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THE LITERATURE EMPATHY TEST: DEVELOPMENT OF A PROCEDURE FOR DIFFERENTIATING BETWEEN "GOOD EMPATHIZERS" AND "POOR EMPATHIZERS"

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THE LITERATURE EMPATHY TEST: DEVELOPMENT OF A PROCEDURE FOR DIFFERENTIATING BETWEEN "GOOD EMPATHIZERS" AND "POOR EMPATHIZERS"

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CHAPTER I

INTRODUCTION

Clarity and precision in concepts are a necessity if the concepts are to be amenable to experimental investigation. The concept of empathy has been widely used as a fundamental construct in theories of interpersonal behavior, especially by clinically oriented theorists. Deri (1949), among others, has emphasized the "good" diagnostician's capacity to empathize with his client through available projective material. Rogers (1955) and others have stressed the "good" therapist's capacity to empathize with his client. Yet a precise definition of empathy has proved to be an elusive will-o-the-wisp.

Empathy has been defined by some theorists in a manner which almost places it within the realm of parapsychology. Sullivan makes reference to the "tension of anxiety, [which] when present in the mothering one, induces anxiety in the infant. . . . [I refer] to it as a manifestation of an indefinite--that is, not yet defined--interpersonal process to which I apply the term empathy" (1953, p. 41). Fromm-Reichmann admittedly follows Sullivan's thinking and uses empathy "when referring to the emotional contagion or communion which exists between people outside the communication through sensory channels or through spoken words" (1950, p. 31). For both Sullivan and Fromm-Reichmann empathy is a basic construct, with rather mystical connotations, referring to special

emotional aspects of interpersonal relationships.

Other definitions of empathy have been proposed which are more generally accepted and which do not necessarily imply a non-sensory medium of communication. Fenichel has proposed the following definition from a psychoanalytic frame of reference: "Empathy consists of a temporary identification with an object for the purpose of anticipating what the object is going to do. . . . Empathy consists of two acts: (a) an identification with the other person, and (b) an awareness of one's own feelings after the identification, and in this way an awareness of the object's feelings" (1945, p. 511). Dymond, from a perceptual frame of reference, has proposed a similar definition: "Empathy is the imaginative transposing of oneself into the thinking, feeling, and acting of another and so structuring the world as he does" (1949, p. 127).

In the foregoing definitions a one-to-one interpersonal relation has been implied. Still other definitions include the relationship between an individual and a group. Warren gives the following definition which he states emerged from the psychoanalytic school: "Empathy is a mental state in which one identifies or feels himself in the state of mind as another person or group" (1934, p. 92). Kerr and Speroff (1955) also refer to empathy in a group context.

Definitions of empathy have also varied along another dimension, i.e., degree of emotionality. Sullivan and Fromm-Reichmann stress the emotional basis of empathy, while Hinsie and Shatzky stress the rational component: "Empathy is thus a form of identification; it may be called intellectual identification in contrast to affective identification" (1940, p. 194). Kerr and Speroff (1955) also stress the rational

component.

The definition proposed by Dymond has been generally accepted in recent years as the basis for empirical and experimental studies. Dymond and others made the definition more precise and amenable to experimental investigation by operationally defining it as the ability to correctly predict the behavior of another person. The logic behind this can be stated in this way: if a person imaginatively transposes himself into the thinking, feeling, and acting of another and so structures the world as he does, then he should be able to predict how the person thinks and feels about various things. The predictions of the person doing the empathizing (hereafter referred to as S) can be scored against the responses of the person with whom he is to empathize (hereafter referred to as O). The higher S's score, the greater his empathic capacity.

The fallacy of asserting the consequent frequently occurs when the above logic is applied in studying empathy. It is frequently assumed that, if S is able to predict correctly the responses of O, then he is empathic; little or no consideration is given to the possibility that S may have predicted the responses of O correctly by merely projecting his own values or by rational use of an actuarial method. In such cases it would be more proper to speak of verification of the hypothesis rather than proof of the hypothesis, verification referring to the fact that the prediction implicit in the hypothesis occurred and that contradictory trends were not obtained.

The inadequacies of Dymond's operational definition gradually became apparent as the relationships among empathy, projection, and similarity were investigated. It was hypothesized on theoretical grounds that the

more an individual tended to project his own frame of reference indiscriminately upon others, then the less should be his empathic capacity. Norman and Ainsworth (1954) found that empathy and projection were positively correlated, using the above definition of empathy and defining projection as the number of items where S's predictions of O's responses were the same as his (S's) own responses. This latter measure has been variously referred to as "projection" and "Assumed Similarity." Bender and Hastorf (1953), on the other hand, found an inverse relationship between projection and empathy; these investigators used a "refined empathy score," obtained by subtracting the Assumed Similarity score from the total number of correct predictions.

Taft (1955), in a review of studies concerned with judging people, notes the many contradictions between studies and mentions that part of these may be a function of the measures used. Cronbach (1955) made an intensive analysis of the various factors involved in current operational measures of empathy and showed how the contradictions obtained in the relationship between empathy and projection are artifacts of the measures used. He pointed out, with regard to Norman and Ainsworth's study, that the empathy "score contains Assumed Similarity components," and hence "the two scores would necessarily overlap even if both sets of responses are determined strictly by chance" (1955, p. 180).

In a study of empathy it is important that S take O as a stimulus and make use, consciously or unconsciously, of the expressive cues that O presents. In clinical language, he must relate to O in an interpersonal manner. The danger that exists, and which has confounded the results of many studies, is that S's correct responses may be based more

on preconceived notions and stereotypes than upon his perception of O as a person. That is, S may obtain a high number of correct predictions in either of two ways: (a) by imposing a frame of reference or preconceived notion upon O which may happen to be correct, or (b) by making use of his perceptions of O as a stimulus object to arrive at his predictive responses. When the total number of correct predictions is taken as the measure of empathy, and when either several Os who are not markedly different from each other or only one O is used, then the measure of empathy may be grossly inaccurate.

Studies of Empathy

Taft (1955), Cronbach (1955), and Jarrard (1956), in reviews of studies concerned with judging people and with empathy, have noted the many contradictions among studies and have stated that much of the discrepancy can probably be attributed to the wide variety of measures used. The present writer, too, has found it exceedingly difficult to evaluate and to draw conclusions from studies concerned with empathy because of the great variation in tasks, measurements, and subjects used in these studies. The following conclusions, however, seem justified from a review of relevant literature.

Individual differences in empathic capacity have been demonstrated by Dymond (1948), Luft (1950), Bender and Hastorf (1950), and Holsopple and Phelan (1954). Dymond (1949, 1950) reports that empathic capacity is positively related to gross level of intelligence and to one's ability to understand oneself. Dymond (1948) also reports that empathic capacity is inversely related to degree of intellectualization of experience and

positively related to early, close, family relationships. She further concludes that empathic capacity increases with chronological age, but most markedly between the years of seven and eleven. Luft (1950) and Arnhoff (1954) report that empathic capacity is not directly related to degree of formal education.

Empathic capacity has been related to degree of similarity between S and O by Halpern (1955), but he also notes that projection and empathy are frequently confused, especially as the degree of similarity increases. The discrepancy between the results obtained by Bender and Hastorf (1953) and Norman and Ainsworth (1954) regarding the relationship between projection and empathy, arising as an artifact of the operational definitions used, has already been noted. Another center of conflict is the relationship between empathic capacity and degree of maladjustment. Dymond (1950) concludes that well-adjusted people tend to be better empathizers than maladjusted people, while Bieri, Blacharsky, and Reid (1955) conclude that maladjusted people tend to be better empathizers than well-adjusted people. These contradictory conclusions appear to be attributable to differences occurring in the conception and measurement of maladjustment and in the subject groups used.

The most frequently used methods to differentiate between subjects with respect to empathic capacity have been based upon the following design: Several Ss are placed in a room together for a specified period of time, usually from ten minutes to a half hour, and then each S is asked to predict how the others will complete a personality questionnaire or rating scale. This procedure has one definite advantage: each S, by taking the personality questionnaire himself, provides the criterion

against which the other Ss' predictions can be scored.

Variations upon this basic design are multifold; no two investigators have used exactly the same design. Some used Ss who had previously been acquainted with each other, some used Ss who had not known each other previously, and others made no attempt to control this variable. Some used only male subjects, some used only female subjects, and others used both indiscriminately. Some have taken intelligence level into account, others have not. With regard to the predictions made, a wide variety of personality questionnaires, interest scales, and open-ended items have been used. The net result of such wide variation has been to render comparisons between studies very tenuous at best.

In evaluating any one study based upon this design, or a modification of it, a source of error is found to be present which casts doubt upon the validity of the conclusions relating to empathic capacity. There is no control over the situation. Thus, S_1 may spend half his time with S_2 and the other half of his time with, say, three other Ss. Each S in the situation is not presented with the same interpersonal situation as every other S, and it is possible that differences in "empathic capacity" so measured may reflect the operation of uncontrolled variables in the stimulus situation more so than differences in empathic capacity.

This method of differentiating subjects with respect to empathic capacity has yet another serious disadvantage. Exact duplication of the procedure is impossible, and an approximate duplication is exceedingly difficult. The range of empathic capacity discriminated by this method is always relative to and dependent upon the subjects involved in the

procedure. It may be that a "good empathizer" in one study would be an "average" or even a "poor empathizer" in another study, depending upon the range of empathic capacity to be found in the subjects involved in each study.

Two tests purporting to measure empathic capacity have been published: (a) The Empathy Test by Kerr and Speroff (1955), and (b) Primary Empathic Abilities by Kerr (1957). These tests are composed of items in which S is asked to predict characteristics of various populations (for example, music preference of office workers) and are based upon the assumption that the individual who can most accurately predict population norms will also be the best empathizer. This basic assumption underlying these tests has not been submitted to direct experimental investigation.

Several studies have been conducted which purport to relate to the validity of The Empathy Test and the Primary Empathic Abilities test. Most of these studies appear to have, at most, only a very indirect relationship to the validity of these tests, although they do demonstrate that the tests have some predictive value for certain behavior patterns. Thus, Van Zelst (1952) reports a relationship between score on The Empathy Test and success as a union leader, and Tobolski and Kerr (1952) report a relationship between score on The Empathy Test and success as an automobile salesman. Kerr and Speroff consider this validating data for their test, stating that empathic capacity is necessary for success in both situations. Even if this latter statement were granted (and its accuracy seems questionable), the obtained relationships do not indicate whether the test is measuring "empathic capacity" or another variable

common to success in the criterion endeavors.

Only two studies directly relate to the validity of The Empathy Test. Alden (1954) reports a positive relationship between clinicians' scores on The Empathy Test and their capacity to predict the behavior of two markedly different patients. Bell and Stolper (1955) report no relationship between the capacity of college students to empathize with each other and their score on The Empathy Test. In this latter study subjects rated themselves and other subjects with respect to several personality traits after interacting for 30 minutes in a six-person leaderless group situation; the average rating by the group for an individual served as the criterion against which each subject's rating for the individual was scored. A subject's empathic capacity was judged by how closely his rating of each individual in the group approached the average group rating for each individual.

Although The Empathy Test is not subject to the same criticisms as is the method described previously for differentiating between subjects with respect to empathic capacity, there is some doubt as to its validity. Dymond, along with most clinicians, uses the term empathy to refer to one-to-one interpersonal relationships; Kerr and Speroff use the term not only with reference to one-to-one group relationships, but also with reference to predicting population norms which are essentially statistical derivatives. Dymond (1948) has reported a significant positive relationship between degree of insight into one's own behavior and empathic capacity, a finding also generally supported by clinical observation. Mahoney and Auston (1958) reported a nonsignificant relationship at the .05 level between degree of insight, measured by success in

predicting one's Kuder interest pattern, and empathic capacity, as measured by The Empathy Test. Two methods of predicting Kuder interest pattern were used, one involving ranking and one involving rating, and Pearsonian rs of .18 and .16 were obtained between these measures and score on The Empathy Test.

CHAPTER II

STATEMENT OF PROBLEM

Research regarding empathic capacity has been extremely hampered by the lack of an adequate procedure for differentiating individuals with respect to empathic capacity. Investigators concerned with empathy have repeatedly noted the lack of a standardized, objective measuring device for empathic capacity which would permit dependable duplication and comparison of studies. As Jarrard (1956), Cronbach (1955), and Taft (1955) have emphasized, the development of an objective measure of empathic capacity must be completed before further research, either basic or applied, can be fruitfully conducted concerning empathy.

The current study represents an attempt to develop an objective procedure, the Literature Empathy Test, for differentiating between good empathizers and poor empathizers. The Literature Empathy Test makes use of a standard stimulus situation which is presented to subjects, thus eliminating sources of error arising from an interpersonal situation and allowing relatively exact duplication and replication of a way of differentiating "good" and "poor" empathizers. The Literature Empathy Test was conceived and developed in a manner compatible with the theoretical conception of empathy proposed by Dymond.

Good empathizers, as used in this report, refers to individuals who, in the words of Dymond (1949), are capable of imaginatively transposing

themselves into the thinking, feeling, and acting of another and so structuring the world as he does. They are individuals who are intuitive of the finer nuances of interpersonal relationships, and who are alert to and intuitive of the feelings and private world of others.

Poor empathizers, on the other hand, are people who are not capable of imaginatively transposing themselves into the thinking, feeling, and acting of another and so structuring the world as he does. They are individuals who are not intuitive of the finer nuances of interpersonal relationships, and who are not alert to and intuitive of the feelings and private world of others.

The assumption is made in using the Literature Empathy Test that if an individual is a "good empathizer," then he will be able to "predict" the responses of other individuals. A high level of performance on the Literature Empathy Test does not prove that an individual is a "good empathizer," just as a high level of performance on an intelligence test does not prove that an individual is "highly intelligent." In both cases, it is theoretically possible for a high level of performance to be obtained without necessarily high corresponding capacity. When properly administered, however, the Literature Empathy Test is designed to yield scores which can be interpreted as highly indicative of an individual's capacity to empathize.

CHAPTER III

DEVELOPMENT OF LITERATURE EMPATHY TEST

Serious thinking by the writer concerning the use of selections from fiction for differentiating between "good empathizers" and "poor empathizers" began in the spring of 1957 and reflected a fusion of the writer's longstanding interest in both empathy and fiction. Exploratory work with several kinds of stories and items was conducted during the summer and fall of 1957, and then the project went into an "incubation period" for several months. In the summer of 1958 the project was resumed, and a preliminary version of the test was administered to 288 subjects to obtain information regarding the variability of response to individual items. Standardization and normative data on the final version of the test, as it is presented in this report, were obtained during the summer and fall of 1959. A complete copy of the Literature Empathy Test is presented in Appendix A. This chapter, pertaining to the development of the Literature Empathy Test, is divided into the following sections for clarity of presentation: selection of stories, selection of items, administration, and scoring.

Selection of Stories

The perceptive author who is skillful in his craft weaves throughout his work of fiction the subtleties of psychological functioning and

the finer nuances of interpersonal relations. Many sensitive portrayals of people and interpersonal situations, presented in a manner allowing for ready identification on the part of the receptive reader, are to be found in works of fiction. In a short passage, or a few paragraphs, a vivid description of an interpersonal situation is possible. The individual who is a "good empathizer" and who has the requisite intellectual and reading comprehension capacities can be expected to be more aware of the finer nuances of feeling and relationship presented in a given passage than the individual who is a "poor empathizer." The "good" empathizer" should be better able to obtain a "feel" for the people described, to achieve more clearly a "temporary identification" with the people presented, than would the "poor empathizer."

Four selections from fiction are used in the Literature Empathy Test. These selections were chosen on the basis of their effectiveness in presenting a "picture of a person" or a personality in action. Each selection presents a portrayal of a person markedly different from the people portrayed in the other selections. If only one selection were used, it would be possible for an individual to give a false impression of empathic capacity. This could happen when the individual and the character portrayed were psychodynamically very similar, and the individual taking the test merely projected his own values and frame of reference. By evaluating an individual's sensitivity to four different personalities, the possibility of this kind of error occurring is not diminished, but the possibility of identifying its occurrence is greatly increased.

Brief descriptions of the individuals portrayed in the four

selections are presented below. Preliminary descriptions were prepared by the writer and then submitted, together with the selections, to two psychologists, Dr. Proctor and Dr. Sattler, who had received clinical training at different institutions, i.e., the University of Texas and the University of Kansas, for their judgments and revisions. The descriptions presented below represent final versions acceptable to the writer, Dr. Proctor, and Dr. Sattler.

The first selection portrays a man called Dempsey and consists of the first few paragraphs from Budd Schulberg's Crowd Pleaser (1954, p. 190-192). Dempsey can be described as a striving, overly-aggressive, dominating person who tends to relate to others in an exploiting and superficial manner. He is the kind of person who tends to be externally oriented and who is little given to introspection.

The second selection portrays a woman called Mrs. Bennet and consists of several paragraphs from Jane Austen's Pride and Prejudice (1950, p. 3-5, 96, 117). Mrs. Bennet can be described as a dominating, striving, manipulating person who is very much attuned to "the better things in life" as defined by "right society." A woman very much concerned with what is "proper," "acceptable," and "should be," she is the kind of person who, when direct approaches are not successful, achieves her ends by playing upon the guilts and pity of others through references to her "nerves" and "suffering."

The third selection portrays a woman called Kelcey's Mother and consists of several paragraphs from Stephen Crane's George's Mother (1955, p. 111-113). Kelcey's Mother can be described as a self-sacrificing, over-possessive, self-righteous person whose mainstay in life

is her rather parasitical, "smother-love," dependent relationship with her son. A very moralistic woman who would "think no wrong," she is the kind of person who "bears her cross" steadfastly in this life with her mind focused upon the "rewards in eternity for the righteous and good."

The fourth selection portrays a man called Philip and consists of several paragraphs from Aldous Huxley's Point Counter Point (1928, p. 89-91, 93, 95-96). Philip can be described as an intellectualizing, introspectively analytical person who tends to be emotionally remote, aloof, and distant in interpersonal relationships. Essentially a lonely person divorced from his own feelings, and hence from close emotional relationships with others, he is the kind of person who is more an observer than a participant in life.

Valid use of the Literature Empathy Test is limited to individuals who have no prior familiarity, imagined or real, with the selections. If an individual was already familiar with the selection, or thought that he was, then he could conceivably respond to the items not just on the basis of the material presented in the selection, but also on the basis of his memory of what else he had read, or thought he had read, at an earlier date. Upon completing the test, including all four subtests, the individual should be asked to indicate his familiarity with the selections used. Results obtained from individuals who reported that they were familiar with, or thought they were familiar with, the context from which the selection was taken were not used in standardization studies presented in this report.

Selection of Items

Preliminary version. Fifty-five multiple-choice questions involving

four possible choices of answer each were constructed relating to the Dempsey selection. These questions were designed to assess S's sensitivity to the individual called Dempsey as revealed through the interpersonal situation presented. Fifty-four multiple-choice incomplete-sentence items, involving four possible choices each for completing the sentence stem, were also constructed. The sentence stems were taken from the Holsopple-Miale Incomplete Sentence Test (1954), and the four completions for each stem were obtained by completing the stem in a manner thought by the writer to be consistent with each of the four characters portrayed in the selections. In this initial stage of development, the fifty-five questions and the fifty-four incomplete sentences were used with the Dempsey story, and the same fifty-four incomplete sentences were used also with the other three selections. Subjects were asked to complete the sentences in the way that the individual in the selection would complete them, choosing from among the four alternatives for their answers, and working on the stories one at a time.

The Literature Empathy Test has the definite advantage of presenting all Ss with a controlled situation: each S is presented with the same information, the same stimulus situation, the same cues, as every other S. Any variation among the results obtained from Ss, therefore, cannot be attributed to discrepancies in the cues and information presented the S, but rather can be attributed directly to variations in the functioning of the Ss. This kind of device, however, has the disadvantage of having no "ready-made" criteria for determining the "most appropriate answer" or "right" answer for each item. Scoring criteria were obtained in the manner described below.

The initial test, consisting of 55 multiple-choice questions pertaining to the Dempsey story, and 54 multiple-choice incomplete-sentence items pertaining to each of the four stories, was administered to ten judges characterized as "good empathizers" according to the description presented earlier in this report. Judgments as to the empathic capacity of the judges were made by the writer, who had known all the judges personally and professionally for several years, and by Dr. William B. Lemmon, Director of the Psychological Clinic and Director of the Clinical Training Program, University of Oklahoma, who also had known all the judges for several years. In addition, each of the judges (a) possessed the doctoral degree with specialization in clinical psychology or had completed all course work for the doctorate in clinical psychology, including supervised therapeutic and diagnostic practicums, and (b) had had at least three years successful professional experience in working with people in intensive therapeutic and counseling relationships. A list of the judges is presented in Appendix B.

The judges for the 55 questions pertaining to the Dempsey story were instructed to read the story and then to select the "most appropriate" or "right" answer for each item and the "most inappropriate" or "wrong" answer for each item. They were further instructed, with regard to the 54 incomplete-sentence items pertaining to the stories, to read each story and then to complete the incomplete sentences as they felt the individual in the story would complete the sentences if he were taking the test. Here, also, the judges were asked to select the "most appropriate" or "right" answer and the "most inappropriate" or "wrong" answer for each item and for each story. All judges worked independently in

completing the items.

For the preliminary version of the test, all items were screened on the basis of four criteria: (a) whether or not the item evoked variable responses, (b) whether or not it could be scored for "right" or "most appropriate" answer, (c) whether or not it could be scored for "wrong" or "most inappropriate" answer, and (d) whether or not it could be scored the same for more than one story.

No item was retained unless at least 8 of the 10 judges agreed as to the "right" answer and no judge selected this answer as a "wrong" answer.

No item was retained for use with more than one story if the same answer could be scored either "right" or "wrong" for more than one of the stories with which it was to be used. However, the same item could be used with more than one story if a specific answer was scored "right" for one story and "wrong" or "incorrect" for another story.

Within the above limits, preference was given to items which met the other two criteria. Preference was given to items which tended to evoke variable responses from college undergraduates when this variability could not be attributed to ambiguity in the items. The stories were administered to college undergraduates at Fort Hays Kansas State College as follows: Dempsey story with 55 question items, to 95 students; Dempsey story with 54 incomplete-sentence items, to 43 students; Kelcey's Mother story with 54 incomplete-sentence items, to 43 students; Philip story with 54 incomplete-sentence items, to 59 students; Mrs. Bennet story with 54 incomplete-sentence items, to 48 students. Several students were questioned regarding the clarity of the item in cases

where there was an unusual amount of variation in the responses, and items were eliminated from further consideration when the students questioned indicated difficulty in comprehending the item.

Second, preference was given to items which could be scored for "wrong" answer on the following basis: when 8 of the 10 judges were in agreement as to the "most inappropriate" or "wrong" answer and no judge selected this answer as a "right" answer.

In the final version of the test three differentiations are made regarding the acceptability of the four available alternatives as answers for a given item: (a) right answers, (b) incorrect answers, and (c) wrong answers. Incorrect answers are those alternatives chosen by the judges as neither right nor wrong for a given story; they are neither "most appropriate" answers nor "most inappropriate" answers. The test contains two kinds of items: (a) items which have one right answer and three incorrect answers, and (b) items which have one right answer, two incorrect answers, and one wrong answer.

Application of the above procedure resulted in the following number of items for each story: Dempsey, 20 incomplete-sentence items containing 20 right and 10 wrong answers, and 30 question items containing 30 right answers and 15 wrong answers; Kelcey's Mother, 25 incomplete-sentence items containing 25 right answers and 13 wrong answers; Philip, 40 incomplete-sentence items containing 40 right answers and 10 wrong answers; Mrs. Bennet, 20 incomplete-sentence items containing 20 right answers and 10 wrong answers.

A total of 30 different question items and 49 different incomplete-sentence items were used in the preliminary version of the test. The

30 question items were used only with the Dempsey story. The 49 incomplete-sentence items were used in the following manner: 2 items were used with all four stories, 13 items were used with three stories, 24 items were used with two stories, and 10 items were used with only one story. This distribution of items with respect to the stories, while not pleasing aesthetically, diminished the probability of a source of error which would be increased if the same items were used for all stories. Namely, if the same items were used for all stories, an alert individual taking the test might answer the items for the fourth story merely by selecting the alternatives which he had not selected previously in connection with the other three stories.

Final version. For the preliminary version of the test, scoring criteria for answers to test items were obtained by using ten judges. All ten judges shared a common clinical frame of reference, having received all or most of their training at the University of Oklahoma. In order to safeguard against scoring criteria being biased by this common background, the scoring criteria were further refined in the manner described below.

Letters were sent to (a) Dr. Fred McKinney, University of Missouri, (b) Dr. Rosalind Dymond Cartwright, University of Chicago, (c) Dr. William Seeman, University of Kansas Medical Center, (d) Dr. Victor Raimy, University of Colorado, (e) Dr. Philip Worchel, University of Texas, (f) Dr. John Hadley, Purdue University, (g) Dr. Ephraim Rosen, University of Minnesota, (h) Dr. Gardner Murphy, Menninger Foundation, (i) Dr. Carl Rogers, University of Wisconsin, and (j) Dr. Jerome Sattler, University of Kansas, requesting that they administer the test to several

clinicians whom they judged to be unusually sensitive and empathic people. It was further requested that these clinicians be individuals who possessed the Ph.D. or who had successfully completed most of their clinical courses and had met with success in their clinical and counseling experiences. Five copies of the preliminary version of the test were sent to each of the psychologists named above. Judges selected by these psychologists were not requested to identify themselves by name, but they were requested to state the name of the educational institution where they received their advanced clinical training.

Data from thirteen judges, reprsenting seven different training institutions, were obtained from this procedure. The training institutions are listed in Appendix B.

All items retained in the final version of the Literature Empathy Test are items which were included in the preliminary version and which further met the following criteria with respect to the additional group of 13 judges: (a) only items were retained on which at least 10 of the 13 judges had agreed as to the "most appropriate" or "right" answer, and on which no judge had selected the "right" answer, as determined by at least 10 of the 13 judges, as a "wrong" or "most inappropriate" answer, and (b) in the case of items scored for "wrong" answer, only items were retained on which at least 10 of the 13 judges had agreed as to the "most inappropriate" or "wrong" answer, and on which no judge had selected the "wrong" answer, as determined by at least 10 of the 13 judges, as a "right" or "most appropriate" answer.

In order to achieve a greater degree of uniformity among the four subtests, the multiple-choice questions pertaining to the Dempsey story

were not retained in the final version. Multiple-choice incomplete-sentence items were further screened, and those which tended to evoke the least variability of response among college undergraduates were dropped until each subtest contained an equal number of items.

The final version of the Literature Empathy Test contains a total of 80 multiple-choice incomplete-sentence items; each of the four subtests contains 20 items, all of which are scorable for "right" answer and eight of which are scorable for "wrong" answer. A total of 44 different items are used, distributed as follows: 17 items are used with only one subtest, 19 items are used with two subtests, 7 items are used with three subtests, and one item is used with all four subtests.

Administration

The Literature Empathy Test can be administered either individually or in a group setting. Answer sheets can be used with the test, thus making possible reuse of stories and incomplete-sentence item sheets. Data used in the standardization of the test were obtained in 50-minute classroom situations, and about ninety-five per cent of the college undergraduate students in the classes were able to complete the test within the 50 minutes.

Individuals taking the test were given the following instructions:

> The Literature Empathy Test consists of four subtests; each subtest consists of one reading selection and a set of twenty incomplete-sentence items. Work on the subtests one at a time. Read the story first, then answer the items. You may refer back to the story as little or as much as you like while you are answering the items. However, be sure to read the story all the way through first before answering any items. In reading the story, try to get a "feel" for the person portrayed; the person's name appears at the top of each story.
>
> In answering the incomplete-sentence items, put yourself in the individual's shoes, so to speak. Answer the items as you think he or

she would answer them if they were taking the test, not necessarily as you would answer them yourself. Each item starts off with part of a sentence, but the sentence is not completed. Four different ways of completing the sentence are presented. Select the sentence ending that you think would most adequately reflect the way the individual in the story would complete the sentence. Do not mark on the question sheet, but indicate your answer to each item on the answer sheet by printing a, b, c, or d, as the case might be.

There is also a place on the answer sheet for you to indicate whether any of the reading selections in the subtest are familiar to you. If you think you have read the selection in the subtest someplace else before, or if it seems familiar to you, please draw a circle around the appropriate "Yes" on the answer sheet. Do you have any questions?

A copy of the Literature Empathy Test and the answer sheet used in standardizing the test is presented in Appendix A.

Scoring

Four subtest scores and one total test score were obtained for an individual who had completed the Literature Empathy Test. These scores represented the individual's performance on each of the four subtests and on the total test. All of the subtests were scored in the same manner, according to the following formula: right minus wrong plus ten. The ten points were added to each subtest score as a corrective factor to eliminate the possibility of negative scores. The total score was obtained by adding the four subtest scores.

Right and wrong answers were determined in the manner described in a preceding section of this report. All items were given equal weight in the scoring. Right answers were scored "plus one," wrong answers were scored "minus one," and incorrect answers were scored "zero." High scores were interpreted as being indicative of a high degree of empathic capacity, and low scores were interpreted as being indicative of a low

degree of empathic capacity. More complete data pertaining to scoring are presented in Appendix C.

CHAPTER IV

STANDARDIZATION AND NORMATIVE DATA

This chapter contains an analysis of data obtained from administering the Literature Empathy Test to 1139 undergraduate college students in the fall of 1959. Six hundred and nineteen subjects (348 males and 271 females) were obtained from Fort Hays Kansas State College, a small midwestern state college. Three hundred and ninety-one subjects (219 males and 172 females) were obtained from the University of Oklahoma, a large southwestern state university. One hundred and twenty-nine subjects (49 males and 80 females) were obtained from Drew University, a small private eastern college. All tests were administered in undergraduate psychology courses during the regular 50-minute class period.

This chapter is divided into the following sections: basic statistics, intercorrelations among subtests, reliability, relationship of scores to sex, and percentile norms.

Basic Statistics

Basic statistics pertaining to scores on the four subtests and on the entire test are presented in Tables 1 through 4. The distribution of scores on all subtests and on the entire test appeared to approximate normality, although all distributions were slightly skewed toward the low end. Frequency distributions of raw scores from which the statistics

Table 1

Basic Statistics Pertaining to Literature Empathy Test for Subjects from Fort Hays Kansas State College

(N=619)

Subtest	Range of Scores	Mean	Standard Deviation
I. Dempsey	5 - 30	19.88	5.25
II. Mrs. Bennet	7 - 29	20.69	4.36
III. Kelcey's Mother	3 - 30	21.27	4.98
IV. Philip	8 - 30	20.26	5.42
Total	42 -113	82.08	15.90

Table 2

Basic Statistics Pertaining to Literature Empathy Test for Subjects from University of Oklahoma

(N=391)

Subtest	Range of Scores	Mean	Standard Deviation
I. Dempsey	7 - 30	22.45	4.50
II. Mrs. Bennet	10 - 30	22.75	3.88
III. Kelcey's Mother	5 - 30	23.49	3.98
IV. Philip	8 - 30	22.86	5.33
Total	43 -117	91.50	13.41

Table 3

Basic Statistics Pertaining to Literature Empathy Test for Subjects from Drew University

(N=129)

	Subtest	Range of Scores	Mean	Standard Deviation
I.	Dempsey	8 - 30	23.14	5.04
II.	Mrs. Bennet	9 - 30	24.15	3.66
III.	Kelcey's Mother	10 - 30	24.18	3.74
IV.	Philip	12 - 30	26.04	3.96
	Total	42 -117	97.51	13.09

Table 4

Basic Statistics Pertaining to Literature Empathy Test for All Subjects Used in Standardization

(N=1139)

	Subtest	Range of Scores	Mean	Standard Deviation
I.	Dempsey	5 - 30	21.13	5.17
II.	Mrs. Bennet	7 - 30	21.79	4.31
III.	Kelcey's Mother	3 - 30	22.36	4.69
IV.	Philip	8 - 30	21.81	5.58
	Total	42 -117	87.06	15.84

in Tables 1 through 4 were derived are presented in Appendices D through H.

Intercorrelations Among Subtests

Intercorrelations among subtest scores and the correlation of each subtest score with the total test score are presented in Tables 5 through 8. These analyses were made separately for data obtained from each of the three colleges involved in the standardization as well as for the total standardization group of 1139 subjects. Pearsonian rs for intercorrelations among subtest scores ranged from .38 to .66. Pearsonian rs for the correlation of each subtest score with the total test score ranged from .71 to .85; in each case the total test score includes the subtest score.

Table 5

Intercorrelations Among Subtest Scores and Correlation of Each Subtest Score with Total Test Score for Data Obtained from Fort Hays Kansas State College

(N=619)

Subtest		Subtest			
		I	II	III	IV
I.	Dempsey				
II.	Mrs. Bennet	.52			
III.	Kelcey's Mother	.53	.59		
IV.	Philip	.47	.48	.45	
	Total	.80	.79	.81	.77

Table 6

Intercorrelations Among Subtest Scores and Correlation of Each Subtest Score with Total Test Score for Data Obtained from University of Oklahoma

(N=391)

Subtest		Subtest			
		I	II	III	IV
I.	Dempsey				
II.	Mrs. Bennet	.38			
III.	Kelcey's Mother	.41	.41		
IV.	Philip	.41	.45	.51	
	Total	.73	.71	.75	.81

Table 7

Intercorrelations Among Subtest Scores and Correlation of Each Subtest Score with Total Test Score for Data Obtained from Drew University

(N=129)

Subtest		Subtest			
		I	II	III	IV
I.	Dempsey				
II.	Mrs. Bennet	.39			
III.	Kelcey's Mother	.41	.61		
IV.	Philip	.66	.50	.52	
	Total	.81	.75	.77	.85

Table 8

Intercorrelations Among Subtest Scores and Correlation of Each Subtest Score with Total Test Score for All Data Used in Standardization

(N=1139)

Subtest		Subtest			
		I	II	III	IV
I.	Dempsey				
II.	Mrs. Bennet	.51			
III.	Kelcey's Mother	.52	.57		
IV.	Philip	.50	.52	.51	
	Total	.80	.79	.80	.81

Reliability

Data pertaining to the reliability of the Literature Empathy Test were obtained by two methods: (a) split-half method and (b) test-retest method. Reliability coefficients were obtained for subtest scores as well as for total test score.

Data from 380 subjects were used in computing reliability coefficients by the split-half method. These subjects were members of the standardization group and represent a one-third sample of the total group of 1139 subjects. This sample was selected in the following manner: every third answer sheet that was obtained, as subjects finished the test, was checked and used in the reliability study. These 380 subjects, therefore, represent a one-third sample from each of the three colleges used in the standardization. The number of subjects from each

college is as follows: 207 Ss from Fort Hays Kansas State College, 130 Ss from the University of Oklahoma, and 43 Ss from Drew University.

Reliability coefficients obtained by the split-half method and computed using Guttman's formula as recommended by Cronbach (1949, p. 67) are presented in Table 9 for all four subtests and the total test. Reliability coefficients ranged from .72 to .86 for the four subtests; a reliability coefficient of .92 was obtained for the total test.

Data from 111 subjects were used in computing reliability coefficients by the test-retest method. These subjects were members of the standardization group who were enrolled in three general psychology courses at Fort Hays Kansas State College. The Literature Empathy Test was administered to them for the second time approximately one month following the first administration.

Table 9

Reliability Data Pertaining to Literature Empathy Test Obtained by Split-half Method

(N=380)

Subtest	r	Standard Deviation	
		Odd items	Even items
I. Dempsey	.81	2.87	2.58
II. Mrs. Bennet	.72	2.77	2.30
III. Kelcey's Mother	.77	2.61	2.65
IV. Philip	.86	2.87	3.12
Total	.92	8.53	7.99

Reliability coefficients obtained by the test-retest method and computed using the formula for obtaining Pearsonian rs are presented in Table 10 for all four subtests and the total test. Reliability coefficients ranged from .66 to .81 for the four subtests; a reliability coefficient of .89 was obtained for the total test.

Table 10

Reliability Data Pertaining to Literature Empathy Test Obtained by Test-retest Method

(N=111)

Subtest	r	Standard Deviation	
		1st Admin.	2nd Admin.
I. Dempsey	.81	4.91	5.23
II. Mrs. Bennet	.66	4.42	4.27
III. Kelcey's Mother	.74	4.89	5.24
IV. Philip	.78	5.66	5.82
Total	.89	16.54	17.61

Relationship of Scores to Sex

Two of the subtests on the Literature Empathy Test present portrayals of females, and two of the subtests present portrayals of males. This equal distribution of sex among the subtests was made in order to control for the possible advantage that might have resulted for a subject of the corresponding sex had a majority of the subtest portrayals been of males or of females. A test of significance regarding the interaction between sex of subject and sex of individual portrayed in

the subtest was not made since inspection of the results of an analysis of sex differences related to scores on the four subtests indicated the absence of any interaction of significance.

Data from all 1139 subjects used in the standardization were used in analyzing sex differences related to scores on the four subtests and on the total test. Males numbered 616 and females numbered 523. The statistical test using the critical ratio as presented by Guilford (1956, p. 185) was used to determine the significance of the mean sex differences on each subtest and on the total test. Results pertaining to the relationship of scores on subtests and on the total test to sex of the subjects taking the test are presented in Table 11.

Table 11

Relationship of Sex of Subject to Scores on Literature Empathy Test

	Subtest	Subjects Sex	Subjects N	Mean	Standard Deviation	CR
I.	Dempsey	M	616	20.41	5.25	5.23*
		F	523	21.98	4.94	
II.	Mrs. Bennet	M	616	20.88	4.57	7.92*
		F	523	22.86	3.72	
III.	Kelcey's Mother	M	616	21.74	4.99	5.00*
		F	523	23.09	4.19	
IV.	Philip	M	616	20.76	5.68	7.13*
		F	523	23.04	5.20	
	Total	M	616	83.73	16.29	7.96*
		F	523	90.98	14.34	

*Significant beyond .001

Percentile Norms

Percentile norms were computed for each of the three colleges from which data were gathered and for the combined total of 1139 subjects from all three colleges. Since a significant sex difference was found with respect to scores obtained on the Literature Empathy Test, percentile norms were computed separately for scores obtained from males and for scores obtained from females as well as for the total distribution of scores from both males and females. Percentile norms are presented in Tables 12 through 16. Frequency distributions of raw scores from which the percentile norms in Tables 12 through 16 were derived are presented in Appendices D through H.

Table 12

Percentile Norms for Subtest I: Dempsey

Percentile	Raw Score											
	Ft. Hays State College			University of Oklahoma			Drew University			Total Group		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
	N=348	N=271	N=619	N=219	N=172	N=391	N=49	N=80	N=129	N=616	N=523	N=1139
99	29	29	28	29	30	30	30	30	30	29	30	30
95	27	28	27	28	29	28	29	29	29	28	28	28
90	25	27	26	27	28	27	28	29	28	27	28	27
85	24	26	25	27	27	27	27	28	28	25	27	26
80	24	25	24	26	26	26	26	28	27	25	26	26
75	23	24	24	25	26	25	26	27	27	24	26	25
70	23	24	23	25	25	25	25	27	27	24	25	24
65	22	23	23	24	25	25	25	27	26	23	25	24
60	21	23	22	24	25	24	25	26	25	23	24	23
55	21	22	21	23	24	24	24	26	25	22	23	23
50	20	22	21	23	24	23	23	25	24	21	23	22
45	19	21	20	22	23	23	22	24	24	21	22	21
40	18	20	20	22	23	22	21	23	23	20	22	21
35	18	20	18	21	22	22	21	23	22	19	21	20
30	17	19	17	20	21	21	20	22	21	18	20	19
25	15	17	16	20	20	20	19	21	20	17	19	18
20	14	16	15	19	20	19	17	20	20	16	18	17
15	13	14	14	17	19	18	16	19	18	14	17	15
10	12	13	12	15	18	16	13	19	16	13	15	14
5	9	10	9	12	16	14	10	11	11	10	12	11
1	7	7	7	10	9	9	8	9	8	7	9	7

Table 13

Percentile Norms for Subtest II: Mrs. Bennet

Percentile	Raw Score											
	Ft. Hays State College			University of Oklahoma			Drew University			Total Group		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
	N=348	N=271	N=619	N=219	N=172	N=391	N=49	N=80	N=129	N=616	N=523	N=1139
99	29	28	28	29	29	29	30	30	30	29	29	29
95	26	27	27	27	28	28	28	29	29	27	28	28
90	25	26	26	27	27	27	28	29	28	26	27	27
85	25	26	25	26	27	27	27	28	28	25	27	26
80	24	25	24	26	26	26	26	27	27	25	26	25
75	23	24	24	25	26	26	25	27	27	24	26	25
70	23	24	23	25	26	25	25	27	26	24	25	24
65	22	23	23	24	25	25	24	26	26	23	25	24
60	22	23	23	24	25	24	24	26	25	23	24	23
55	21	23	22	23	24	24	24	26	25	22	24	23
50	20	22	21	23	24	23	24	25	25	22	23	23
45	20	22	21	22	23	23	23	25	24	21	23	22
40	19	22	20	22	23	22	23	25	24	20	22	21
35	18	21	20	21	23	22	23	24	24	20	22	21
30	17	20	19	21	22	21	22	24	23	19	21	20
25	17	20	18	20	21	21	21	24	23	18	21	20
20	15	20	17	19	21	20	21	22	22	17	20	19
15	14	19	16	18	20	19	20	22	21	15	20	17
10	13	18	14	17	19	18	19	20	20	14	19	15
5	12	14	12	13	19	15	16	17	17	12	16	13
1	9	12	10	10	13	10	9	9	9	10	12	11

Table 14

Percentile Norms for Subtest III: Kelcey's Mother

Percentile	Raw Score											
	Ft. Hays State College			University of Oklahoma			Drew University			Total Group		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
	N=348	N=271	N=619	N=219	N=172	N=391	N=49	N=80	N=129	N=616	N=523	N=1139
99	29	30	29	30	30	30	29	30	30	29	30	29
95	28	28	28	29	29	29	29	29	29	28	28	28
90	27	27	27	28	28	28	28	28	28	27	28	27
85	26	26	26	27	28	27	27	28	27	26	27	27
80	25	26	26	26	27	27	27	27	27	26	27	26
75	25	25	25	26	27	26	26	27	27	25	26	26
70	24	25	25	25	26	26	26	27	27	25	26	25
65	24	24	24	25	26	25	25	27	26	24	25	25
60	23	24	24	25	25	25	24	26	26	24	25	24
55	22	24	23	24	25	24	24	26	25	23	24	24
50	21	23	22	24	24	24	24	26	25	23	24	23
45	20	23	21	24	24	24	23	25	24	22	23	23
40	20	22	21	23	23	23	23	25	24	21	23	22
35	19	21	20	23	23	23	22	24	24	21	23	22
30	19	20	19	22	23	22	21	24	23	20	22	21
25	17	20	18	21	22	22	20	24	22	19	21	20
20	16	19	17	21	21	21	19	23	21	18	20	19
15	15	18	16	20	20	20	19	22	20	17	19	18
10	13	16	14	18	20	18	18	20	19	14	18	16
5	11	14	12	15	17	15	17	18	18	12	14	13
1	7	8	7	10	11	11	12	10	10	7	10	8

Table 15

Percentile Norms for Subtest IV: Philip

Per-centile	Raw Score											
	Ft. Hays State College			University of Oklahoma			Drew University			Total Group		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
	N=348	N=271	N=619	N=219	N=172	N=391	N=49	N=80	N=129	N=616	N=523	N=1139
99	30	30	30	30	30	30	30	30	30	30	30	30
95	29	29	29	29	30	30	30	30	30	29	30	30
90	28	29	28	29	29	29	30	30	30	29	29	29
85	26	28	27	28	29	29	29	30	30	28	29	28
80	25	26	26	27	29	28	29	29	29	27	28	28
75	23	25	24	27	28	27	28	29	29	26	28	27
70	22	25	23	26	28	27	28	29	29	25	27	26
65	21	24	23	25	27	26	28	28	28	24	26	25
60	20	23	22	24	27	25	28	28	28	23	25	24
55	20	23	21	23	26	25	27	28	28	22	25	23
50	19	22	20	23	26	24	27	27	27	21	24	22
45	18	21	19	22	25	24	27	27	27	20	23	21
40	17	20	19	21	24	22	26	26	26	19	22	20
35	17	19	18	20	23	21	26	26	26	18	21	19
30	16	18	17	19	22	20	24	25	25	17	20	18
25	15	18	16	18	21	19	24	25	24	17	19	17
20	14	17	15	17	20	18	23	23	23	16	18	17
15	13	16	14	16	18	17	21	22	22	14	17	15
10	13	14	13	14	16	15	19	21	21	13	15	14
5	11	13	12	12	14	13	16	18	17	12	14	12
1	9	10	9	10	10	10	13	12	13	9	11	9

Table 16

Percentile Norms for Total Score on Literature Empathy Test

Percentile	Raw Score											
	Ft. Hays State College			University of Oklahoma			Drew University			Total Group		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
	N=348	N=271	N=619	N=219	N=172	N=391	N=49	N=80	N=129	N=616	N=523	N=1139
99	110	112	111	113	115	113	114	117	117	113	115	113
95	104	107	106	109	110	110	113	113	113	109	110	110
90	100	104	102	105	108	107	109	112	111	105	108	107
85	96	101	99	104	107	105	106	110	109	104	107	105
80	94	99	96	101	105	104	105	110	108	101	105	104
75	92	97	95	99	104	101	104	109	106	99	104	101
70	89	95	92	97	103	100	104	106	105	97	103	100
65	87	93	90	96	101	98	101	105	104	96	101	98
60	84	91	88	94	100	96	100	104	102	94	100	96
55	82	90	85	93	98	94	98	102	101	93	98	94
50	81	87	83	92	95	93	96	101	101	92	95	93
45	79	85	81	89	93	92	93	101	98	89	93	92
40	74	84	80	88	92	90	91	99	97	88	92	90
35	71	81	78	86	91	88	90	97	95	86	91	88
30	69	79	74	84	89	86	88	95	93	84	89	86
25	66	78	71	81	87	84	86	95	92	81	87	84
20	64	75	68	79	85	81	83	93	89	79	85	81
15	60	73	64	76	81	78	81	91	86	76	81	78
10	55	70	59	70	77	75	72	87	81	70	77	75
5	51	56	53	61	72	66	69	81	72	61	72	66
1	48	45	48	47	65	49	45	42	45	47	65	49

CHAPTER V

RELATIONSHIP WITH OTHER PSYCHOLOGICAL INDICES

As steps toward clarifying the meaning of scores achieved on the Literature Empathy Test and indirectly approaching the validity of the test, information was obtained regarding the relationship of test scores with other psychological indices which might be related to empathic capacity. The results of these analyses are presented in the following divisions of this chapter: intelligence, academic aptitude, reading ability, and The Empathy Test by Kerr and Speroff.

Intelligence

The Literature Empathy Test is designed for use with college undergraduates of average or better intelligence. In order to ascertain the degree of relationship between level of intelligence and score on the Literature Empathy Test, a modified form of the Wechsler Adult Intelligence Scale was administered to 51 undergraduate students (26 males and 25 females) at Fort Hays Kansas State College. These subjects were volunteers from general psychology courses being taught at Fort Hays in the fall of 1959; they had already completed the Literature Empathy Test as part of the standardization group. All intelligence tests were individually administered by the writer and one graduate assistant; in the latter case, all scoring was checked by the writer.

The Wechsler Adult Intelligence Scale was selected as the measure

of intelligence because of its wide acceptance by psychologists as probably the best instrument for measuring adult intelligence. Three scores are obtainable from this scale: Verbal Scale I.Q., representing the individual's functioning on six verbal subtests; Performance Scale I.Q., representing the individual's functioning on five performance subtests; and Full Scale I.Q., representing the individual's functioning on the entire test.

For practical reasons, the following four subtests were administered to obtain intelligence quotients instead of all eleven subtests: Information and Vocabulary subtests from the Verbal Scale, and Picture Completion and Block Design subtests from the Performance Scale. According to information provided by Wechsler (1955, p. 15), the following correlations obtain among the subtest scores and scale scores: Information score and Verbal Scale score, .89; Information score and Full Scale score, .88; Vocabulary score and Verbal Scale score, .90; Vocabulary score and Full Scale score, .87; Picture Completion score and Performance Scale score, .82; Picture Completion score and Full Scale score, .79; Block Design score and Performance Scale score, .86; Block Design score and Full Scale score, .77. Scores on the Vocabulary and Information subtests were prorated to obtain the Verbal Scale I.Q., and scores on the Picture Completion and Block Design subtests were prorated to obtain the Performance Scale I.Q.; scores on all four subtests were prorated to obtain the Full Scale I.Q.

The results of analyses of the relationship of scores on the Literature Empathy Test to the three I.Q.s obtainable from the Wechsler Adult Intelligence Scale are presented in Table 17. Original data from which

Table 17

Relationship of Scores on Literature Empathy Test with Verbal, Performance, and Full Scale I.Q.s on Wechsler Adult Intelligence Scale

Subjects		Lit. Emp. Test		WAIS		r
		Mean	SD	Mean	SD	
WAIS Full Scale I.Q.						
Males	(N=26)	86.73	12.34	113.15	10.44	.26
Females	(N=25)	88.84	8.94	114.04	10.84	.23
Total	(N=51)	87.76	10.86	113.58	10.65	.25
WAIS Verbal Scale I.Q.						
Males	(N=26)	86.73	12.34	114.07	12.62	.25
Females	(N=25)	88.84	8.94	115.72	11.39	.16
Total	(N=51)	87.76	10.86	114.88	12.07	.21
WAIS Performance Scale I.Q.						
Males	(N=26)	86.73	12.34	110.15	13.34	.15
Females	(N=25)	88.84	8.94	109.40	13.27	.24
Total	(N=51)	87.76	10.86	109.78	13.31	.20

the statistics presented in Table 17 were derived are presented in Appendix I. Pearsonian rs were computed for males and for females separately, since these groups had been found to differ significantly in their scores on the Literature Empathy Test. The r for the total distribution of scores from males and females was obtained by averaging through use of a z transformation.

Correlation coefficients did not reach significance at the .05 level for any of the groups involved. Pearsonian rs ranged from .15 to .26. The following ranges of I.Q. scores were obtained for the 25 female subjects: Full Scale I.Q., 93 - 131; Verbal Scale I.Q., 95 - 139; Performance Scale I.Q., 82 - 135. The following ranges of I.Q. scores were obtained for the 26 male subjects: Full Scale I.Q., 91 - 132; Verbal Scale I.Q., 85 - 151; Performance Scale I.Q., 91 - 145.

Academic Aptitude

The Literature Empathy Test is a "paper-and-pencil" test which requires reading, comprehension, and other skills usually associated with academic aptitude. Information concerning the extent to which scores on the Literature Empathy Test reflect academic aptitude was obtained by investigating the relationship between scores on the Literature Empathy Test and scores on the College Ability Test. The College Ability Test is a test of academic aptitude published by the Educational Testing Service in Princeton, New Jersey, and widely used in colleges and universities throughout the country. Performance on the College Ability Test yields three scores: a verbal subtest score, a quantitative subtest score, and a total score for performance on the entire test.

Subjects were 103 freshmen (46 males and 57 females) enrolled in general psychology courses at Fort Hays Kansas State College in the fall of 1959. All subjects had completed the Literature Empathy Test as part of the standardization group, and all subjects had completed the College Ability Test in September, 1959, as part of their required college placement tests.

The results of analyses of the relationship of scores on the Literature Empathy Test to the three scores obtainable from the College Ability Test are presented in Table 18. Original data from which the statistics presented in Table 18 were derived are presented in Appendix J. Pearsonian rs were computed for males and females separately, since these groups had been found to differ significantly in their scores on the Literature Empathy Test. The r for the total distribution of scores from both males and females was obtained by averaging through use of a z transformation.

Pearsonian rs ranged from .13 to .41. Correlation coefficients for total score on the College Ability Test and score on the Literature Empathy Test ranged from .30 to .41, with significance at the .01 level being obtained for male subjects and for total subjects, and significance at the .05 level being obtained for female subjects. Correlation coefficients for verbal score on the College Ability Test and score on the Literature Empathy Test ranged from .27 to .35, with significance at the .01 level being obtained for female subjects and for total subjects, and non-significance at the .05 level being obtained for male subjects. Correlation coefficients for quantitative score on the College Ability Test and score on the Literature Empathy Test ranged from .13

Table 18

Relationship of Scores on Literature Empathy Test with Verbal, Quantitative, and Total Scores on College Ability Test

Subjects	Lit. Emp. Test Mean	Lit. Emp. Test SD	Coll. Abil. Test Mean	Coll. Abil. Test SD	r
College Ability Test Total Score					
Males (N=46)	72.15	14.35	55.04	14.68	.41**
Females (N=57)	86.42	14.58	63.22	13.27	.30*
Total (N=103)	79.95	15.91	59.57	14.49	.37**
College Ability Test Verbal Score					
Males (N=46)	72.15	14.35	24.73	8.72	.27
Females (N=57)	86.42	14.58	30.15	8.11	.35**
Total (N=103)	79.95	15.91	27.72	8.85	.31**
College Ability Test Quantitative Score					
Males (N=46)	72.15	14.35	30.30	8.43	.41**
Females (N=57)	86.42	14.58	32.89	8.06	.13
Total (N=103)	79.95	15.91	31.73	8.33	.26**

*Significant at .05 level
**Significant at .01 level

to .41, with significance at the .01 level being obtained for male subjects and for total subjects, and non-significance at the .05 level being obtained for female subjects.

Reading Ability

The Literature Empathy Test contains four written selections which the subject is required to read and comprehend. Information concerning the extent to which scores on the Literature Empathy Test reflect reading ability was obtained by investigating the relationship between scores on the Literature Empathy Test and scores on Part II of the Nelson-Denny Reading Test. Part II of the Nelson-Denny Reading Test is a test of ability to read and understand paragraphs; this test was selected upon the recommendation of Dr. John Martin, former Director of the Reading Clinic at Fort Hays Kansas State College, and Dr. Emerald Dechant, vocational and educational counselor at Fort Hays Kansas State College. Performance on Part II of the Nelson-Denny Reading Test yields a single raw score.

Subjects were 109 undergraduate students (56 males and 53 females) enrolled in human growth and development courses at Fort Hays Kansas State College in the fall of 1959. All subjects had completed the Literature Empathy Test as part of the standardization group, and Part II of the Nelson-Denny Reading Test was administered to them during a regular class period.

The results of analyses of the relationship of scores on the Literature Empathy Test to scores on Part II of the Nelson-Denny Reading Test are presented in Table 19. Original data from which the statistics presented in Table 19 were derived are presented in Appendix K.

Pearsonian rs were computed for males and females separately, since these groups had been found to differ significantly in their scores on the Literature Empathy Test. The r for the total distribution of scores from both males and females was obtained by averaging through use of a z transformation.

Table 19

Relationship of Score on Literature Empathy Test with Score on Part II of Nelson-Denny Reading Test

Subjects	Literature Empathy Test		Part II: Nelson-Denny Reading Test		r
	Mean	SD	Mean	SD	
Males (N=56)	75.78	15.06	36.17	10.39	.43*
Females (N=53)	88.24	11.77	39.03	10.04	.44*
Total (N=109)	81.84	14.92	37.56	10.38	.43*

*Significant at .01 level

Correlation coefficients for score on Part II of the Nelson-Denny Reading Test and score on the Literature Empathy Test were obtained as follows: .43 for male subjects, .44 for female subjects, and .43 for total subjects. All correlation coefficients were significant beyond the .01 level. The range of raw scores on Part II of the Nelson-Denny Reading Test was from 14 to 52 for the males, and from 20 to 70 for the females; these scores ranged from the 1st to the 90th percentile, and from the 5th to the 99th percentile, respectively, based on norms for college freshmen presented in the test manual. The mean for the males, 36.17, and the mean for the females, 39.03, were approximately

equal to the score of 38 presented in the test manual as the median for college freshmen.

The Empathy Test by Kerr and Speroff

The Empathy Test by Kerr and Speroff purports to measure empathic capacity. In order to ascertain the degree of relationship between score on the Literature Empathy Test and score on The Empathy Test, the latter test was administered to 116 undergraduate students (62 males and 54 females) at Fort Hays Kansas State College who had already completed the Literature Empathy Test as part of the standardization group. These subjects were enrolled in undergraduate psychology courses, and The Empathy Test was administered during a regular class period. Performance on The Empathy Test yields a single raw score.

The results of analyses of the relationship of scores on the Literature Empathy Test to scores on The Empathy Test are presented in Table 20. Original data from which the statistics presented in Table 20 were derived are presented in Appendix L. Pearsonian rs were computed for males and for females separately, since these groups had been found to differ significantly in their scores on the Literature Empathy Test. The r for the total distribution of scores from both males and females was obtained by averaging through use of a z transformation.

Correlation coefficients for score on the Literature Empathy Test and score on The Empathy Test were obtained as follows: .28 for male subjects, .34 for female subjects, and .31 for total subjects. The correlation coefficients for male subjects and for female subjects were significant at the .05 level; the correlation coefficient for all subjects was significant at the .01 level. The range of raw scores on

Table 20

Relationship of Score on Literature Empathy Test with Score on The Empathy Test

Subjects	Lit. Emp. Test		The Empathy Test		r
	Mean	SD	Mean	SD	
Males (N=62)	84.33	13.53	74.25	17.95	.28*
Females (N=54)	87.51	13.02	75.01	16.28	.34*
Total (N=116)	85.81	13.39	74.61	17.21	.31**

*Significant at .05 level
**Significant at .01 level

The Empathy Test was from 41 to 121 for the males, and from 43 to 114 for the females; these scores ranged from the 5th to the 99th percentile, and from the 10th to the 99th percentile, respectively, based on norms for college students presented in the test manual. The mean for the males, 74.25, and the mean for the females, 75.01, were approximately equal to the scores of 74 and 71 presented in the test manual as the medians for male and female college students, respectively.

CHAPTER VI

VALIDITY

The concept of validity is complex and multidimensional, and establishing the validity of a test is not a simple, single-study task. The validity of a test is probably never completely determined, but rather is "boxed-in" and approximated through much research over a period of time. Even then, the validity of a test will be related to the purposes for which it is used.

Information pertaining to the validity of the Literature Empathy Test will be presented in the context of the following four aspects of validity recommended by the American Psychological Association (1954): content validity, construct validity, predictive validity, and concurrent validity. The validity of the Literature Empathy Test will be considered with reference to the purpose for which the test was designed, i.e., as an instrument to aid researchers concerned with empathy by providing a standardized method whereby two groups of subjects, one characterized as "good empathizers" and one characterized as "poor empathizers," can be selected from a college population. Such use of the Literature Empathy Test will permit more exact replication of studies and greater reliability in comparing the results of different studies than is currently possible with available techniques. The Literature Empathy Test is not designed for use as a clinical instrument for

individual psychodiagnosis.

Content Validity

Content validity refers to "how well the content of the test samples the class of situations or subject matter about which conclusions are to be drawn" (American Psychological Association, 1954, p. 13). The Literature Empathy Test does not represent an attempt to sample all conditions and situations in which empathy may occur. The task required of the subject, as presented in the instructions, appears to have what has been termed "face validity" in that the subject is required to respond not as he would himself to the incomplete sentence items, but as he believes the individual in the story would respond.

The primary aim, insofar as content validity is concerned, is to present the subject with a sufficient diversity of tasks so that it could be assumed that an individual tending to project his own values indiscriminately would be unlikely to obtain a high score on the total test. A test of this assumption was not made in the present study and, although it should be possible to detect simulation of empathy on a given subtest when the subject projects his own values indiscriminately through the total test, no attempt to investigate or to detect simulation of empathy by projection was made. Diversity in the tasks presented was obtained by providing four markedly different portrayals of personalities, two involving males and two involving females, with whom the subject is to empathize. Information pertaining to selection of stories and items was presented in Chapter III.

Predictive Validity

Predictive validity refers to "how well predictions made from the

test are confirmed by evidence gathered at some subsequent time" (American Psychological Association, 1954, p. 13). The Literature Empathy Test is not designed to predict how individuals will behave with respect to empathic capacity at a later date; it is designed, rather, to yield information regarding empathic capacity at the time the test is completed. Hence concurrent validity was considered to be more relevant than predictive validity in validating the Literature Empathy Test. No data are available concerning the predictive validity of the Literature Empathy Test, and use of the test for purposes of long-range prediction is not recommended pending accumulation of appropriate data.

Construct Validity

Construct validity refers to the "psychological qualities a test measures" (American Psychological Association, 1954, p. 14), and information pertaining to construct validity is obtained both logically and empirically. Logically, the tasks involved in the Literature Empathy Test were derived from a theoretical conception and definition of empathy proposed by Dymond (1949); the logical development of the Literature Empathy Test has been presented in prior chapters. Empirical information relevant to consideration of the construct validity of the Literature Empathy Test was presented in Chapter V. The study reported in the following section of this chapter also has relevance for a consideration of construct validity.

Concurrent Validity

Concurrent validity refers to "how well test scores correspond to

measures of concurrent criterion performance or status. Studies which determine whether a test discriminates between presently identifiable groups are concerned with concurrent validity" (American Psychological Association, 1954, p. 14). Concurrent validity is of primary importance when the Literature Empathy Test is used for the purpose for which it is intended. A direct test of the concurrent validity of the Literature Empathy Test was made and is reported in the paragraphs which follow.

Hypothesis. Scores on the Literature Empathy Test obtained by college students selected as good empathizers by psychologists will be significantly higher than scores on the Literature Empathy Test obtained by college students selected as poor empathizers by psychologists.

Procedure. Three psychologists (Dr. Dick, Dr. Proctor, and Dr. Sattler) at Fort Hays Kansas State College were asked to select, from among those students with whom they were acquainted, the ones they judged to be "good empathizers" and the ones they judged to be "poor empathizers." The three psychologists worked independently in selecting "good empathizers" and "poor empathizers." They were given the following descriptions of "good empathizers" and "poor empathizers" and were asked to use these descriptions in making their judgments.

Good empathizers are individuals who, in the words of Dymond, are capable of imaginatively transposing themselves "into the thinking, feeling, and acting of another and so structuring the world as he does." They are individuals who are perceptive of the finer nuances of interpersonal relationships and who are alert to and perceptive of the feelings and "private world" of others.

Poor empathizers are individuals who are not capable of imaginatively transposing themselves "into the thinking, feeling, and acting of another and so structuring the world as he does." They are individuals who are not perceptive of the finer nuances of interpersonal relationships and who are not alert to and perceptive of the feelings and "private world" of others.

A list of students considered as "good empathizers" and a list of students considered as "poor empathizers" was obtained from each of the three judges. In those cases where a student was consistently chosen by all three judges as being either a "good empathizer" or a "poor empathizer," he was included in the appropriate subject group for the study. In those cases where a student was consistently chosen by two of the three judges as a "good empathizer" or "poor empathizer," and not mentioned by the third judge, the following procedure was used to determine whether the student was to be included as a subject: the third judge was asked whether he was acquainted with the student, and if he was, he was asked to classify the student as either a "poor empathizer" or a "good empathizer." If the third judge's classification of the student agreed with the classification of the other two judges, then the student was included as a subject in the appropriate group. Thus, all subjects used as "good empathizers" and as "poor empathizers" were unanimously agreed upon by all three judges.

The above procedure yielded 13 subjects (7 males, 6 females) characterized as "good empathizers" and 11 subjects (5 males, 6 females) characterized as "poor empathizers." The Literature Empathy Test was administered to all 24 subjects within one week following the judges' decisions. Because some subjects indicated familiarity with the selections in the test, the group was further reduced to 12 subjects (6 males, 6 females) characterized as "good empathizers" and 9 subjects (5 males, 4 females) characterized as "poor empathizers" from whom valid test results were available. Since a significant sex difference had been found for scores on the Literature Empathy Test and since the number of

subjects was too small to warrant separate analyses of data by sex, one male and two females were eliminated from the "good empathizer" group in a random manner by use of a table of random numbers. The two groups were thus equated for sex, and the final two groups contained 9 subjects each (5 males, 4 females).

Results. The t test was used to determine the significance of the difference between the mean scores for the two groups; the results of this analysis are presented in Table 21. Original data from which the statistics presented in Table 21 were derived are presented in Appendix M, which also contains the original data pertaining to the three subjects eliminated randomly from the final analysis. Scores on the Literature Empathy Test ranged from 79 to 105, with a mean of 91.33, for the "good empathizer" group, and from 62 to 91, with a mean of 77.33, for the "poor empathizer" group. A t of 3.08 was obtained, which is significant at the .01 level.

Table 21

Analysis of Difference Between Performance of "Good Empathizers" and "Poor Empathizers" on the Literature Empathy Test

(N=9)

Subject Group	Mean	Standard Deviation	t
Good Empathizer	91.33	8.43	3.08*
Poor Empathizer	77.33	9.75	

*Significant at .01 level

CHAPTER VII

DISCUSSION

The purpose of this study was to develop an objective instrument for differentiating between "good empathizers" and "poor empathizers" at the undergraduate college level. The lack of an adequate instrument for this purpose had been noted by previous investigators concerned with empathy, and research concerned with empathy had consequently been methodologically handicapped. The results of an effort to develop a suitable instrument, the Literature Empathy Test, to meet this methodological need has been reported in foregoing chapters. Discussion of the obtained results, as well as suggestions for valid use of the test and for further research, will be presented in the following divisions of this chapter: standardization, relationship with other psychological indices, validity, and use.

Standardization

Normative data concerning the Literature Empathy Test were obtained from 1139 undergraduate students from three different colleges. The three different colleges represent three kinds of institutions of higher education; i.e., a small state college, a large state university, and a small private college. The normative data obtained cannot be interpreted as providing a standardized normative base for all college students, and it was not gathered for this purpose. It was obtained,

rather, to provide a frame of reference which might help users of the test in their own work and as a standard which could serve, initially at least, as a common base for reporting data obtained from subjects in empathy studies. In many instances investigators will find it useful to develop norms based on their own college undergraduate populations. It may also be fruitful to obtain normative data from populations other than college students, and this is highly recommended before the test is used with groups other than undergraduate college students.

The significant sex differences obtained between mean scores on the Literature Empathy Test, both for the total test and for all subtests, raises more questions than it answers. It might be that this is related to the nature of the test and that the females obtained higher scores because they possess greater academic aptitude or reading ability than do males. Or perhaps it could be attributed to the specific subject groups involved in the standardization, and that females in these colleges have greater academic capacity and reading ability than do males. The hypothesis most favored by the author is that the difference in scores between males and females, with the latter obtaining higher scores, reflects cultural values and attitudes regarding masculinity and femininity. This is based on the assumption that the concept of femininity, as generally held in American society, emphasizes sensitivity to feelings, emotions, and interpersonal relations more than does the concept of masculinity. Further research is needed to clarify the variables underlying the significant difference found between males and females with respect to mean scores on the Literature Empathy Test.

The reliability coefficients obtained for the Literature Empathy

Test, both by the split-half method with 380 subjects and by the test-retest method with 111 subjects, were unusually high for a test purporting to measure a personality characteristic. It seems probable that the positive relationships between score on the Literature Empathy Test and reading ability, as well as academic aptitude, tend to give greater reliability to test scores than if these latter factors were not contributing to the test score. Even discounting the effect of these related variables, however, it would appear that the Literature Empathy Test can be considered a very reliable instrument, both with regard to repeated performance on the test after a month interval and with regard to internal precision. Trends in reliability data were consistent with respect to the most unreliable subtest, this being the Mrs. Bennet subtest with a split-half coefficient of .72 and a test-retest coefficient of .66. This is also the only subtest in which the material presented in the subtest was taken from widely different parts of the original novel, a factor which might have contributed to the relatively low reliability of this subtest. A consistent trend was also obtained with respect to the relationship between split-half coefficient and test-retest coefficient for all subtest scores and total test score, with split-half coefficients consistently being equal to or larger than test-retest coefficients.

Relationship with Other Psychological Indices

The relationship between total score on the Literature Empathy Test and intelligence, as measured by a modified version of the Wechsler Adult Intelligence Scale, was consistently positive and rather stable, although not significant at the .05 level, with correlation coefficients

ranging from .15 to .26. These results would suggest that, at most, only about seven per cent of the total variance of total score on the Literature Empathy Test is accounted for by intelligence as measured in this study. The I.Q. scores obtained ranged sufficiently low so as to adequately reflect the minimum I.Q. score one would be likely to find in most college undergraduate populations. These results are interpreted as suggesting that scores obtained on the Literature Empathy Test do not reflect intelligence, as measured in this study and within the limited range of score obtained, to any appreciable degree. If the test were used with individuals of less intelligence than the subjects used in this study, however, it would seem likely that Literature Empathy Test scores would reflect intelligence to an appreciably greater degree.

The relationship between total score on the Literature Empathy Test and academic aptitude, as measured by scores on the College Ability Test, was consistently in a positive direction and correlation coefficients were, in seven cases out of nine, significant at the .05 level. Correlation coefficients ranged from .13 to .41, suggesting that, at most, about 17 per cent of the total variance of total scores on the Literature Empathy Test is accounted for by academic aptitude as measured in this study. These results are interpreted as suggesting that scores obtained on the Literature Empathy Test reflect, to a small extent at least, academic aptitude as measured in this study and within the range of scores obtained.

The relationship between total score on the Literature Empathy Test and reading ability, as measured by scores on Part II of the Nelson-Denny Reading Test, was consistently in a positive direction and all

correlation coefficients were significant at the .01 level. The correlation coefficients were grouped closely at .43 and .44, suggesting that about 20 per cent of the total variance of total score on the Literature Empathy Test is accounted for by reading ability as measured in this study and within the range of scores obtained. Reading scores used in this study ranged from the 1st percentile to the 99th percentile, based on norms for college freshmen presented in the test manual. Further research would be desirable to determine the most effective "cutting point" with regard to reading test scores, so that Literature Empathy Test scores would be less appreciably influenced by reading ability. In the absence of such data, the Literature Empathy Test may still be used if adequate precautions are taken to control for reading ability.

The relationship obtained between total score on the Literature Empathy Test and scores related to intelligence, academic aptitude, and reading ability are probably higher than would have been obtained if it had been possible to account for the relationships among these latter variables.

The relationship between total score on the Literature Empathy Test and score on The Empathy Test by Kerr and Speroff was consistently in a positive direction and all correlation coefficients were significant at the .05 level. Since both tests purport to measure empathy, this finding does not seem unusual; nor does it seem unusual that the relationship is not greater than it is, since both tests were derived from different theoretical conceptions of empathy and involve different tasks. These results are interpreted as suggesting that, while there is some overlap between the two tests, the two tests do not measure the same thing

although they are both concerned with empathy.

Validity

The content validity of the Literature Empathy Test is considered adequate for the purposes for which the test was designed. The lack of information concerning the predictive validity of the Literature Empathy Test is also not considered as serious for the purposes for which the test was designed. Certainly information regarding predictive validity would be desirable, and information concerning predictive validity would be a necessity before the test could be used for long-range prediction purposes.

Evaluation of construct validity of the Literature Empathy Test is an especially knotty problem in view of the current status of the concept of empathy itself and in view of the lack of adequate measures of empathy. The task was, essentially, one largely characterized by "pulling oneself up by one's own bootstraps," with the lack of adequate criterion measures for empathy being a major handicap.

The tasks presented subjects taking the Literature Empathy Test would seem to be consistent with the theoretical conception of empathy proposed by Dymond (1949) and accepted for the present study; successful completion of items, with a consequent high score on the Literature Empathy Test, would be predicted for good empathizers from this theoretical conception of empathy. The results obtained regarding the relationship of scores on the Literature Empathy Test with intelligence, academic aptitude, and The Empathy Test by Kerr and Speroff are interpreted as being compatible with the findings of other investigators concerned with empathy and would seem to lend support to adequate construct validity

for the Literature Empathy Test. The relatively high, stable relationship between total score on the Literature Empathy Test and reading ability, however, would suggest that test performance is influenced by reading ability to a greater degree than would be desirable.

When all available information is taken into consideration, it would seem that performance on the Literature Empathy Test is related to the concept of empathy as used in this study. The establishment of construct validity is probably never fully achieved for any specific test and especially for tests purporting to measure personality constructs, being always dependent upon an evaluation of all available validity data concerning the specific test. The Literature Empathy Test is no exception, and more precise evaluations concerning the adequacy of the construct validity of the Literature Empathy Test will become possible only as further information regarding the test is obtained through further research. At this time, the construct validity of the Literature Empathy Test appears adequate to warrant judicious use of the test for research purposes, especially since objective instruments for measuring empathy of equal or better construct validity are not available.

Information concerning the concurrent validity of the Literature Empathy Test was obtained through direct experimental investigation. The significant difference, at the .01 level, obtained between mean scores on the Literature Empathy Test for "good empathizers" and for "poor empathizers," as unanimously selected by three psychologists, is interpreted as suggesting adequate concurrent validity for the Literature Empathy Test. These results do not prove that the test possesses

adequate concurrent validity, but they are consistent with the results one would expect if the test did have adequate concurrent validity. As with other aspects of validity, the evaluation of concurrent validity is a continual process involving many studies and cannot be considered "final" at any given time or as being definitely established by any given study.

An experimental investigation of concurrent validity is most hampered by one major factor, i.e., the lack of adequate independent criteria for determining "good empathizers" and "poor empathizers," a factor which was instrumental in the decision to develop an empathy test. But a beginning has to be made someplace, and the investigation of concurrent validity under discussion is to be interpreted as a "beginning," adequate for a first step toward establishing the concurrent validity of the Literature Empathy Test.

The number of subjects used in the study of concurrent validity was small; it would have been more desirable to have had a greater number of subjects. This could have been achieved, but only at the expense of the rigor of the criterion level. Thus, the judges could have been pushed to select a greater number of good and poor empathizers, or the criterion level could have been reduced from agreement among all judges to agreement among two of the three judges. In view of the initial criterion problem, it was decided that greater error, and a less adequate study, would probably have resulted from such reduction in criterion standards.

Use

The Literature Empathy Test was developed as an instrument to aid researchers concerned with empathy by providing a standardized method

whereby two groups of subjects, one characterized as "good empathizers" and one characterized as "poor empathizers," could be selected from a college population. The Literature Empathy Test was not designed for use as a clinical instrument for individual psychodiagnosis, and its use for this purpose is not recommended.

It might be said that the birth of the Literature Empathy Test has taken place, but that, like other infants, further growth and development is needed before it can stand alone. Until the Literature Empathy Test comes of age--or it might be that environmental rigors will lead to an early demise--through further research, it will probably function best when given the support of siblings. At the present time, it is suggested that the Literature Empathy Test be used as one of several methods of estimating empathic capacity for most research. When the task is to select good empathizers and poor empathizers for further study, perhaps with respect to variables related to empathic capacity, then the Literature Empathy Test provides a reliable means of initial selection of subjects in a practical manner. It also possesses the advantage of being objective in nature, and hence subject groups can be described rather precisely with respect to their performance on the Literature Empathy Test, making comparison among empathy studies more feasible than is now possible. As long as different methods, or methods which cannot be replicated, are used for measuring empathy, then studies cannot be reliably compared and knowledge concerning empathy tends to remain static and not cumulative.

The nature of the empathy study one plans to conduct will determine, to a large extent, whether use of the Literature Empathy Test would be

beneficial or valid. The test, as it currently stands, cannot validly be used with subjects other than college undergraduates; if one wanted to study empathic capacity in different educational groups or different vocational groups, further information and normative data concerning the Literature Empathy Test would have to be obtained before the adequacy of its use for such studies could be determined. Also, the Literature Empathy Test would be of limited value if one were interested in studying the capacity of college undergraduates to empathize with different kinds of subjects.

A fruitful direction for further research might be the exploration of empathic capacity as it is assessed and displayed through various media. The Literature Empathy Test taps empathic capacity through the medium of the visual written word; other media might include visual film presentations and auditory tape presentations of portrayals of personalities.

Appropriate information is not available as to whether or not the Literature Empathy Test can validly be used with individuals who are familiar with, or think they are familiar with, the material presented in the subtest selections. In the absence of relevant information, use of the test with such individuals would be a calculated risk. Further research is needed to determine whether the factor of real or imagined familiarity with the selections does influence the test scores.

In conclusion, the Literature Empathy Test is presented as an instrument which, it is hoped, will prove to be, at the most, a methodological aid for investigators concerned with empathy and, at the least, a stimulus for further research concerned with objective ways of measuring empathy.

CHAPTER VIII

SUMMARY

The purpose of this study was to develop an objective instrument for differentiating between "good empathizers" and "poor empathizers" at the undergraduate college level. The lack of an adequate instrument for this purpose had been noted by previous investigators concerned with empathy, and research concerned with empathy had consequently been methodologically handicapped. Although many studies have been conducted concerning empathy, the wide variety of techniques used to measure empathy has rendered very tenuous any attempts to reach conclusions about empathy after a survey of relevant literature. As has been noted by previous investigators, a "good empathizer" in one study might be a "poor empathizer" in another study because of the relative nature of the measures of empathy used. These conditions precluded adequate replication of studies, as well as valid comparisons among studies, and tended to hinder the development of cumulative knowledge concerning empathy.

The current study resulted in the Literature Empathy Test, a paper-and-pencil test making use of a standard stimulus situation which is presented to subjects, thus eliminating sources of error arising from an interpersonal situation and allowing relatively exact replication of a way of differentiating "good" and "poor" empathizers in an under-

graduate college population. The Literature Empathy Test was conceived and developed in a manner compatible with the theoretical conception of empathy proposed by Dymond.

The Literature Empathy Test contains four subtests; the four subtests consist of four selections from fiction portraying markedly different personalities. Each subtest also includes 20 multiple-choice, incomplete-sentence items, the stems of which were taken from the Holsopple-Miale Incomplete Sentence Test. Subjects are instructed to work on the subtests one at a time. They are to read the selection, get a "feel" for the individual portrayed, and then complete the sentence stems with the alternative they think the individual in the selection would have chosen were he taking the test. The Literature Empathy Test can be administered in a group setting, and approximately 50 minutes are required for its completion.

All items on each subtest are scorable for "right" or "most appropriate" answer, and eight items on each subtest are scorable for "wrong" or "most inappropriate" answer. A score is obtained for each subtest, and scores on subtests are summed to obtain a total score indicating performance on the entire test. High scores are interpreted as being indicative of a high degree of empathic capacity, and low scores are interpreted as being indicative of a low degree of empathic capacity.

Items retained in the final test and the scoring criteria for "right" and "wrong" answers were obtained by the following procedure. A preliminary version of the test, containing 216 items, was administered to ten psychologists who had completed all course work for the doctoral degree in psychology, with specialization in clinical psychology, at the

University of Oklahoma. These psychologists were selected as good empathizers by the author and by Dr. Lemmon, Director of the Clinical Training Program at the University of Oklahoma. Only items were retained on which at least 8 of the 10 judges agreed as to the "right" answer and on which no judge selected this answer as a "wrong" answer. "Wrong" answers were determined in a similar manner.

In order to safeguard against scoring criteria being biased by the common educational and training background of the ten judges, the scoring criteria were further refined by obtaining data from 13 additional judges representing seven different training institutions other than the University of Oklahoma. Items were further screened for retention on the final test on the basis of agreement among 10 of the 13 additional judges as to "right" and "wrong" answers. Items meeting the above criteria for scoring purposes were further screened for their capacity to elicit variable responses among college undergraduates, and those items which tended to elicit the most variable responses among undergraduates were retained in the final test.

Standardization and normative data for the Literature Empathy Test were obtained by administering the test to 1139 undergraduate college students from three different institutions. Six hundred and nineteen subjects (348 males and 271 females) were obtained from Fort Hays Kansas State College, a small midwestern state college. Three hundred and ninety-one subjects (219 males and 172 females) were obtained from the University of Oklahoma, a large southwestern state university. One hundred and twenty-nine subjects (49 males and 80 females) were obtained from Drew University, a small private eastern college. All tests were

administered to subjects in undergraduate psychology courses during the regular 50-minute class period.

The data collected in the manner described above were analyzed with respect to range of scores, mean, and standard deviation for scores from each college as well as for the total distribution of all scores. Percentile norms were computed for each sex separately for scores from each college, as well as for the total distribution of scores; intercorrelations among subtests were also computed. The data were also analyzed for sex differences related to scores on the four subtests and on the total test. The differences between mean scores obtained by males and the mean scores obtained by females on all subtests and on the total test were found to be significant at the .001 level. In all cases female subjects obtained higher mean scores than did male subjects.

Data pertaining to the reliability of the Literature Empathy Test were obtained by two methods: (a) split-half method and (b) test-retest method. Reliability coefficients were obtained for all subtest scores as well as for total test score. Data from 380 subjects, representing a one-third sample of the 1139 subjects used in the standardization, were used in computing reliability coefficients by the split-half method. Split-half reliability coefficients ranged from .72 to .86 for the four subtests; a reliability coefficient of .92 was obtained for the total test.

Data from 111 college students were used in computing reliability coefficients by the test-retest method, with a one month interval between test administrations. Test-retest reliability coefficients ranged from .66 to .81 for the four subtests; a reliability coefficient of .89 was

obtained for the total test.

As steps toward clarifying the meaning of scores achieved on the Literature Empathy Test, and indirectly approaching the validity of the test, information was obtained regarding the relationship of test scores with other psychological indices which might logically be related to empathic capacity. In order to ascertain the degree of relationship between level of intelligence and score on the Literature Empathy Test, a modified form of the Wechsler Adult Intelligence Scale was administered to 51 college students. The results of analyses of the relationship of scores on the Literature Empathy Test to the three I.Q.s obtainable from the Wechsler Adult Intelligence Scale yielded correlation coefficients ranging from .15 to .26. These correlation coefficients did not reach significance at the .05 level for any of the groups involved.

Information concerning the extent to which scores on the Literature Empathy Test reflect academic aptitude was obtained by investigating the relationship between scores on the Literature Empathy Test and scores on the College Ability Test for 103 college students. The results of analyses of the relationship of scores on the Literature Empathy Test to the three scores obtainable from the College Ability Test yielded correlation coefficients ranging from .13 to .41, with levels of significance varying from significance at the .01 level to non-significance at the .05 level.

Information concerning the extent to which scores on the Literature Empathy Test reflect reading ability was obtained by investigating the relationship between scores on the Literature Empathy Test and scores on Part II of the Nelson-Denny Reading Test for 109 college students. The

results of analyses of the relationship of scores on these two tests yielded correlation coefficients of .43 and .44, which were significant at the .01 level.

Information concerning the degree of relationship between score on the Literature Empathy Test and score on The Empathy Test by Kerr and Speroff, which also purports to measure empathy, was obtained using test results from 116 college students. The results of analyses of the relationship of scores on these two tests yielded correlation coefficients of .28 for male subjects, .34 for female subjects, and .31 for total subjects. The correlation coefficients for male subjects and for female subjects were significant at the .05 level; the correlation coefficient for all subjects was significant at the .01 level.

The validity of the Literature Empathy Test was discussed with respect to the following four aspects of validity: content validity, predictive validity, construct validity, and concurrent validity. The content validity of the Literature Empathy Test appears adequate for the purpose for which the test was designed; the test does not represent an attempt to sample all conditions and situations in which empathy may occur. No information is available concerning the predictive validity of the Literature Empathy Test, and the test cannot validly be used for long-range prediction purposes. Information pertaining to the construct validity of the Literature Empathy Test suggests that performance on the test is related to the concept of empathy as defined by Dymond and accepted in this study. The relatively high, stable relationship between total score on the test and reading ability, however, suggests that test performance is influenced by reading ability to a greater degree than

would be desirable. Since both the Literature Empathy Test and The Empathy Test by Kerr and Speroff purport to measure empathy, the relationship obtained between scores on these tests does not seem unusual; nor does it seem unusual that the relationship was not greater than it was, since both tests were derived from different theoretical conceptions of empathy and involve different tasks.

Information concerning the concurrent validity of the Literature Empathy Test was obtained through direct experimental investigation. Two groups, one characterized as "good empathizers" and one characterized as "poor empathizers," of nine subjects each, matched for sex, were obtained through selections made by three psychologists at Fort Hays Kansas State College from among students familiar to them. The Literature Empathy Test was administered to these subjects, and the difference between the mean scores for the two groups was found to be significant at the .01 level. These results were interpreted as being consistent with the results one would expect if the test did have adequate concurrent validity.

The Literature Empathy Test was developed as an instrument to aid researchers concerned with empathy by providing an objective method whereby two groups of subjects, one characterized as "good empathizers" and one characterized as "poor empathizer," could be selected from a college population. The Literature Empathy Test was not designed for use as a clinical instrument for individual psychodiagnosis, and its use for this purpose is not recommended.

The Literature Empathy Test, as it currently stands, cannot validly be used with subjects other than college undergraduates, nor can it be

used with subjects who are familiar with, or think they are familiar with, the material presented in the subtest reading selections. Further research exploring the possibilities of using the test with populations other than college undergraduates, and with subjects who indicate familiarity with the reading material presented, would seem warranted. Further research designed to yield information concerning the validity of the Literature Empathy Test would also be valuable.

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APPENDIX

APPENDIX A

Literature Empathy Test

I. Dempsey

The guy on my left was a regular. Every Friday night since I could remember, he had sat in that same seat on the aisle. He was broad and beefy-faced, with a high-blood pressure complexion and a big mouth. He was powerfully built, despite the pot belly and spreading rump of middle age. The first night he sat next to me he bought me a beer, told me to keep him in mind next time I bought a new car, and handed me his card. Name was Dempsey. "Edward J. (Champ) Dempsey," it said on the card. "No, no relation to Jack," he chuckled. "We went to different schools together."

He had a ridiculous pride in his ability to keep up a running patter of public speech throughout any fight. Years before he had appointed himself a sort of one-man clique to urge the fighters on to bloodier efforts, and whenever the boys in the ring decided to take it a little easy, coasting around or feeling each other out, his throaty witticisms would pierce the dark and smoky silence: "Turn out the lights, they want to be alone!" or "Hey, girls, can I have the next dance?" Or if one of the boxers happened to be Jewish, he was quick to show what a linquist he was by yelling, "Hit him in the kishges," or display his knowledge of geography by shouting, "Send him back to Jerusalem!"

The fellow who always sat on my right was George Rogers, a big-money lawyer, but his seat was empty tonight. "Well, looks like our old friend George is playing hooky tonight, ha ha ha," Dempsey said. Just before the first preliminary boys climbed through the ropes, the usher led to Rogers' seat a fellow I had never seen before. He was short, thin, nervous, somewhere in his middle thirties, but already beginning to stoop from the waist like a much older man. His skin was pallid, he wore glasses, and he needed only the green eyeshade to become my stereotype of a bookkeeper.

"Excuse me, sir," he said as he squeezed by. "I am sorry to disturb you."

That wasn't what they usually said when they shoved past you at the Arena. Dempsey looked at him the way a gang leader eyes a new kid who has just moved into the block.

"Where's my old pal George tonight?" he wanted to know.

The man was shy and his answer came in a thin voice, "Mr. Rogers is out of town on business, sir. He was good enough to give me his ticket."

"You in Rogers' office?" Dempsey appraised him with a salesman's eyes.

The newcomer said yes, not too encouragingly, but it was enough for Dempsey to lean across me and display his professional smile. "Dempsey's the name. What's yours, fella?"

"Glover," the fellow said, but he did not seem very happy about it.

"Glover!" Dempsey shuffled quickly through thousands of calling cards in his mind. "Used to know a Charley Glover back in K.C. fifteen years ago. Any relation to old Charley?"

"I've never had any relatives in the Middle West," Glover answered.

"Well, I won't hold it against you, ha ha ha," Dempsey said. "Here, have a cigar."

Glover said he didn't smoke cigars, and Dempsey lit his, igniting the match with a flick of his thumbnail. "So you work for Rogers, huh," he went on. "Well, George is a very, very good friend of mine. What are you, a junior partner?"

"Oh, no," Glover said, and something that was almost a smile lit his face for a moment, as if at the impossibility of such a suggestion. "I am a stenographer."

Dempsey's smile, or rather, his clever imitation of a smile, wiped from his face mechanically, like a lantern slide. When he abandoned it suddenly like that, he face looked even more bloated and aggressive than usual.

"A stenographer! Ha ha ha. Are you kidding?"

"Mr. Rogers has employed nothing but male stenographers for over thirty years."

1. When fire starts
   a. there is usually smoke
   b. someone should put it out
   c. I wouldn't know what to do
   d. is the time to get out.

2. One's closest friends can
   a. help one to become more honestly aware of oneself
   b. stab you in the back if you don't watch out
   c. be a comfort to you as you grow older
   d. be helpful if they want to be.

3. The most pleasant dreams
   a. are of girls, what else?
   b. that men have are usually sinful
   c. are where your wishes come true
   d. curiously enough, are probably not always remembered.

4. The nicest thing about being a child
   a. is having a good mother to care for you
   b. is not having to fill out tax returns
   c. is the ability to believe with faith
   d. is you don't have to think of anyone else but yourself.

5. A man can stop beating his wife only if
   a. she stops nagging him
   b. he confesses the error of his ways
   c. she relinquishes her unconscious wish to be beaten
   d. he is punished for it.

6. A masculine woman should
   a. keep the hell away from me
   b. provide an interesting scientific study on sexual development
   c. dress so as to look more feminine
   d. be pitied.

7. Too much distance lies between
   a. what is and what seems to be
   b. what children want and what they should want
   c. New York and Paris
   d. people and the church.

8. The deeper one goes
   a. the harder it is to get out of debt
   b. just doesn't make any sense
   c. the more he will find good in people
   d. into a subject the more he will know about it.

9. There is hardly any
   a. justice in a world divided
   b. thing a person can't do if they try hard enough
   c. real men left in the world these days
   d. rest and peace on this earth.

10. There would be more divorces if
   a. there were more drinking in the world
   b. people gave way to their instincts as animals do
   c. men had their way
   d. women weren't so tolerant of their husbands.

11. When an animal is wild
   a. it is free and beautiful
   b. it will be bad and hurt people
   c. the authorities should capture it or shoot it
   d. is the time to go hunting.

12. The easiest way to get money
   a. is to borrow it
   b. usually is wrong and should not be done
   c. is an elusive dream that plagues the human race
   d. should not have to be always on one's mind.

13. Twenty years from now
   a. the problems of tomorrow will be past history
   b. I'll be eating steak and retired
   c. I don't even want to think about
   d. I won't be sorry for the hardships I have today.

14. It is easy to get into trouble when
   a. you are tempted by bad company
   b. you try and help others
   c. you start trusting people too much
   d. your acquaintances do not understand you.

15. Few children fear
    a. the consequences of their actions as much as they should
    b. goodness and kindness
    c. unless they are taught to by older acquaintances
    d. candy and lollipops.

16. It is often hard to sleep when
    a. the bed is too hard
    b. you can't help thinking of all the bad things that might happen to someone you love
    c. you have so many plans to make for the next day
    d. the nervous system is in a state of excitation.

17. When a criminal leaves prison he
    a. has paid his debt to society and should be helped to lead a good life
    b. will probably take up where he left off before
    c. is a menace to society again
    d. will find society exceedingly merciless.

18. Down underground
    a. the temperature is constant
    b. there are subways
    c. lie the dead
    d. it is dirty and cold.

19. The worst kind of criminal
    a. is he who commits a crime against himself
    b. is a man who would attack women or children
    c. should be given the electric chair
    d. has turned from the Bible and taken up the Devil's ways.

20. When the car skidded
    a. the driver brought it under control before it caused any damage
    b. the driver was not paying proper attention to his driving
    c. it crashed
    d. there was nothing we could do.

II. Mrs. Bennet

It is a truth universally acknowledged that a single man in possession of a good fortune must be in want of a wife.

However little known the feelings or views of such a man may be on his first entering a neighbourhood, this truth is so well fixed in the minds of the surrounding families, that he is considered as the rightful property of someone or other of their daughters.

"My dear Mr. Bennet," said the lady to him one day, "have you heard that Netherfield Park is let at last?"

Mr. Bennet replied that he had not.

"But it is," returned she, "for Mrs. Long has just been here, and she told me all about it."

Mr. Bennet made no answer.

"Do not you want to know who has taken it?" cried his wife impatiently.

"You want to tell me, and I have no objection to hearing it."

This was invitation enough.

"Why, my dear, you must know, Mrs. Long says that Netherfield is taken by a young man of large fortune from the north of England; that he came down on Monday in a chaise and four to see the place, and was so much delighted with it, that he agreed with Mr. Morris immediately; that he is to take possession before Michaelmas, and some of his servants are to be in the house by the end of next week."

"What is his name?"

"Bingley."

"Is he married or single?"

"Oh! single, my dear, to be sure! A single man of large fortune; four or five thousand a year. What a fine thing for our girls!"

"How so? How can it affect them?"

"My dear Mr. Bennet," replied his wife, "how can you be so tiresome! You must know that I am thinking of his marrying one of them."

"Is that his design in settling here?"

"Design! Nonsense, how can you talk so! But it is very likely that he may fall in love with one of them, and therefore you must visit him as soon as he comes."

"I can see no occasion for that. You and the girls may go, or you may send them by themselves, which perhaps will be still better, for as you are as handsome as any of them, Mr. Bingley might like you the best of the party."

"My dear, you flatter me. I certainly have had my share of beauty, but I do not pretend to be anything extraordinary now. When a woman has five grown-up daughters, she ought to give over thinking of her own beauty."

"In such cases, a woman has not often much beauty to think of."

"But, my dear, you must indeed go and see Mr. Bingley when he comes into the neighbourhood."

"It is more than I engage for, I assure you."

"But consider your daughters. Only think what an establishment it would be for one of them. Sir William and Lady Lucas are determined to go, merely on that account, for in general, you know, they visit no newcomers. Indeed you must go, for it will be impossible for us to visit him if you do not."

"You are over-scrupulous, surely. I dare say Mr. Bingley will be very glad to see you; and I will send a few lines by you to assure him of my hearty consent to his marrying whichever he chooses of the girls; though I must throw in a good word for my little Lizzy."

"I desire you will do no such thing. Lizzy is not a bit better than the others; and I am sure she is not half so handsome as Jane, nor half so good-humoured as Lydia. But you are always giving her the preference."

"They have none of them much to recommend them," replied he. "They are all silly and ignorant, like other girls; but Lizzy has something more of quickness than her sisters."

"Mr. Bennet, how can you abuse your own children in such a way? You take delight in vexing me. You have no compassion of my poor nerves."

"You mistake me, my dear. I have a high respect for your nerves. They are my old friends. I have heard you mention them with consideration there twenty years at least."

"Ah! You do not know what I suffer."

"But I hope you will get over it, and live to see many young men of four thousand a year come into the neighbourhood."

"It will be no use to us, if twenty such should come, since you will not visit them."

"Depend upon it, my dear, that when there are twenty, I will visit them all."

"Aye, there she comes," continued Mrs. Bennet, "looking as unconcerned as may be, and caring no more for us than if we were at York, provided she can have her own way. But I tell you what, Miss Lizzy--if you take it into your head to go on refusing every offer of marriage in this way, you will never get a husband at all--and I am sure I do not know who is to maintain you when your father is dead. I shall not be able to keep you--and so I warn you. I have done with you from this very day. I told you in the library, you know, that I should never speak to you again, and you will find me as good as my word. I have no pleasure in talking to undutiful children. Not that I have much pleasure, indeed, in talking to anybody. People who suffer as I do from nervous complaints can have no great inclination for talking. Nobody can tell what I suffer! But it is always so. Those who do not complain are never pitied."

"I do not blame Jane," she continued, "for Jane would have got Mr. Bingley if she could. But Lizzy! Oh, sister! It is very hard to think that she might have been Mr. Collins's wife by this time, had it not been for her own perverseness. He made her an offer in this very room, and she refused him. The consequence of it is, that Lady Lucas will have a daughter married before I have, and that Longbourn estate is just as much entailed as ever. The Lucases are very artful people indeed, sister. They are all for what they can get. I am sorry to say it of them, but so it is. It makes me very nervous and poorly, to be thwarted so in my own family, and to have neighbours who think of themselves before anybody else. However, your coming just at this time is the greatest of comforts, and I am very glad to hear what you tell us, of the latest fashions."

1. Children are usually certain that
   a. their mother will always be there to take care of them
   b. they will get what they want, some way or other
   c. their parents do not know what is best, when actually they do
   d. their inner feelings and experiences will be a mystery to the adults around them.

2. The hardest decisions
   a. are to keep from getting gyped when you're making a deal
   b. should be made only after careful consideration of all available information
   c. should be taken to God in prayer
   d. you make are the ones others do not accept.

3. The white girl who married the colored man
   a. will not have any more decent friends, and rightly so
   b. was probably a slut anyway
   c. must have had her reasons
   d. was probably forced into it by him.

4. If people only knew how much
   a. I suffer
   b. goodness and kindness can do
   c. they do not understand the world about them
   d. a good cigar costs they wouldn't bum them so much.

5. People refrain from murder only because
   a. it isn't right in the eyes of God
   b. it's against the law
   c. of their inner feelings brought about by a process of socialization
   d. they have the good sense to think of what it would mean to their family.

6. The finger pointed
   a. at the sinner
   b. inward
   c. to the nearest exit
   d. the proper way.

7. The two most beautiful things I have ever seen
   a. were falling Jap planes and the U.S.A.
   b. were a mother and her baby
   c. were a set of the most fragile china and a beautiful lace tablecloth
   d. were the mountains in the evening and a sunrise at dawn.

8. A woman who has lost her virtue must
   a. pray for forgiveness
   b. have been having a good time for herself
   c. not have thought very much of her family
   d. beware the wrath of the righteous.

9. The worst thing about being sick
   a. is when no one comes to visit you
   b. is being dependent and helpless
   c. is the bills you have to pay afterward
   d. is the lack of sympathy you get from others.

10. There would be more divorces if
   a. there were more drinking in the world
   b. people gave way to their instincts as animals do
   c. men had their way
   d. women weren't so tolerant of their husbands.

11. A large crowd
    a. usually leads one astray
    b. is usually very unruly and lacking in courtesy
    c. is what I like
    d. is often an excellent place to observe human nature.

12. Twenty years from now
    a. the problems of tomorrow will be past history
    b. I'll be eating steak and retired
    c. I don't even want to think about
    d. I won't be sorry for the hardships I have today.

13. At the end of the road
    a. they found the dead body
    b. God will take care of you if you've been good
    c. I'll at last get some rest
    d. can be taken either figuratively or literally.

14. The most pleasant dreams
    a. are of girls, what else?
    b. that men have are usually sinful
    c. are where your wishes come true
    d. curiously enough, are probably not always remembered.

15. Few things are less attractive than
    a. an ugly woman
    b. a drunken woman
    c. an unintelligent woman
    d. an unladylike woman.

16. A masculine woman should
    a. keep the hell away from me
    b. provide an interesting scientific study on sexual development
    c. dress so as to look more feminine
    d. be pitied.

17. Too much distance lies between
    a. what is and what seems to be
    b. what children want and what they should want
    c. New York and Paris
    d. people and the church.

18. Down underground
    a. the temperature is constant
    b. there are subways
    c. lie the dead
    d. it is all dirty and cold.

19. It hurts when
    a. your efforts to help aren't appreciated by others
    b. you burn your finger
    c. you are left all alone
    d. you have to admit you made a mistake.

20. The deeper one goes
    a. the harder it is to get out of debt
    b. just doesn't make any sense
    c. the more he will find good in people
    d. into a subject the more he will know about it.

III. Kelcey's Mother

As it grew toward seven o'clock the little old woman became nervous. She often would drop into a chair and sit staring at the little clock.

"I wonder why he don't come," she continually repeated. There was a small, curious note of despair in her voice. As she sat thinking and staring at the clock the expressions on her face changed swiftly. All manner of emotions flickered in her eyes and about her lips. She was evidently perceiving in her imagination the journey of a loved person. She dreamed for him mishaps and obstacles. Something tremendous and irritating was hindering him from coming to her.

She had lighted an oil lamp. It flooded the room with vivid yellow glare. The table, in its oil-cloth covering, had previously appeared like a bit of bare brown desert. It now was a white garden, growing the fruits of her labour.

"Seven o'clock," she murmured, finally. She was aghast.

Then suddenly she heard a step upon the stair. She sprang up and began to bustle about the room. The little fearful emotions passed at once from her face. She seemed now to be ready to scold.

Young Kelcey entered the room. He gave a sigh of relief, and dropped his pail in a corner. He was evidently greatly wearied by a hard day of toil.

The little old woman hobbled over to him and raised her wrinkled lips.

"Hello!" he cried, in a voice of cheer. "Been gettin' anxious?"

"Yes," she said, hovering about him. "Where yeh been, George? What made yeh so late? I've been waitin' th' longest while. Don't throw your coat down there. Hang it up behind th' door."

The son put his coat on the proper hook, and then went to splatter water in a tin wash-basin at the sink.

"Well, yeh see, I met Jones--you remember Jones? Ol' Handyville fellah. An' we had t' stop an' talk over ol' times. Jones is quite a boy."

The little old woman's mouth set in a sudden straight line. "Oh, that Jones," she said. "I don't like him."

The youth interrupted a flurry of white towel to give a glance of irritation. "Well, now, what's th' use of talking that way?" he said to her. "What do yeh know about him? Ever spoke to 'im in yer life?"

"Well, I don't know as I ever did since he grew up," replied the little old woman. "But I know he ain't th' kind a' man I'd like t' have you go around with. He ain't a good man. I'm sure he ain't. He drinks."

Her son began to laugh. "Th' dickens he does!" He seemed amazed, but not shocked, at this information.

She nodded her head with the air of one who discloses a dreadful thing. "I'm sure of it! Once I saw 'im comin" out a' Simpson's Hotel, up in Handyville, an' he could hardly walk. He drinks! I'm sure he drinks!"

"Holy smoke!" said Kelcey.

They sat down at the table and began to wreck the little white garden. The youth leaned back in his chair, in the manner of a man who is paying for things. His mother bended alertly forward, apparently watching each mouthful. She perched on the edge of her chair, ready to spring to her feet and run to the closet or the stove for anything that he might need. She was as anxious as a young mother with a babe. In the careless and comfortable attitude of the son there was denoted a great deal of dignity.

"Yeh ain't eatin' much t'-night, George."

"Well, I ain't very hungry, to tell th' truth."

"Don't yeh like yer supper, dear? Yeh must eat somethin', child. Yeh mustn't go without."

"Well, I'm eatin' somethin', ain't I?"

He wandered aimlessly through the meal. She sat over behind the little blackened coffee-pot and gazed affectionately upon him.

1. A person is most helpless when
   a. he's broke and owes everybody money
   b. he loses his mind
   c. he has turned from God and his family
   d. society and his friends have turned against him.

2. The easiest way to get money
   a. is to borrow it
   b. usually is wrong and should not be done
   c. is an elusive dream that plagues the human race
   d. should not have to be always on one's mind.

3. At the end of the road
   a. they found the dead body
   b. God will take care of you if you've been good
   c. I'll at last get some rest
   d. can be taken either figuratively or literally.

4. When a person is ill
   a. his cosmos, more than ever, is himself
   b. he needs someone to care for him
   c. he should go right to bed at once
   d. he should see a doctor

5. It is often hard to sleep when
   a. the bed is too hard
   b. you can't help thinking of all the bad things that might happen to someone you love
   c. you have so many plans to make for the next day
   d. the nervous system is in a state of excitation.

6. A drunken woman
   a. should not be associated with
   b. is a wicked, sinful creature
   c. is probably a slut
   d. will meet with much sorrow under usual circumstances.

7. Down underground
   a. the temperature is constant
   b. there are subways
   c. lie the dead
   d. it is all dirty and cold.

8. Failure may be expected when
   a. you can't get people to work with you
   b. one is afraid to succeed
   c. the breaks go against you
   d. God wants to test your faith.

9. When an animal is wild
   a. it is free and beautiful
   b. it will be bad and hurt people
   c. the authorities should capture it or shoot it
   d. is the time to go hunting.

10. Few things are less attractive than
   a. an ugly woman
   b. a drunken woman
   c. an unintelligent woman
   d. an unladylike woman.

11. People shouldn't
   a. think bad thoughts
   b. gossip so much
   c. be so concerned with what they shouldn't do
   d. run down their country.

12. Children are usually certain that
   a. their mother will always be there to take care of them
   b. they will get what they want, some way or other
   c. their parents do not know what is best, when actually they do
   d. their inner feelings and experiences will be a mystery to the adults around them.

13. A large crowd
   a. usually leads one astray
   b. is usually very unruly and lacking in courtesy
   c. is what I like
   d. is often an excellent place to observe human nature.

14. The hardest decisions
   a. are to keep from getting gyped when you're making a deal
   b. should be made only after careful consideration of all available information
   c. should be taken to God in prayer
   d. you make are the ones others do not accept.

15. A drunken man
    a. gets a hangover
    b. should stay out of sight
    c. is evil and disgusting
    d. has had too much alcohol.

16. The nicest thing about being a child
    a. is having a good mother to care for you
    b. is not having to fill out tax returns
    c. is the ability to believe with faith
    d. is you don't have to think of anyone else but yourself.

17. To be without shame
    a. is wicked
    b. you should lead an honest life
    c. is a sign of a clear conscience
    d. is to be without honor.

18. People refrain from murder only because
    a. it isn't right in the eyes of God
    b. it's against the law
    c. of their inner feelings brought about by a process of socialization
    d. they have the good sense to think what it would mean to their family.

19. The finger pointed
    a. at the sinner
    b. inward
    c. to the nearest exit
    d. the proper way.

20. The two most beautiful things I have ever seen
    a. were falling Jap planes and the U.S.A.
    b. were a mother and her baby
    c. were a set of the most fragile china and a beautiful lace tablecloth
    d. were the mountains in the evening and a sunrise at dawn.

IV. Philip

Philip Quarles, meanwhile, said nothing. There was nothing, really, to say. He put his arm around her and drew her toward him; he kissed her forehead and her fluttering eyelids; they were wet with tears.

The sordid suburbs of Bombay slid past them--factories and little huts and huge tenements, ghastly and bonewhite under the moon. Brown, thin-legged pedestrians appeared for a moment in the glare of the headlights, like truths apprehended intuitively and with immediate certainty, only to disappear again almost instantly into the void of outer darkness. Here and there, by the roadside, the light of a fire mysteriously hinted at dark limbs and faces. The inhabitants of a world of thought starrily remote from theirs peered at them, as the car flashed past, from creaking

bullock carts.

"My darling," he kept repeating, "my darling . . ."

Elinor permitted herself to be comforted. "You love me a little?"

"So much."

She actually laughed; rather sobbishly, it is true, but still, it was a laugh. "You do your best to be nice to me." And after all, she thought, those days at Gattenden had really been blissful. They were hers, she had had them; they couldn't be denied. "You make such efforts. It's sweet of you."

"It's silly to talk like that," he protested. "You know I love you."

"Yes, I know you do." She smiled and stroked his cheek. "When you have time and then by wireless across the Atlantic."

"No, that isn't true." But secretly he knew that it was. All his life long he had walked in a solitude, in a private void, into which nobody, not his mother, not his friends, not his lovers had ever been permitted to enter. Even when he held her thus, pressed close to him, it was by wireless, as she had said, and across an Atlantic that he communicated with her.

"It isn't true," she echoed, tenderly mocking. "But my poor old Phil, you couldn't even take in a child. You don't know how to lie convincingly. You're too honest. That's one of the reasons why I love you. If you knew how transparent you were!"

Philip was silent. These discussions of personal relations always made him uncomfortable. They threatened his solitude--that solitude which, with a part of his mind, he deplored (for he felt himself cut off from much he would have liked to experience), but in which alone, nevertheless, his spirit could live in comfort, solitude for granted, as one accepts the atmosphere in which one lives. But when it was menaced he became only too painfully aware of its importance to him; he fought for it, as a choking man fights for air. He entrenched himself now in silence, in that calm, remote, frigid silence, which he was sure that Elinor would not attempt, knowing the hopelessness of the venture, to break through. He was right; Elinor glanced at him for an instant, and then, turning away, looked out at the moonlit landscape. There parallel silences flowed on through time, unmeeting.

Once, when he had been telling her about Koehler's book on the apes, "You're like a monkey on the superman side of humanity," she said. "Almost human, like those poor chimpanzees. The only difference is that they're trying to think up with their feelings and instincts, and you're trying to feel down with your intellect. Almost human. Trembling on the verge, my poor Phil."

The sight of a dog running across the road in front of the car aroused her from her reverie. How suddenly, how startlingly it had dashed into the narrow universe of the headlamps! It existed for a fraction of a second, desperately running, and was gone again into the darkness, on the other side of the luminous world. Another dog was suddenly in its place, pursuing.

"Oh!" cried Elinor. "It'll be . . ." The headlamps swerved and swung straight again, there was a padded jolt, as though one of the wheels had passed over a stone; but the stone yelped. ". . .run over," she concluded.

The Indian chauffeur looked round at them, grinning. They could see the flash of his teeth. "Dog!" he said. He was proud of his English.

"Poor beast!" Elinor shuddered.

"It was his fault," said Philip. "He wasn't looking. That's what comes of running after the females of one's species."

There was a silence. It was Philip who broke it.

"Morality'd be very queer," he reflected aloud, "if we loved seasonally, not all year round. Moral and immoral would change from one month to another. Primitive societies are apt to be more seasonal than cultivated ones. Even in Sicily there are twice as many births in January as in August. Which proves conclusively that in the spring the young man's fancy . . . But nowhere only in the spring. There's nothing quite analogous to heat in mares or she-dogs. Except," he added, "except perhaps in the moral sphere. A bad reputation in a woman allures like the signs of heat in a bitch. Ill fame announces accessibility. Absence of heat is the animal's equivalent of the chaste woman's habits and principles. . ."

Elinor listened with interest and at the same time a kind of horror. Even the squashing of a wretched animal was enough to set that quick, untiring intelligence to work. A poor starved pariah dog had its back broken under the wheels and the incident evoked from Philip a selection from the vital statistics of Sicily, a speculation about the relativity of morals, a brilliant, psychological generalization. It was amazing, it was unexpected, it was wonderfully interesting; but oh! she almost wanted to scream.

1. At the end of the road
   a. they found the dead body
   b. God will take care of you if you've been good
   c. I'll at last get some rest
   d. can be taken either figuratively or literally.

2. A drunken man
   a. gets a hangover
   b. should stay out of sight
   c. is evil and disgusting
   d. has had too much alcohol.

3. Worse than being lonely is
   a. being afraid of loneliness
   b. being dead
   c. being bad
   d. not having people like you.

4. People shouldn't
   a. think bad thoughts
   b. gossip so much
   c. be so concerned with what they shouldn't do
   d. run down their country.

5. People refrain from murder only because
   a. it isn't right in the eyes of God
   b. it's against the law
   c. of their inner feelings brought about by a process of socialization
   d. they have the good sense to think what it would mean to their family.

6. When a person is wounded
   a. he must have been in a fight
   b. the poor dear needs care
   c. a tourniquet is frequently necessary
   d. you should call a doctor right away.

7. Failure may be expected when
   a. you can't get people to work with you
   b. one is afraid to succeed
   c. the breaks go against you
   d. God wants to test your faith.

8. The worst kind of criminal
   a. is he who commits a crime against himself
   b. is a man who would attack women or children
   c. should be given the electric chair
   d. has turned from the Bible and taken up the Devil's ways.

9. The easiest way to get money
   a. is to borrow it
   b. usually is wrong and should not be done
   c. is an elusive dream that plagues the human race
   d. should not have to be always on one's mind.

10. Twenty years from now
   a. the problems of tomorrow will be past history
   b. I'll be eating steak and retired
   c. I won't even want to think about
   d. I won't be sorry for the hardships I have today.

11. The white girl who married the colored man
   a. will not have any more decent friends, and rightly so
   b. was probably a slut anyway
   c. must have had her reasons
   d. was probably forced into it by him.

12. The most pleasant dreams
   a. are of girls, what else?
   b. that men have are usually sinful
   c. are where your wishes come true
   d. curiously enough, are probably not always remembered.

13. A man can stop beating his wife only if
    a. she stops nagging him
    b. he confesses the error of his ways
    c. she relinquishes her unconscious wish to be beaten
    d. he is punished for it.

14. If people only knew how much
    a. I suffer
    b. goodness and kindness can do
    c. they do not understand the world about them
    d. a good cigar costs they wouldn't bum them so much.

15. The worst thing about being sick
    a. is when no one comes to visit you
    b. is being dependent and helpless
    c. is the bills you have to pay afterward
    d. is the lack of sympathy you get from others.

16. It is often hard to sleep when
    a. the bed is too hard
    b. you can't help thinking of all the bad things that might happen to someone you love
    c. you have so many plans to make for the next day
    d. the nervous system is in a state of excitation.

17. A masculine woman should
    a. keep the hell away from me
    b. provide an interesting scientific study on sexual development
    c. dress so as to look more feminine
    d. be pitied.

18. There ought to be a law to
    a. reduce taxes
    b. make men take care of their families
    c. prevent gossip
    d. explain all natural events in the world.

19. Spiders are
    a. weavers of webs
    b. bugs that ought to be killed
    c. horrible insects that should be exterminated
    d. always messing up a room with their webs.

20. Down underground
    a. the temperature is constant
    b. there are subways
    c. lie the dead
    d. it is all dirty and cold.

Answer Sheet

Name: Age: Sex: Date:
Educational Classification (Circle One): Fr Soph Jr Sr

There are four columns below, one for each of the four subtests in the Literature Empathy Test. Be sure you use the appropriate column for the appropriate subtest. Print the letter (a, b, c, or d) corresponding to the answer you choose after the item number in the space provided.

At the bottom of each column a "yes" and a "no" are printed. If you think you have read the selection in the subtest someplace else before, or if it seems familiar to you, please draw a circle around the "yes." If the selection in the subtest was new to you, and it did not seem familiar, then please draw a circle around the "no." If you circle the "yes," please state briefly on the back of this sheet the story from which you think the selection was taken and the author, if you can remember.

I. Dempsey	II. Mrs. Bennet	III. Kelcey's Mother	IV. Philip
1. ____	1. ____	1. ____	1. ____
2. ____	2. ____	2. ____	2. ____
3. ____	3. ____	3. ____	3. ____
4. ____	4. ____	4. ____	4. ____
5. ____	5. ____	5. ____	5. ____
6. ____	6. ____	6. ____	6. ____
7. ____	7. ____	7. ____	7. ____
8. ____	8. ____	8. ____	8. ____
9. ____	9. ____	9. ____	9. ____
10. ____	10. ____	10. ____	10. ____
11. ____	11. ____	11. ____	11. ____
12. ____	12. ____	12. ____	12. ____
13. ____	13. ____	13. ____	13. ____
14. ____	14. ____	14. ____	14. ____
15. ____	15. ____	15. ____	15. ____
16. ____	16. ____	16. ____	16. ____
17. ____	17. ____	17. ____	17. ____
18. ____	18. ____	18. ____	18. ____
19. ____	19. ____	19. ____	19. ____
20. ____	20. ____	20. ____	20. ____
yes no	yes no	yes no	yes no

Do Not Write Below This Line

I. _____

II. _____

III. _____

IV. _____

Total _____

APPENDIX B

Psychologists Serving as Judges for Right and Wrong Answers on Literature Empathy Test

I. The following 10 individuals, who had received their clinical training at the University of Oklahoma, served as the initial group of judges to determine acceptability of items and scoring criteria for all incomplete-sentence items. Positions listed are those held by the individuals at the time they served as judges, in the fall of 1958.

Anderson, Alice	Psychologist, Central State Griffin Memorial Hospital, Norman, Oklahoma
Goldberg, Ira	VA Trainee, VA Hospital, Oklahoma City, Oklahoma
Jacobs, Mildred	Practicum Supervisor, Psychological Clinic, University of Oklahoma, Norman, Oklahoma
Krimsky, Martin	Psychologist, Pauls Valley State Training School, Pauls Valley, Oklahoma
Marx, Alfred	Psychologist, Central State Griffin Memorial Hospital, Norman, Oklahoma
Miller, Wilfred T.	Psychologist, Houston Child Guidance Center, Houston, Texas
Morris, John R.	Practicum Supervisor, Guidance Service, University of Oklahoma, Norman, Oklahoma
Mummery, William	VA Trainee, VA Hospital, Oklahoma City, Oklahoma
Ray, Joseph B.	Director, Psychological Service Center and Professor of Psychology, Fort Hays Kansas State College, Hays, Kansas
Wilson, Robert S.	Psychologist, Community Guidance Center, Oklahoma City, Oklahoma

II. The following seven institutions are those listed by the additional group of 13 judges as the places where they received their clinical training. The number of judges specifying a given institution is indicated in parentheses following the name of the institution.

University of Chicago	(5)
University of Houston	(1)
University of Kansas	(2)
University of Michigan	(1)
University of Minnesota	(1)
University of Texas	(2)
University of Wisconsin	(1)

APPENDIX C

Characteristics of Items and Scoring Criteria

Subtest I: Dempsey

Score: Right minus Wrong plus 10

Number of Items Scored for "Right": 20

Number of Items Scored for "Wrong": 8

Possible Range of Scores: 2 - 30

Item Number	Right Answer	Wrong Answer	Variability of Responses For 43 College Freshmen and Sophomores[1]				No. of Judges Agreeing on Right Answer	No. of Judges Agreeing on Wrong Answer
1	d	c	28	10	5	0	21	18
2	b	a	33	8	2	0	22	18
3	a	d	31	7	3	2	23	22
4	b	c	24	16	2	1	19	19
5	a	c	39	3	1	0	21	22
6	a	b	25	12	3	3	23	23
7	c	a	23	13	5	2	20	18
8	a	c	27	7	7	2	19	21
9	c		29	9	4	1	18	
10	c		23	9	8	3	21	
11	d		18	13	11	1	20	
12	a		24	8	6	5	20	
13	b		18	14	6	5	21	
14	c		22	11	7	3	21	
15	d		17	12	11	3	20	
16	a		27	8	4	4	20	
17	b		26	6	6	5	19	
18	b		17	16	9	1	21	
19	c		23	12	6	2	19	
20	c		17	13	12	1	19	

[1] Responses are listed in descending order with right answers underlined.

Subtest II: Mrs. Bennet

Score: Right minus Wrong plus 10

Number of Items Scored for "Right": 20

Number of Items Scored for "Wrong": 8

Possible Range of Scores: 2 - 30

Item Number	Right Answer	Wrong Answer	Variability of Responses for 48 College Freshmen and Sophomores[1]				No. of Judges Agreeing on Right Answer	No. of Judges Agreeing on Wrong Answer
1	c	d	22	10	8	8	21	21
2	d	a	24	18	3	3	20	21
3	a	c	22	13	10	3	21	18
4	a	d	36	5	5	2	21	20
5	d	c	17	15	9	7	21	22
6	d	b	16	15	11	6	19	18
7	c	a	25	14	6	3	20	21
8	c	b	25	13	6	4	19	21
9	d		33	7	4	4	21	
10	d		26	12	8	2	21	
11	b		25	10	9	4	22	
12	c		22	10	8	9	20	
13	c		30	10	6	2	21	
14	c		21	14	8	5	19	
15	d		18	14	9	7	23	
16	c		19	18	7	4	21	
17	b		31	11	3	3	22	
18	d		22	20	4	2	20	
19	a		37	4	4	3	21	
20	b		18	12	11	7	18	

[1] Responses are listed in descending order with right answers underlined.

Subtest III: Kelcey's Mother

Score: Right minus Wrong plus 10

Number of Items Scored for "Right": 20

Number of Items Scored for "Wrong": 8

Possible Range of Scores: 2 - 30

Item Number	Right Answer	Wrong Answer	Variability of Responses for 43 College Freshmen and Sophomores[1]				No. of Judges Agreeing on Right Answer	No. of Judges Agreeing on Wrong Answer
1	c	d	28	12	3	0	20	19
2	b	c	16	14	12	1	21	19
3	b	d	29	7	6	1	23	22
4	b	a	31	5	4	3	22	22
5	b	d	34	4	3	2	22	21
6	b	d	15	13	11	4	22	21
7	c	a	18	16	8	1	20	20
8	d	b	18	11	9	5	22	21
9	b		18	18	4	3	20	
10	b		32	9	2	0	21	
11	a		27	9	4	3	22	
12	a		20	16	6	1	19	
13	a		25	12	5	1	21	
14	c		15	14	11	3	23	
15	c		34	8	1	0	21	
16	a		29	9	3	2	22	
17	a		16	14	9	4	22	
18	a		16	14	9	4	19	
19	a		26	10	4	1	20	
20	b		33	6	3	1	20	

[1] Responses are listed in descending order with right answers underlined.

Subtest IV: Philip

Socre: Right minus Wrong plus 10

Number of Items Scored for "Right": 20

Number of Items Scored for "Wrong": 8

Possible Range of Scores: 2 - 30

Item Number	Right Answer	Wrong Answer	Variability of Responses for 59 College Freshmen and Sophomores[1]				No. of Judges Agreeing on Right Answer	No. of Judges Agreeing on Wrong Answer
1	d	b	38	7	7	7	23	19
2	d	c	29	17	7	6	21	21
3	a	c	34	13	6	6	20	21
4	c	a	45	5	5	4	23	21
5	c	a	33	11	11	4	23	22
6	c	b	26	15	11	7	20	20
7	b	d	34	11	7	7	20	21
8	a	d	38	9	7	5	21	19
9	c		36	17	3	3	22	
10	a		28	15	12	4	22	
11	c		33	11	11	4	21	
12	d		24	17	9	9	22	
13	c		23	15	11	10	21	
14	c		39	15	3	2	21	
15	b		27	13	13	6	21	
16	d		21	17	17	4	21	
17	b		37	11	11	0	22	
18	d		31	15	11	2	21	
19	a		29	17	7	6	21	
20	a		30	21	5	3	21	

[1]Responses are listed in descending order with right answers underlined.

APPENDIX D

Frequency Distribution of Total Scores on Literature Empathy Test for Standardization Group

Raw Score	Fort Hays		Univer. Okla.		Drew Univer.		Total	
	M	F	M	F	M	F	M	F
	N=348	N=271	N=219	N=172	N=49	N=80	N=616	N=523
42	1	0	0	0	0	1	1	1
43	0	0	1	0	0	0	1	0
44	0	1	0	0	0	0	0	1
45	1	2	0	0	1	0	2	2
46	0	0	0	0	0	0	0	0
47	0	0	2	0	0	0	2	0
48	2	1	0	0	0	0	2	1
49	6	0	0	1	0	0	6	1
50	5	4	0	0	0	0	5	4
51	5	0	0	0	0	0	5	0
52	1	0	1	0	0	0	2	0
53	5	3	1	0	0	0	6	3
54	7	1	2	0	0	0	9	1
55	4	0	0	0	0	0	4	0
56	1	3	0	0	0	0	1	3
57	8	0	2	0	0	0	10	0
58	0	0	1	0	0	1	1	1
59	6	0	0	0	0	0	6	0
60	3	2	0	0	0	0	3	2
61	3	0	1	0	0	0	4	0
62	6	1	1	0	0	0	7	1
63	5	3	1	0	0	0	6	3
64	4	1	0	0	0	0	4	1
65	13	1	1	1	0	0	14	2
66	4	3	2	2	0	0	6	5
67	7	0	2	0	0	0	9	0
68	5	0	1	1	0	0	6	1
69	8	1	1	0	2	0	11	1
70	8	6	3	0	0	0	11	6
71	6	4	2	1	0	0	8	5
72	2	1	1	4	2	0	5	5

APPENDIX D (Continued)

Raw Score	Fort Hays		Univer. Okla.		Drew Univer.		Total	
	M	F	M	F	M	F	M	F
	N=348	N=271	N=219	N=172	N=49	N=80	N=616	N=523
73	9	5	1	1	0	0	10	6
74	5	7	1	0	0	0	6	7
75	5	6	3	5	0	0	8	11
76	0	6	2	1	1	0	3	7
77	1	5	3	1	0	1	4	7
78	5	10	5	1	1	0	11	11
79	11	6	3	3	0	0	14	9
80	7	7	6	2	0	0	13	9
81	14	10	6	2	2	2	22	14
82	11	2	6	0	0	0	17	2
83	12	3	3	3	1	0	16	6
84	4	10	5	3	1	1	10	14
85	7	9	4	3	1	1	12	13
86	3	7	7	6	1	0	11	13
87	13	6	6	4	0	1	19	11
88	5	6	7	4	3	0	15	10
89	12	4	6	6	1	1	19	11
90	7	4	5	5	1	1	13	10
91	2	14	3	5	2	2	7	21
92	6	7	9	5	0	2	15	14
93	8	7	4	8	3	4	15	19
94	6	4	11	8	1	1	18	13
95	6	11	10	1	0	5	16	17
96	11	6	10	4	1	2	22	12
97	8	8	5	3	0	4	13	15
98	3	5	4	4	3	1	10	10
99	2	7	6	1	1	2	9	10
100	5	6	6	9	1	1	12	16
101	6	9	9	5	2	6	17	20
102	6	5	0	6	2	4	8	15
103	3	3	4	7	0	3	7	13
104	4	5	6	8	3	2	13	15
105	0	1	7	8	4	4	11	13
106	2	5	3	2	1	3	6	10
107	5	6	2	6	1	0	8	12
108	2	5	4	7	0	7	6	19
109	2	0	2	3	2	3	6	6
110	1	2	2	4	0	2	3	8
111	3	1	3	3	0	3	6	7
112	0	2	1	1	1	2	2	5
113	0	1	2	2	2	3	4	6

APPENDIX D (Continued)

Raw Score	Fort Hays		Univer. Okla.		Drew Univer.		Total	
	M	F	M	F	M	F	M	F
	N=348	N=271	N=219	N=172	N=49	N=80	N=616	N=523
114	0	0	0	0	1	1	1	1
115	0	0	1	1	0	1	1	2
116	0	0	0	0	0	0	0	0
117	0	0	0	1	0	2	0	3
118	0	0	0	0	0	0	0	0
119	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0

APPENDIX E

Frequency Distribution of Scores on Dempsey Subtest of Literature Empathy Test for Standardization Group

Raw Score	Fort Hays		Univer. Okla.		Drew Univer.	
	M	F	M	F	M	F
	N=348	N=271	N=219	N=172	N=49	N=80
5	1	0	0	0	0	0
6	3	2	0	0	0	0
7	5	1	1	1	0	0
8	4	0	1	0	1	0
9	9	6	2	1	0	1
10	4	7	3	1	1	0
11	4	4	3	0	2	2
12	10	1	4	0	0	1
13	15	9	2	0	1	0
14	15	10	5	2	1	0
15	18	7	2	2	0	1
16	10	10	7	5	2	1
17	22	13	6	0	3	1
18	21	5	5	12	1	1
19	15	13	11	10	1	4
20	25	19	16	9	2	7
21	31	24	12	10	7	3
22	27	21	19	11	1	2
23	31	31	28	14	2	8
24	33	22	24	17	3	6
25	14	15	20	28	8	4
26	10	19	14	15	4	7
27	10	17	14	15	4	12
28	8	12	16	9	2	10
29	3	2	2	6	1	8
30	0	1	2	4	2	1

APPENDIX F

Frequency Distribution of Scores on Mrs. Bennet Subtest of Literature Empathy Test for Standardization Group

Raw Score	Fort Hays		Univer. Okla.		Drew Univer.	
	M	F	M	F	M	F
	N=348	N=271	N=219	N=172	N=49	N=80
7	1	0	0	0	0	0
8	2	0	0	0	0	0
9	2	1	0	0	1	1
10	1	0	3	1	0	0
11	10	1	2	0	0	0
12	11	5	2	0	0	0
13	17	6	5	1	0	0
14	16	3	5	0	0	0
15	13	1	2	2	1	0
16	13	4	2	0	1	1
17	20	4	9	0	0	2
18	18	12	7	4	0	1
19	23	12	13	13	2	2
20	29	35	13	13	3	1
21	30	24	16	13	5	2
22	24	31	21	11	3	6
23	40	44	29	22	7	3
24	24	21	21	15	9	12
25	24	22	23	24	7	10
26	15	23	17	21	2	13
27	9	17	19	14	3	10
28	2	4	5	10	3	7
29	4	1	4	6	0	7
30	0	0	1	1	2	2

APPENDIX G

Frequency Distribution of Scores on Kelcey's Mother Subtest of Literature Empathy Test for Standardization Group

Raw Score	Fort Hays		Univer. Okla		Drew Univer.	
	M	F	M	F	M	F
	N=348	N=271	N=219	N=172	N=49	N=80
3	1	0	0	0	0	0
4	0	0	0	0	0	0
5	0	0	1	0	0	0
6	2	0	0	0	0	0
7	3	2	1	0	0	0
8	5	3	0	0	0	0
9	3	0	0	0	0	0
10	3	0	1	0	0	1
11	5	1	0	2	0	0
12	10	2	1	0	1	0
13	9	4	4	0	0	0
14	10	7	2	4	0	0
15	10	4	4	2	0	1
16	12	5	3	0	0	0
17	18	9	3	2	2	0
18	13	15	7	3	2	1
19	24	13	5	4	5	3
20	30	18	6	11	3	1
21	16	23	18	7	4	2
22	20	14	16	14	2	4
23	29	27	26	21	5	4
24	24	34	33	19	6	12
25	32	27	23	19	4	8
26	33	32	25	16	4	11
27	18	12	15	21	5	18
28	11	14	13	17	3	5
29	7	3	9	7	3	6
30	0	2	3	3	0	2

APPENDIX H

Frequency Distribution of Scores on Philip Subtest of Literature Empathy Test for Standardization Group

Raw Score	Fort Hays		Univer. Okla.		Drew Univer.	
	M	F	M	F	M	F
	N=348	N=271	N=219	N=172	N=49	N=80
7	0	0	0	0	0	0
8	0	2	0	1	0	0
9	12	0	1	0	0	0
10	4	1	2	1	0	0
11	8	4	3	1	0	0
12	10	1	5	0	0	1
13	21	10	5	2	1	0
14	17	12	6	4	0	0
15	18	9	9	5	1	1
16	21	9	9	4	1	0
17	40	12	12	7	1	1
18	13	22	10	4	0	2
19	26	16	10	5	1	0
20	23	16	11	9	1	1
21	18	17	12	6	3	2
22	20	18	12	6	0	5
23	13	21	15	13	2	4
24	13	19	15	7	4	1
25	12	16	12	11	0	6
26	13	17	12	16	6	8
27	8	8	16	15	8	9
28	14	13	11	20	7	12
29	16	15	21	22	7	11
30	8	13	10	13	6	16

APPENDIX I

Original Data Used in Determining Relationship Between Intelligence and Literature Empathy Test Score

Subject Number	Sex	Wechsler Adult Intelligence Scale			Literature Empathy Test Total Score
		Verbal Scale I.Q.	Performance Scale I.Q.	Full Scale I.Q.	
1	M	95	96	95	73
2	M	114	110	113	86
3	M	108	97	103	92
4	M	114	110	113	65
5	M	112	91	103	57
6	M	115	99	109	99
7	M	115	96	107	98
8	M	105	101	103	97
9	M	115	96	107	103
10	M	151	99	132	96
11	M	118	132	126	100
12	M	109	145	126	93
13	M	121	106	116	69
14	M	132	111	124	83
15	M	97	102	99	89
16	M	134	107	124	93
17	M	111	110	111	101
18	M	106	122	113	78
19	M	122	117	121	85
20	M	110	124	117	92
21	M	120	120	121	105
22	M	122	137	131	86
23	M	85	100	91	75
24	M	113	116	115	71
25	M	117	106	113	88
26	M	105	114	109	81
27	F	106	93	101	93
28	F	109	110	110	101
29	F	138	118	131	100
30	F	118	135	127	96
31	F	123	114	120	93
32	F	109	94	103	80

APPENDIX I (Continued)

Subject Number	Sex	Wechsler Adult Intelligence Scale			Literature Empathy Test Total Score
		Verbal Scale I.Q.	Performance Scale I.Q.	Full Scale I.Q.	
33	F	101	89	95	78
34	F	139	99	123	81
35	F	95	93	93	92
36	F	112	118	115	93
37	F	101	114	106	84
38	F	129	111	123	99
39	F	102	82	93	83
40	F	115	123	120	105
41	F	109	116	113	75
42	F	109	103	107	87
43	F	126	118	124	98
44	F	109	98	105	93
45	F	117	112	116	78
46	F	125	112	121	69
47	F	118	117	119	86
48	F	134	95	124	91
49	F	112	114	113	96
50	F	115	130	123	81
51	F	122	127	126	89

APPENDIX J

Original Data Used in Determining Relationship Between Academic Aptitude and Literature Empathy Test Score

Subject Number	Sex	School and College Ability Test			Literature Empathy Test Total Score
		Verbal Score	Quantitative Score	Total Score	
1	M	26	36	62	69
2	M	32	37	69	75
3	M	17	24	41	82
4	M	18	26	44	77
5	M	32	21	53	75
6	M	19	30	49	80
7	M	18	34	52	70
8	M	36	39	75	93
9	M	31	26	57	73
10	M	20	35	55	51
11	M	24	41	65	87
12	M	20	34	54	69
13	M	35	46	81	94
14	M	30	42	72	75
15	M	17	26	43	57
16	M	31	33	64	67
17	M	13	22	35	56
18	M	12	28	40	65
19	M	39	33	72	99
20	M	18	27	45	51
21	M	31	20	51	57
22	M	45	33	78	42
23	M	21	27	48	70
24	M	37	41	78	89
25	M	17	21	38	71
26	M	20	32	52	66
27	M	24	35	59	82
28	M	39	36	75	59
29	M	40	31	72	65
30	M	9	21	30	48
31	M	19	16	35	54
32	M	28	22	50	79

APPENDIX J (Continued)

Subject Number	Sex	School and College Ability Test			Literature Empathy Test Total Score
		Verbal Score	Quantitative Score	Total Score	
33	M	21	23	44	71
34	M	17	30	47	63
35	M	15	13	28	62
36	M	33	27	60	88
37	M	37	48	85	97
38	M	17	12	29	72
39	M	23	31	54	74
40	M	12	41	53	74
41	M	19	32	51	73
42	M	27	46	73	71
43	M	25	24	49	95
44	M	16	22	38	59
45	M	33	38	71	68
46	M	25	32	57	95
47	F	27	35	62	95
48	F	26	27	53	80
49	F	35	36	71	100
50	F	17	27	44	79
51	F	27	28	55	53
52	F	27	34	61	76
53	F	41	30	71	78
54	F	30	30	60	84
55	F	13	16	29	48
56	F	31	37	68	104
57	F	34	45	79	87
58	F	18	28	46	97
59	F	28	44	72	89
60	F	47	37	84	50
61	F	42	25	67	85
62	F	32	27	59	108
63	F	32	33	65	93
64	F	25	27	52	91
65	F	30	46	76	92
66	F	39	18	57	102
67	F	41	37	78	96
68	F	40	46	86	92
69	F	33	33	66	78
70	F	28	17	45	83
71	F	27	28	55	108
72	F	35	40	75	99
73	F	40	33	73	100
74	F	30	28	58	95

APPENDIX J (Continued)

Subject Number	Sex	School and College Ability Test			Literature Empathy Test Total Score
		Verbal Score	Quantitative Score	Total Score	
75	F	53	45	98	112
76	F	33	31	64	95
77	F	20	15	35	80
78	F	36	46	82	91
79	F	29	37	66	94
80	F	33	29	62	54
81	F	29	44	83	96
82	F	22	30	52	71
83	F	33	33	66	95
84	F	27	43	70	81
85	F	33	25	58	97
86	F	38	32	70	81
87	F	30	43	73	89
88	F	26	40	66	77
89	F	36	30	66	86
90	F	23	33	56	93
91	F	21	33	54	87
92	F	40	20	60	107
93	F	24	33	57	74
94	F	19	34	53	60
95	F	24	26	50	91
96	F	21	31	52	78
97	F	30	25	55	101
98	F	21	43	64	80
99	F	47	50	97	85
100	F	23	39	62	90
101	F	17	32	49	56
102	F	32	35	67	99
103	F	24	26	50	84

APPENDIX K

Original Data Used in Determining Relationship Between Reading Ability and Literature Empathy Test Score

Subject Number	Sex	Nelson-Denny Reading Test Part II Score	Literature Empathy Test Score	Subject Number	Sex	Nelson-Denny Reading Test Part II Score	Literature Empathy Test Score
1	M	46	88	31	M	18	65
2	M	50	95	32	M	42	67
3	M	46	97	33	M	18	56
4	M	34	73	34	M	24	69
5	M	24	59	35	M	26	52
6	M	40	74	36	M	28	97
7	M	26	74	37	M	18	70
8	M	32	79	38	M	28	51
9	M	50	74	39	M	32	57
10	M	16	62	40	M	48	57
11	M	48	101	41	M	36	80
12	M	30	68	42	M	48	97
13	M	28	63	43	M	24	96
14	M	30	71	44	M	32	77
15	M	32	71	45	M	46	84
16	M	46	95	46	M	38	86
17	M	14	48	47	M	32	89
18	M	22	51	48	M	32	80
19	M	52	89	49	M	42	91
20	M	44	62	50	M	22	85
21	M	50	89	51	M	46	74
22	M	38	92	52	M	46	78
23	M	30	79	53	M	40	82
24	M	44	49	54	M	38	72
25	M	52	99	55	M	38	80
26	M	48	65	56	M	40	76
27	M	38	89	57	F	48	80
28	M	44	82	58	F	32	95
29	M	46	96	59	F	46	97
30	M	44	42	60	F	30	95

APPENDIX K (Continued)

Subject Number	Sex	Nelson-Denny Reading Test Part II Score	Literature Empathy Test Score	Subject Number	Sex	Nelson-Denny Reading Test Part II Score	Literature Empathy Test Score
61	F	46	96	86	F	38	81
62	F	38	94	87	F	42	92
63	F	38	77	88	F	54	100
64	F	38	95	89	F	36	108
65	F	32	84	90	F	48	93
66	F	30	93	91	F	36	85
67	F	46	86	92	F	20	45
68	F	30	81	93	F	28	83
69	F	38	89	94	F	44	96
70	F	34	56	95	F	20	91
71	F	30	80	96	F	38	81
72	F	32	81	97	F	50	98
73	F	64	99	98	F	26	97
74	F	42	107	99	F	34	78
75	F	70	112	100	F	48	85
76	F	46	91	101	F	40	87
77	F	43	85	102	F	34	90
78	F	54	100	103	F	34	81
79	F	28	74	104	F	40	73
80	F	24	87	105	F	42	83
81	F	40	106	106	F	48	79
82	F	30	78	107	F	48	75
83	F	36	101	108	F	24	86
84	F	32	90	109	F	44	92
85	F	56	99				

APPENDIX L

Original Data Used in Determining Relationship Between Kerr Empathy Test Score and Literature Empathy Test Score

Subject Number	Sex	Kerr Empathy Test Score	Literature Empathy Test Score	Subject Number	Sex	Kerr Empathy Test Score	Literature Empathy Test Score
1	M	42	83	31	M	81	62
2	M	87	104	32	M	71	85
3	M	69	86	33	M	63	84
4	M	61	85	34	M	65	102
5	M	49	62	35	M	116	88
6	M	83	81	36	M	51	64
7	M	77	83	37	M	75	80
8	M	69	81	38	M	85	80
9	M	59	60	39	M	93	84
10	M	79	79	40	M	79	82
11	M	94	101	41	M	71	80
12	M	67	66	42	M	61	68
13	M	121	111	43	M	81	81
14	M	92	94	44	M	78	63
15	M	41	78	45	M	96	92
16	M	81	79	46	M	77	82
17	M	73	63	47	M	69	76
18	M	57	68	48	M	120	103
19	M	67	108	49	M	94	92
20	M	75	98	50	M	43	77
21	M	57	93	51	M	72	105
22	M	83	92	52	M	47	90
23	M	89	100	53	M	83	83
24	M	105	83	54	M	75	61
25	M	43	106	55	M	87	76
26	M	67	76	56	M	59	69
27	M	45	79	57	M	69	105
28	M	89	100	58	M	83	70
29	M	89	77	59	M	75	78
30	M	80	103	60	M	77	98

APPENDIX L (Continued)

Subject Number	Sex	Kerr Empathy Test Score	Literature Empathy Test Score	Subject Number	Sex	Kerr Empathy Test Score	Literature Empathy Test Score
61	M	49	106	89	F	70	87
62	M	69	84	90	F	64	102
63	F	87	101	91	F	50	63
64	F	103	107	92	F	84	82
65	F	65	76	93	F	78	84
66	F	43	79	94	F	60	62
67	F	87	104	95	F	77	65
68	F	78	77	96	F	76	79
69	F	79	63	97	F	84	93
70	F	63	101	98	F	76	99
71	F	114	95	99	F	48	86
72	F	73	84	100	F	74	80
73	F	91	93	101	F	58	91
74	F	76	64	102	F	67	101
75	F	75	78	103	F	76	100
76	F	70	106	104	F	82	81
77	F	45	90	105	F	88	102
78	F	85	75	106	F	43	84
79	F	67	105	107	F	44	80
80	F	81	80	108	F	88	101
81	F	73	79	109	F	80	64
82	F	75	99	110	F	62	86
83	F	47	85	111	F	114	96
84	F	83	108	112	F	74	85
85	F	104	106	113	F	92	94
86	F	66	77	114	F	70	82
87	F	88	105	115	F	80	80
88	F	79	78	116	F	95	102

APPENDIX M

Original Data Obtained in Concurrent Validity Study of Literature Empathy Test

Subject Number[1]	Sex	Literature Empathy Test Score
Good Empathizer		
1	M	105
2	F	100
(3)	(F)	(98)
4	F	98
5	M	96
6	M	91
7	F	87
(8)	(M)	(86)
9	F	84
(10)	(F)	(84)
11	M	82
12	M	79
Poor Empathizer		
13	M	91
14	F	87
15	F	84
16	F	82
17	M	81
18	M	76
19	F	70
20	M	63
21	M	62

[1]Parentheses indicate the subjects who were randomly eliminated from the final analysis in order to equate the groups for sex.