THE RELATIONSHIP OF TWO PROJECTIVE MEASURES TO A SOCIOMETRIC MEASURE OF DEPENDENT BEHAVIOR

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

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Approved by:

[Signature]
To:
My family
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CHAPTER I

INTRODUCTION

The clinical use of projective instruments, such as the standardized projective tests, has generally proved to be of utility in the description and interpretation of symbolic behavior. However, the relationship of projective test responses to observable or overt behavior remains a problem of fundamental importance.

Clinicians who use these tests often recognize that no one-to-one relationship exists between projective test responses and overt behavior but, unfortunately, there is sometimes a tendency to resort to arguments favoring a non-verbalizable, intuitive approach to describe this relationship. An intuitive approach does not provide for an enunciation of the principles involved in prediction from projective test responses to overt behavior and as a consequence the usefulness of the projective technique for this purpose remains dependent upon the clinical skill of the user.

A different approach to the use of the projectives and to their interpretation would be one that is dependent upon a rationale or theory of behavior. Projective tests, from this point of view, are described and interpreted in a manner consistent with systematic theoretical constructs. The constructs or concepts would, ideally, be systematically related
and as a consequence allow generalizations to be drawn which were not strictly limited to the projective data. Also, pertinent empirically verified evidence derived in the same systematic framework would be applicable in the evaluation of the projective data. As such, then, the projective tests or measures would be instruments or operations for the theoretical constructs and the interpretation of the data would follow from the systematic formulations of the theory rather than from non-systematic, clinical intuition.

Such an approach could provide the concepts for the investigation of the relation of projective test responses to overt behavior. A Social Learning Theory of Personality appears to the author to provide the concepts necessary for such an investigation.

Utilizing the concept Protection-Dependency as defined with Social Learning Theory of Personality, then, this study is designed to:

1. Investigate the relationship of Protection-Dependency behavior as measured by frequency of response on two projective measures, the Thematic Apperception Test (TAT) and the Rotter Incomplete Sentences Blank (ISB), to a sociometric measure of Protection-Dependency behavior;

2. Investigate the relationship of Protection-Dependency behavior as rated on the basis of a structured clinical interview to similar ratings on the above-
mentioned projective measures;

3. Investigate the relationship of these interview ratings to sociometric ratings on Protection-Dependency behavior.
CHAPTER II

BACKGROUND

Projective measures of behavior have been the object of a great deal of evaluation and research. This research has been the subject, however, to much criticism, particularly from those who rely on the evidence from the projective tests for their working hypothesis in clinical situations. Much of the criticism has concerned itself with the question of the utility and validity of research on projective measures as they are related to overt behavior.

Among the more vocal critics is Hanfmann (13, p.20) who recently has, in her terms, made a "radical formulation" concerning the experimental analysis of projective responses. She states, "the attempts to improve the protective techniques, as such, by making them more 'objective' by the usual standards may be expected to fail precisely to the extent that they succeed: whenever greater reliability is achieved by the elimination of the interpretative process, the technique may conceivably become more 'effective,' e.g., more predictive for a given ('transpersonal') purpose, but it is no longer a projective technique; it can no longer be used as an instrument for following the relationship suggested by the case under study and for arriving at new insights."
She continues, stating that "only through clear recognition of differences in the structure and function of the projective and non-projective uses of data can the full development of both be insured and a cooperative and complimentary relationship be substituted for mutual encroachment. More than validation of one type of method in terms of the other, or of some selected prediction, we need knowledge of how each can best be used and how they can be combined to best advantage."

Hanfmann's argument concerning the need for interpretation in the clinical use of projective data cannot and need not be questioned. However, her argument appears to be less valid where she seems to imply that attempts to improve the use of projective techniques necessarily eliminate the interpretative use of such techniques.

The need for improvement in the use of projective techniques is emphasized in a recently published study by Soskin (38). A test pertaining to behaviors characteristic of an adult female was administered for comparative purposes to a group of graduate students taking their first course in TAT interpretation and to two groups of workers more experienced in the use of projective techniques. Soskin obtained the following results: Novices, with only basic items of information available to them, characterized the subject as well-adjusted. However, a marked change occurred after reading the subject's TAT responses and before training in
TAT interpretation had begun, with the novices' characterization of the subject shifting in the direction of maladjustment. After completion of the training course the novices' characterization remained essentially unchanged from that made following their first exposure to the subject's TAT responses. There was also no improvement in the accuracy of this group's characterization of the subject's adjustment. A group of more experienced users of projective techniques earned accuracy scores not significantly different from those earned by the novices at the end of their course. These more experienced test interpreters also showed the same tendency to postdict preponderantly maladjustive behaviors after study of the projective test.

Soskin concludes that, within the limitations of his study, the data of projective tests predispose toward an overestimation of maladjustive trends in postdiction situations.

Soskin's study, then, appears to be a clear example of high "reliability" with little, if any, validity in prediction from projective test responses to overt behavior.

An improvement in the reliability and validity of interpretation and prediction from projective test responses would seem to require the evaluation of projective test responses and overt behavioral data derived from a group or groups of individuals on some predetermined concept or
dimension, e.g., dependency need. This method of evaluation of projective test responses would necessarily result in an incomplete description of the adjustment of any particular individual or group of individuals. Through the use of such a procedure, however, the conditions under which projective test responses and overt behavior seem to be related might be more accurately described and communicated.

The integration of the experimentally derived information with an interpretative use of projective techniques would seem then, to the writer, to be both logical and necessary. Much of the completed research has been concerned, however, with an elucidation or justification of a particular interpretative approach without other than "authoritative" evidence being presented or available.

A considerable body of research of a more "objective" kind has concerned itself with the reliability and validity of the projective technique. This experimental research, particularly that concerned with the TAT and the TSB, has been summarized with a critical and integrative evaluation by Rafferty (30). Since this study concerns itself with measures of the relationship of projective test responses to overt behavior the literature pertinent to such measures will be reviewed. For comprehensive reviews of all the literature on the TAT see Mayman (20), Sargent (37), Bell (3), and Tomkins (39). For similar comprehensive reviews of the literature concerned with the TSB see Rotter (33),
and Bell (3).

Before proceeding to a discussion of the literature it is necessary to note that "fantasy" behavior and projective test responses are loosely equated in much of the literature concerning projective measures. However, a "common-sense" analysis of "fantasy" behavior does not appear to lead to the conclusion that such behavior is equivalent to behavior as manifested in responses to projective measures. For example, a response to the ISB such as "I...live at home" would seem to be inaccurately described as a fantasy response. The term, projective test response, will be employed, then, in the following discussion of the literature, as a more accurate description of behavior as manifested in response to projective measures.

Lindzey's review of the use of the TAT (17) along with related empirical evidence has, in part, stimulated this study and consequently will be used as a basis for the discussion of the pertinent literature. Among the several assumptions in the use of projective measures, as listed by Lindzey, are the following: (17, p.3)

1. "The dispositions and conflicts that may be inferred from the story tellers creations are not always reflected directly in overt behavior..."

2. "Themes that are recurrent in a series of stories are particularly apt to mirror the impulses and conflicts of the story teller."

Concerning the first assumption listed above Lindzey (17) comments that while it is possible to defend the
position that projective techniques should not be expected to provide statements concerning overt behavior, nevertheless, in clinical practice predictions from projective test responses to overt behavior are constantly being made.

According to Korner (15, p.624) such predictions are necessary and desirable in a clinical situation if taken primarily as working hypotheses and subjected to constant revision. She continues "however, all too often these predictions are too literal a transcription between needs expressed in projective test responses and reality behavior. This suggests a lack of acceptance and awareness of the fact that it is not the purpose of projective techniques to predict reality behavior. Besides, the contribution which these tests do make in the area of diagnosis and fantasy exploration is sufficiently valuable and of itself to justify their use." Predictions from projective test responses to overt behavior have been "taken primarily as working hypotheses" and subjected to experimental test, as will be reported in the following section.

Relationship of projective test responses to overt behavior

Murray (27, p.577), in an address before the American Psychiatric Association, expressed the following appropriate comments. "Whatever virtue the TAT may have, if any, it will be found to reside, not, as some have assumed, in its power to mirror overt behavior or to communicate what the
patient knows and is willing to tell, but rather in its capacity to reveal things that the patient is unwilling to tell or is unable to tell because he is unconscious of them. Since it is only the depth therapist who, in the regular course of his work, exposes components of the personality that have been unconscious to the patient, it is only the depth therapist who is in a position to validate the most significant inferences drawn from the TAT stories. Murray adds "since the TAT is not designed to exhibit overt action patterns of people, the possession by any picture of this kind of virtuosity is almost wholly irrelevant."

Elsewhere, Murray has suggested that behavioral tendencies not inhibited by cultural sanctions are apt to be highly correlated in projective test responses and overt expression. (26) He reports a positive correlation of over .40 between projective test responses and overt behavior for a group of college men for the variables of abasement, creation, dominance, exposition, nurturance, passivity, rejection and dejection. Negative correlations were found between projective test responses and overt sex behavior and no correlation between projective test responses and overt aggressive and achievement oriented behavior.

Sanford, et.al., (36) using as subjects a group of school children, examined the relationship between ratings of responses to the TAT and overt behavior ratings provided by the teachers. The average correlation was found to be
11 between the two sets of ratings, indicating that ratings from projective test responses alone were not good predictors of overt behavior. Sanford found evidence that certain needs most commonly inhibited by the children appeared most frequently in their projective test responses. Thus, there was a correlation of approximately -.30 between projective test response ratings and overt ratings on acquisition, aggression, autonomy, harm-avoidance, sex and succorance. These authors also found ratings low on the TAT but high on overt behavior on counteraction, blame-avoidance, deference, construction and sentience.

In accounting for these findings Sanford, et. al., suggests that those tendencies which were prohibited in the culture would be rated as high in projective test responses and low in overt behavior, while those tendencies which were encouraged by society and for which the individual could secure complete overt expression would be rated as high in overt behavior but low in projective test responses. To explain projective test responses and overt behaviors which were both given high ratings, i.e., achievement, nurturance, affiliation, dominance and cognizance, it has assumed that these behaviors were encouraged by the culture but that there was insufficient opportunity for complete expression of these behaviors.

To account further for the similarity between projective test responses and overt behavior, two additional
hypotheses were suggested. First, that needs in conflict with either social or personal ideals would appear both in projective test responses and overt behavior if the need were strong and self-control weak. Second, that needs socially acceptable if expressed in one way and socially unacceptable if otherwise expressed might be rated as high in both projective test responses and overt behavior but be expressed more primitively in projective test responses than in overt behavior.

Tomkins (39), discussing the Sanford, et. al., study, maintains that the hypotheses offered were probably correct in describing the relationship between overt and covert needs. The correlations found by Sanford were not high, however, because the TAT "did not permit an accurate estimate of the strength of covert needs." Tomkins suggests that repressed and suppressed, covert and overt needs, the past, present and future are all a part of projective test responses. He concludes, "for this reason we cannot assume that correlations between needs expressed in the TAT and needs expressed in behavior represent correlations between covert and overt needs, or even between fantasy and behavior."

Tomkins states that the relationship between covert and overt need can frequently be found within the TAT stories themselves if attention is given to the "levels and qualifiers" portrayed in the story. He has developed a complex method of determining and integrating the "levels and
qualifiers" found in TAT stories which depends heavily upon a psychoanalytic formulation. While Tomkins' approach appears to yield valuable clinical information in TAT interpretation it does not appear to provide for more precise prediction about the relationship of projective test responses to overt behavior.

Carp (5) using the Rorschach, play constructions and drawings made by a group of third graders found no coherence among the productions of a given child despite having obtained satisfactory interrater reliabilities on judgments on these different productions. Neither was there meaningful agreement among any of the projective test ratings with teacher's ratings on the behavior of the children. The correlations of the test scores with teachers' ratings were as follows: teachers' ratings with the Rorschach on children classified as shy, deliberate and unsocial were -.15, -.13, and .07, respectively. Drawings made by the child of his own family correlated no better with teachers' ratings. The author questions the adequacy of "present methods of interpreting from the production to the personality." She suggests that clinical hunches should furnish useful hypotheses concerning possible relationships between test materials and personality variables but adds that such hunches should not be accepted for use until they have been verified experimentally.

Alexander (1) designed a study to explore the use of
projective tests in studying teachers and their interpersonal relationships with children. A selected sample of 25 teachers was evaluated on the TAT using eight cards specially developed for his purposes. The author was able to predict significantly better than chance these teachers' acceptance of children's fun-making, sexuality, aggression, dependency and non-achievement. He was also able to predict the teachers' offering of affection to the children. Alexander's criterion was behavioral observations of these teachers with the children. The procedure is not clear from the report of the research and these unusually good predictions may have resulted from the author having been both observer and test interpreter.

Musser and Naylor (28) report a study designed, in part, to evaluate Sanford's suggestion that certain anti-social needs may appear in projective test responses but not in overt behavior. Sanford hypothesizes that cultural prohibitions or internal conflict which prevent the overt gratification of certain anti-social needs increase the intensity of such needs as reflected in projective test responses. A second hypothesis was also investigated. This hypothesis stated that subjects whose TAT stories included strong fears of punishment, relative to the number of their aggressive needs, would show less overt aggression than those subjects whose fear of punishment, relative to their aggressive needs, was low. The subjects for this study were 29 lower-
class boys. These boys had been referred to an agency for study following anti-social behavior which had brought them to the attention of the authorities. Overt behavior was rated on a scale which listed aggressive behaviors. These behavior scales were filled out daily and also weekly by a number of observers within the agency. Aggressive behavior, as inferred from projective test responses, was measured with the TAT.

The first hypothesis stated that in a lower-class group, individuals who gave evidence of intense aggressive needs, as inferred from their projective test responses, would also manifest more overt aggression than would those individuals who show little aggression in their projective test responses. This hypothesis was strongly supported.

Relative to the second hypothesis investigated the authors found that those subjects who had a high need for aggression and a low fear of punishment were overtly aggressive. On the other hand, those subjects having a low need for aggression and relatively strong fears of punishment displayed little overt aggression.

Holzberg and Posner (14) attempted to measure the relationship of extrapunitive ness on the Rosenzweig P-F Study to aggression in overt behavior and aggression as inferred from projective test responses. Sociometric measures were designed to reveal assertiveness of the subjects in relationships with their peers. The TAT was presented in a group
situation where the subjects were asked to select one of two responses that best described what was occurring in the picture. One of the two choices provided the subjects, for each of the 15 TAT cards, was aimed at revealing assertiveness and the other choice at revealing non-assertiveness.

Forty-seven student nurses, ages 20 to 22 years, were used as subjects. The inter-item correlations from the sociometric choices ranged from .67 to .86. The Rosenzweig P-F scores correlated .23 with one measure of overt aggression, i.e., sociometric ratings. The P-F scores correlated with the ratings on the modified TAT .20. Correlations of the ratings on the TAT with measures of overt behavior were as follows: with supervisors' ratings -.31; with sociometric ratings -.11. The sociometric ratings were found to correlate .31 (P = .05) with the supervisors' ratings. The authors feel that the resulting significant inverse relationship between supervisors' ratings and the modified TAT ratings is best explained in a comment by Symonds. This comment, cited by Holzberg and Posner states "if an individual works out his problems in overt behavior, he does not find it necessary to work them out in fantasy--and if he works them out in fantasy, he is bound not to express them in reality." Symond's reasoning concerning the relationship between projective test responses and overt behavior has been more parsimoniously and rigorously stated by Mussen
and Naylor (28) in the study previously cited, as well as by other authors cited in this section.

**Effect of experimentally imposed conditions on projective test responses**

That it is possible to develop objective and communicable measures of projective test responses, under certain specified conditions, has been abundantly demonstrated by McClelland and others working with the need achievement in varied situations.

The basic framework for this group of researches was developed by McClelland, et.al., in a series of studies designed to demonstrate the effect of induced need upon projective test responses (2, 22, 23, 25).

After demonstrating the effect of physiologically aroused need, e.g., hunger, upon projective test responses, these authors developed a methodology for inducing a "psychological" need of achievement. Through a series of studies and refinements in the methodology these authors have developed a highly reliable scoring system for the measurement of changes in need achievement under various experimental conditions.

The experimental conditions, described as representing roughly three degrees on a need achievement arousal continuum, are termed "relaxed," "neutral," and "achievement-oriented." These experimental conditions are induced through use of verbal instructions and are induced for purposes of
manipulating the need achievement. The "relaxed" condition minimizes achievement-related cues in the instructions. The "neutral" condition uses no extensive attempts to manipulate the motivation of the subjects. The "achievement-oriented" condition introduces additional achievement cues in the form of special instructions designed to heighten the motivation of the subjects but without any subsequent induction of feelings of success or failure.

The experimental conditions, described as representing three possible outcomes for aroused motives or needs, are termed, "success," "failure," and "success-failure." These three possible outcomes may also affect the degree of need arousal, but do not, in themselves, produce the need. In the "success," "failure," and "success-failure" conditions, achievement-related instructions are introduced to heighten the motivation of the subjects in the "achievement-oriented" condition. The attempt is made to induce feelings of success and/or failure, in the "achievement-oriented" condition through use of tests, false-norms, comparisons with other groups' attainments and further instructions.

In the McClelland, et.al., study (24) which concerned itself with a "psychological" need of achievement, thirty-nine male college men were used as subjects. In each of six experimental conditions these subjects responded to four TAT cards. Two of the TAT cards used were numbers 7BM and 8BM from the Murray TAT series and two were pictures
specially designed for purposes of the experiment.

These TAT pictures were presented in a group testing situation. The subjects were instructed to answer four printed questions adapted from Murray's standard instructions for the TAT (26). The questions wereaced on a sheet of paper so that one-quarter of the page was allowed for writing about each of them. One minute was allowed to answer each question. This standard procedure was used throughout.

It is apparent, as the authors note, that the subjects were not allowed the latitude of response which is usual in the clinical administration of the TAT. The scoring system also "involves simple classifications of response elements by objective criteria" rather than the more complex judgments often involved in scoring TAT responses in a clinical situation.

The stories are scored as achievement-related only when they contain a reference to an achievement goal. An achievement goal is defined as "success in competition with some standard of excellence." When the stories are judged as achievement-related then the following ten categories are also scored:

a. need - defined as the desire to reach the goal.

b. instrumental activity - defined as overt or mental activity by one or more characters in the story indicating that something is being done about attaining an achievement goal.

c. positive anticipatory state - defined as thoughts about success that will be achieved.
d. negative anticipatory state - includes all achievement related anticipations that are not clearly positive.

e. environmental obstacle - defined as the situation when the progress of goal-directed activity is hindered in some way.

f. positive and negative affective state - defined as emotional states associated with goal attainment.

g. nurturant - defined as the condition when forces in the story, personal in source, aid the character in the story who is engaged in on-going achievement-related activity.

h. achievement theme - defined as the condition when the achievement imagery is elaborated in such a manner that it becomes the central plot of the story.

Each story is scored independently and each category is scored only once per story. The achievement score is the algebraic sum of the scores for each category. Unrelated imagery is scored a -1. Doubtful imagery is scored zero. Achievement-related imagery is scored 1 as are all remaining categories which are scored.

The results of this study are as follows. Differences, by an analysis of variance technique, were found to be significant beyond the .05 level of confidence among conditions on all categories except "environmental obstacle." Differences between the "relaxed" and "neutral plus achievement-oriented" conditions were significant beyond the .05 level of confidence for all categories except "environmental obstacle" and "nurturant press." In every instance the "neutral" group, as predicted, fell between the other two
with respect to the intensity of the need arousal.

The reliability of the scoring was found to be very high. With two judges working together but making independent judgments, the agreement was found to be 97%. Another judge scored records of a group of subjects on two occasions six months apart with a resulting product-moment correlation of .95.

In this study the authors found an inverse relationship between need strength and amount of goal imagery. Need strength was assumed to be a function of the amount of induced need. The amount of goal imagery was defined as the anticipation of goal attainment or of frustration and failure. Subjects with the weakest need achievement, the "success" group, projected the most success. Subjects with the strongest need achievement, the "failure" group, projected the least success.

The results further indicated a direct positive relationship between need strength and amount of acts instrumental to success and to avoidance of failure, as measured by projective test responses. Subjects in the "failure" group gave projective test responses describing better achievement with regard to the future.

This study demonstrates that projective test responses can be systematically manipulated, under certain experimental conditions, i.e., "success," "failure," and "success-failure" conditions.
McClelland, et.al., have directed a number of researches utilizing the methodology described above. Those researches pertinent to the present study will be described.

Veroff (41) measured need achievement in a group of adolescent males and females, ages 16 to 19 years. He administered three pictures of males and three pictures of females, as a measure of need achievement. Eighteen boys and twenty-two girls were used as subjects under the "neutral" condition. Twenty-eight boys and twenty-four girls, from the same school, were used as subjects under the "achievement-oriented" condition.

Results of this study indicated an increase in need achievement for boys to male pictures which was significant at the .01 level of confidence. The boys did not demonstrate aroused need achievement in their responses to the female pictures. The girls in the study earned significantly higher need achievement scores in response to pictures with male subjects than did the boys in response to the same pictures under both "neutral" and "achievement-oriented" conditions.

In a study designed to confirm Veroff's results, Wilcox (42) attempted to measure need achievement in college women. Wilcox attempted to reduce the number of achievement related cues in the "neutral" condition far below those provided by Veroff for his "neutral" group. The author also selected pictures of women which were thought to be more
achievement-related than those pictures used by Veroff.

The results of Wilcox's study directly confirm the results obtained by Veroff. She found that male pictures, under both "neutral" and "achievement-oriented" conditions, arouse high need achievement in women while female pictures do not. The women in both of these studies responded under both conditions of need arousal with higher need achievement to the male pictures than did the male subjects.

The results of a study by Field (11) are consistent with the results obtained by Veroff and Wilcox. Using both males and females as subjects, Field modified McClelland's "achievement-oriented" condition as follows. The subjects were given fictitious scores on their social acceptability which were said to have been obtained from a secret committee of their peers. These fictitious scores indicated whether or not the subjects had been rated by their peers as socially acceptable. The social acceptability scores were randomly distributed throughout the group of subjects. Following the administration of four TAT pictures Field informed the subjects that their social acceptability scores were fictitious. He followed up with a nominating technique where each subject selected the most-liked and least-liked subjects in the group.

The results of this study were as follows. Variations in reported social acceptability had no effect on the need achievement scores of the male subjects whereas for the
female subjects the effect was marked. Both liked and disliked women, as determined by the nominating technique, showed significantly higher need achievement scores after being told they were socially acceptable or socially unacceptable than after being told nothing in the "relaxed" condition.

As for the men, none of the differences is significant, a fact in marked contrast to the usual McClelland findings.

McClelland summarizes these results stating that the data "unequivocally support the hypothesis that women's need achievement is tied-up with social acceptability, men's with leadership capacity and intelligence."

The Veroff, Wilcox and Field studies particularly emphasize that projective test responses must be explained and interpreted in a manner consistent with the group or culture from which the data are derived, e.g., male and female culture. This finding is, of course, not new but is significantly reemphasized in this context.

Lowell (18), in a methodological study of projective test responses as a measure of achievement motivation, administered equivalent forms of the TAT to the same group of male students. These administrations followed both "neutral" and "achievement-oriented" experimental conditions and were separated by an interval of one week.

Results of this study indicate that need achievement
scores obtained on the same subjects under the two different experimental conditions are significantly different. The author accepts these results as conclusive evidence that projective test responses reflect experimentally induced need achievement.

In a study cited in McClelland, et.al., (24) Lowell measured need achievement in another culture. Two experimental conditions were used, i.e., "neutral" and "achievement-oriented." The subjects were 21 ninth grade Navaho males in an American school in New Mexico. Using verbal cues, to surmount the problem of cultural content in picture stimuli, Lowell was able to demonstrate significant differences under the "achievement-oriented" condition.

A carefully designed and well controlled study by Crandall (6), structured within the framework of Social Learning Theory of Personality, further demonstrates the influence of experimentally imposed conditions on projective test responses.

Crandall measured induced frustration and punishment-reward expectancy as reflected in TAT stories. TAT pictures were specially developed for this investigation. A system for scoring punishment-reward expectancy in thematic stories was also developed. Thirty experimental subjects (college males) related stories to one act of thematic pictures and were then subjected to a frustration situation. The frustration situation consisted of failure on tasks which were
said to predict general athletic ability. Following the frustration situation, the subjects related stories to another set of equated TAT pictures. Except for the substitution of a rest period for the frustration situation, subjects in the control group followed a similar procedure.

It was found that the punishment-expectancy of the experimental subjects exceeded that of the control subjects by a highly significant difference. These results are consistent with McClelland's findings and suggest that the subjecting of individuals to a frustration situation is followed by an increased punishment-expectancy which can be reliably measured in projective test responses.

**Effects of environmental influences on projective test responses**

McArthur (21) in a "re-examination" of the effect of need achievement on TAT responses devised an ingenious experiment to test an hypothesis of "thematic self-projection." The relevance of McArthur's study here is primarily in his method and his results of measuring projective test responses as influenced by environmental conditions.

Two classes of freshman subjects were tested upon entering college. "Ready-made" experimental groups of over- and under-achievers and a failure group were defined as follows:
1. Over-achievers - defined as ambitious students who regularly achieve over their predicted aptitude.

2. Under-achievers - defined as a group presumably low in need achievement who are regularly achieving below their predicted aptitude but who have not yet failed and who have been rewarded by satisfactory grades.

3. Failures - defined as a group who came well endowed with scholastic aptitude and are therefore considered to be low in need achievement.

Academic over- and under-achieving were measured by the difference between a subject's Predictive Rank List, a measure of scholastic aptitude developed at Harvard, and his attained Rank List, based on June grades. The author predicted the TAT responses of these groups of subjects.

Trends found in the results were in the predicted direction but were small and unreliable. However, the two classes of subjects were found to differ from one another by an accident of sampling. One class was found to be composed of "public school" boys from the middle class who possessed values, attitudes and needs prescribed for them by the American "success culture." The other sample was composed of men who prepared for college in a private preparatory school, were from the upper class and who had been reared to regard academic achievement as less important than other kinds of approved behavior.

It was assumed then that the over-achievers among public school men would be most frequently and intensely achievement motivated. A re-examination of the data using only the
public school group produced an increased clarity of the trends previously found. That is, differences in need achievement, as inferred from scholastic achievement, could be predicted somewhat reliably from the projective test responses of the over- and under-achieving groups.

Another of McClelland's propositions was tested, viz., that an increase in need achievement leads to an increase in stories of failure by the hero. McArthur proposed that the appearances of failures in the stories collected by McClelland was an artifact resulting from the induced failures that were part of McClelland's experimental procedure. McArthur suggested further that a high incidence of failure could be found in the stories told by members of any group who had a recent experience of failing, even if the group were demonstrably low in need achievement.

Such a group was provided the author by student referrals at the Harvard student health service. The author assumed, on the basis of the University's administrative machinery, that this group of students all had the subjective experience (and many the administrative label) of failure and that they were nearly all low on need achievement.

The projective test responses of this failure group were predicted significantly better than chance on four out of five need achievement variables. The author suggests for even better prediction the use of a "levels analysis" as suggested by Tomkins (39). McArthur found that "failures"
less frequently discuss every aspect of achievement except failure and daydreaming.

McArthur's study emphasizes the importance of the standards and values of the culture or group in the determination of projective test responses. This study also suggests that it is possible to measure the influence of environmental conditions on projective test responses.

In general, it would appear that such differences as exist in a culture or group which are found to allow for prediction of projective test responses might provide for more valid generalization to other needs and behaviors in that culture or group than where such differences are induced to allow for similar predictions.

**Relationship between overt behavior and "play techniques" as a projective measure.**

Korner (16) describes a study in which she explored the relationship between hostility, as revealed through a series of play situations, and actual hostile behavior in a group of pre-school children. While the children were entirely consistent in their expression of hostility when observed through various play techniques no consistency was observed when their play was compared to overt behavior.

Korner states, (16, p.167) "it was interesting that in the sample studied, half the children remained consistent in all the situations in which they were observed. That is, they were either strongly hostile or submissive throughout,
while the other half reversed their position, being strongly hostile in the play situations, and submissive in actual behavior, or vice-verse." From this Korner concludes that since there was an even chance for consistency and inconsistency, prediction from one situation to the other was impossible.

Measures of projective test responses in a need-perception framework

Eriksen (9), working within a need-perception framework, hypothesized that a need which produces perceptual sensitization will be expressed directly in responses to the TAT in such forms as recurrent themes relating to the need and identification with characters whose behavior in the story is an overt reflection of the need. A need which produces no marked change in perceptual thresholds will seldom appear as an important theme in TAT stories. A need which produces perceptual defense will not be expressed in the TAT responses.

With aggression as the need variable Eriksen obtained each subject's perceptual recognition threshold for eight drawings. Two of these drawings portrayed people engaged in aggressive behavior. The remaining six drawings portrayed people who were engaged in relatively neutral tasks. Two to four weeks later each subject was administered ten TAT cards in the standard manner. With a seven point scale, four "critical" stories from cards 3BM, 13MF, 18GF, and 2Q were
rated. The subjects were 28 hospitalized psychiatric male patients.

It was determined that subjects with low recognition thresholds for aggressive stimuli (perceptual sensitization) give more TAT stories in which aggression is one of the main themes than do subjects with high recognition thresholds (perceptual defense). Correlations obtained between TAT ratings and perceptual recognition scores for two sub-groups were -.39 and -.32.

The results of this study are not inconsistent, in general, with results of studies previously cited although it seems that the author may have succeeded in merely demonstrating the correlation between two differently structured projective tests.

This review of the literature, in particular that literature concerned with the relationship of projective test responses to overt behavior, seems to be best summarized in a statement by Lindzey (17, p.20) "available empirical evidence clearly indicates that the assumed imperfect correlation between projective test responses and overt behavior is warranted. However, at present, we are far from an adequate formulation of the signs or cues that might permit specification from projective test responses alone of the behavioral tendencies that will secure overt expression as opposed to those that will not."
The use of sociometric ratings as a measure of overt behavior has had wide application. The purpose here will be to cite a few representative uses of sociometric ratings along with the reliability and validity of the ratings, where provided by the authors.

An unpublished study by Lyle (19) of verbal, performance and intelligence measures as related to social acceptance used sociometric ratings as the criterion measure. With fourth grade children as subjects Lyle determined the test-retest reliability of his measure, after a seven month interval, to be .93.

Trapp (40) used sociometric ratings as related to accuracy in the estimation of the attitudes of other group members with satisfactory results.

From a review of the literature concerned with the reliability and validity of sociometric ratings Pepinsky (29) reports reliability coefficients ranging from .93 to .96 in various studies using test-retest methods with one-to-three day intervals between test administrations. Pepinsky reasons that validity is intrinsic to sociometric data since sociometric test results represent choice behavior and the sociometric test purports to measure choice behavior.

Nominating techniques, more commonly referred to as "buddy-ratings," were extensively used by the armed forces in World War II, particularly in the selection of officers.
and officer candidates.

An example of the use of such sociometric ratings is reported in an investigation by Williams and Leavitt (43). This study employed, as a sociometric measure, the group rankings of men in a pre-officer candidate school. The men ranked themselves and all others in their platoon on the following five traits: desirability as a room-mate; fairness in decision-making; leadership in emergencies, sense of humor; and all-around ability as a combat officer. The men were also evaluated on the following objective measures. The Army General Classification Test, the Army Mechanical Aptitude Test and a biographical information and neurotic symptom questionnaire. The questionnaire was scored for psychiatric disabilities and with a specially designed key for the prediction of success in the Marine Corps Officer Candidate School. The five best men from each platoon were selected for OCS on the basis of these sociometric and objective measures.

A follow-up study of 100 cases revealed that the sociometric rating was a better predictor of the two criterion measures, i.e., passing or failing at OCS and combat proficiency, that were the several objective measures.

Social Learning Concepts

Social Learning Theory of Personality provides the systematic constructs which this study utilizes to describe the relationship of projective test responses to overt
behavior relative to the need Protection-Dependency. A brief abstract will describe the specific constructs employed here. A fuller exposition of this point of view may be found in Social Learning and Clinical Psychology (32).

Three constructs are basic to this Social Learning Theory. These are behavior potential, expectancy and reinforcement value. They are defined as follows (34):

**Behavior potential**: "the potentiality of any behavior occurring in any given situation or situations as calculated in relation to any single reinforcement or set of reinforcements."

**Expectancy**: "the probability (internal) held by the individual that a particular external reinforcement will occur as a function of or in relation to a specific behavior in a specific situation or situations."

**Reinforcement value**: "the degree of preference for any reinforcement to occur if the possibilities of their occurring were all equal."

The theoretical interrelationship of these three constructs may be expressed as follows:

\[ BP = f (E \& RV) \]

This basic formula for behavior may be logically elaborated to include a variety of behavior potentials, a variety of situations, and a variety of reinforcements. If we were interested in a group of functionally related behaviors and the degree to which these behaviors are used to obtain one of a set of functionally related reinforcements the formula would be expressed as follows:
\[ BP(x-n), s(l-n), r(a-n) = f(E(x-n), s(l-n), r(a-n)) \]

"This may be read as follows: The potentiality of the functionally related behaviors \( x \) to \( n \) to occur in the specified situations \( l \) to \( n \) in relation to the potential reinforcements \( a \) to \( n \) is a function of the expectancies of these behaviors leading to these reinforcements in these situations and the values of these reinforcements."

"This rather complicated formula might now be reduced to a formula for more general prediction which may be expressed as follows: The potentiality of a set of behaviors occurring which lead to the satisfaction of some need is a function of the freedom of movement or expectancies of these behaviors leading to the reinforcements or the satisfaction of this need and the strength or value of these reinforcements or need." This may be given the formula below:

\[ NP = f (FM \& NV) \]

These descriptive constructs, i.e., need potential, freedom of movement and need value are constructs which are more readily applicable to clinical psychological problems. They are described as follows (32, chap. 6):

"Need potential is the mean potentiality of a group of functionally related behaviors occurring in any segment of the individual's lifetime."

"In other words, the functionality of the grouping of behaviors which would be classified together in measuring need potential would be determined by the functional relatedness of the reinforcements for these behaviors. Behaviors which are characteristically directed toward the accomplishment of related goals or reinforcements are the behavioral referents for a need and are the behaviors we are concerned with in determining need potential. Since for most purposes it
would not be possible to make an exhaustive study of precisely when the individual utilizes behaviors leading to one reinforcement rather than another some type of sampling procedure is necessary to arrive at an estimate of need potential. For experimental purposes measurement ... is best accomplished by determining how the individual behaves in a select set of situations. The determination of which behaviors are directed toward the accomplishment of a particular need or goal is initially made on a cultural basis. This judgment may be made in a relatively free situation, as in the interpretation of projective material, or it may be made in highly controlled situations. A controlled situation may be produced by having specific alternatives present in one or more situations, where each alternative has an established, culturally pre-determined relationship to a given reinforcement or need. By culturally pre-determined is meant that within a given group it is established that a particular behavior leads to (or is directed toward) the accomplishment of a particular goal or reinforcement for the majority of the individuals within the culture. It should be emphasized at this point that such cultural definitions of the nature of external reinforcements do not take into account the individual deviations of the members of any culture."

For the purpose of making a measurement or an estimate of need potential for the individual—particularly in a clinical situations—it would be necessary to have (a) "a
thorough knowledge of the individual's prior learning background, (b) his own description of the needs and significance of his behavior and (c) a broad and general knowledge of all the subject's behavior, and the cues and conditions to which he is responsive. Such elaborate measurement techniques are neither economical nor feasible for the study of groups. For this latter purpose the method described above using culture referents would appear to be adequate."

"Need value is the mean preference value of a set of functionally related reinforcements."

"Like need potential, need value is measured by determining the individual's preference for alternatives. While in the case of need potential the alternative is one of the behaviors which lead to one of a given set of reinforcements, in the case of need value the alternative is the selection of one set of reinforcements over another set of reinforcements, with expectancy controlled."

Reinforcements become functionally related on the basis of two kinds of stimulus generalization: (1) "through a similarity predictable by means of stimulus generalization principles and (2) an extension of mediated stimulus generalization, in which a number of different reinforcements that tend to lead to the same reinforcement become related. Need value, then, is a preference value of a group of functionally related reinforcements which may be measured by a sampling method. For group and experimental purposes, the nature
of these functionally related behaviors could be determined from the culture and then their preference value in one or more choice situations where expectancy is controlled could be determined. In this way we may offer a subject a series of alternatives either verbally or non-verbally, ask him to indicate which he prefers, and on the basis of his choices determine a relative need value. Culturally, we may define a desire to be a boss or to give orders as a domination goal or a desire to avoid help or direction as an independence goal, etc. The nature of these goals is determined by an analysis of the culture to which the subjects belong. If the subjects whom we measure are drawn from the same culture, we are able to arrive at adequate referents for needs for predictive or experimental purposes. As in the case of need potential, individuals may differ from the group norms or modal tendencies, and specific reinforcements may belong to different organizations of reinforcements than those usually found in the given culture. For individual prediction an exhaustive study of the individual is necessary in order to reach an accurate estimate of need value."

"Freedom of movement is the mean expectancy of obtaining positive satisfactions as a result of a set of related behaviors directed toward the accomplishment of a group of functionally related reinforcements."

"Freedom of movement is low if the individual has a high expectancy of failure or punishment as a result of the behaviors which he uses to obtain the reinforcements which constitute
a particular need. While need potential and need value must always be measured relative to other needs, freedom of movement may be measured on absolute or relative scales by using either direct or indirect methods of measurement. If it were possible to control reinforcement values in two or more different need areas, freedom of movement could be measured on a relative basis by considering that the individual will behave in a way directed toward the accomplishment of the reinforcement for which he had the greatest expectancy."

An indirect method of measuring freedom of movement "depends upon identifying the frequency with which the individual, when seeking a potential goal, resorts to avoidance behavior or to irreal methods of satisfying or reaching a goal. Characteristically such avoidant and irreal behaviors have been referred to as "defense mechanisms."

There are two assumptions in the use of avoidance and symbolic behavior as measures of freedom of movement: (1) "these behaviors, defined culturally as avoidant or symbolic and therefore not constructive, do not lead to direct positive satisfactions from other members of the culture and almost invariably lead to negative reinforcement; (2) individuals who use such behavior experience or become aware of this negative reinforcement." Therefore, "any individual who uses behaviors which he knows result in negative reinforcement or which have become associated with negative reinforcement, must do so because the strength of
that particular negative reinforcement or the expectancy for it is less than the expectancy for negative reinforcement which might follow positive methods of reaching these goals. Or if avoidance and symbolic behaviors are frequently followed by negative reinforcement, then they may be utilized by an individual only if his expectancy for positive satisfaction in relation to a given set of goals is even lower than his expectancy for failure for the avoidance or symbolic behavior."

It may be seen then, that for practical purposes an over-all measure of freedom of movement would correspond roughly to an over-all measure of adjustment or maladjustment as it is used in some other systems of personality theory.

Need

The concept of need in Social Learning Theory is a behavioral one describing the tendency of the individual to behave in a given fashion. A need has the following characteristics (32, chap.5):

1. "A functionally related set of behaviors which have the potential of occurring, directed at the attainment of a functionally related set of reinforcements (need potential);

2. An expectancy of success or satisfaction that these behaviors will lead to the occurrence of the reinforcements they are directed toward (freedom of movement); and

3. A preference value or importance value for these related reinforcements (need value)."
In the development of need concepts for purposes of communication and utility in prediction six need terms were selected on the basis of clinical experience. The specific need concepts are not in any way dictated by the theory and are subject to continuing revision with accumulated evidence.

The six need concepts taken as representative of definition at a very broad level of generality thought to be of relatively equal levels of inclusiveness are as follows:
Recognition-Status; Protection-Dependency; Dominance; Independence; Love and Affection; and Physical Comfort.

The concept of Protection-Dependency, used in this study, is defined as follows:
"the need to have another individual or group of individuals prevent frustration or punishment and to provide for the satisfaction of other needs."

Statement of the problem

The problem in this study is to investigate the relationship of frequency of projective test responses in Protection-Dependency to overt Protection-Dependency behavior.

Lindsey's assumptions (17, p.3), as previously noted,

* The need Dominance was also employed in the preliminary study. Protection-Dependency and Dominance were found to correlate -.50 with each other on the sociometric ratings. This finding is consistent with those of Rockwell (31) who determined that Protection-Dependency and Dominance were negatively related on a series of measures. Since it appeared that it was not possible to obtain any additional information through the use of the two different need concepts it was decided to use only Protection-Dependency as the need category in the final experiment.
define the relationship of projective test responses to overt behavior as this relationship is important in clinical psychological measurement. Those assumptions related to this study are as follows:

"the dispositions and conflicts that may be inferred from the story teller's creations are not always reflected directly in overt behavior."

"themes that are recurrent in a series of stories are particularly apt to mirror the impulses and conflicts of the story teller."

In the following investigation systematic constructs derived within a Social Learning Theory of Personality framework will be utilized, in so far as they are applicable. A description and interpretation of the systematic constructs as they apply to this problem is necessary for the development and formulation of the relationships and hypotheses to be evaluated.

Need has been previously described as having the characteristics of a functionally related set of behaviors directed at the attainment of a functionally related set of reinforcements. The potential of these behaviors occurring is described as need potential. Need potential for Protection-Dependency behavior is the definition here for overt dependent behavior.

A need also has the characteristic of an expectancy of success or satisfaction that these functionally related behaviors will lead to the occurrence of the reinforcements that they are directed toward. This characteristic is defined
here as freedom of movement for Protection-Dependency reinforcements.

Another characteristic of need is preference value for these related reinforcements and is defined here as need value for Protection-Dependency reinforcements.

In terms of the first assumption listed above, need potential, need value and freedom of movement are together considered as a definition of the "dispositions that may be inferred from the story teller's creations." The concept of need is differentiated into these three characteristics, i.e., need value, freedom of movement and need potential, for purposes of more precise description than is employed in other points of view.

Need value, freedom of movement and need potential as derived from an interview will be compared to frequency of response on the projective measures and to the sociometric measure. This comparison will be made to determine the relationship which will allow a more precise prediction about need for Protection-Dependency satisfactions as inferred from projective test responses and overt behavior.

A concept of adjustment or maladjustment in other points of view has been previously suggested as corresponding roughly to an over-all measure of freedom of movement in this Social Learning Theory.

A description of "conflict" or "maladjustment," on the basis of this reasoning, might be as follows. Where an in-
individual's freedom of movement generally was "low," i.e., where an individual had a high expectancy of failure or punishment as a result of behaviors which he used to obtain reinforcements in general, then that individual might be considered as "maladjusted." However, when a specific need area, e.g., Protection-Dependency, is considered it would be necessary also to consider the individual's preference or need value for Protection-Dependency reinforcements. In the instance where freedom of movement was low but equal to or greater than need value the individual would not be considered as having an "important conflict" in Protection-Dependency. In the instance where need value was higher than freedom of movement, however, i.e., a situation where the individual preferred but was relatively less able to obtain positive reinforcement for Protection-Dependency behaviors, than that individual might be described as having an important "conflict" in the need Protection-Dependency.

A measure of the importance of conflict, i.e., need value greater than freedom of movement for Protection-Dependency reinforcements, derived from a structured clinical interview, will be compared to frequency of response in Protection-Dependency on the projective measures. This comparison will be made to evaluate the second of Lindzey's assumptions as listed above.

We may now proceed to a formal statement of the hypotheses which are to be investigated in this study. The
first hypothesis is concerned with the inter-judge reliabilities of the interview ratings and the frequency of response ratings on the projective measures.

Inter-judge reliability hypotheses

A significant relationship will be present between the ratings of the judges on the interview variables, on the TAT and on the ISB.

Null hypothesis 1. No significant correlation will be present between the inter-judge ratings on the interview variables of need value, freedom of movement and need potential, beyond that which could be expected by chance.

Null hypothesis 2. No correlation will be present between the inter-judge ratings on the TAT and the inter-judge ratings on the ISB in terms of frequency of response in Protection-Dependency, beyond that which could be expected by chance.

Experimental hypotheses

A. Need value, freedom of movement and need potential for Protection-Dependency reinforcements is directly related to frequency of projective test responses in Protection-Dependency.

Null hypothesis 3. No correlation will be present between sociometric ratings of need potential for Protection-Dependency behavior and frequency of response in Protection-Dependency on the TAT and on the ISB, beyond that which could
be expected by chance.

**Null hypothesis 4.** No correlation will be present between interview ratings of need value, freedom of movement and need potential for Protection-Dependency reinforcements and frequency of response in Protection-Dependency on the TAT and on the ISB beyond that which could be expected by chance.

**B. Need value, freedom of movement and need potential for Protection-Dependency reinforcements is directly related to sociometric ratings of need potential for Protection-Dependency behavior.**

**Null hypothesis 5.** No correlation will be present between interview ratings of need value, freedom of movement and need potential for Protection-Dependency reinforcements and sociometric ratings of need potential for Protection-Dependency behavior, beyond that which could be expected by chance.

**C. Frequency of projective test responses in Protection-Dependency is significantly related to importance of "conflict" in need Protection-Dependency.**

**Null hypothesis 6.** No correlation will be present between frequency of response in Protection-Dependency on the TAT and on the ISB and a measure of importance of "conflict" derived from interview ratings on need value and freedom of movement for protection-Dependency reinforcements, beyond that which could be expected by chance.
CHAPTER III

METHODOLOGY

The preliminary phase of this study was devoted to the development of (a) procedure, (b) sociometric measure, (c) interview, (d) manuals for rating the interview and the projective measures.

The final phase consisted in the evaluation of the hypotheses.

Preliminary research

Subjects Twenty-one subjects, all undergraduate members of a social fraternity at Ohio State University participated in the preliminary research. All of these men had been members of the fraternity for at least six months and had been students at the University for at least one year. The subjects had volunteered to participate in this research following its presentation to them as a fraternity project for which the fraternity would be paid a nominal sum. The age range of these subjects was 18 to 24 years.

Procedure

The subjects were first seen in a group at the fraternity house. At that time the sociometric and projective measures were obtained. The initial structuring was as follows:
"I want to assure you that the purpose of this study is not to obtain any psychological measures such as intelligence or personality scores, or personal evaluations of any other sort. The aim of this study is to develop better ways of describing people in groups."

The sociometric ratings were obtained first, followed by the administration of the TAT and finally the ISB. In all, approximately two hours were required for the group testing. Each subject, within a one-to-three week interval following the group testing, was seen individually for a structured clinical interview which lasted approximately one hour.

Sociometric test - development and procedure A nominating technique, as a measure of overt behavior, was developed. The descriptions provided the subjects in order to make their ratings consisted of an operational definition of the need Protection-Dependency as defined in Social Learning Theory.

The definitions were worded to describe certain behaviors ideally considered most representative of an individual who, behaving in such a fashion, would be considered to have a high need potential for Protection-Dependency behaviors. A further description was provided the subjects for them to make their ratings consisting of an operational definition so worded as to describe behaviors ideally considered as least representative of an individual who, behaving in such a fashion, would be considered to have a high need potential for Protection-Dependency behaviors.
The description, in the form provided for the subjects, is as follows:

**DESCRIPTION A**

Seeks advice before making most decisions. Tries to get help when in difficulties. Suits his actions to conform to others' standards. Seldom will disagree with others' opinions and tends to be rather easily influenced.

A-1 _____
A-2 _____
A-3 _____

B-1 _____
B-2 _____
B-3 _____

Makes most decisions without seeking advice. Tries to solve problems without help from others. Has definite standards and seldom changes these merely to conform to others' standards. Tends not to be easily influenced.

Six group members were to be nominated on the rating scale.** The same individual was to be nominated no more than one time. Care was taken not to "label" the descriptions although some questions were asked, e.g., "what do these behaviors stand for?"

The instructions for completing the sociometric ratings were given the group as follows:

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* see Appendix for Dominance rating scale used in preliminary study.

** (The procedure of nominating only the "extremes" of the group has been found to be at least as reliable as the much more difficult and time consuming task of rating an entire group from highest-to-lowest, most-to-least, etc. Such ratings, as are used in this study, are also found to provide a distribution of ratings similar to that obtained when each member of a group is to be rated by every other group member.)
"This procedure, as all others in this study, will be confidential and any possible recognition of your individual papers will be prevented by the use of a code number in place of your name.

You have before you two papers. One is called a RATING FORM and the other a CODE SHEET. You will notice that for each man in the group there is a corresponding code number. This code number is to be used in place of the man's name when marking the RATING FORM. The instructions at the top of the CODE SHEET indicate that you are to cross-off your own name from this sheet. Just draw a line through your own name. Now turn to the RATING FORM.

Here you will notice about one-half way down the page "DESCRIPTION A." Further down the page you will find "DESCRIPTION B." These descriptions are two extremes of the same trait. They are to enable you to decide which men in the group you are to rate on the described trait. Of course, no one is exactly like either description. However, you are to select the men who are the most similar to the description. Also, it is recognized that people oftentimes act differently in different situations but we are interested in how much the men you select tend to act this way in general.

Now, after reading "DESCRIPTION A," find the name of the one man who, in general, best fits that description. Write his code number in the space below, next to number A-1. Cross-off his name from the code sheet. Of the remaining names, find the name of the man who, in general, best fits "DESCRIPTION B." Write his code number in the space below, next to the number B-1. Cross-off his name from the code sheet. Of the remaining names, find the name of the man who best fits "DESCRIPTION A." Write his code number in the space below, next to number A-2. Cross-off his name from the code sheet. Of the remaining names, find the name of the one man who best fits "DESCRIPTION B." Write his code number in the space below, next to number B-2. Cross-off his name from the code sheet. Continue this procedure for space A-3, and for space B-3.

In all, the group required approximately ten minutes to complete the ratings. Since no difficulties were encountered in the use of this sociometric technique no modifications were necessary for its use in the final experiment.
Following the completion of the sociometric ratings the TAT was administered. An opaque projector and an eight foot screen were used to present the TAT cards to the group. The subjects were allowed six minutes to write out each story. The TAT cards remained in view of the group during this six minutes. The instructions to the group were as follows:

"This is a test of imagination, one form of intelligence. I am going to show you some pictures, one at a time, and your task will be to make up as dramatic a story as you can for each. Tell what has led up to the event shown in the picture, describe what is happening at the moment, what the characters are feeling and thinking; and then give the outcome. Write your thoughts as they come to mind." Are there any questions?

"You will have approximately six minutes for each story. Remember, for each story to (a) tell what has led up to the event shown in the picture, (b) describe what is happening at the moment, (c) describe what the characters are feeling and thinking, (d) and then give the outcome."

After answering any questions asked the standard Murray TAT cards which were used were presented in the following order: 4, 3BM, 6BM, 7BM, 8BM, 10, 12M, 13MF, 15, 17BM, 18BM, and 20. These particular TAT cards were selected on the basis of their stimulus value, i.e., a rank order value determined on the basis of the number of themes elicited by these cards in a group of 150 male subjects. These 12 cards are those cards with the highest stimulus values, of the 20 males cards, as determined in a normative study by Eron (10). During the presentation of the cards there occasionally was some vocal hilarity, laughter, etc., as well as negative comments concerning the esthetic value of the TAT pictures.
However, this did not seem to influence the individuality of the stories produced by the subjects.

Finally, the ISB was administered with the standard instructions which are as follows:

"Complete these sentences to express your real feelings. Try to do every one. Be sure to make a complete sentence."

There were no difficulties encountered in the administration of the ISB. However, by this time the group was somewhat "fed-up" with psychologists and their work and more than the usual encouragement and understanding was necessary to obtain a completed protocol from every subject.

**Interview - development and procedure** An interview was developed in which an attempt was made to elicit data relevant to need value, freedom of movement and need potential for both Protection--Dependency and Dominance. The interview for each subject was recorded on the Gray Audograph. The instructions to each subject were as follows:

"Again, I want to assure you that the information which you give me will be kept confidential. Some of the questions I will ask you may not want to answer and if so that is alright. However, any questions that you do answer, I would like you to answer as fully as possible so as not to defeat the purpose of the interview. Is that alright with you? Now, if it is OK with you, I'm going to record this since I can't write as fast as we will talk and it will save time for both of us."

The preliminary interview schedule, which was revised from time to time during this series of interviews, was administered to all but one of these subjects. This interview schedule is reproduced in the Appendix.
Since, as previously noted, it was decided not to use Dominance in this study, a new interview schedule was developed to elicit data relevant only to need value, freedom of movement and need potential for Protection-Dependency.

This revised interview schedule was administered to a few subjects from another fraternity. This administration did not prove useful, however, in eliciting further references for the development of the interview manual, since these latter subjects were from a minority group and were not representative of the earlier, larger group of subjects.

The final interview schedule, which was administered to all 60 subjects in the final experiment, is as follows:

Areas

School
1. How did you happen to come to college?
2. How did you happen to come to OSU?

Home
1. Where is your home?
2. How often do you go home?
3. How often do your parents visit you here at school?
4. How do you feel about parental visits?

Advisor
1. What is your general feeling about advisors?
2. What is an advisor generally useful for, for your purposes?
3. What would you prefer in an "ideal" student-advisor relationship?
4. How important to you are your present advisor's recommendations?
5. What happens when you and your advisor don't agree?

Major
1. What is your major? How did you happen to choose it?
2. If you had been undecided about your choice of a major what would you have done?
3. How likely would you have been able to get help from your parents in making your decision?
4. How likely is it that you would have gone to them for this kind of help?
5. How important was it to you that your parents agree with your choice of major?

Roommate
1. Would you describe, in general, the kind of person whom you would consider to be an "ideal" roommate.
2. How does your present roommate compare with this "ideal" roommate?
3. In what general ways would you like to have your roommate change?

Friends
1. Would you describe, in general, the kind of people you prefer as friends.
2. How do your present friends compare with this, in general?
3. What would you consider, for yourself, as most important in a friend?

Girl-friend
1. Would you describe, in general, the kind of girl-friend you prefer.
2. How do your present girl-friend(s) compare with this?
3. What would you consider, for yourself, as most important in a girl-friend?
4. In what way would it be important to you that your choice of girl-friend please your parents?
5. What happens when your choice of girl-friend (s) does not please your parents?
6. How do you generally meet girls? What is your preference in this?

Fraternity
1. How did you happen to join a fraternity?
2. What kinds of responsibilities have you had in your fraternity?
3. When you "took-over" this responsibility how did you go about handling it?

Health
1. How often, ordinarily, are you ill (enough
to miss school)?
2. As a child, how often were you ill?
3. In your experience, how do people act toward you when you are ill?
4. Generally, what was your parents' feeling toward illness?

Personal problems
1. How do you prefer to resolve most personal problems that arise with yourself?
2. How much success would you say you have had in dealing with your problems in this way?
3. If you weren't successful in dealing with your problems in the manner you have described, what would you do?
4. How do you feel about discussing your personal problems with (a) your parents; (b) your friends; (c) girl-friends?

Religion
1. You have probably been in discussions in the fraternity and elsewhere about religion. What are your ideas now about religion?
2. In what way is religion important to you?
3. What does religion seem to offer you that you don't find elsewhere?
4. How often do you go to church?

Development of the manuals

Manual for the interview

From interview protocols obtained in the preliminary research three manuals were developed, one for each interview variable to be rated, i.e., need value, freedom of movement and need potential. The three manuals were further sub-divided into the following 11 areas (corresponding to the 11 interview areas): (1) school; (2) home; (3) advisor; (4) major; (5) roommate; (6) friends; (7) girl-friends; (8) fraternity; (9) health; (10) personal problems; and (11) religion.

Referents for the interview variables for each sub-topic,
particularly for all points on the rating scales, were not always derivable from the preliminary interviews. Because there were few or no referents for some areas and/or interview variables, the raters were provided with the definition of Protection-Dependency and also a set of general principles logically derived from the definition. Dunlap (7) developed a similar set of general principles and a manual for rating Protection-Dependency from ISB responses. Dunlap's work has provided a major basis for the development of the manuals used in this study.

The interview variables of need value, freedom of movement and need potential were rated on ten-point scales. The points 1, 4, 7, and 10 on the rating scales corresponded to the values of the referents provided in the manuals for each of the scales. The in-between points were developed to allow finer discriminations than were possible from the selected referents in the manual.

The final values attached to the referents in each of the scales were arrived at in the following manner. Crude values were assigned by the experimenter consistent with the context from which the referents were taken. Following this procedure all of the referents for each interview variable, i.e., need value, freedom of movement and need potential, were typed on 3x5 cards, one referent on each card. Two independent judges,* who had no prior knowledge of the sub-

* Mr. Rue Cromwell and Mr. Walter Katkovsky.
jects, the ratings assigned the referents, etc., sorted the referents into four piles corresponding to points 1, 4, 7, and 10 on the rating scales.

On all values assigned the referents there was complete agreement between two judges and in most instances complete agreement among all three judges. The experimenter's prior assigned values were considered as one set of judgments. Finally, these crude scales were discussed by the interview judges and following changes where necessary for complete agreement, the referents were assigned final values. The interview manuals are reproduced in the Appendix.

Manual for the TAT From TAT stories obtained in the preliminary research a manual was developed for the judgment of the presence of a central theme of Protection-Dependency for each story. Each protocol was carefully read and any story which could be considered a referent for Protection-Dependency was noted. This preliminary judgment was made following from a modification of the general principles previously described for judging the interview variables on Protection-Dependency.

The presence of a central theme of Protection-Dependency was judged in relation to the "hero" and also in relation to the "other" figures taken as a combined group. Suggestions were included in the manual to promote agreement among the judges in the determination of the "hero" figure. A guiding principle was developed for the determination of
Protection-Dependency in "other" figures.

Following the selection by the experimenter of the stories from all the preliminary research groups' protocols, the two "projective" judges and the experimenter agreed upon those stories which were considered "borderline" and these stories were included in the final form of the manual as examples of either Protection-Dependency or non Protection-Dependency themes, as appropriate, for both "hero" and for "other" figures.

Manual for the ISB  From the ISB protocols obtained in the preliminary research, from Dunlap's ISB manual (7), developed on a college population and from selected protocols from the cross-validation sample used in the development of the Rotter Incomplete Sentences Blank (College form) (35), a manual for judging the presence of Protection-Dependency from ISB responses was developed. Here also, the general principles for judging the interview variables were used as the basis for including responses as referents for Protection-Dependency. "Borderline" responses were also included as examples of both Protection-Dependency and non Protection-Dependency, as appropriate. The "projective" judges and the experimenter agreed upon these responses for their inclusion in the final form of the manual. The manuals for the TAT and the ISB are reproduced in the Appendix.
Final experiment

Subjects Sixty undergraduate subjects, 20 from each of three different social fraternities at Ohio State University, participated in the final experiment. All but five of these subjects had been students at the University for at least one year and had been members of their respective fraternities for at least six months. The attempt was made to limit the sample of subjects to exclude freshmen and fraternity pledges since such men are often subject to "unusual" pressures from the recent separation from home and friends as well as the fraternal pledge duties.

All subjects volunteered for this study in the manner previously described for the preliminary research group. The age range of these subjects was 18 to 26 years. All of the subjects completed all of the experimental procedures used in the final experiment. The cooperation of the fraternities and the subjects was gratifying.

Procedure

The procedure in the final experiment was similar to that described for the preliminary research group. The sociometric ratings were obtained only for Protection-Dependency. Since only one error was made out of 360 sociometric ratings, the directions apparently were easily understood. In the three groups there was a great deal of comment, "horse-play," etc., upon presentation of the TAT cards.
However, the experimenter acknowledged and accepted this meanwhile admonishing the individuals to write their "own" stories after the hubbub subsided. Remarkably enough, there was almost no evidence of the group's remarks as an influence upon the individuality of the stories produced. The administration and completion of the ISB protocols was without incident.

All 60 subjects were interviewed individually within a two-week period following the group tests. This final interview required from 15 to 40 minutes per subject.

Training of the projective test judges The experimenter met with the "projective" judges* and discussed with them the concept of Protection-Dependency and the TAT and ISB manuals. The TAT manual at the outset of this training consisted only of the general principles for the judgment of the presence of Protection-Dependency themes. The ISB manual was essentially in its final form. Following the first discussion five TAT and five ISB protocols were judged. A second meeting indicated the need for considerable further discussion of the concept of Protection-Dependency as it was to be understood for purposes of this study. Following extended discussion and the rating of three further sets of five TAT and five ISB protocols each, the manuals were completed in final form. Most emphasis in the training of the judges was placed on the determination of

* Mr. Jerry Phares and Mr. Mark Stephens.
a central theme of Protection-Dependency in the TAT in relation to the "hero" figure.

It was found that the rating of TAT stories for the presence of a central theme of Protection-Dependency was extremely difficult. Many questionable central themes had to be judged somewhat arbitrarily since there was no latitude in the either-or ratings to be made.

Only one, central theme was judged for each story. Following the final discussions the three judges proceeded to rate the records from the final experimental subjects. Forty TAT and forty ISB protocols were rated by two judges, twenty protocols from each projective measure being rated for the same subjects and the remaining 20 TAT and 20 ISB protocols from different individuals. The assignment of the 20 protocols for each projective measure was made on the basis of every third subject as these subjects had completed the test.

The experimenter rated all 120 projective protocols. In this manner every protocol from both the TAT and the ISB was rated by at least two judges. Approximately 20 hours were spent in the training of the "projective" judges.

**Training of the interview judges** The experimenter met with the interview judges* and discussed the interview manuals with them. On the basis of this discussion some modifications and clarifications were made in the manuals.

* Dr. Ralph Dunlap and Dr. Janet Rafferty.
The judges then judged the records of interviews completed on three fraternity men who were not included in the preliminary research group. These three interviews were the only preliminary interviews conducted with the final interview schedule. This final schedule was developed to elicit data relevant to need value, freedom of movement and need potential. The judges also judged four records of interviews completed in the preliminary research group using the more complex interview schedule developed for judging both Protection-Dependency and Dominance. Another meeting evaluated the ratings made and questions and disagreements were resolved.

The three judges then proceeded to rate the records from the final experimental subjects. Forty records were rated by two judges, 20 of these records being from the same subjects and the remaining 20 from different individuals. The experimenter rated all 60 records. The assignment of the 20 records to be rated by both judges was on the basis of every third subject as these subjects appeared for their interview appointments. In this manner, then, every interview was rated by at least two judges. Approximately ten hours were spent in the training of the interview judges.

**Statistical treatment**

Following the rating and tabulation of all projective test protocols and interview records, inter-scorer correlations were computed using a Pearson product-moment method.
Coefficients were computed between Judges A and B, A and C, and B and C for each projective measure, i.e., the TAT and the ISB. In addition, average intercorrelations were computed using Fisher's z' transformation of r (8). Judge C was the experimenter.

Coefficients were computed between Judges D and E, D and C, and E and C for each interview variable, i.e., need value, freedom of movement and need potential. Here also, average intercorrelations were computed using Fisher's z' transformation of r. Judge C was the experimenter.

The sociometric ratings were scored using an algebraic summation of the values assigned the nominations given each subject by all other subjects in the group of 20. The nominations were scores 3, 2, and 1 for the three possible nominations for Protection-Dependency ("DESCRIPTION A"). The nominations were scored -3, -2, and -1 for the three possible nominations for non-Protection-Dependency ("DESCRIPTION B"). For example, a subject who was nominated most dependent by four raters, next most dependent by two raters and most non-dependent by one rater would receive a score of 3, 3, 3, 3, 2, 2, and -3 or a total score of 13. The total ratings for all subjects were computed in this manner.

The reliability of the sociometric ratings was determined for each sub-group of 20 raters using an odd-even technique and computing Pearson product-moment correlations between each half of each group. These correlations
were corrected using the Spearman-Brown "prophecy formula" (12). In addition, the average reliability of the socio-metric ratings combined for all raters was computed using Fisher's $z'$ transformation of $r$.

In all cases the judges ratings were completed without knowledge of the identity of any subject's protocols.

Since the experimenter was the only judge scoring all 60 records, his ratings were used in determining the relationship among the various measures.

Ratings on the TAT were computed by adding the number of Protection-Dependency themes and on the ISB by totaling the number of Protection-Dependency items for each subject.

The importance of "conflict" score, derived from the interview, was obtained by inspection. All interview ratings with a discrepancy between need value and freedom of movement with need value higher were determined as "conflict" protocols. Those interview ratings with need value equal to or less than freedom of movement were determined as "not important" or "no-conflict" protocols.

The total number of Protection-Dependency themes on the TAT and of Protection-Dependency items on the ISB from the "important conflict" protocols were compared to the total number of Protection-Dependency themes from these same measure for the "not important" and "no conflict" protocols by means of the chi-square test.
CHAPTER IV

RESULTS AND DISCUSSION

An analysis of the data will be presented as it is related to the stated hypotheses. The reliabilities of the ratings will be followed by the results of the final experiment. In addition, several relationships were evaluated which were not described previously in hypothetical form. All basic data are reproduced in the Appendix.

Results

Inter-judge reliabilities Before the ratings from the projective and sociometric measures and from the structured interview could be used in testing the hypotheses, it was necessary to demonstrate that the methods of rating were communicable and resulted in reliable ratings.

Null hypothesis 1. No correlation will be present between the inter-judge ratings on the interview variables of need value, freedom of movement and need potential, beyond that which could be expected by chance.

It may be seen by reference to Table I that two out of the three correlations for need value are significant beyond the .01 level of confidence. The remaining correlation for need value, while not significant (P less than .10), does show a trend toward significance. All of the correlations for freedom of movement are significant at or beyond the .01 level.
level of confidence. Of the correlations for need potential two are significant at or beyond the .001 level of confidence and the remaining correlation, while not significant, does show a trend toward significance (P less than .10). When a larger N is used, i.e., 40, all of the correlations are significant at or beyond the .01 level of confidence.

It is felt possible then, to reject the null hypothesis and to state that the method of rating need value, freedom of movement and need potential from the interview was communicable and resulted in reliable ratings.

**TABLE I**

**INTERSCORER CORRELATIONS (PEARSON r) FOR THE INTERVIEW**

<table>
<thead>
<tr>
<th>JUDGES N =</th>
<th>D&amp;E 20</th>
<th>D&amp;C 40</th>
<th>E&amp;C 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need Value</td>
<td>.42</td>
<td>.49**</td>
<td>.43**</td>
</tr>
<tr>
<td>Freedom of movement</td>
<td>.64**</td>
<td>.42**</td>
<td>.51*</td>
</tr>
<tr>
<td>Need Potential</td>
<td>.47</td>
<td>.56*</td>
<td>.61*</td>
</tr>
</tbody>
</table>

* P = .001
** P = .01

Judge C is the experimenter

While the interview ratings are reliable, the interscorer correlations are somewhat low. Consequently, these interview ratings can be considered satisfactory only for the evaluation of group behavior.
Null hypothesis 2. No correlation will be present between the inter-judge ratings on the TAT and the inter-judge ratings on the ISB in terms of frequency of response in Protection-Dependency, beyond that which could be expected by chance.

It may be seen by reference to Table II that two out of the three correlations for the "hero" figure were significant at the .001 level of confidence. The remaining correlation for the "hero" figure, while not significant, does show a trend toward significance (P less than .10). Examination of Table II reveals that when a larger N is used, i.e., 40, it is possible to reject the null hypothesis on the TAT ratings for the "hero" figure. Only one of the correlations was significant for "other" figures. When a larger N is used these correlations are very low. In relation to the "other" figures, then, it is not possible to reject the null hypothesis. Two of the three correlations for the TAT-total ("hero" plus "other") are significant beyond the .01 level of confidence.
TABLE II

INTERSCORER CORRELATIONS (PEARSON r) FOR THE THEMATIC APPERCEPTION TEST AND THE INCOMPLETE SENTENCE BLANK SCORED FOR FREQUENCY OF RESPONSE IN PROTECTION-DEPENDENCY

<table>
<thead>
<tr>
<th>JUDGES N =</th>
<th>A&amp;B 20</th>
<th>A&amp;C 40</th>
<th>B&amp;C 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAT-Hero</td>
<td>.40</td>
<td>.69*</td>
<td>.71*</td>
</tr>
<tr>
<td>TAT-Other</td>
<td>.51***</td>
<td>.10</td>
<td>.12</td>
</tr>
<tr>
<td>TAT-Total</td>
<td>.24</td>
<td>.47**</td>
<td>.45**</td>
</tr>
<tr>
<td>ISB</td>
<td>.79*</td>
<td>.30*</td>
<td>.76*</td>
</tr>
</tbody>
</table>

* P = .001
** P = .01
*** P = .02

TAT-Total = Hero plus Other

Judge C is the experimenter

The unreliable ratings on the "other" figures might be accounted for in several ways. Very little emphasis, in the judges' training was directed specifically toward the judgment of Protection-Dependency in "other" figures. A general principle was developed relative to the judgment of Protection-Dependency in "other" figures but apparently this principle did not provide sufficient information or "cues" to enable the judges to make reliable ratings. The problem may have been increased by the judges not consistently selecting the same figure as the "hero" figure on the individual stories. This explanation could be only partly accurate, however, since there was satisfactory agreement...
on the judges' ratings for the "hero" figures.

Finally, the lack of correlation between the judges' ratings on the "other" figures is partly a function of the lack of variability in the ratings. With the experimenter, the two other judges disagreed no more than one point out of a possible 12 points in 83% of the ratings. The judges, however, had only a four point range among their ratings on the "other" figures. Many of these were zero ratings and the magnitude of the correlations obtained among the judges' ratings was reduced because of this lack of variability. It appears, nevertheless, that for judging Protection-Dependency in "other" figures, the method of measurement used in this study is unreliable.

Concerning the judgments of Protection-Dependency on the ISB, it can be noted that in each instance the correlations between the judges are significant beyond the .001 level of confidence and the null hypothesis can be rejected.

Using the method of average intercorrelations between the judges it is possible to summarize the reliability data which have been presented. The following average inter-correlations were computed by use of Fisher's $z'$ transformation of $r$ and the results are given below:  

<table>
<thead>
<tr>
<th></th>
<th>TABLE IIa</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAT-Hero</td>
<td>.70</td>
</tr>
<tr>
<td>Interview - Need value</td>
<td>.46</td>
</tr>
<tr>
<td>TAT-Other</td>
<td>.11</td>
</tr>
<tr>
<td>Interview - Freedom of movement</td>
<td>.52</td>
</tr>
<tr>
<td>TAT-Total</td>
<td>.46</td>
</tr>
<tr>
<td>Interview - Need potential</td>
<td>.58</td>
</tr>
<tr>
<td>ISB</td>
<td>.78</td>
</tr>
</tbody>
</table>
These inter-scorer reliabilities are low but considered probably adequate to demonstrate the reliability of the method of rating the interview and of rating the projective measures, in terms of frequency of response, for the evaluation of group behavior.

Before considering the relationship of the sociometric ratings to the other measures used in this study, it will be necessary to demonstrate that these ratings are reliable. That is, does it appear that the descriptions provided the subjects in order to complete their sociometric ratings were objective and communicable?

Reference to Table III reveals that all of the odd-even correlations (corrected for attenuation) are significant at or beyond the .01 level of confidence.

**TABLE III**

RELIABILITY COEFFICIENTS (ODD-EVEN)
FOR SOCIOMETRIC RATINGS (N = 20)

<table>
<thead>
<tr>
<th></th>
<th>(uncorrected)</th>
<th>(corrected)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spearman-Brown</td>
<td></td>
</tr>
<tr>
<td>GROUP D</td>
<td>.48**</td>
<td>.65**</td>
</tr>
<tr>
<td>GROUP P</td>
<td>.77*</td>
<td>.67*</td>
</tr>
<tr>
<td>GROUP S</td>
<td>.80*</td>
<td>.89*</td>
</tr>
</tbody>
</table>

* P = .001
** P = .01
*** P = .05
The average reliability coefficient (z' transformation) for the sociometric ratings is .63. It is therefore possible to conclude that the sociometric ratings are reliable.

Null hypothesis 3. No correlation will be present between sociometric ratings of need potential for Protection-Dependency behavior and frequency of response in Protection-Dependency on the TAT and the ISB, beyond that which could be expected by chance.

By correlating the sociometric ratings with the frequency of response on the TAT and the ISB we are able to test this hypothesis. As can be seen in Table IV, these correlations are all quite low. Only the correlation between ISB and sociometric ratings is significant (.05 level of confidence). It is possible, then, to reject the null hypothesis only for the frequency of response ratings on the ISB.

### Table IV

<table>
<thead>
<tr>
<th>Need Potential</th>
<th>TAT-Hero</th>
<th>TAT-total</th>
<th>ISB</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SOCIOMETRIC</strong></td>
<td>.06</td>
<td>.13</td>
<td>.25*</td>
</tr>
<tr>
<td>* P = .05</td>
<td></td>
<td>TAT-total - Hero plus Other</td>
<td></td>
</tr>
</tbody>
</table>

* P = .05
It appears that the frequency of response measure on the TAT does not provide data which is directly relatable to these overt behavior ratings. These results tend to support the assumption listed by Lindzey (17) in regard to a frequency of response measure on the TAT that "the dispositions that may be inferred from the story teller's creations are not always reflected directly in overt behavior..."

The ISB, using a frequency of response measure, does tend to provide data which are more directly relatable to overt behavior ratings. This finding is in agreement with the results stated by McClelland (24), who, using the Sentence Completion Test to measure need achievement, found that this test provides results which are dissimilar to those provided by the TAT and which are more similar to conscious self-judgments. Blyth (4) also found that, using the ISB, he was able to differentiate groups of veterans who behaved dependently or independently in terms of their accepting or rejecting an offer of psychotherapy.

Before considering the relationship of need value, freedom of movement and need potential ratings from the interview to frequency of response ratings on the TAT and on the ISB, it will be necessary to present data on the inter-correlations among the interview variables.
TABLE V

CORRELATION COEFFICIENTS (PEARSON r) BETWEEN INTERVIEW VARIABLES (N = 60)

<table>
<thead>
<tr>
<th></th>
<th>Need value</th>
<th>Need potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freedom of movement</td>
<td>.55*</td>
<td>.85*</td>
</tr>
<tr>
<td>Need potential</td>
<td>.84*</td>
<td></td>
</tr>
</tbody>
</table>

* P = .001

As can be seen in Table V, the interview variables are highly inter-correlated. The inter-correlation between need value and need potential and between freedom of movement and need potential ratings is particularly high. It might be expected then, that ratings on these two variables will be similarly related to the frequency of response ratings on the projective measures. However, as will be described under Hypothesis 6, these interview variables did provide meaningfully different data.

**Null hypothesis 4.** No correlation will be present between interview ratings of need value, freedom of movement and need potential for Protection-Dependency reinforcements and frequency of response in Protection-Dependency on the TAT and the ISB, beyond that which could be expected by chance.

By correlating the interview ratings on need value, freedom of movement and need potential with the frequency of response ratings from the TAT and the ISB we are able to
test this hypothesis. Table VI reveals that the correlations are all quite low. Only the correlations between the ISB and the interview variables of need value and need potential is significant (.05 level of confidence). Therefore, the null hypothesis can be rejected only for the ISB ratings and interview variables of need value and need potential.

**TABLE VI**

<table>
<thead>
<tr>
<th></th>
<th>Need value</th>
<th>Freedom of movement</th>
<th>Need potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAT-Hero</td>
<td>-.11</td>
<td>.14</td>
<td>.07</td>
</tr>
<tr>
<td>TAT-Other</td>
<td>.12</td>
<td>.08</td>
<td>.00</td>
</tr>
<tr>
<td>ISB</td>
<td>.28*</td>
<td>.06</td>
<td>.28*</td>
</tr>
</tbody>
</table>

* P = .05

On the basis of the comparison of the frequency of response ratings on the TAT with the interview variables it is possible to suggest that the frequency of response ratings on the TAT do not tend to provide data which are directly relatable to need value, freedom of movement or need potential ratings for Protection-Dependency reinforcements as determined from the interview. The structured clinical interview was designed to elicit historical refer-
ents to be evaluated at "face value," i.e., without interpretation, and as such, would necessarily seem to be more directly relatable to overt behavior.

The frequency of response ratings on the ISB, on the other hand, do provide data which are more directly relatable to need value and need potential ratings from the interview. It would appear then, that frequency of Protection-Dependency responses on the ISB tend to be more determined by need value for Protection-Dependency reinforcements than by freedom of movement for Protection-Dependency reinforcements.

Null hypothesis 5. No correlation will be present between interview ratings of need value, freedom of movement and need potential for Protection-Dependency reinforcements and sociometric ratings of need potential for Protection-Dependency behavior, beyond that which could be expected by chance.

By correlating the interview ratings on need value, freedom of movement and need potential with the need potential ratings from the sociometric measure we are able to test this hypothesis.

Again, on the basis of the high inter-correlations among the interview variables, particularly between the need value and the need potential ratings, it might be expected that ratings on these variables would be similarly related to the sociometric measure of need potential.
By reference to Table VII, it can be seen that the total groups' correlations between the interview and sociometric measures was significant beyond the .001 level of confidence. It is therefore possible to conclude that the sociometric and interview measures did tend to measure similar behaviors.

**Table VIII**

**Correlation Coefficients (Pearson r) Between the Interview Variables and the Sociometric Ratings**

<table>
<thead>
<tr>
<th>Sociometric Rating</th>
<th>N</th>
<th>Need value</th>
<th>Freedom of movement</th>
<th>Need potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUP D</td>
<td>20</td>
<td>.66**</td>
<td>.33</td>
<td>.56***</td>
</tr>
<tr>
<td>GROUP P</td>
<td>20</td>
<td>.57**</td>
<td>.69#</td>
<td>.68*</td>
</tr>
<tr>
<td>GROUP S</td>
<td>20</td>
<td>.60**</td>
<td>.47**#</td>
<td>.58**</td>
</tr>
<tr>
<td>GROUPS D,P,S</td>
<td>60</td>
<td>.60*</td>
<td>.49*</td>
<td>.59#</td>
</tr>
</tbody>
</table>

* P = .001  
** P = .01  
*** P = .02  
**** P = .05

It would appear that there are no significant differences among the three characteristics of a need, previously defined as need value, freedom of movement and need potential, as they are related to overt behavior ratings (sociometric) in Protection-Dependency behaviors.

**Null hypothesis 6.** No correlation will be present between frequency of response in Protection-Dependency on the
TAT and the ISB and a measure of importance of "conflict" derived from the interview ratings on need value and freedom of movement for Protection-Dependency reinforcements, beyond that which could be expected by chance.

We are able to test this hypothesis by dividing the subjects into two groups, i.e., those with a high number of Protection-Dependency responses on the TAT and those with a low number, and comparing these two groups on the basis of an importance of "conflict" score derived from the interview. A rating of "important conflict" is made in the situation where need value is higher than freedom of movement, a rating of "not important" or "no conflict" where need value is equal to or less than freedom of movement. The results are given in Table VIII.

A similar procedure followed with the frequency of response ratings on the ISB, i.e., the subjects were again divided into two groups, those with a high and those with a low number of Protection-Dependency responses. These two groups were compared on the basis of a "conflict" score. These results are also to be found in Table VIII.
TABLE VIII

RELATIONSHIP BETWEEN A HIGH VS. A LOW NUMBER OF PROTECTION-DEPENDENCY RESPONSES ON THE PROJECTIVE MEASURES TO A MEASURE OF IMPORTANCE OF "CONFLICT" FROM THE INTERVIEW (N = 60)

<table>
<thead>
<tr>
<th></th>
<th>TAT-Hero</th>
<th>ISB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High P-D</td>
<td>Low P-D</td>
</tr>
<tr>
<td>&quot;CONFLICT&quot;</td>
<td>88</td>
<td>27</td>
</tr>
<tr>
<td>&quot;NON-CONFLICT&quot;</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>(X^2 = 12.24)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(P = .001)</td>
<td></td>
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</tbody>
</table>

(Conflict = NV > FM)

The null hypothesis can be rejected for the relationship between the frequency of response ratings on the TAT and the importance of "conflict" score derived from the interview.

It appears then, that in this group of subjects, compared on the basis of the number of Protection-Dependency responses given on the TAT, those subjects who gave a high number of such responses have an "important conflict" in the need area of Protection-Dependency.

It is not possible to reject the null hypothesis for the relationship between the frequency of response ratings on the ISB and the importance of "conflict" score from the interview. Apparently, for this group of subjects, we are not able to determine, on the basis of the number of Pro-
tection-Dependency responses on the ISB, those subjects who have an important "conflict" in the need area of Protection-Dependency.

It seems evident that the TAT tends to elicit dissimilar data, in terms of a frequency of response measure, from that elicited by the ISB. Comparisons of these two instruments in terms of frequency of response in Protection-Dependency as related to overt behavior ratings (Table IV) and to ratings on the interview variables (Table VI) support this conclusion. Further evidence that these instruments do not tend to elicit similar data, in terms of a frequency of response measure, is given in Table IX.

**TABLE IX**

<table>
<thead>
<tr>
<th></th>
<th>TAT-Hero</th>
<th>TAT-Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISB</td>
<td>.09</td>
<td>.14</td>
</tr>
</tbody>
</table>

The dissimilarity of the data elicited by these two instruments, in terms of a frequency of response measure, restricts the kinds of predictions, in frequency of response terms, that can be made from each projective measure.

It appears that the frequency of response measure on the TAT tends to elicit data which are significantly re-
lated to the importance to the individual of an area of "conflict." This does not, within the limitations of this study, hold true for the frequency of response measure on the ISB.

On the other hand, using the frequency of response measure on the ISB, we are able to predict, for a group of subjects, those individuals who will tend to behave in a manner to obtain Protection-Dependency satisfactions.

Discussion

More broadly, the results of this study suggest that, using a socially defined need concept (Protection-Dependency) it was possible to develop objective and communicable measures of the relationship of frequency of responses on two projective tests to overt behavior, for purposes of group prediction.

The magnitude of the relationships found in this study was not sufficient, however, to allow prediction for any given individual concerning the relationship of frequency of response on projective measures to overt behavior.

Several possibilities may, in part, account for the inability to make predictions, for the individual, using such a concept as Protection-Dependency. Dependent behavior, especially on the part of adult males, is inconsistent with the rewards and values provided by our individualistic, "success-oriented" culture. Using a group
of subjects who are closely identified with this cultural goal, as well as with one another, it was difficult to elicit an objective appraisal from these subjects concerning the socially "unacceptable," dependent behaviors of their peers.

These subjects also were unaccustomed to appraising themselves in terms of dependent behavior. A clear indication of this is found in the spread of sociometric nominations by the groups of those individuals who were considered to be dependent and non-dependent by the sociometric raters. While the more non-dependent subjects were clearly differentiated by a large proportion of nominations and, hence, by extreme scores, the more dependent subjects obtained the same or similar scores which were much closer to the mean of the groups' scores. This inability or reluctance to rate their friends and peers as dependent limited the possible validity of the other measures used in this study in predicting the sociometric ratings for any given individual.

An important related factor appears to be the post-adolescent status of these subjects. While having recently "emancipated" themselves from home and beginning to demonstrate their independence in conformity with cultural expectations, they were reluctant to accept the implication, inevitable on the basis of interview questions designed to evaluate dependent behavior, of the extent of their continued dependent behaviors. Again, this reluctance tended
to lower the reliability and validity of the interview ratings.

Moreover, since dependent behavior, as described from a "common sense" point of view is characteristic of all social behavior the problem of obtaining referents for a limited conception of such behavior proved extremely difficult and was only inadequately dealt with in this study. Many equivocal referents from the interview and the projective measures were not represented in the manuals. Often such referents apparently applied equally to more than one need area. At the present time, there are no principles and concepts which provide for the development of more objective and communicable referents for Protection-Dependency behaviors.

The use of two projective measures proved valuable in providing dissimilar data, in terms of frequency of response, concerning the relationship of projective test responses to overt behavior. As would be anticipated, the more highly structured and behaviorally oriented ISB tended to provide information, in terms of frequency of response, about an individual's overt, dependent behavior.

The TAT did not provide data which was consistently related to overt behavior, in terms of frequency of response. This measure did provide data about importance of "conflict" concerning dependent behavior. Both assumptions listed by Lindzey from which the experimental hypotheses of this study
were developed, were supported by the data from the TAT.

The use of a sociometric measure to determine need potential was found to be satisfactory for purposes of group prediction. It was possible, using a nominating technique which was easily understood by the raters and which was economical of time, to obtain a measure of need potential for dependent behavior which was significantly correlated with a similar interview measure.

This sociometric technique would appear to be a valuable substitute for the more laborious and time consuming task of obtaining a measure of need potential from an interview.

The unmodified TAT cards and the standard ISB were used in this study since they are generally employed in clinical psychological practice. Throughout this study it has been emphasized that the measure used in relation to the projective test responses was a "frequency of response" measure. It is not intended to imply that this measure of projective test responses is the only possible use of projective test responses or data. Moreover, it is not intended to imply that such a measure is more valid or economical than other possible uses of projective data. In fact, it is felt that a frequency of response measure is limited in terms of yielding meaningful, clinical data and that such a measure makes no more than minimal use of the data which
are provided by the TAT and the ISB.

Nevertheless, with systematic constructs which allowed for objectivity and communicability of method, it was possible to demonstrate, on a gross level, predictive relationships between frequency of response measures on these projective tests and objective, overt behavioral measures of Protection-Dependency behaviors.
CHAPTER V

SUMMARY AND CONCLUSIONS

Projective tests are often used for clinical purposes with the interpretations from the projective data to overt behavior often depending upon an intuitive, unverbalizable approach. As such, then, the usefulness of the projective technique remains dependent upon the clinical skill of the user.

A different approach to the use of projectives and, more generally, to a description of the relationship of projective test responses to overt behavior, would utilize objectively defined, systematic constructs. These constructs would allow for a more objective and communicable description of this relationship.

Utilizing systematic constructs defined within Social Learning Theory of Personality, then, this study is designed to:

1. Investgate the relationship of Protection-Dependency behavior as measured by frequency of response or two projective measures, the Thematic Apperception test and the Rotter Incomplete Sentences, to a sociometric measure of Protection-Dependency behavior;

2. Investigate the relationship of Protection-
Dependency behavior as rated on the basis of a structured clinical interview to similar ratings on the above-mentioned projective measures, and;

3. Investigate the relationship of these interview ratings to sociometric ratings on Protection-Dependency behavior.

From Social Learning Theory the constructs which are used in this study for the systematic description of the sociometric, interview and projective data may be defined as follows (34):

Behavior potential: "the potentiality of any behavior occurring in any given situation or situations as calculated in relation to any single reinforcement or reinforcements."

Expectancy: "the probability (internal) held by the individual that a particular external reinforcement will occur as a function of or in relation to a specific behavior in a specific situation or situations."

Reinforcement value: "the degree of preference for any reinforcement to occur if the possibilities of their occurring were all equal."

These constructs deal with specific behaviors. For more general prediction using functionally related behaviors the following descriptive constructs have been derived (32, chap. 6):

Need potential: "the mean potentiality of a group of functionally related behaviors occurring in any segment of the individual's lifetime."

Need value: "the mean preference value of a set of functionally related reinforcements."

Freedom of movement: "the mean expectancy of obtaining positive satisfaction as a result of a set of
related behaviors directed toward the accomplishment of a group of functionally related reinforcements."

The need concept Protection-Dependency is used in this study as a convenient category for the measurement of the relationship of projective test responses to overt behavior. Protection-Dependency is defined as follows:

"the need to have another individual or group of individuals prevent frustration and to provide for the satisfaction of other needs."

The following two assumptions, among those suggested by Lindzey (17), define the relationship of projective test responses to overt behavior as it is important in psychological measurement:

1. "the dispositions and conflicts that may be inferred from the story teller's creations are not always reflected directly in overt behavior."

2. "themes that are recurrent in a series of stories are particularly apt to mirror the impulses and conflicts of the story teller."

These assumptions may be rewritten, using Social Learning Theory concepts, for purposes of experimental evaluation, as follows:

A. Need value, freedom of movement and need potential for Protection-Dependency reinforcements are directly related to frequency of projective test responses in Protection-Dependency.

B. Frequency of projective test responses in Protection-Dependency is significantly related to importance of "conflict" in need Protection-Dependency.

Essentially, the procedure in this study was to administer the sociometric measure, the TAT and the ISB in a group
situation. Later, each subject was interviewed individually.

Pre-testing was for the purpose of developing a reliable and communicable sociometric measure and to obtain data for the development of interview and projective test manuals. The data from the preliminary research was also used in the training of the judges.

The experimenter met with the interview and the projective test judges following development of preliminary manuals. Sample protocols were judged and on the basis of these and subsequent preliminary judgings, the manuals were modified and clarified.

All protocols were identified only by a code number and none of the judges or the experimenter had knowledge of the identity of the subjects until after all the ratings were completed.

The projective measures were judged in terms of frequency of response in Protection—Dependency. The interviews were rated on a ten-point scale for need value, freedom of movement and need potential.

Twenty-one subjects participated in the preliminary research and 60 subjects in the final experiment. All subjects were members of social fraternities at The Ohio State University.

Reliability measures were computed using a Pearson product-moment technique. The experimenter's ratings were used in obtaining the experimental results which were
computed by use of Pearson product-moment correlations and a chi-square technique.

The results of the study indicated that inter-judge reliability does not appear to be a function of chance. Most of the correlations were significant beyond the .01 level of confidence. While significant, most correlations were not unusually high, and consequently the results can only be considered satisfactory for the evaluation of group behavior.

The correlations were highest for the ISB, somewhat lower for the TAT and lowest for the interview ratings. The split-half reliabilities for the sociometric ratings were all significant beyond the .01 level of confidence.

The correlation of the need value, freedom of movement and need potential ratings from the interview resulted in statistically significant relationships being found between all the interview variables.

Apparently the referents for judging Protection-Dependency from the interview in terms of need value and freedom of movement were somewhat contaminated and it was therefore not possible to differentiate clearly between these two variables. However, it was possible to obtain significant differences using a frequency of response measure on the projective tests and a measure obtained by determining the difference between need value and freedom of movement ratings on the interview. It is possible to conclude then, that the interview variables of freedom of movement and
need value did obtain meaningfully different data.

The first experimental hypothesis stated that need value, freedom of movement and need potential ratings for Protection- Dependency reinforcements are directly related to frequency of projective test responses in Protection-Dependency. This hypothesis was tested by correlating the ratings from the sociometric measure and from the interview with the frequency of response ratings on the TAT and on the ISB.

The correlation between the frequency of response ratings on the TAT and the sociometric ratings was close to zero. The correlation between the frequency of response ratings on the ISB and the sociometric ratings were low but significant.

When the frequency of response ratings on the TAT and on the ISB were compared with the interview ratings on need value, freedom of movement and need potential, the correlations between the interview variables and the TAT were all very low and none were significant. The ISB ratings were found to correlate significantly, although not very highly, with need value and need potential.

The second experimental hypothesis stated that need value, freedom of movement and need potential for Protection-Dependency reinforcements is directly related to sociometric ratings of need potential for Protection-Dependency behaviors.
Correlations between the interview variables and the sociometric ratings resulted in significant relationships being found between all the interview variables and the sociometric ratings.

The third experimental hypothesis stated that frequency of projective test responses in Protection-Dependency is significantly related to importance of "conflict" in need Protection-Dependency. A measure of importance of "conflict" was determined in the following manner: need value greater than freedom of movement was scored as an "important conflict" while freedom of movement equal to or greater than need value was scored "not important conflict" or "no conflict." This hypothesis was tested by use of the chi-square technique.

The subjects were divided into two groups in terms of the number of Protection-Dependency responses on the TAT and on the ISB and were compared on the basis of an importance of "conflict" score, as described above.

The ratings of frequency of response for the TAT correlated significantly with the importance of "conflict" score from the interview. Frequency of responses, on the ISB ratings, was not significantly related to this same importance of "conflict" score.

Finally, a near zero correlation between the ratings on the TAT and on the ISB indicates that frequency ratings on these two projective tests tend to measure dissimilar
behaviors.

It appears that, using a frequency of response measure, the TAT tends to elicit data which are significantly related to importance of "conflict" in the need Protection-Dependency.

The ISB, on the other hand, in terms of frequency of response ratings, provided data concerning those individuals who will tend to behave in a manner to obtain Protection-Dependency satisfactions.

Conclusions

The following conclusions appear to be justified from the results of this study:

1. Low but reliable inter-judge agreement can be obtained on interview ratings of Protection-Dependency behavior in terms of need value, freedom of movement and need potential.

2. Reliable inter-judge agreement can be obtained on Protection-Dependency responses on the ISB and slightly lower but significant agreement on the TAT in terms of frequency of response ratings.

3. Reliable sociometric ratings can be obtained using a brief nominating technique with the descriptions provided the subjects in terms of Protection-Dependency behaviors. It appears then, that a sociometric rating technique devised in terms of systematic constructs will provide reliable
information concerning the behavior of groups in terms of such systematic constructs.

4. Using a frequency of response measure on the TAT a near zero relationship is found with overt behavior ratings. It appears that, using a frequency of response measure, the TAT does not provide information about an individual's overt behavior.

5. Frequency of response ratings on the ISB are significantly related to overt behavior ratings. Using a frequency of response measure, then, the ISB tends to provide information about overt dependent behavior.

6. A measure of importance of "conflict" in dependent behavior derived from a structured interview when compared to a frequency of response measure on the TAT results in a significant relationship to indicate that the TAT does tend to provide information concerning the importance to an individual of "conflict" about dependent behavior.

7. A frequency of response measure on the ISB when compared to a measure of importance of "conflict" derived from a structured interview does not tend to differentiate the subjects used in this study. For this group of subjects, then, a frequency of response measure from the ISB does tend to provide information about overt dependent behavior but does not provide information, again in terms of a frequency of response measure, about importance of "conflict" in dependent behaviors.
8. Correlations between interview variables of need value and need potential are low but significantly related to ISB ratings on dependent behavior. Using a frequency of response measure, then, it does appear that the ISB provides data related to need value and need potential for dependent behaviors.

9. Correlations between interview variables and sociometric ratings are significant. It appears that a sociometric measure of Protection-Dependency behavior may be used as an economical substitute for the more laborious task of obtaining a measure of need potential from an interview.

10. The relationship between frequency of response ratings in Protection-Dependency on the TAT and the ISB were found to be quite low.

In terms of a frequency of response measure, then, these two projective measures tend to provide dissimilar, although predictive information, concerning the relationship of projective test responses to overt behavior.
BIBLIOGRAPHY


SOCIOMETRIC RATING FORM FOR PROTECTION-DEPENDENCY

1. Cross off your own name from the code sheet.

2. Find the name of the man who, in general, best fits "DESCRIPTION A." Write his code number in the space below, next to number A-1. Cross off his name from the code sheet.

3. Of the remaining names, find the name of the man who, in general, best fits "DESCRIPTION B." Write his code number in the space below, next to the number B-1. Cross off his name from the code sheet.

4. Of the remaining names, find the name of the man who best fits "DESCRIPTION A." Write his code number in the space below, next to number A-2. Cross off his name from the code sheet.

5. Of the remaining names, find the name of the man who best fits "DESCRIPTION B." Write his code number in the space below, next to number B-2. Cross off his name from the code sheet.

6. Continue this procedure for space A-3, and for space B-3.

DESCRIPTION A
Seeks advice before making most decisions.
Tries to get help when in difficulties.
Suits his actions to conform to others' standards.
Seldom will disagree with others' opinions and tends to be rather easily influenced.

A-1
A-2
A-3

DESCRIPTION B
Makes most decisions without seeking advice.
Tries to solve problems without help from others.
Has definite standards and seldom changes these merely to conform to others' standards.
Considers others' opinions but, if necessary, can easily disagree.
Tends not to be easily influenced.
SOCIOOMETRIC RATING FORM FOR DOMINANCE

1. Cross off your own name from the code sheet.

2. Find the name of the man who, in general, best fits "DESCRIPTION A." Write his code number in the space below, next to number A-1. Cross off his name from the code sheet.

3. Of the remaining names, find the name of the man who, in general, best fits "DESCRIPTION B." Write his code number in the space below, next to number B-1. Cross off his name from the code sheet.

4. Of the remaining names, find the name of the man who best fits "DESCRIPTION A." Write his code number in the space below, next to number A-2. Cross off his name from the code sheet.

5. Of the remaining names, find the name of the man who best fits "DESCRIPTION B." Write his code number in the space below, next to number B-2. Cross off his name from the code sheet.

6. Continue this procedure for space A-3, and for space B-3.

DESCRIPTION A

Strongly persuasive with others. Makes suggestions and "follows-up" by urging their acceptance. Tends to try to be the leader when with friends. Argues to convince others of his social, political, or other views.

A-1
A-2
A-3

DESCRIPTION B

Tends to avoid being persuasive with others. May provide suggestions but seldom urges that they be accepted. Would be unlikely to be the leader when with friends. May exercise social, political, or other views but without arguing to convince others.
RATER'S CODE SHEET USED IN CONJUNCTION WITH THE SOCIOMETRIC RATING FORM

(AFTER THE NAMES HAVE ALL BEEN WRITTEN IN ON THE CODE SHEET)

1. Cross off your own name from the code sheet.

2. After you have placed a man's code number on the rating sheet be sure to cross off his name from the code sheet.

3. This code sheet will be destroyed after you have completed your ratings.

<table>
<thead>
<tr>
<th>Code</th>
<th></th>
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<tbody>
<tr>
<td>Y-1</td>
<td></td>
</tr>
<tr>
<td>W-2</td>
<td></td>
</tr>
<tr>
<td>V-3</td>
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<tr>
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</tr>
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<tr>
<td>C-19</td>
<td></td>
</tr>
<tr>
<td>B-20</td>
<td></td>
</tr>
</tbody>
</table>
Preliminary Interview Schedule

Areas

School

1. How do you happen to be in college?
2. Parents' attitude about college for you?
3. Importance of attitudes of parents and friends in decision to come to school?
4. If your parents had disagreed with you about school how likely is it that you would have been able to bring them around to your point of view?
5. What did you do in making your decision?
6. What was most important in your choice of OSU?

Advisors

1. What is your general attitude about advisors?
2. What is an advisor generally useful for, for your purposes?
3. What would you prefer in an "ideal" student-advisor relationship?
4. How does this compare with your present relationship with your advisor?

Major

1. Major and how you happened to choose it?
2. What generally was the biggest or most important influence in your choice?
3. How important was it to you that your parents go along with your choice?
4. How important was it to you to follow the major your parents preferred?
5. How likely would you have been able to influence or convince them if they had disagreed with your chosen field?

Studymate

1. Generally, what kind of a situation do you prefer for studying?
2. Where necessary to study with others, what kind of person would you prefer as a study-mate?
3. What would be most important, to you, in your choice of a study-mate?
Roommate

1. Kind of person whom you consider to be an 'ideal' roommate?
2. In what way(s) would he be similar to your choice for a study-mate?
3. How does your present roommate compare with this 'ideal' roommate?
4. In what ways is your present roommate different from this 'ideal' roommate?
5. In what general way(s) would you like to have your roommate change?
6. How likely is it that you could bring about these changes?
7. What do you do?

Friends

1. Describe, in general, the kind of people you prefer as friends.
2. What would you consider, for yourself, as most important in a friend?
3. In what ways are most of your friends like this?
4. In what ways are they different from this?
5. How important would it be to you to change them more to your "liking"?
6. How likely is it that you could bring about these changes?
7. What do you do?

Fraternity

1. How did you happen to join a fraternity?
2. What would you say was the most important influence in your joining?
3. What has been most worthwhile to you in being a member of a fraternity?

Girlfriends

1. Describe, in general, the kind of girl-friend you prefer.
2. What would you consider, for yourself, as most important in a girl-friend?
3. How much like this is your present (or past) girl-friend(s)?
4. How important would it be to you that your choice of girl-friend please your parents?
5. If your choice of girl-friend did not please your parents how likely would it be that you could change their minds?
6. What would you prefer to do about it?
7. What would you do?
8. How do you feel about going steady? Advantages? Disadvantages?
9. If a girl-friend whom you liked very much, e.g., you might consider her for marriage, had some important ideas and attitudes with which you did not agree, what would you do?
10. Ideally, in such a situation, what would you prefer to do?
11. How likely would it be that you could accomplish this?
12. How do you generally meet girls? What is your preference in this?
13. "On your own" how much success would you expect to have in getting dates?

Group behavior

1. In most group situations what role do you prefer for yourself?
2. After a period of time in such a group what role do you usually find yourself in?
3. What would you say that most people who know you well would expect your actions to be in formal group situations? in informal groups?

Home

1. How do you get along at home?
2. What do you do with members of the family (recreation, etc.)?
3. How are disagreements usually resolved?
4. What would you prefer in an "ideal" parent-son relationship?
5. In what important way would you like to change your parents' actions toward yourself?
6. In what ways have you been successful in this in the past?

Personal Problems

1. How do you prefer to resolve most personal problems that arise?
2. How much success have you had in dealing with problems in this way?
3. Under what conditions might you attempt to work out your problems in a different manner?
4. In general, how much success would you expect to have, again based on past experience?
Religion

1. What does religion mean to you?
2. What does religion offer you?
3. What does religion seem to offer you that you cannot find elsewhere?
4. What would you prefer, "ideally," from religion?

Vocational plans

1. How do you plan to use your education?

MANUAL FOR JUDGING PROTECTION-DEPENDENCY FROM INTERVIEW RESPONSES

In order to promote maximal agreement in the judgement of Protection-Dependency responses this manual attempts:

(1) to outline a standard procedure to be followed by each judge in judging the interview responses in terms of Freedom of Movement, Need Value, Need Potential for Protection-Dependency.

(2) to make explicit the meaning of the construct "Protection-Dependency" through the use of general principles developed at a lower level of abstraction and further explicated by the use of specific referents.

Procedure:

After a thorough study of the

(a) logical definition of Protection-Dependency;
(b) the general principles for judging Protection-Dependency;
(c) the referents for each interview topic.

proceed to listen to the record, noting the referents which appear for each of the variables, i.e., freedom of movement, need value, and need potential. After reviewing the notes, etc., taken while listening to the record, and evaluating the referents from the interview, assign a rating for the three variables. On each of the scales a rating of "one" will indicate a high degree of the variable, while a "ten" will indicate a low degree of the variable, e.g., a "one" need value rating and a "ten" freedom of movement rating would indicate a high need value and a low freedom of movement. On the ten point scale used in this study referents are provided, where possible, for the extremes of the scale and two intermediate scales values which are the same distance from the
extremes and from each other on the scale. The remaining intermediate points on the scale are provided to enable finer discriminations, where required in the judge's judgment. The manual does not contain referents for each variable for each topic in the interview because none were provided in the pre-test sample.

FREQUENT REFERENCE TO THE LOGICAL DEFINITION, THE GENERAL PRINCIPLES, AND THE REFERENTS IS URGED. WHERE ANY PARTICULAR JUDGMENT IS DIFFICULT REFERENCE TO THE MANUAL IS RECOMMENDED. Where no referents or examples are provided or where none seem to apply to a given variable, refer to the general principles and the logical definition.

Definition:

PROTECTION-DEPENDENCY "NEED TO HAVE ANOTHER INDIVIDUAL OR GROUP OF INDIVIDUALS PREVENT FRUSTRATION OR PUNISHMENT AND TO PROVIDE FOR THE SATISFACTION OF OTHER NEEDS."

General principles for judging Protection-Dependency from interview responses:

Responses which verbalize or imply:

1. A strong attachment to one person, especially an older person but also a "strong" age-peer.

2. Seeks out advice, guidance, suggestion, structuring re plans, study situations, social behavior, vocational choice, etc.

3. Difficulty in making own decisions.

4. Wishes or preference for dependent, protected situation, e.g., childhood, being at home with parents; non-demanding circumstances.

Discomfort or lack of self-confidence in unprotected situations, e.g., worries about responsibility taking, decision-making, own abilities, the future, marital insecurities.

5. Reliance on other's values, opinion, attitudes; tries to meet others' standards.


7. Strong inadequacy, inferiority, lack-of-self-confidence
extremes and from each other on the scale. The remaining intermediate points on the scale are provided to enable finer discriminations, where required in the judge's judgment. The manual does not contain referents for each variable for each topic in the interview because none were provided in the pre-test sample.

Frequent reference to the logical definition, the general principles, and the referents is urged. Where any particular judgment is difficult reference to the manual is recommended. Where no referents or examples are provided or where none seem to apply to a given variable, refer to the general principles and the logical definition.

Definition:

PROTECTION-DEPENDENCY "NEED TO HAVE ANOTHER INDIVIDUAL OR GROUP OF INDIVIDUALS PREVENT FRUSTRATION OR PUNISHMENT AND TO PROVIDE FOR THE SATISFACTION OF OTHER NEEDS."

General principles for judging Protection-Dependency from interview responses:

Responses which verbalize or imply:

1. A strong attachment to one person, especially an older person but also a "strong" age-peer.

2. Seeks out advice, guidance, suggestion, structuring re-plans, study situations, social behavior, vocational choice, etc.

3. Difficulty in making own decisions.

4. Wishes or preference for dependent, protected situation, e.g., childhood, being at home with parents; non-demanding circumstances.

Discomfort or lack of self-confidence in unprotected situations, e.g., worries about responsibility taking, decision-making, own abilities, the future, marital insecurities.

5. Reliance on other's values, opinion, attitudes; tries to meet others' standards.


7. Strong inadequacy, inferiority, lack-of-self-confidence
feelings; need felt for extreme preparation or training before S can feel secure or adequate.

9. Wishes to be "understood" and appreciated—and feelings that he is not understood, etc.

Complaints re symptoms—where these appear to be bids for sympathy and protection.

9. Difficulty in disagreeing with others' opinions; "follower" rather than "leader" tendencies.

10. Feels secure only with people he knows well.

11. Views self as immature or childlike; has interests, attitudes, characteristics of those younger than himself.

Referents.

The suggested referents have been taken from pre-test interviews. While it is recognized that the referents have been taken out of context the suggested values can generally be interpreted as consistent with the context. For instance, a particular referent assigned a high value in the manual would usually have been taken from an interview the context of which represented a high value of the variable.

A further rationale for suggesting any particular value for any referent is that the referent and the context from which it was taken has been evaluated consistent with the rank assigned to the particular subject by the group on the sociometric rating. For instance, other things being equal, referents taken from an interview with an individual having a high ranking in the group have been assigned consistent (high) values.

A third method used in assigning referent values was the use of two independent judges who had no knowledge of the sociometric ratings. The referents for each variable, i.e., freedom of movement, need value, and need potential were typed on separate cards, one referent on each card. The judges sorted the referents into four piles corresponding to the referent values. On all assigned values of the referents there was at least complete agreement between two judges and in most instances there was complete agreement among all three judges. Where necessary, i.e., there was complete agreement between the independent judges and also a two point disagreement with the original value assigned the referents, the referent values were re-evaluated. This occurred in only five instances.
Where a referent indicates need or behavior which would be instrumental in the development of a relationship with an individual it is assigned a high value; where the same or similar referent indicates need or behavior which would be instrumental in gaining information, etc., for more independent behavior, the referent has been assigned a lower value.

The INFORMATION in parentheses in the manual is included for the sake of clarity only. It is not considered as a part of the referent as that referent is classified in the manual. As a further aid the relevant referential information has been underlined to differentiate it from the information also included with the referent for information purposes only.

Need Value

School

4 came to school from out of town because he felt he was "now" old enough to get away from home.

4 parents desired college for him and he also realized the advantages of college.

7 for further education where expressed or clearly implied is for purpose of promoting his security; is "safer" with an education.

7 is in college because "it's the thing to do."

7 something to do after high school.

10 has professional goals and college is therefore a prerequisite.

10 here for a good time.

Advisors

1 the advisor should be sincere with you and tell you what's best.

1 the advisor should feel closer to the student--they're not close enough.

1 an advisor should make the decisions.

1 an advisor is of great assistance if you are in trouble.
1 desires more "structure."

4 the advisor should make it a point to know the students because it is easier to learn if you have someone who is interested.

4 advisors are a good thing—(I always put a lot of trust in them for the curriculum).

4 recommendations are important. (would follow them)

7 the main thing is having confidence in your advisor—feeling that he knows what he is talking about so you can rely on that.

7 stresses need for competence in advisor; need for experience in advisee's field.

10 (to tell the truth I never did rely on them too much)—I never felt I had to for one thing.

10 I'm very egotistical. (work out my own problems)

Roommate

1 I prefer a roommate you can depend on—trust to do something for you.

1 prefer older roommate because he would be more stable and could help me out with small problems.

4 prefer those who would do things for me as I would for them.

4 always your friend—not jip you when something goes wrong.

4 a person you can talk to freely, easily (about personal things, etc.).

7 someone who would definitely help you and someone you want to help—that's much more important.

10 indicated he does not depend upon roommate and friends; does not seek support.

Girl-friends

1 important is how much you can depend upon her.
very important that girl-friend please his parents.

of first, primary importance that girl-friend please his parents.

I would much rather be fixed up with a date.

considerate, i.e., if you have a problem they try to help you with it. Its a two-way proposition, not just up to the man.

important to please parents--my ideals are the same as theirs.

morally I owe my parents a debt so it would be important to please them.

parents' approval has considerable bearing on it—not the final word by any means.

if parents agreed with choice be best but not necessary.

I am against being "fixed-up" because I'm too particular with women and I just don't want to see them have a bad time.

Very Important that parents agree with choice of major.

would have been very important to follow his parents' choice of a major for him.

(from the foregoing interview material it is clearly evident that his interest lie in another area than his major which is law) My parents never tried to decide at all for me. I knew they would be pleased with my decision to go into law if that's what I wanted.

I would have been disappointed (if parents did not agree with choice).

my advisor (who happens also to be a personal friend) definitely influenced my choice.
pretty important (that parents go along with choice).

(important that parents agree?) Didn't bother me. I'm glad they did in a certain way.

I wanted to get their opinion. At the same time I wanted to lead my own life.

it wouldn't be of any importance (if parents disagreed with his choice). It would be important because you want harmony.

chose major after visiting a few classes--own personal observation and later on talking to a few people who praised my field.

"experience" (with topic, field, etc.) most important influence.

if my parents had picked a major for me it would not have been important to follow their choice.

(important that parents agree with choice?) Well, it would only mean advice. It didn't mean law. As far as that goes Mom wanted me to be a doctor. (engineering major).

not at all important (to follow parents' preference in a major for him).

Roommate and Friends

prefers friends who are well liked by others (implies follows others' standards).

prefer one that you can confide in--he'll take your problem as if it was his and he'll help you out to the best of his ability.

Personal problems

prefers to resolve problems by talking to parents.

usually I would like to talk to a few people.

there's a little bit of a tendency sometimes to talk to someone else about it.
if I'm not having any difficulties I don't have to look for help.

I don't like someone else making up my mind for me.

even the worst problem will work itself out without someone's help.

I take an overall view of myself and usually the problem looks pretty small.

Religion

is very important. To me it is very important to have something to hold on to. It offers me hope that certain things will come to me that I have my heart set on. A belief that if you want to pray for it long it might happen to you.

is more than just church. It offers me a helping hand, guidance.

(offers?) Maybe an escape (from pressure).

is important to me.

it gives you something to lean on. Transfer maybe the responsibility. You don't have to feel it all a burden to yourself.

more or less gives you a faith, something to believe in. It helps you out.

it's just a personal belief. It's arisen from logic and what I can see and the way I was brought up. It's a base for everything I do and think. A problem comes up and I don't know what to do it provides a base.

it gives you better control over yourself.

I am conscious of religion and get relaxation and stimulation from discussion of it. If it weren't here I'd be just the same.

in a way it's a symbol of what I think is right. But I'm not real ardent.

it offers a feeling of self-satisfaction knowing
that I can carry out these rules (the ten commandments)—that basically I'm sound.

**Freedom of movement**

**Advisors**

1. feels he can ask for help when he needs it.
2. usually when I want advice I go to someone older who should know.
3. would follow advice unless it conflicts with his own values, etc.
4. feel advisor(s) not easy to talk to.
5. would use an advisor if his "ideal" in and advisor could be approximated.
6. would use advisors if advisors were "closer" to the student.

**General Referent**

1. repeatedly seems to require encouragement, further structuring, explanation of questions during the interview.

**Major**

1. family has closest relations. Just like peas-in-a-pod. If anyone of them ever said anything I'd think 5, 6, 7, 8 times before I ever went against their choice.
2. --but I know that they would have supported any other decision.
3. would help me a lot not to have to argue with them.
4. it was definitely a help (that parents went along with his choice).
5. if they had disagreed it would have given me a feeling of insecurity because it was hard enough decision as it was.
4 would be hard to change parents' minds if they disagreed with choice of major.

4 if choice of a major was a problem would have sought further information in order to make a decision.

4 parents let me make my own decisions.

10 if choice of a major was a problem would not seek help from others.

10 if choice of a major was a problem would not be confident that others would help him decide.

10 parents encouraged me to make my own decisions.

Roommate and friends

4 the best friends I have are the ones I made in high school.

7 one who is sincere with me.

Girl-friends

1 most girls are interested in your problems, etc. --they will try to help you.

7 sincere, one who would keep her word.

somebody I could believe.

10 most girls will not try to help you if you have a problem.

10 be faithful to you while your gone.

10 having her like you and being true to you. Present girl-friends don't come up to standard too much--one gets bombed all the time. As far as me having a wife I wouldn't want to have any of them for a wife. I think they've been out with too many other guys--they aren't true.

Fraternity

1 lacks confidence without much help, in handling fraternity responsibilities.
Personal problems

1 (usually I talk to a few people)—I have pretty good success this way.

1 success has been good. Sometimes you talk to people and you will make up your mind the other way. Sometimes just talking gives your mind an outlet and you don’t have to think the thing over and over in your mind.

1 if I had to figure out problems on my own I could get along alright.

Religion

1 would like to go to church but none of the other fellows do.

7 is something to call on in the last resort.

Need Potential

School

1 came to OSU because would have to leave home sooner or later so I decided I might as well stay home while I could.

Advisor

1 would follow advisor’s recommendations.

1 I rely on them very much.

1 “goofs-off” now—if he were pushed would do more.

4 usually I will just drop the question to others, etc.

4 (advisors are a good thing) I always put a lot of trust in them for curriculum.

7 would follow advisor’s advice unless it conflicts with his own values.

10 I work out my own problems.
10 I have never gone to official advisors.
10 to tell you the truth I never did rely on them too much.

Major

1 (if family had disagreed with choice) I would have worked just as hard as in my field.
1 if family had disagreed with my choice I would take the family's word for it.
1 (if parents had disagreed I would have been disappointed) but I imagine I would have gone along with the thought.
1 (if parents had disagreed with choice) I would think twice before I went flying-off-the-handle.
7 if parents had disagreed I would have come to school anyway eventually probably with more reluctance than as it is.
10 would not follow (parents preference).
10 I would still do the same if they didn't agree--doesn't phase me.

Home

1 goes home regularly every weekend to see parents.

Girl-friends

1 (if girl did not please parents) I would drop her.
1 meets all girls through his friends.
4 meets most girl-friends through his friends.
10 I usually arrange to meet one I like.
10 would not be inclined to give up girl-friend if parents did not accept her.
10 (if girl-friend did not please parents it wouldn't be important)--I would keep her.
Fraternity

1 joined fraternity to please parents.

10 is present or past president or other high office holder.

Personal problems

1 if it is something that you can talk with others about I usually do so. If they can your parents can help out in that or possibly even a roommate, it depends upon your problem. I'd say I'd seek outside help for the final decision.

1 I use a religious counselor.

4 sometimes I just don't ever talk to anybody (implying that he usually does talk to somebody).

4 any problem that was serious I would seek outside help on.

4 I still respect parental judgment quite a bit and probably more so than I did earlier.

4 when I'm all mixed-up about something I use religion. There I get my ideals as a basis. Think about them and then work problems out.

7 most of the time I just don't ask for too much help.

7 I get information and filter it out and make my own decisions.

7 I try to solve my own problems. Sometimes I get advice--discuss them with friends or parents but I usually draw my own conclusions.

7 usually I will just drop the question to others to see what they say. I would try to get some outside counseling first and then see what I could do to draw my own conclusions.

7 I get information and filter it out and make my own decisions.
Religion

1 goes to church regularly in Columbus—seldom misses.

10 goes to church regularly at home—occasionally here.

7 it does not have much effect on my life.

10 I have my own beliefs. As far as belief in God I'm probably a little unsure about that but in every other line I believe in everything that's right in all religions.

10 never attends church because he doesn't believe in organized religion.

MANUAL FOR JUDGING PROTECTION-DEPENDENCY FROM RESPONSES TO THE THEMATIC APPERCEPTION TEST.

In order to promote maximum agreement in the judgement of Protection-Dependency responses this manual attempts:

(1) to outline a standard procedure to be followed by each judge in judging the incomplete sentence protocols for the presence or absence of Protection-Dependency themes;

(2) to make explicit the meaning of the construct "Protection-Dependency" through the use of general principles developed at a lower level of abstraction and further explicated by the use of specific referent themes.

Procedure:

After a thorough study of the:

(a) logical definition of Protection-Dependency;
(b) the general principles for judging Protection-Dependency;
(c) the Protection-Dependency referent themes for each card;
(d) the general 'cues' for describing the "hero" or central figure;

procede to make card-by-card judgments for all the protocols. Rate all the #1 stories for all subjects for both the "hero" and "other" figures, then all the #2 stories for all the
subjects, then all the #3 stories, etc. Refer back or ahead to other stories only where this is obviously necessary in order to make sense of the response.

Make each judgment for each protocol before proceeding on to the next protocol or story as the case may be.

FREQUENT REFERENCE TO THE LOGICAL DEFINITION, THE GENERAL PRINCIPLES AND THE REFERENT THEMES IS URGED. WHERE ANY PARTICULAR JUDGMENT IS DIFFICULT REFERENCE TO THE MANUAL IS RECOMMENDED. The referent themes are illustrative and by no means exhaustive. Where no examples seem to apply to a given theme, refer to the general principles and the logical definition.

DEFINITION:

PROTECTION-DEPENDENCY "NEED TO HAVE ANOTHER INDIVIDUAL OR GROUP OF INDIVIDUALS PREVENT FRUSTRATION OR PUNISHMENT AND TO PROVIDE FOR THE SATISFACTION OF OTHER NEEDS."

General principles for judging Protection-Dependency from TAT responses:

Themes in which the "hero" and/or "other" figures:

1. Describes or implies a strong attachment to one person (Whether present or not), especially an older person but also a "strong" age-peer.

2. Seeks out advice, guidance, suggestion, structuring re plans, study situations, social behavior, vocational choice, etc.

3. Describes or implies difficulty in making own decisions.

4. (a) Expresses wish or preference for or "puts" self into situation, dependent or protected, or non-demanding circumstances.

   (b) Expresses or describes discomfort or lack of self-confidence in decision-making, taking responsibility, in own abilities, in the future, marital insecurities. Important: unless a personal reference is made or clearly implied in generalized themes of inadequacy or insecurity, etc., the theme is not here considered a referent for dependency.

5. Relies on others' values, opinions, attitudes; tries to meet others' standards.
6. Expresses or describes "mother knows best" attitudes; describes attitudes of or behaves in a self-punishing or self-critical manner.

7. Expresses or describes strong inferiority, inadequacy, lack-of-self-confidence feelings; expresses need for extreme preparation or training before feels secure or adequate. (Themes here tend to imply a pessimistic attitude toward own adequacy, etc.

8. (a) Wishes to be "understood" and "appreciated"--and feelings that he is not understood, etc.

     (b) Themes involving complaints re symptoms--where these appear to be bids for sympathy and protection.

9. Behaves in a "follower" rather than a "leader" manner. Expresses difficulty or behaves in a manner indicating difficulty in disagreeing with others' opinions, etc.

10. Expresses or describes feelings of security only with people he knows well.

11. Describes self as having interests, attitudes, characteristics of those younger than himself.

PRINCIPLES FOR JUDGING "HERO" AND "OTHERS"

The presence of a central theme of Protection-Dependency will be judged in relation to the central figure or "hero".

The presence of a central theme of Protection-Dependency will be judged also in relation to the "other" figure(s) as a combined group.

The central figure or "hero" for purposes of this study is generally described as the figure:

1. Around whom the story or plot is developed.

2. Whose feelings are being expressed.

3. Whose behavior is being described.

4. Who is described first and is considered in the ending.
5. Who is most similar to the subject in age, social status, physical appearance.

6. Who is of the same sex as the subject (where appropriate).

7. Whose behavior is socially acceptable, from the point of view of the subject. (Consider here the "normative" behavior of the subject's social, peer, fraternity, etc., groups.)

8. Whose history is most similar to the subject's history.

The judgment of Protection-Dependency in "other" figures is to be considered relative to his importance in the central theme, e.g., relatively minor role requires relatively fewer dependency referents or "cues" to be judged as Protection-Dependency.

Protection-Dependency referent themes. (from pre-test population)

Protection-Dependency referent themes are not included for each card. Where they are included there was complete agreement among the judges (N=3) in determination of the theme as either dependent or otherwise. These referent themes were judged "borderline" themes and as such they have been included to clarify the application of the logical definition and the principles.

Where no referent theme is included there were no such themes in the pre-test population or there were no "borderline" themes and there seemed to be no difficult problems in judging for the presence of a Protection-Dependency themes.

The examples for each card are designated by the following abbreviations:

D-H --Dependency on part of "hero."
D-O --Dependency on part of "other" figure(s).
Non D-H --not dependency on the part of the "hero."
Non D-O --not dependency on the part of the "other" figure(s).
Card 4

D-H This is a picture of man and wife. There has evidently been a quarrel between them. The husband has accused his wife of loving some other man. At this moment the wife is attempting to make up to her husband; she's telling him that he's been greatly disillusioned. The man is greatly hurt and doesn't believe what she's telling him. The wife is trying to persuade him to her point of view. In the end the wife's love overcomes him and they overcome the difficulties which were present.

Non-D-H The couple are married and they are having an argument. The husband has lost interest in his wife. He has found interest in another woman and no longer cares for his wife. She has been unable to keep his interest and to make him happy. The wife in the picture is trying to get her husband to come back. The husband leaves her.

Non-D-O A once happily married couple are now portrayed in a scene of extreme unhappiness. The woman in question has undoubtedly a great deal of love for the man; the male, however, has evidently found something new which is taking him away. The woman is desperately trying to keep him but he will not be deterred. He will eventually return to her love and solace for his mistake.

Card 3

D-H This woman met a man of whom she knew nothing. But she fell in love with him and taking it for granted that they would someday be married she let the man do things she knew was morally wrong.

One day she found out she was pregnant and told the man that they must be married. But the man left her.

Now she is alone and sobbing and thinking how wrong she had been.
She led a very unhappy life after giving the baby to an orphanage. She couldn't trust people; especially men, after that.

Non-D-H This looks like a young lady who has just had a terrible quarrel with her husband to be. At this point he has left the scene and she has broken down completely on the davenport. Having exhausted herself, she is practically asleep. Time will bridge the gap and eventually bring them together again.

Non-D-O The man has been drinking after a long day's work and he's just arrived home to see his wife. His wife is trying to reason with him and make him understand that he shouldn't spend his time at a bar but he isn't in the agree-
ing mood. He is stubborn and won't listen to reasoning. His wife is trying to tell him to quit drinking. The outcome is that he never entirely quits drinking but after a short time the same situation will come about again.

Card 6

D-H This man has just told his mother of the girl he is going to marry. She does not approve of this marriage, but rather than hurt her son by telling him so, she says nothing at all. Sensing the uncertainty, her son postpones his marriage and without either his girl or mother realizing his intentions, he arranges for the mother and girl to spend more time together. The mother decides she likes the girl, and a happy wedding follows.

D-H & O After having been inducted into the army and having just completed his physical he arrives home to tell his mother. He is all she has left as her husband died two years ago. She feels very bad about it and doesn't know what to do or say. He knows his mother feels badly about it and he is trying to think what to say - silence is everywhere.

He leaves the next week for the army where he does very well and gets into OCS. He makes it thru OCS and sends his mother money so she can live as she is too old to work. He makes rapid advancement and makes his mother very proud of her son--even though at first she hated to see him go.

Non-D-H The fellow has failed miserably in co-captaining his football squad. He couldn't seem to produce. His maid is watching the team take off for another game away. They left him there partly because of injury and of course his playing tactics. However, he doesn't quit on anything and next week shines at practice learning many things which helped him in later life.

Non-D-C This is a mother and her son. The son has committed murder and has been a fugitive for about a week. Finally the police find him and bring him home where his bewildered mother sees him. In this picture she neither cries nor has anything to say except "How could you?" The son is so ashamed that he cannot even face his mother. The police are waiting in the other room and in a few minutes will come in and take the boy away.

Card 7

D-H The older man in this picture was a good friend of the family of the younger man. Both of the younger's parents are dead and this man is looking over him. After their death
the young man has followed the wrong way of life. Now his wrongs have come to a climax, he has entered the underworld for his living. He is definitely bitter toward life. Here the older man is trying to put him straight again. He's led a similar life but come out on top. He's thinking of the time when he was that same way. In the end this younger man too "sees the light" and leads a very righteous life.

D-H The boy has had his feelings and pride hurt by another person. Maybe he was outclassed in front of a large group of boys and girls his age. He was thereby made to feel inferior. He now wants revenge on the person who put him in this spot and his father tells him that that isn't the proper attitude. He should take life as a man and forget it. Then the next time he should be ready for something of this nature.

Non-D-H The father in this picture doesn't get along well with his wife. The son and he are here plotting how to make life miserable for her. Both have a touch of insanity. The father is trying to drive a wedge between the mother and the bitter son. Eventually instances similar to this will cause the mother to commit suicide.

D-C The busy father always a little bit too busy for his son now tries too late. His son no longer wants his advice and will not heed the older man's experience. A few years earlier all could have been the closest of friends and confidants but the break at this point will never heal. The father will persist in his effort to become close to the boy but the harder he tries the more his son resists him. The boy eventually breaks from his father completely and the old man spends the rest of his life in misery and sorrow over his loss of a son.

Non-D-O The scene which cannot be fully viewed is a bar. The men in the picture are seated at the bar and have been drinking for a long time. The younger man has far out drunk anyone around and is becoming fast obnoxious. He is becoming domineering and repugnant. The older man who has been thru this all before is also a little intoxicated but not so that he can't see a chip growing on the shoulder of the younger. He tells him in the voice of experience that when he drinks if he is going to get repugnant and carry a chip on his shoulder he'd better try again for in his experience it has brought him nothing but trouble.

The young fellow does not take heed and precedes to get into a brawl which as the old man says ends up in nothing but trouble.
Card 9

D-H This boy went hunting with a companion against his father's wishes. He accidentally shot his friend who later died.

He is now wondering whether he can ever forget this terrible thing he has done. And why even tho he knew his father was right he had gone against his will.

He never forgot the accident but took it in his stride and always listened to someone whose judgment and knowledge was better than his.

He was successful in life.

Non-D-H It looks like a combination of two scenes to me. The boy has shot the man (maybe his father as stories go) with the gun and he is running away bewildered and confused and scared. The men in the background are investigating and performing an autopsy.

Card 10

D-H&O These are two Polish lovers who are just saying good night. They have been married for some time, and during their married life they have been embittered by some stroke of fate, like the death of their only child. They will continue to live in their embittered state, depending completely on each other, for the rest of their natural lives.

D-C These two began with simple love making in his apartment. The woman lost control and he took advantage of her. Here she realizes what she has done and is rather helpless (as she is of high moral character and has always been opposed to intercourse before marriage). The man comforts her now and tells her she has done nothing wrong. Afterward he will forget her and turn toward a new false love.

Non-D-H&O There has been a very emotional affair between these two. The man has asked this woman to marry him—he has been seeing her for about a month. She then realizes her mistake, she was already married and had just told her lover so. Both have the same feeling about the matter—they are very much in love and wished they had met earlier. However, she returns to her husband and lives a very dull life—often thinking about but never seeing again her real lover.
Card 12

D-H  This young man lying on the bed has had a long mental illness. No doctors have been able to do him any good. Then he goes to a very religious man who has the power of hypnosis. Here he goes to sleep. The younger man is forced to think of his child life while he is asleep. The older man is trying to analyze his problem and finds that his patient had seen his mother killed in a religious war. The young man is finally cured by the work of the old man.

D-H  This person is a physician who has just administered a sedative to him-("hero")-so he can sleep from the disease. The doctor is wondering if he is asleep. The patient pulls through, is restored to good health.

D-H  The young boy has undergone a serious illness and will probably die by morning. He is of peasant parentage and he's on a simple crude pallet. His family being deeply religious has called in a minister or priest to comfort him in his last hours. The priest has been talking to the boy and has just arisen from his seat at the foot of the bed and is about to say a prayer for the child. The boy is slightly credulous but is trying to grasp the minister's words. They will be the last words he hears.

Non-D-H  The man has crept into the house after dark and has found the woman asleep. He attempts to rape her and her screams attract a cop walking the beat below. When he hears the cop coming up the stairs he jumps from a window to escape. Directly below him is an iron picket fence, which mutilates his body when he lands on it.

Card 13

D-H  This average couple's life has just been broken by the near death of the wife. She has been sick for quite a while and has just suffered a relapse. The husband has called the doctor but is helpless to aid her until he (the doctor) arrives. She dies before he comes, and the husband is left to face a dull life alone.

Non-D-H  This man has persuaded the girl to go to his apartment. These two are not married and have been emotionally overcome. They have just finished premarital relations and she is exhausted. The man feels very guilty about the affair for he doesn't really love her, as she does him. The woman becomes pregnant and they are forced to get married. The outcome of the marriage is very poor.
Non-D-H Having enticed a young woman to his apartment this man has seduced her. She has just told him that she is his wife's sister and he is completely shaken. She has always hated him for marrying her sister and chose this way to punish him. He walks over to his window seven floors up and leaps to his death.

Non-D-H This gal was a virgin. She was from a wealthy family where intercourse was taboo. This fellow finally succeeds and she goes into hysterics. She then faints and the man realizes he is wrong. She doesn't become pregnant and they work out their difficulties and get married.

Card 15

D-H This man was very much in love with his wife. She died when she was only thirty and the man spends all his spare time at the cemetery. As he grows old he spends more and more time there, hardly taking time out to eat and sleep. Then one morning they find the man's body draped across the grave of his wife. He has died of exhaustion and malnutrition.

D-H The man pictured is the sole survivor of an old English estate. He now lives as a hermit in an abandoned castle. Today is the day his father died and he is brooding over the ineffectual way that he has dealt with his life he has lead. He longs for the commonness of the grave. He hates being alone but is too weak of character to do anything about it. Oh, for the bonds of the grave he cries as if his father would pull him into oblivion.

Non-D-H This man had murdered his lover several years before this scene. However, the law had returned a verdict of accidental death. Through the years this man became crazy as a result of thinking of his crime. He finally goes to her grave and is here standing in front of it. He is thinking what a sweet life they could have lived together. After this visit to her grave, he returned to his home and hangs himself.

Non-D-H A man with an obsessing fear and awareness of death can only feel himself surrounded with it. Completely encompassed and almost crushed by its oppressive nearness. Everything he views he can only consider it all in terms of its mortality and its eventually death. He has found no real values or satisfaction with life yet he fears death more than he is driven to accept it in suicide. The eventual affect is that the strain and his escape is found in a mental break down.
Card 17

D-H  This is the story of a boy who had polio when he was ten and lost the use of his legs. His father was very disappointed because he had wanted him to become an athlete. The son knew of his father's disappointment and unknown to his father he became a rope climber in college on the stunt team.

Then one day he got his father to come to a meet. He won first place and set a collegiate record. He has just finished in record climb and is looking at his fathers beaming face out in the crowd.

D-H  This scene takes place on the night the boys' gym class is putting on a show for their parents. The parents of the boy on the rope did not attend, so he is being very smug and is showing off to cover his disappointment. After the show is over people will consider him an ass for acting the way he did but he won't particularly care.

Card 18

D-H  The man is a drunk who has been raising too much hell in a bar. The bartender called the cops and in this picture one of the cops is shoving him into the patrol wagon. He does not want to go for fear of what his wife will say. He ends up spending the night in jail and fined $50.

Card 20

D-H & O  Its 1:30 AM and the man in the picture is waiting to meet someone--in fact, he has been waiting since 7:30 PM for his wife--(she is late). He doesn't know what has happened to her and is beginning to think something is the matter that she hasn't shown up by now. His back is to the street as it has been all nite. Across the same street is his wife waiting with her back against the street. She too has been waiting since 7:30 and wonders about her husband--she is beginning to worry. They are a perfect example of a faithful husband and wife. They both want until dawn when they finally turn around to see one another. They are very happy that nothing has happened to one another and go to breakfast tired but happy.

D-H  A once prosperous man, liquor has finally overcome him and he finds himself a destitute bum. Without friends, support or pride he stands alone on a street corner destined to spend the rest of his life as an outcast from society.
MANUAL FOR JUDGING PROTECTION-DEPENDENCY FROM RESPONSES TO THE INCOMPLETE SENTENCES BLANK

In order to promote maximum agreement in the judgment of Protection-Dependency responses this manual attempts:

(1) to outline a standard procedure to be followed by each judge in judging the incomplete sentence protocols for the presence or absence of Protection-Dependency responses;

(2) to make explicit the meaning of the construct "Protection-Dependency" through the use of general principles developed at a lower level of abstraction and further explicated by the use of specific referents.

Procedure:

After a thorough study of the:

(a) logical definition of Protection-Dependency;
(b) the general principles for judging Protection-Dependency;
(c) the Protection-Dependency "cues" or referents for each sentence,
proceed to make item-by-item judgments for all of the protocols. Rate all the #1 items for all subjects, then all the #2 items for all the subjects, then all the #3 items, etc. Refer back or ahead to other items only where this is obviously necessary in order to make sense of the response, e.g., such a sequence as: #1. I like...going to baseball games. #2. The happiest time...is when I am at one.

Make each judgment for each protocol before proceeding on to the next protocol or item as the case may be.

Frequent reference to the logical definition, the general principles and the cue lists is urged. Where any particular judgment is difficult reference to the manual is recommended. The cue lists are illustrative and by no means exhaustive. Where no example seems to apply to a given response, refer to the general principles and the logical definition.
Definition:

PROTECTION-DEPENDENCY "NEED TO HAVE ANOTHER INDIVIDUAL OR GROUP OF INDIVIDUALS PREVENT FRUSTRATION OR PUNISHMENT AND TO PROVIDE FOR THE SATISFACTION OF OTHER NEEDS.

General principles for judging Protection-Dependency from ISB responses:

Responses which verbalize or imply:

1. A strong attachment to one person, especially an older person but also a "strong" age-peer.

2. A felt need for advice, guidance, suggestion, structuring, e.g., relative to plans, study situations, social behavior, vocational choice, etc.

3. Difficulty in making own decisions.

4. (a) Wishes or preference for dependant, protected situation, e.g., childhood, being at home with parents; non-demanding circumstances.

   (b) Discomfort or lack of self-confidence in unprotected situations, e.g., worries re responsibility taking, decision-making, own abilities, the future, marital insecurities. Important: unless a personal referent is used or clearly implied in generalized statements of inadequacy or insecurity, etc., the response is not here considered a referent for dependency.

5. Reliance on others' values, opinion, attitudes; tries to meet others' standards.


7. Strong inadequacy, inferiority, lack-of-self-confidence feelings; need felt for extreme preparation or training before S can feel secure or adequate. (Response here tends to imply a pessimistic attitude toward own adequacy, etc.)

8. (a) Wishes to be "understood" and "appreciated"—and feelings that S is not understood, etc.

   (b) Complaints re symptoms—where these appear to be bids for sympathy and protections.
9. Difficulty in disagreeing with others' opinions; "follower" rather than "leader" tendencies.

10. Feels secure only with people S knows well.

11. Views self as immature or childlike; has interests, attitudes, characteristics of those younger than himself.

PROTECTION-DEPENDENCY "CUES" (from R. Dunlap; Rotter Cross-validation sample of ISB: pre-testing.)

The following cues are illustrative rather than comprehensive. The "non-dependency" responses are but a small fraction of the possible non-protection-dependency response in the samples used; these non-dependency responses are included as examples of somewhat "borderline" responses which the judges agreed were not to be considered as protection-dependency responses, at least for purposes of this study.

1. I like ... to do what I am told, even though I do argue, to enjoy myself in a crowd of people I know.

   (Non-D) ... to read.
   to collect stamps.

2. The happiest time ... 's are at home.
   was when I was young.
   of my life was in my youth.
   was when my father recovered.
   is when I have no worries.
   of my life will be when I am professionally, matrimonially and financially secure.

   (Non-D) .......... of the year is Christmas.
   is meal time.
   I know is seeing others happy.

3. I want to know ... how I may gain complete faith.
   how to get rid of faults.
   how I can learn to study better.
   what is right and what is wrong.
   what will happen to me in the next five years.

   (Non-D) .......... more about living.
   what the future holds for me.
   if I can be a success.
4. Back home ... I had few responsibilities.
my sister helps me with my work.
I have a feeling of security and understanding.
I would not feel free to do the things I do here.

(Non-D) ..... I have a good home.
I get treated well.
I have fun, too.
I was happy.

5. I regret ... that I am self-conscious.
having hurt anyone's feelings.

(Non-D) ..... that I do not look older.
my mistakes and try to rectify them.
starting to drink beer.

6. At bedtime ....... I pray.

(Non-D) ........... I usually eat something.
we all said our prayers.
things are kind of noisy.

7. Boys ... are usually more truthful to me than girls.
pass through the hardest part of their life when they undertake their lifework.

(Non-D)... are much more bottled up with their emotions.
are interesting to talk to when they are two years old.
until now have held little of my interest.

8. The best ... thing for me is to have more contact with women which will improve my self-confidence.
way to learn is to be taught properly.

(Non-D) .... cure of any problem is to first face it.
things in life are hard to attain but I like to work toward them.
things to do is to let things come and go as they please.

9. What annoys me ... trying to decide what to do.
is my inability to express myself and wrong impression which I give.

(Non-D)........... is having to put up with conventional ways.
9. continued.

(Non-D) ....... is that I study hard but have difficulty
in getting good grades.
are people who embarrass or hurt others.
is needless suffering.

10. People ... are always trying to help me.
make me nervous at times.

(Non-D) .. as a rule think only of themselves.
should have more sense and tolerance.
are generally inconsiderate.
are both self-interested and interested in
helping others.
do things that they believe others would
like for them to do.
usually treat me very well.
are all hypocrites.

11. A mother ... should comfort and aid her children at
all times.
usually knows best.
is indispensable.
means very much to me.
always protects her children.
helps you study when you should.
is a very understanding person.
is the only woman a man can really trust.
is the most wonderful person you'll ever
know.

(Non-D) .... should not hang onto her children too
closely.

12. I feel ... a strong attachment for any security.
that the future is too insecure.
like going home.
that I am slipping at times and not too
sure of myself.
so awed at the thought of the future.
as if I don't know what I want to make
of myself.
worried about college life.
more at ease with friends.

(Non-D) .. life has been unsuccessful up to date.

13. My greatest fear ... is offending people.
is to do something to offend my
father's name.
13. continued.

My greatest fear ... is of disappointing dad.
   is making a wrong choice.
   is indecision on my future until its too late.
   is the unknown.
   is that of failure.
   is the health of my father and mother.
   is that I will disappoint my parents in the coming world.

(Non-D) ............... is that I will become old.
   is being locked in a small place.
   is death.

   I had an inferiority complex.

(Non-D) ............... my greatest asset was good teaching.

15. I can't ... decide what to do.
   dance because I'm backward.
   do half the things expected of me.
   do it well.
   do very many things anymore.
   find the right woman.

(Non-D) ... see why anyone would laugh at mistakes.

16. Sports ...

(Non-D) ... interest me, though I seldom take part.
   have never interested me very much.

17. When I was a child ... I had a fear of meeting people.
   I didn't realize how lucky I was.
   I had a bad heart and couldn't engage in sports.
   I didn't know how discouraging life could be.
   I felt inferior to others.
   my mother worked long and hard to provide and care for me.
   I was always the smallest of all.

(Non-D) ...............I nearly got hit by a car.

18. My nerves ...
   (Non-D) ..... are good but always on edge in pressure.
19. Other people ... are your greatest assets.
    are nice to me.
    will determine my future.
    appear to me as my superiors.
    must think I'm awful.
    are not considerate of me.
    think I look about 12.
    have no trouble at all.
    say I'm too easily embarrassed.
    certainly have tried to help me get
    ahead.
    make the time pass faster.

(Non-D) ........ make life worth living.
    seem to have a higher regard for me
    than I do of myself.
    should realize that other people are
    in the world.

20. I suffer .... when not near people.
    from some lack of confidence.
    when I have been wrong.
    when I make mistakes.
    from an inferiority complex.
    in that I'm not exactly sure what I want.
    from sickness when I was small.

(Non-D) ...... when other people suffer.

21. I failed .... to gain courage.
    to do the right thing many times.
    at many things.
    to make the grade.

(Non-D) ..... once and decided that was enough.
    to follow advice given me with good
    intentions.
    in making an outstanding impression
    in high school.

22. Reading .......

(Non-D) ...... is bad on the eyes if you read too much.
    was my greatest pastime in high school.
    was hard at first.

23. My mind ... is still immature.
    is opened for help.
    is sometimes too easily swayed.
    is in a muddle as to what to do in life.
    is uncertain on what career to choose.
    seems underdeveloped.
23. continued:

(Non-D) ...is not methodical enough.

24. The future ... is something that I fear.
   for me is very uncertain.

(Non-D) ....... (unless a personal referent is used in a generalized statement of inadequacy, etc., statement is not considered dependency here) e.g., the future is dark and uncertain; the future is vague; the future is unknown, etc.

25. I need ... help.
   encouragement.
   more self-confidence.
   help from someone older.
   much guidance in later life.
   more experience in meeting people.
   proper guidance in social matters.
   aid from everyone to accomplish my end.
   someone to help me with my homework.
   the advice of an authority about my problems.

26. Marriage ...

(Non-D) .... is still far away.
   is a sacred bond.
   can be the greatest time or worst mistake in a person's life.

27. I am best when ... I have encouragement.
   I am with older people.
   I am with one or two close friends.
   the people around me are helpful.
   I am well-prepared.

(Non-D) ............ no one bothers me.

28. Sometimes I ... wish I had stayed home.
   feel lost.
   we can all use a little encouragement.
   get feeling sad over my mistakes.
   wonder about things that are too deep to understand.

(Non-D) ........ things seem dark (no personal referent).
29. What pains me ... is not being able to decide.
   is my lack of confidence.
   most is to see my Mother hurt.
   is to see men and women smoke.

   (Non-D) .......... is to see a child punished.
   is to see a person in agony.
   is to hear destructive criticism.

30. I hate ... to leave home again.
    myself when I lose my temper.
    to be called a sissy.
    the thought of being the only person
    on earth.

   (Non-D) ... thoughtless people.
    tc be pampered.

31. This school ... may make or break me.
    is big and awesome.
    is very impersonal (with personal
    referent).

   (Non-D) .......... fulfills all my desires at present.

32. I am very ... shy.
    young and inexperienced.
    self-conscious.
    sorry for all the trouble I have caused
    my parents.
    worried about my future.
    slow to catch on at times.
    much in doubt about my vocation.

33. The only trouble ... I have is making decisions.
    is that I've become used to others
    making major decisions for me.
    is that I'm so little.
    is, can I make the grade?
    is my shyness.
    is finding enough time to be home.
    is that its all up to me.

   (Non-D) ............ with us is ourselves.
    is dad.

34. I wish ... that I were entering high school again.
    I had stayed at home.
    you would try and understand.
    I could make up my mind.
    I knew what is best.
34. continued:

I wish ... I were a better boy.
I could put my Mother on "easy street."
I were going to a smaller school.
I could overcome my shyness.
I were more intelligent.
I had more talent and ambition.

35. My father ... has taught me my philosophy.
is going to help me all he can.
had done more for me than I can ever repay.
is a man who perhaps has been too good to me.
suggested I come to this school.
is very understanding.
is the greatest person I've ever known.

(Non-D) ..... my father is very respected.

36. I secretly ... like to do what I am told.
hate to leave home and start living somewhere else.
pray that God will help me in my choice of life's work.
would like to stay home.
have done things I have regretted.
am scared of college.
wish I could overcome my fears.
have my doubts about making good.
desire to be like my father.

(Non-D) ...... often change my mind about things.

37. I ... hope I am helping you to help me.
hope to live up to my father's standards and raise a family.
wish I could make up my mind.
depend too much on others.
try to be good.

(Non-D) ... hope to make a good name for myself.
am gaining confidence in myself.

38. Dancing ... presents an obstacle.

39. My greatest worry is ... next year because its indefinite.
finding a place of security.
my mother's health.
will I be successful in the eyes of my parents.
39. continued.

My greatest worry is ... what's going to happen when I die.

about the future.
is of marrying unsuccessfully.
is of marrying the right girl.

(Non-D) ............... being a burden.

the world situation. (this referent lacks the personal cannotation).

40. Most girls ...

(Non-D) ...... use too much powder and rouge.
don't trouble, worry or embarrass me unduly.

around here are conceited.
are worried about first impressions.
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AUTobiography

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