
<td>Sm</td>
<td>4</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Sh</td>
<td>7</td>
<td>23</td>
<td>30</td>
</tr>
<tr>
<td>L</td>
<td>17</td>
<td>16</td>
<td>33</td>
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<tr>
<td>Totals</td>
<td>28</td>
<td>47</td>
<td>75</td>
</tr>
</tbody>
</table>
CHAPTER IV

RESULTS

In the light of the literature on projective techniques and of clinical observation, it appeared patently plausible to assume that individuals with inveterate inferiority feelings would reflect these feelings when responding in terms of size to geometric designs. Specifically, it was assumed that individuals who described the existing relationship between two geometric designs which differed only in size with the word "smaller" or "shorter" were projecting feelings of inadequacy or inferiority. The hypotheses formulated in the present investigation were founded upon the above stated supposition. Group L consisted of those subjects who responded "larger" to all ten geometric designs. Group Sm was comprised of those subjects who responded "smaller" to all ten figures. Group Sh was composed of "shifters." The first four hypotheses advanced concerned the MMPI.

Significance of Mean Difference Among Groups in Response to the MMPI

The hypotheses tested were as follows:

Hypothesis 1. Group Sm will score significantly higher on the Depression scale than will Group L.
Hypothesis 2. Group Sm will score significantly higher on the Social Introversion scale than will Group L.

Hypothesis 3. Group Sm will score significantly higher on the Psychasthenia scale than will Group L.

Hypothesis 4. Group L will score significantly higher on the Ego Strength scale than will Group Sm.

Analysis of variance between Groups L, Sm, and Sh on the MMPI variables stated above resulted in F values which failed to attain the .05 level of significance. Table V shows means and SD's for each of the MMPI variables for each group. A comparison of the means of Group L and Group Sm reveals no consistent trend. It thus appears that any difference in the means is simply ascribable to chance factors operating. Summary of analysis of variance of MMPI variables can be seen in Table VI.

TABLE V

<table>
<thead>
<tr>
<th>Group</th>
<th>D</th>
<th>Pt</th>
<th>Si</th>
<th>Es</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>L</td>
<td>19.30</td>
<td>5.14</td>
<td>14.39</td>
<td>8.51</td>
</tr>
<tr>
<td>Sm</td>
<td>18.50</td>
<td>3.91</td>
<td>11.92</td>
<td>7.59</td>
</tr>
<tr>
<td>Sh</td>
<td>19.70</td>
<td>4.11</td>
<td>13.63</td>
<td>7.86</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>46.64</td>
<td>5.21</td>
<td>46.00</td>
<td>7.73</td>
</tr>
</tbody>
</table>
TABLE VI

SUMMARY OF ANALYSIS OF VARIANCE
OF MMPI VARIABLES

<table>
<thead>
<tr>
<th>MMPI Variables</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>Between</td>
<td>12.40</td>
<td>2</td>
<td>6.20</td>
<td>.29</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>1560.27</td>
<td>72</td>
<td>21.67</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1572.67</td>
<td>74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pt</td>
<td>Between</td>
<td>54.18</td>
<td>2</td>
<td>27.09</td>
<td>.40</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>4933.76</td>
<td>72</td>
<td>68.52</td>
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<tr>
<td></td>
<td>Total</td>
<td>4987.95</td>
<td>74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sl</td>
<td>Between</td>
<td>126.18</td>
<td>2</td>
<td>63.09</td>
<td>.59</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>7762.54</td>
<td>72</td>
<td>107.81</td>
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<tr>
<td></td>
<td>Total</td>
<td>7888.72</td>
<td>74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Es</td>
<td>Between</td>
<td>6.44</td>
<td>2</td>
<td>3.22</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>2925.11</td>
<td>72</td>
<td>40.63</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2931.55</td>
<td>74</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significance of Mean Difference Among Groups
In Response to the G-Z

The following hypotheses tested were related to the G-Z:

**Hypothesis 5.** Group L will score significantly higher on Ascendance than will Group Sm.

**Hypothesis 6.** Group L will score significantly higher on Sociability than will Group Sm.

**Hypothesis 7.** Group L will score significantly higher on Emotional Stability than will Group Sm.
Hypothesis 8. Group L will score significantly higher on Objectivity than will Group Sm.

When the data for the three groups on the four G-Z variables were subjected to analysis of variance, the resulting levels of $F$ were too low for significance. Table VII reveals means and SD's for each of the G-Z variables for each group. A comparison of the means discloses that the Group L means are larger than Group Sm means. Such a finding is in keeping with the direction of the predictions. Indeed, assuming a one-tailed test of significance, the means of the groups differ significantly at the 5 per cent point on the variable Ascendence. Summary of analysis of variance of G-Z variables is shown in Table VIII.

TABLE VII

G-Z VARIABLES SHOWING THEIR MEANS AND SD'S FOR EACH GROUP

<table>
<thead>
<tr>
<th>Group</th>
<th>A</th>
<th>S</th>
<th>E</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>L</td>
<td>17.63</td>
<td>5.76</td>
<td>19.96</td>
<td>6.84</td>
</tr>
<tr>
<td>Sm</td>
<td>13.78</td>
<td>6.00</td>
<td>19.11</td>
<td>6.05</td>
</tr>
<tr>
<td>Sh</td>
<td>16.15</td>
<td>4.88</td>
<td>20.51</td>
<td>5.53</td>
</tr>
</tbody>
</table>
TABLE VIII

SUMMARY OF ANALYSIS OF VARIANCE
OF G-Z VARIABLES

<table>
<thead>
<tr>
<th>G-Z Variables</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
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<td>Between</td>
<td>105.34</td>
<td>2</td>
<td>52.67</td>
<td>1.78</td>
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<td>2194.97</td>
<td>74</td>
<td>29.66</td>
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<td></td>
<td>Total</td>
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<td>76</td>
<td></td>
<td></td>
</tr>
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<td>S</td>
<td>Between</td>
<td>16.03</td>
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<td>Within</td>
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<td>74</td>
<td>38.43</td>
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<td></td>
<td>Total</td>
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<td>76</td>
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<td></td>
</tr>
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<td>E</td>
<td>Between</td>
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<td>.57</td>
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<td></td>
<td>Within</td>
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<td>33.49</td>
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<td>Total</td>
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<td>O</td>
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<td>Total</td>
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<td>76</td>
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Significance of Mean Difference Among Groups
in Response to the EPPS

Related to the EPPS were the following hypotheses:

Hypothesis 9. Group Sm will score significantly higher on Abasement than will Group L.

Hypothesis 10. Group Sm will score significantly higher on Deference than will Group L.

Hypothesis 11. Group L will score significantly higher on Dominance than will Group Sm.
Hypothesis 12. Group L will score significantly higher on Autonomy than will Group Sm.

Analysis of variance of the pertinent data resulted in F's which were not significant at the 5 per cent level. The means and SD's for each of the EPPS variables for each group are depicted in Table IX.

TABLE IX
EPPS VARIABLES SHOWING THEIR MEANS AND SD'S FOR EACH GROUP

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>L</td>
<td>10.54</td>
<td>4.32</td>
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<td>4.08</td>
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<td>Sh</td>
<td>10.18</td>
<td>2.99</td>
<td>12.85</td>
<td>4.24</td>
</tr>
</tbody>
</table>

A comparison of the means of Groups L and Sm divulges no particular pattern or trend. Noteworthy, perhaps, is the fact that should a one-tailed test of significance be used, the means of the groups differ significantly at the 5 per cent point on the variable Abasement, although in the opposite direction of that predicted. Summary of analysis of variance of EPPS variables is presented in Table X.
TABLE X

SUMMARY OF ANALYSIS OF VARIANCE
OF EPPS VARIABLES

<table>
<thead>
<tr>
<th>EPPS Variables</th>
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<td>Within</td>
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<td>16.20</td>
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<td></td>
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<td></td>
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<td>Between</td>
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<td>.21</td>
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<td>Within</td>
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<td>21</td>
<td>20.55</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1467.96</td>
<td>73</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Between</td>
<td>38.65</td>
<td>2</td>
<td>19.32</td>
<td>.74</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>1782.14</td>
<td>71</td>
<td>26.28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1904.22</td>
<td>73</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Between</td>
<td>86.31</td>
<td>2</td>
<td>43.15</td>
<td>1.72</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>1782.14</td>
<td>71</td>
<td>25.10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1868.45</td>
<td>73</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sex Differences

Differences in responses between the sexes were examined for possible significance. All of the subjects taking the Guilford-Zimmerman Temperament Survey comprised the group scrutinized statistically by the use of chi square. The resulting value of 4.92 fell short of the 5.99 required for significance at the 5 per cent level. The distribution of males and females according to groups is shown in Table XI.
TABLE XI

DISTRIBUTION OF SEXES ACCORDING TO GROUPS

<table>
<thead>
<tr>
<th>Groups</th>
<th>Females</th>
<th>Males</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sm</td>
<td>1</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Sh</td>
<td>16</td>
<td>25</td>
<td>41</td>
</tr>
<tr>
<td>L</td>
<td>5</td>
<td>22</td>
<td>27</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>55</td>
<td>77</td>
</tr>
</tbody>
</table>

Laterality

Another condition considered in the present undertaking was that of laterality. That laterality was not a factor in determining response "set" was demonstrated when the chi square test revealed no significant difference between right- and left-handedness for the three groups. Table XII demonstrates distribution of right- and left-handedness for each group.

TABLE XII

DISTRIBUTION OF RIGHT- AND LEFT-HANDEDNESS FOR EACH GROUP

<table>
<thead>
<tr>
<th>Groups</th>
<th>Right</th>
<th>Left</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sh</td>
<td>38</td>
<td>3</td>
<td>41</td>
</tr>
<tr>
<td>L</td>
<td>20</td>
<td>7</td>
<td>27</td>
</tr>
<tr>
<td>Sm</td>
<td>8</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>11</td>
<td>77</td>
</tr>
</tbody>
</table>
Correlation of "Shifters" and "Non-Shifters" on Personality Variables

Finally, biserial coefficients between the "shifters" and "non-shifters" (includes both Group L and Group SM) for each of the four variables on each of the three personality tests were calculated. All of the coefficients failed to attain the 5 per cent level of significance. The means, standard deviations, and coefficients between the "shifters" and "non-shifters" for each of the variables on each of the personality tests are shown in Table XIII.

**TABLE XIII**

BISERAL COEFFICIENTS BETWEEN "SHIFTERS" AND "NON-SHIFTERS" PLUS MEANS AND SD's FOR EACH VARIABLE FOR EACH OF THE PERSONALITY TESTS*

<table>
<thead>
<tr>
<th>Var.</th>
<th>Non-Shifters</th>
<th>Shifters</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>D</td>
<td>19.09</td>
<td>4.85</td>
<td>19.70</td>
</tr>
<tr>
<td>Pt</td>
<td>13.73</td>
<td>8.34</td>
<td>13.63</td>
</tr>
<tr>
<td>Si</td>
<td>26.49</td>
<td>11.43</td>
<td>23.97</td>
</tr>
<tr>
<td>Es</td>
<td>46.47</td>
<td>5.96</td>
<td>46.87</td>
</tr>
<tr>
<td>Def</td>
<td>10.37</td>
<td>4.57</td>
<td>10.18</td>
</tr>
<tr>
<td>Aut</td>
<td>13.49</td>
<td>4.60</td>
<td>12.85</td>
</tr>
<tr>
<td>Dom</td>
<td>15.27</td>
<td>5.07</td>
<td>13.94</td>
</tr>
<tr>
<td>Aba</td>
<td>13.51</td>
<td>5.08</td>
<td>13.42</td>
</tr>
<tr>
<td>A</td>
<td>16.67</td>
<td>6.05</td>
<td>16.15</td>
</tr>
<tr>
<td>S</td>
<td>19.75</td>
<td>6.66</td>
<td>20.51</td>
</tr>
<tr>
<td>E</td>
<td>16.75</td>
<td>5.42</td>
<td>15.46</td>
</tr>
<tr>
<td>O</td>
<td>17.83</td>
<td>5.37</td>
<td>16.20</td>
</tr>
</tbody>
</table>

CHAPTER V

DISCUSSION

As previously stated, the broad basic assumption of the present investigation was that individuals suffering from inferiority feelings would project these feelings when responding in terms of size to geometric figures. Precisely, it was presupposed that persons who described the existing relationship between two geometric designs which differed only in size with the word "shorter" or "smaller" were projecting feelings of inferiority or inadequacy. The above supposition was supported by literature on the Rorschach, DAP, Bender Gestalt and by clinical observation. By clinical observation is meant that no less than a dozen clients undergoing counseling who manifested many of the symptoms of inferiority invariably responded with the word "shorter" to the two vertical lines previously pictured. Such a situation assumes even greater significance when one considers that the current culture is essentially a left-to-right culture. Accordingly, an individual seemingly has to override the impact and influence of the first stimulus (the longer line) in order to respond to the second (shorter line). Moreover, the majority of the subjects in the present study responded with the word "longer" thereby making the response "shorter" the deviant response.
The Deflation Hypothesis eventuated in the expectation that the deviant responses were significantly related to personality variables or traits. Indeed, it appeared altogether credible that feelings of inferiority were being reflected.

Theoretically, if feelings of inadequacy were being revealed in deviant responses, then it should follow that Group L ("larger") and Group Sm ("smaller") should respond differentially to pertinent personality test items. Such differential responding should result in significant differences between the two groups on the relevant personality variables. Moreover, it follows, too, that should the consequent of the above stated "if . . . then . . ." relationship not be confirmed, that the antecedent does not hold. Stated in terms other than logical, if the means of Group L and Group Sm do not differ significantly with respect to the relevant personality variables, it must be inferred that the deviant response is not reflecting inferiority feelings or attitudes.

Statistical analysis of the empirical evidence emanating from the present investigation revealed no significant differences between the means of Groups L and Sm on each of the personality variables previously portrayed. The logical conclusion is simply that the assumption that inferiority feelings are being projected by the group responding "smaller" to the geometric designs is untenable.
Be that as it may, it is known that some individuals suffering from feelings of inferiority did, indeed, respond "smaller" to the geometric designs. But this is not to say that such persons were projecting a deep-seated sense of deficiency, for as the derived data indicate, there were those with no sense of deficiency (as assessed by personality tests) who responded "smaller." Then, too there were some subjects known to be suffering from a sense of inadequacy who responded "larger." Obviously, the results of the present study reflect these diffuse disparities.

The responses for similar personality patterns makes for lack of clarity. Interpretation is indeed intricate, if not impenetrable. For example, if it is suggested that perhaps some of the subjects were in fact compensating for a sense of inadequacy when responding "larger," the question that comes to mind is: Why did the subjects "compensate" on the geometric designs but fail to do so on the personality test? Another question that comes to mind is, why did the examinees who evinced no signs of a sense of deficiency respond with the word "smaller?" Surely they were not demonstrating a desire to be small and insignificant, for such a desire would have been revealed in responses to the personality tests.

Conceivably, confounding of conscious and unconscious factors could account for some of the conflict engendered and encountered.
Some psychologists differentiate body image and self-concept. For example, Wylie (5, p. 6) asserts:

Not all writers have consistently reserved the term 'phenomenology' to refer to 'the study of direct awareness,' but we shall use the term with that meaning only. Most workers refer to a continuum of clarity in the phenomenal or conscious field, including the phenomenal self, and we shall apply the word phenomenal to all aspects of that continuum. On the other hand, attitudes, knowledge, motivations, and perceptions which are hypothesized to be definitely unconscious, we shall call 'non-phenomenal.'

So, Wylie equates the terms "phenomenal" and "conscious," and the terms "nonphenomenal" and "unconscious." The self-concept is related to the phenomenal field. The body image is assumed to be largely or entirely nonphenomenal.

Fisher and Cleveland (2), ostensibly besieged and biased by Freudian views, seem to imply that the "unconscious self concept" is more potent than the phenomenal self in determining behavior. Schilder (4), who has contributed most to the understanding of the body image, particularly in its pathological manifestations, indicated that all forms of cognition were colored by the body scheme.

If, in reality, a distinction can be made between the body image on the one hand and the self-concept on the other, perhaps, the perplexing problem pushing for interpretation and clarification is, in part, explained. By that is meant that, possibly, the subjects were responding to the geometric designs in terms of the body image. The personality tests employed were assessing the self-concept. The body image --
self-concept issue reduces to unconscious-conscious rivalry. Few, if any, psychologists would dare deny that unconscious and conscious factors compete for expression. Some authorities on the Rorschach feel that the projective technique fathoms forces and factors operating at an unconscious level. So when Phillips and Smith (4) state that sensitivity to size in human and human-like as well as other content is related to attitudes of inferiority, an interpretation in terms of the unconscious is indicated. As previously noted, Halpern (1) emphasized that the size of the figures should also be evaluated when interpreting the Bender Gestalt Test. Perhaps very small figures are projections of feelings of inadequacy emanating from the unconscious. Should the assumption concerning the Rorschach and the Bender Gestalt to the effect that unconscious forces are operating be tenable, it should not seem unreasonable to make the same assumption concerning the geometric designs.

Suffice it to say that the attempted explanation is far from satisfactory. Indubitably, the multiplicity of forces impinging upon and issuing from the human mind is so inextricably interlaced and interrelated as to defy disentangling.
If it be saucily suggested that there is no rhyme nor reason to the choice of one response rather than another, dismiss the notion. The distribution of subjects responding "larger" and "smaller" attains proportions not attributable to chance.
CHAPTER BIBLIOGRAPHY


CHAPTER VI

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The present investigation was initiated in an attempt to ascertain the relationship of responses to geometric designs to inferiority feelings and certain personality variables. The major problem was trichotomized as follows:

(1) What is the relationship of responses to geometric designs to selected clinical scales on the MMPI?

(2) What is the relationship of responses to geometric designs to selected personality variables on the EPFS?

(3) What is the relationship of responses to geometric designs to selected personality characteristics on the G-Z?

A new geometric-designs test was contrived for use in the present inquiry. The test consisted of a series of ten pairs of figures or geometric designs in booklet form. Each page in the booklet contained but one pair of figures or designs which differed only in terms of size. The larger figure was placed to the left with the smaller figure to the right of it. It was assumed that subjects who described the existing relationship between two geometric designs with the word "smaller" or "shorter" were projecting feelings of inferiority. The hypotheses in the present study were derived from the assumption asserted above.
The subjects in this study were male and female students enrolled in freshman courses in psychology, sociology, and English at North Texas State University. Group L consisted of those subjects who responded "larger" to all ten geometric designs. Group Sm was comprised of subjects who responded "smaller" to all ten figures. Finally, Group Sh was composed of "shifters."

The hypotheses subjected to empirical and statistical analysis were as follows:

Hypothesis 1. Group Sm will score significantly higher on the Depression scale (MMPI) than will Group L.

Hypothesis 2. Group Sm will score significantly higher on the Social Introversion scale (MMPI) than will Group L.

Hypothesis 3. Group Sm will score significantly higher on the Psychasthenia scale (MMPI) than will Group L.

Hypothesis 4. Group L will score significantly higher on the Ego Strength scale (MMPI) than will Group Sm.

Hypothesis 5. Group L will score significantly higher on Ascendence (G-Z) than will Group Sm.

Hypothesis 6. Group L will score significantly higher on Sociability (G-Z) than will Group Sm.

Hypothesis 7. Group L will score significantly higher on Emotional Stability (G-Z) than will Group Sm.

Hypothesis 8. Group L will score significantly higher on Objectivity (G-Z) than will Group Sm.
Hypothesis 9. Group Sm will score significantly higher on Basement (EPPS) than will Group L.

Hypothesis 10. Group Sm will score significantly higher on Deference (EPPS) than will Group L.

Hypothesis 11. Group L will score significantly higher on Dominance (EPPS) than will Group Sm.

Hypothesis 12. Group L will score significantly higher on Autonomy (EPPS) than will Group Sm.

The students in a class were tested simultaneously. First, the students were administered the geometric-designs test and then one of the three personality tests. The raw scores of Groups L, Sm, and Sh on the personality variables previously designated constituted the basic data of the present investigation. Analysis of variance between the three groups on each of the variables for each personality test resulted in F values which failed to attain the 5 percent level of significance. Thus, all of the hypotheses were disconfirmed.

It is conceivable that confounding of conscious and unconscious forces could account, at least in part, for the conflict encountered. As previously established, some psychologists make a distinction between body image and self-concept. The body image is assumed to be largely or altogether unconscious. The self-concept is related to the conscious mind,
If, in fact, a distinction can be made between the body image on the one hand and the self-concept on the other, perhaps, the problem of interpretation of the results is partially explicated. Possibly, the subjects were responding to the geometric designs in terms of the body image. The personality tests used were assessing the self-concept. The body image—self-concept issue reduces to unconscious-conscious rivalry. To be sure, few psychologists would deny that unconscious and conscious factors contend for expression. Some, if not all, authorities on the Rorschach believe that the projective technique assesses factors and forces operating at an unconscious level. Therefore, sensitivity to size in human and human-like as well as other content on the Rorschach, which supposedly reflects attitudes of inferiority, is to be interpreted in terms of the unconscious. Moreover, perhaps very small figures drawn in response to the Bender Gestalt Test are projections of feelings of inferiority emanating from the unconscious. Should the assumption concerning the Rorschach and the Bender Gestalt to the effect that unconscious forces are operating be tenable, it should not seem unreasonable to make the same supposition concerning the geometric designs.
Conclusions

Three major questions were asked concerning the relationship of responses to geometric designs to selected personality variables on the MMPI, EPPS, and the G-Z. The hypotheses set forth failed to gain support. It follows that there is no determinable relationship between responses to geometric designs and the designated personality variables. Furthermore, the assumption that inferiority feelings are being projected by the group responding "smaller" to the designs is untenable.

Recommendations

In view of the discussion in Chapter V, it might prove worthwhile to conduct an experiment or study in which a comparison is made between Rorschach responses and responses to geometric designs. Perhaps, too, it might prove productive to compare a normal population with a clinic population. There is some evidence to suggest that some of the relationships examined in the present study would be found to hold in a population of counselees. Finally, a comparison of groups in terms of extreme scores only on the personality variables might prove to be of value.
APPENDIX

One line is ________ than the other.

One square is ________ than the other.
One circle is _______ than the other.

One triangle is _______ than the other.
One rectangle is ________ than the other.

One figure is ________ than the other.
One diamond is ________ than the other.

One heart is ________ than the other.
One hexagon is ________ than the other.

One cone is ________ than the other.
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Books


**Articles**


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