EMPATHIC DRIVE AND ITS INFLUENCE ON ACCURACY IN JUDGING PEOPLE

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ABSTRACT

EMPATHIC DRIVE AND ITS INFLUENCE ON ACCURACY IN JUDGING PEOPLE

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The purpose of this study was to develop a measure of empathic drive and to test two hypotheses with respect to this concept:

1. People vary consistently in the saliency of empathic drive.
2. People with high empathic drive are more accurate in their observations and inferences about others.

The tendency to make statements about another person's internal psychological states (their thoughts, feelings, desires), rather than their external appearance, actions or impact on others, is termed empathic drive.

The study consisted of three phases: a pilot study, development of the group form, and the testing of the specific hypotheses. The pilot study provided the items to be used in the experimental group form and the statistical refinements of the experimental group form provided an instrument suitable for testing the hypotheses. In the pilot study empathic drive was measured by determining the percentage of psychological statements the judge made about the interviewees. In the group test empathic drive was measured by the number of psychological descriptions the judges chose in describing the interviewee.

The Cline color interviewing film was used to present the stimulus persons (interviewees). This film consists of five minute interviews of different persons. The subjects consisted of 162 Michigan State University students tested during 1961.

The final form of the empathic drive scale contains thirty multiple choice items for each of the three cases (interviewees). The alternatives in these items are based on the four ways in which one may describe another (Bronfenbrenner et al.): the physical, the actional, the characterological and the experiential. This last category was used to measure empathic drive.

The reliability of the final form of the empathic drive scale was .82. The intercorrelations among the three cases are significant and positive (.38, .39, .59). The pilot study showed a reliability of .79 (Spearman rho) in the use of the experiential category.

It was concluded that: the evidence supports hypothesis one. People vary consistently in the saliency of empathic drive. Hypothesis two is not supported. No positive relationship was found between empathic drive and any measure of accuracy in judging another. The evidence indicates that empathic drive is independent of accuracy, either in observing the external characteristics of others or in making inferences about others. The implications of these findings with respect to previous research on empathy is discussed.

Approved Henry Clay Smith
Committee Chairman

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By

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INTRODUCTION

In perceiving a person, Bronfenbrenner *et al.* (1958) suggest, we may respond to four different aspects of the person: his physical appearance: dress, complexion, facial features, body proportions, etc.; his actions: his posture, his movements, what he does, what he says, etc.; his social stimulus value: his impact upon others, whether he is amusing, overbearing, irritating, awe-inspiring, etc.; his internal psychological states: his thoughts, feelings, desires, etc. They termed these four categories of description the physical, the actional, the characterological, and the experiential, respectively.

The purpose of the present study was to test two hypotheses concerned with these aspects:

1. People vary consistently in the saliency of the experiential category. Some people tend to see others primarily in terms of physical characteristics; for others, overt behavior predominates; for others, still, the most salient feature about another person is his internal psychological states. The saliency of the last is referred to in the present study as "empathic drive," and is the concern of the present study.

2. People with high empathic drive are more accurate in their observations and inferences about others. That is, there is a significant positive relationship between a person's measured empathic ability and his measured accuracy in making observations, and inferences about others.

HISTORY OF THE PROBLEM

The hypotheses of the present study were derived from the study of Wolin (1954), who conducted an exploratory investigation of the different ways in which individuals perceive others in a social situation. He used spontaneous descriptions and a checklist of adjectives. The subjects were instructed to describe each of the other participants in the experiment (ostensibly one in visual perception) first, in as "life-like and accurate" a way as possible, and second, by using a list of adjectives and checking those applicable to the other. Both of these descriptions were analyzed into the following content categories: clothing, physical appearance, activity, experiential (feelings and emotions) and characterological (personality and temperament).

Using a sample of fifty subjects, Wolin found consistent individual differences in the person's tendency to focus on a particular area of content in his free descriptions of six fellow group members. The subjects also differed in ability to describe others correctly. Persons who described others primarily in terms of psychological characteristics (experiential and characterological) were more sensitive to all categories than were persons who described others primarily in terms of physical characteristics.

Wolin concluded that persons who are set to perceive physical characteristics of others are sensitive only to those characteristics, while persons who are set to perceive the psychological characteristics of others tend to be sensitive to all aspects of other people, including their physical characteristics.

While Wolin's study suggested the hypotheses of the present study, his evidence in support of them is inconclusive. He offers mainly subjective evidence for the relationship between sensitivity to psychological characteristics and accuracy in observing the other aspects of the person. He did not cross-validate his findings on another group of subjects. Consequently, the present investigation aimed to develop a better standardized and more useful instrument to measure empathic drive, to make a more exact test of the hypotheses, and to determine some of the correlates of this tendency.

The Concept of Empathy

The sensitivity of internal psychological states described by Wolin corresponds to the general concept of empathy. The term empathy has been used to denote one's understanding of another's thoughts and feelings. It has been applied to awareness of emotional qualities of objects and events. In addition, it has been used as the name of the theory of how this understanding or awareness comes about. It has been claimed that empathy is the essence of personality theory (36), and that it is the "basic process" in all social interaction (36). Cottrell, in pointing up some neglected areas in social psychology, has referred to the empathic response as one of the most critical processes in the entire range of phenomena handled by social psychology (10). Empathy's crucial role in industry has been pointed out by many (3, 30, 34).

The first definition of empathy is that of Lipps (22), the observer tends to "feel himself into the object which he is contemplating." The notion of putting oneself in the other person's position has characterized definitions of empathy. The equivalent term, Einfuhlung, used by several German writers is best defined as the process of becoming aware of (perceiving) the thoughts, feelings, and motives of another

person (1). McClelland (29) relates role-playing and empathy. His term "role-taking ability" refers to "the facility with which a person can perceive and act out organized behavior or roles (i.e., putting himself in someone else's position)." Dymond (13) defines empathy as the ability to imaginatively transpose oneself into the thinking, feeling, and acting of another. Murphy called it, the "direct apprehension of the state of mind of another person without, as in sympathy, feeling as he does" (36).

Empathy is considered a neutral process. It may lead to positive feelings and closer interpersonal relationships, but this is not necessarily so. It is not necessary that one would, consciously or unconsciously, like to be the other person in order to empathize with him, nor does empathy necessarily imply any emotional tie with the other.

The Measurement of Empathy

There has been a trend toward operationism in the definition of empathy. Typically this procedure has involved asking a "judge" to predict the response of another on a questionnaire and then comparing the prediction with the actual response. The discrepancy between actual and predicted response provides the basis for the computation of an accuracy score, which then constitutes the measure of empathy.

A term which was frequently used in the past is social intelligence. The tests of social intelligence which had been developed were measures of social knowledge and did not correlate with anything except tests of abstract intelligence (37). The Kerr-Speroff Empathy Test (25) is no more than a modern version of the old tests of social intelligence. On this test the subject is asked to do such things as rank a number of magazines as to circulation, and to rank several types of music as to

popularity. This ranking is then compared with the actual ranking and this is the measure of empathy. Kerr's more recent Primary Empathic Abilities Test (26) is of the same type as his Empathy Test. It asks such questions as, what is the typical reaction to canned orange juice? And which flavor of jello is bought the most? Each question has several alternatives, the subjects choices are compared with the correct ones and this gives his empathy score.

Knowledge of what people read or buy undoubtedly plays some part in social behavior, but the relation of this knowledge to the awareness of the feelings, thought, or motives of another person is both theoretically and empirically unclear.

Studies on the skills involved in social perception (5) have, for the most part, been concerned with the veridicality of interpersonal perception. They have not dealt directly with the process of interpersonal perception or with the tendencies which underlie and determine the perceptions themselves.

Measures of Empathy and Their Correlates

In the measure of empathy developed by Dymond (13) the measure of A's empathic ability is determined by calculating how closely A's predictions of B's ratings correspond with B's actual ratings on some scale. Dymond's procedure has been used extensively. Other similar self-other ratings have been used by Newbigging (32), Remmers (33), and Spilke and Lewis (35).

Dymond (14) has reported that the difference in intelligence (Wechsler full scale IQ) between "good empathizers" and "poor empathizers" was not significant. Lindgren and Robinson (27) found that the correlation between "empathy" and ACE* (total score) to be

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*American Council on Education Psychological Test for College Freshmen.

only .14. This independence is also reported by Chambers (6) in a study of the verbal scores on the ACE Psychological Examination and a measure of empathy. He concluded that empathy and scholastic aptitude are different abilities.

Some research has indicated personality differences between high and low empathizers. Low empathizers have been found to be introverted, emotionally immature, self-centered, and to have had unsatisfying early family relationships (14, 21). High empathizers possess self-insight and tend to value those areas of life where social interaction predominates (10, 12, 21). There is also some evidence that good empathizers have, for the most part, secure feelings about the self (18). Lindgren and Robinson confirmed Dymond's findings (27) that persons of high empathy have "better" scores on personality tests than do persons of low empathy. These investigators suggest, however, that Dymond's method may measure the tendency of individuals to respond to an interpersonal situation in terms of cultural norms rather than empathic promptings. They were referring to the caution of Hastorf and Bender (20), later developed by Cronbach and Gage (8, 17), that a person with knowledge of the norms of a particular group may get a spuriously high "empathy" score.

Using Kerr's Empathy Test Mahoney and Auston (28) challenged Dymond's findings on the relation of empathy and self-insight. They found no relationship between self-insight and empathy. This finding is not surprising since attempts at discovering a positive relationship between the Empathy Test and Dymond's rating scale have been disappointing. Hall and Bell (36) found a correlation of .02 and Gilbert (36) -.06.

Foa (16) is in disagreement with theories that empathy depends on the personality of the guesser or the personality of the guessee and states that empathy is related to transparency of behavior. Johnson (24)

found that projective tendency and empathic ability are not related. In his study, accuracy in predicting the others response was used as the measure of empathic ability and similarity of predictions to one's own responses was used as the measure of projective tendency. A similar study by Mills (31) failed to find any significant effect of "real similarity" upon predictive accuracy. Degree of "real similarity" was measured by the degree of concordance of judge and subject self-descriptions. Predictive accuracy was measured by the accuracy with which the judges predicted the actual self-responses of the subjects.

The findings, thus far, are not altogether consistent, nor oft-times comparable. Allport's critical comment appears still an appropriate one: "The theory of empathy is a peculiar blend, and must be regarded both as a theory of inference and a theory of intuition depending upon the coloring given it by different authors" (2).

There is an apparent need for a standardized and objective measure of the empathic tendency, one suited to research on large groups. Empathic drive is measurable and does not, necessarily, imply the notion of accuracy of perception.

METHOD

The study consisted of three phases: a pilot study, development of the group test, and the testing of the specific hypotheses. The pilot study repeated parts of Wolin's research but used interviewees in the Cline color film as the objects of observation instead of face-to-face contact. The pilot study also provided the items to be used in the experimental group form. The statistical refinements of the experimental group form provided an instrument suitable for testing the specific hypotheses.

The Cline interviewing film is a color film consisting of six cases: those of Mrs. P., Mr. W., Mrs. N., Mr. Z., Mr. G., and Mrs. D. Each of the cases consists of an individual, unrehearsed interview. They are asked questions about themselves, their beliefs, and what they would do in certain situations. Each interview takes approximately five minutes, and only they are seen, not the interviewer. The use of this film permits the presentation of real, standardized cases. In all phases of the study the film was run silent since there is evidence that the less information a person has about an individual or a group the more his judgments are determined by his judging habits (15). All six cases were used in the pilot study but only the first three cases of the film were used in the development of the group test and the testing of the hypotheses.

Subjects

All subjects were Michigan State University students tested during 1961. Testing was done during regular class periods. The table of subjects is given below.

Table 1. Subjects

Class	Term	N	Phase of Study
Personnel Interviewing	Winter 1961	17	Pilot Study
Industrial Psychology	Winter 1961	75	Experimental Group Form
Industrial Psychology	Spring 1961	70	Final Group Form, and Hypotheses Testing

The Measurement of Empathic Drive

In Wolin's study four content categories of description were utilized. A subject may describe another in any of four ways: (1) The physical--overt physical characteristics of the other person, his dress, complexion, etc. (2) The actional--overt behavior of the other person, his movements, what he says or does, etc. (3) The characterological--properties of the other person which, while they may be rooted in physical characteristics or behavior, in addition reflect the person's impact as a social stimulus; he is seen as amusing, irritating, etc. The experiential--properties that represent internal psychological states of the other person, his thoughts, feelings, desires, etc.

The saliency of this last feature in perceiving another--the tendency to make statements about other people's internal psychological states (their thoughts, feelings, desires) rather than their external appearance, actions, and impact upon others--is termed empathic drive. In the pilot study empathic drive was measured by determining the percentage of experiential statements the judges made

about the interviewees. In the group test empathic drive was measured by the number of experiential descriptions the judges chose in describing the interviewees.

The Pilot Study

Seventeen subjects, students in the winter 1961 class in personnel interviewing, were shown the six cases of the Cline interviewing film. The task was introduced as part of the course. The subjects were instructed that they would be shown a film of an individual being interviewed and that they were then to "write as life-like a picture of the person as you can." The subjects were thus allowed to write a spontaneous description for each of the six interviewees. No time limit was set on these spontaneous descriptions. When all subjects said that they were finished with a case the next case was shown.

The subjects typically used one side of a piece of standard yellow pad paper ($8\frac{1}{2}$ x 11 in.) in recording their description of each case. The descriptions of each case were content analyzed by the present experimenter and coded on the basis of the four categories of description previously mentioned: physical, actional, characterological and experiential. Every descriptive word or phrase used by a subject in describing a case was accordingly placed in one of these four categories.

The results of the pilot study disclosed a relatively wide range in the tendency to describe others in terms of internal psychological states. The range in the use of the experiential category of description varied from 6% to 72%, i.e., for one subject 6% of his descriptive responses were in the experiential category, while for another subject 72% of his descriptive responses were in the experiential category. These percentages are based on total descriptive responses for all six cases.

Table 2 shows the distribution of the percentage of experiential responses for the seventeen subjects in the pilot study. These are based on their descriptions of all six cases.

Table 2. Percentage of Experiential Responses to Total Responses for All Four Descriptive Categories for the Seventeen Subjects in the Pilot Study

Percent Experiential Responses	6-15	16-25	26-35	36-45	46-55	56-65	66-75
Frequency	2	5	2	5	1	0	2

The reliability of the use of the experiential category by the subjects in the pilot study was determined by correlating the experiential responses of each subject to the first three cases, with those to the last three cases. The Spearman rank order correlation (rho) was .79, and is significant at the .01 level.

This preliminary study indicated that the subjects differed widely in their preference for the experiential mode in describing the interviewees in the Cline film, and that there was a relatively high consistency among the judges from one group of interviewees to another.

The Experimental Group Study

The items for the objectively scored group test were derived from the spontaneous descriptions of the subjects in the pilot study with some modifications made by the experimenter. In order to control for response set an attempt was made to have an equal number of experiential responses in each of the three alternative positions (choices) within an item. A table of random numbers was then used to determine

for each item its serial position in the test. Thus, the position of each experiential alternative in an item is randomly distributed throughout the scale.

The preliminary form of the scale consisted of 150 items, 50 items for each of the three cases to be used for the group test (see Appendix B).

This 150 item form was administered to 75 subjects who were in the winter 1961 class in Industrial Psychology. These responses were item analyzed, the 90 most discriminating items being retained in the final form of the scale, 30 items for each of the three cases (see Appendix C). A new scoring key was developed for these 90 most discriminating items and the answer sheets of the 75 subjects were rescored for these 90 items.

The final (90 item) form of the scale was administered to 70 in the spring 1961 class in Industrial Psychology. The scores of this group permitted item analysis of the final form, and the most discriminating items were determined. These items are circled in ink (see Appendix C).

The reliability of the final (90 item) form of the empathy scale based on the 70 spring subjects' scores (odd-even correlations, corrected by the Spearman-Brown formula) was .82. The mean for the 75 winter term Industrial Psychology students was 26.85, S.D. was 10.12.

Personality Measures

Since the preliminary results indicated that the empathy scale would be internally consistent, exploration of possible personality correlates was considered. The personality measures consisted of eleven scales developed by H. C. Smith. Each of these scales consists of 30 true-false items, except the Breadth of Interest scale which has 60 items. A brief description of these measures, described in detail by Hershey (23), is given below.

1. Extroversion-Introversion	The degree to which an individual is inward or outward oriented in his perception of the environment.
2. Breadth of Interest	A measure of an individual's self extension by determining the number of likes in such areas as occupation, school subjects, amusements, and types of people.
3. Self-Confidence	How the individual evaluates his own worth, adequacy, and competence.
4. Self-Insight	A measure scored on the basis of total number of unpleasant traits which a person says describe him, plus total number of pleasant traits which he says do not describe him.
5. Ambition	Whether the individual desires to do things as rapidly and as well as possible; whether he makes intense, prolonged, and repeated efforts to accomplish difficult things; whether he enjoys competition.
6. Orderliness	Attempts to measure some aspects of Cattell's "Positive vs. Immature Dependent Character," e.g. Consistently Ordered vs. Relaxed; Conscientious vs. Undependable, etc.
7. Emotional Control	The individual's reactions to emotional emergencies and to frustrating situations.
8. Gregariousness	A measure of need for affiliation.
9. Warmth	The degree to which an individual likes, accepts, approves, feels close to, and wants to help others.
10. Dominance	Measures degree of dominance through items related to dominance feelings, behavior and leadership.
11. Conformity	Attempts to differentiate conformists from nonconformists.

Measures of Stereotype Accuracy

Stereotype Accuracy--These scales were developed by Zavala (1960). The subject chooses the responses to the items which he thinks were made by a specified population of people. The scoring is based on the actual responses of these groups. The total score is the sum of the scores of the following four subtests. Each scale contains 30 items.

Man Stereotype--The subject chooses the response he thinks was chosen by most men.

Woman Stereotype--The subject chooses the response he thinks most women would choose.

Sex Difference Stereotype--The subject chooses the response he thinks was made by the most women and the fewest men.

Age Stereotype--The subject must decide if the response was made by 15 year olds, 25 year olds, or 55 year olds.

Measures of Observational and Inferential Accuracy

The measures of observational and inferential accuracy were developed by Harris (1962). The Observation Accuracy variable is a measure of the judge's accuracy in observing the interviewee (Cline film). The observation instrument consists of 30 true-false items concerning the interviewee's physical characteristics, actions, and statements. The judge answers these 30 items immediately after viewing the filmed interview. The score he obtains in his accuracy score.

The Inference Accuracy variable is a measure of the judge's accuracy in making inferences about the interviewee. The inference instrument consists of 30 true-false items concerning inferences about the interviewee that might be made from observing him. These are then compared with what the interviewee actually said of himself. The items are a modification of six predictive instruments used by

Cline (7) in connection with the same filmed interviews. The items pertain to the interviewee's personality characteristics, beliefs, family relations, and future actions. The judge's score on this instrument is the measure of his accuracy in making inferences.

Other Measures

The four other measures which were available for the 75 winter term Industrial Psychology students are described below.

American Council on Education Psychological Examination for College Freshmen (ACE)--This is a measure of scholastic aptitude.

Grade in the course.

Employee-Orientation--A subscale of the Dore Leadership Questionnaire (Dore, 1960). It is a 30 item scale which measures the degree to which the subject thinks that a leader should take a personal interest in the worker.

Differential Role--A subscale of the Dore Leadership Questionnaire which measures the degree to which the subject thinks that a leader should perform functions different from the workers.

Method of Analysis

A table of intercorrelations of the 21 variables utilized with the winter 1961 Industrial Psychology class can be found in Appendix A.

An item method of analysis was also carried out on the personality scales used. This method (Hershey, 1958) is based on the premise that, even though a test may have a low correlation with a criterion, there may be some particular items of the test which differentiate on the basis of the criterion. Thus, some of the items may be better than others in discriminating between those who score high on the empathy scale and those who score low.

Accordingly, the 11 personality scales used with the winter 1961 class were item analyzed and the 60 items, out of the total of 360 items, which best discriminated between high and low on the empathy scale were determined. This item scale of empathy (see Appendix D), was administered to the spring 1961 class of Industrial Psychology.

In an effort to determine the structure underlying the 21 measures available for the 75 winter term Industrial Psychology students a principle axis factor analysis with a quartimax orthogonal rotation was performed on these variables. This was done on the Michigan State Integral Computer.

RESULTS

Table 3 reports the correlations between the personality traits investigated and empathic drive. No significant relationship was found between the measure of empathy and the personality scales used.

Table 3. Correlations Between Personality Traits and Empathic Drive (N = 75)

Trait	r
Dominance	.19
Ambition	.16
Breadth of Interest	-.13
Emotional Control	.11
Gregariousness	-.11
Orderliness	.11
Warmth	-.11
Conformity	-.09
Self-Confidence	-.07
Self-Insight	.04
Extroversion	.03

Inspection of the items from the personality scales that differentiated the high and the low empathizers (see Appendix D), disclosed that those persons who score high on the empathic measure indicate that they like occupations that placed them in responsible positions in dealing with people. There is also an indication that those who score high on the empathic drive measure like activities which place them in social situations with other people, and do not like activities associated with animals. An attempt was made to cross-validate the item scale of empathy on the spring 1961 Industrial Psychology group of

subjects. A positive relationship, though short of significance, between the empathic drive instrument and the item scale was found with this group (r = .26, N = 48).

Hypothesis 1

The intercorrelations among the three cases used in the 90 item group form of the empathic drive scale for the seventy spring Industrial Psychology subjects were as follows: Mrs. N with Mr. W. r = .38; Mrs. P. with Mrs. N. r = .39; Mr. W. with Mrs. P. r = .59. The reliability of the use of the experiential category by the seventeen subjects in the pilot study has been referred to (Spearman rho = .79). The intercorrelations among the three cases and the high reliability of the empathic drive scale (r = .82) all lend considerable support to confirmation of the first hypothesis: That people vary consistently in the saliency of the experiential category. This is consistent with the results Wolin found.

Hypothesis 2

In Table 4 the correlation between empathic drive and stereotype accuracy is presented. None of these is significant, and no relationship between the accuracy of one's stereotype and empathic drive is indicated.

Table 4. Correlation Between Empathic Drive and Five Measures of Stereotype Accuracy (N = 75)

Stereotype	r
Sex Difference	.19
Men	-.14
Women	-.13
Total Score	-.12
Age	-.03

The relationship between observation accuracy and inference accuracy and the empathic drive scale is reported in Table 5. There is no demonstrable positive relationship between the measure of the empathic tendency and the measures of observational and inferential accuracy. The correlations are low and negative.

Table 5. Correlation Between Empathic Drive and Accuracy of Observation and Inference for Each of the Three Cases (N = 70)

Case	Obs. (r)	Inf. (r)	Total (r)
Mrs. P.	-.05	-.23	-.21
Mr. W.	-.02	-.25*	-.17
Mrs. N.	-.01	-.04	-.03

*Significant at .05 level.

Hypothesis 2, therefore, is not supported. People in whom the psychological aspects of the other are dominant, as expressed by a high score in empathic drive, were not particularly apt to be accurate in making inferences or observations. The data suggest a possible trend in the other direction.

Seven factors were identified through the principle axis factor analysis and quartimax rotation. Table 6 presents the factor loadings of the 21 variables on the factor defined by the empathy variable.

Table 6. Factor Loadings for the Twenty-One Variables Used with the Winter Industrial Psychology Subjects on the Factor Defined by the Empathy Scale (N = 75)

Variable	Factor E (Empathy)
Extroversion	.11
Breadth of Interest	.04
Self-Confidence	.07
Self-Insight	.36
Ambition	.10
Orderliness	-.05
Emotional Control	.03
Gregariousness	.14
Warmth	-.22
Dominance	.12
Conformity	.09
ACE	-.28
Course Grade	.15
Stereotype Accuracy Men	.33
Stereotype Accuracy Women	-.06
Stereotype Accuracy Sex Difference	-.34
Stereotype Accuracy Age	-.05
Stereotype Accuracy Total	.02
Empathic Drive	-.52
Employee-Oriented	-.83
Differential Role	.51

Correlation with Other Measures

Of the other measures available for the winter Industrial Psychology subjects the only significant correlation is that between the empathy variable and employee orientation. This correlation is .35, and is significant at the .01 level. No significant relationship was found between the empathic measure and playing a differential role ACE, or grade in the course.

Discussion of Results

The empathic drive scale has a satisfactory internal consistency reliability of .82 (odd-even correlation, corrected by Spearman-Brown formula) for the 90 item final form of the scale. This indicates that it is a relatively stable measure of the empathic tendency (empathic drive). The intercorrelations of the individual cases are significant and positive. In addition, the rank order correlation from the pilot study displays reliability in the use of the experiential category that is also relatively good (.79). These present results provide evidence that people vary consistently in the saliency of empathic drive, and thus support hypothesis one. Consequently, this finding points to a real, measurable difference in the response of people to others.

The zero to negative relationships between empathic drive and various measures of accuracy suggest an analysis of the processes involved in empathic drive. Those who score high in empathic drive may do so because the first thing they do when in a social situation is to immediately attend to the internal psychological aspects of the person and tend not to notice other aspects, especially in the initial situation. Thus, empathic drive may be more closely related to accuracy in long and enduring interactions.

General Correlates of the Empathic Scale

The empathic person is employee-oriented. The correlation between the empathy scale and the employee-orientation subscale of the Dore Leadership Questionnaire is .35, and is significant at the .01 level. The empathy scale does not show any relationship to scholastic apptitude (ACE).

Personality Traits and Empathy

Some research has indicated personality differences between high and low empathizers. The empathy scale was not found to be related to any of the eleven specific personality traits investigated. Personality difference of some sort, between high and low empathizers, was suggested, however, by the item method of analysis of the personality scales. Thus, those scoring high on the empathy scale differed from those scoring low, in certain preferences indicated by the items of the personality scales. The empathic tendency (empathic drive) appears to be specifically related to one's feelings about people. This is indicated by the significant positive relationship between the empathy measure and the employee-orientation scale. This scale denotes the degree to which the subject thinks that a leader should take a personal interest in his workers. This "people orientation" is also shown in the preference given to items having to do with people disclosed in the item method of analysis done on the personality scales.

Empathy and Accuracy

The evidence indicates that empathic drive is independent of accuracy, either in observing the external characteristics of others, or making inferences about others. And no significant relationship was found between the empathy measure and any of the stereotype accuracy scales.

This present study indicates that the empathic tendency is independent of accuracy and raise some very critical questions for the whole area of empathy research. In previous research the measurement of empathy was dependent upon an accuracy score of some sort, this accuracy score would determine the empathy score. Can the response to another in terms of empathic promptings necessarily be

equated with an accuracy score? Have not previous measures confounded it with accuracy? The conflicting results researchers on empathy have encountered may be due to the dual role it was forced to play. One may "see" another in terms of feelings--empathic drive--yet not regard other factors about him. This measure of "seeing" the feelings of another--empathic drive--imparts, however, a most fascinating and valuable bit of information about the person doing the "seeing." This empathic response appears to differ among people. This difference needs further investigation.

The notion of empathic drive, i.e., responding to another in terms of internal psychological states (feelings, etc.), is of no little interest for both a theoretical and practical appreciation of the factors that are involved in interpersonal perception and the way in which an individual engages in his transactions with the world. The implications of empathy as not necessarily contingent upon accuracy are far reaching. It raises a host of questions: Is empathic drive inversely related to accuracy in social interactions of brief duration, and positively related to accuracy in relationships of longer duration? Might it be related to accuracy in certain persons? What factors might result in empathic drive being the modal response of a group in describing another? How do those who are high in empathic drive differ from others in their day to day relationships? In the job situation, do their superiors consider them better or less than average workers? Is empathic drive related to supervisory ability? How is empathic drive related to the effectiveness of an interviewer in conducting an interview? Is empathic drive related to clinical insight? The applications of empathic drive await further investigation.

SUMMARY AND CONCLUSIONS

The purpose of this study was to develop a measure of empathic drive and to test two hypotheses with respect to this concept:

1. People vary consistently in the saliency of empathic drive.
2. People with high empathic drive are more accurate in their observations and inferences about others.

The tendency to make statements about another person's internal psychological states (their thoughts, feelings, desires), rather than their external appearance, actions or impact on others, is termed empathic drive.

The study consisted of three phases: a pilot study, development of the group form, and the testing of the specific hypotheses. The pilot study provided the items to be used in the experimental group form and the statistical refinements of the experimental group form provided an instrument suitable for testing the hypotheses. In the pilot study empathic drive was measured by determining the percentage of psychological statements the judge made about the interviewees. In the group test empathic drive was measured by the number of psychological descriptions the judges chose in describing the interviewee.

The Cline color interviewing film was used to present the stimulus persons (interviewees). This film consists of five minute interviews of different persons. The subjects consisted of 162 Michigan State University students tested during 1961.

The final form of the empathic drive scale contains thirty multiple choice items for each of the three cases (interviewees). The alternatives in these items are based on the four ways in which one may describe

another (Bronfenbrenner et al.): the physical, the actional, the characterological and the experiential. This last category was used to measure empathic drive.

The reliability of the final form of the empathic drive scale was .82. The intercorrelations among the three cases are significant and positive (.38, .39, .59). The pilot study showed a reliability of .79 (Spearman rho) in the use of the experiential category.

It was concluded that: The evidence supports hypothesis one. People vary consistently in the saliency of empathic drive. Hypothesis two is not supported. No positive relationship was found between empathic drive and any measure of accuracy in judging another. The evidence indicates that empathic drive is independent of accuracy, either in observing the external characteristics of others or in making inferences about others. The implications of these findings with respect to previous research on empathy is discussed.

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APPENDIX A

INTERCORRELATIONS OF THE TWENTY-ONE VARIABLES UTILIZED WITH THE SEVENTY-FIVE WINTER TERM INDUSTRIAL PSYCHOLOGY SUBJECTS

	Extroversion	Breadth Int.	Self-Confidence	Self-Insgt.	Ambition	Orderliness	Emot. Contl.	Gregarious	Warmth	Dominance	Conform.	ACE	Course Gd.	Stereo. Men	Stereo. Women	Stereo. Sex	Stereo. Age	Stereo. Tot.	Empathic Dr.	Employ. Or.	Differ. Rol.
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21
01	....																				
02	-268	....																			
03	+085	+245	....																		
04	+192	+108	+241	....																	
05	+176	+109	-048	+114	....																
06	+023	+153	+181	+236	+329	....															
07	-004	-114	+402	+184	+241	+459	....														
08	-171	+336	+180	+041	-156	+153	+007	....													
09	-101	+182	+001	-059	+088	+267	+283	+133	....												
10	-316	+183	+324	+201	+189	+162	+368	+251	-078	....											
11	+194	-060	-331	+072	+145	+257	-083	+038	+393	-293	....										
12	-048	-130	+083	-021	-055	+148	+189	+006	-058	+131	-094	....									
13	-021	-267	-045	+-87	-115	+032	+115	-044	-128	+014	+053	+387	....								
14	+175	-097	+180	+124	-215	+064	+202	+105	+013	+092	+129	+027	+246	....							
15	-071	-008	-211	-160	-188	+073	-167	+197	+018	-248	+063	+024	-012	+139	....						
16	-028	-433	-262	-176	-083	-098	+021	-164	-034	-120	+067	+171	+015	+105	+232	....					
17	-171	-026	-247	-066	+002	+012	+039	-004	+203	-003	+252	-080	-178	-131	-019	+309	....				
18	-040	-160	-208	-107	-235	+059	+015	+132	+097	-136	+224	+031	+037	+529	+722	+550	+425	....			
19	+035	-129	-071	+039	+161	+110	+115	-113	-110	+191	-096	+130	-053	-145	-130	+195	-026	-116	....		
20	-066	-070	-105	-265	-064	+027	-118	-157	+092	-164	+035	+061	-106	-145	+096	+238	+087	+081	+352	....	
21	-255	-024	+014	-078	+140	+022	+115	+186	-259	+256	-163	-049	-018	+166	+189	-004	+152	+259	-060	-324	....

APPENDIX B

A STUDY OF FIRST IMPRESSIONS

H. C. Smith
Winter, 1961

Directions:

This is a study of the impressions people make on others. You will see three people in silent movies. Try to form as life-like an impression of each as you can.

The first will be of Mrs. P.; the second of Mr. W.: and the third of Mrs. N. As each film is finished the camera will be stopped. Then, in each of the groups of statements numbered below pick the one that is most like your impression of the person. Mark the number of this statement on the separate answer sheet.

Work as rapidly as you can!

THE CASE OF MRS. P.

1. (1) is gesturing with her hands (2) not a good mother (3) feels she is religious.

2. (1) is above average in intelligence (2) has a poor hairstyle (3) is troubled.

3. (1) is forcing herself to pay attention (2) has no physical impairments (3) bites her lips.

4. (1) is sincere (2) wearing a coat (3) fairly attractive.

5. (1) is about 40 years old (2) talkative (3) self-satisfied.

6. (1) did most of the talking (2) felt the interview had been successful (3) is one who makes a good impression.

7. (1) moistens her lips (2) is glad to leave (3) experienced with small groups.

8. (1) is interested in outside activities (2) gives lengthy answers (3) smiles suddenly.

9. (1) is being questioned (2) a high school graduate (3) feels religious.

10. (1) is polite (2) somewhat fearful (3) emotionally expressive.

11. (1) feels inadequate (2) is facially expressive (3) average looking.

12. (1) is attentive (2) occasionally swallowing (3) average looking.

13. (1) is a hard worker (2) feels at ease (3) swallows with effort.

14. (1) is an anxious person (2) a pleasing person (3) a conservative dresser.

15. (1) is an average person (2) smiles openly (3) is looking for work.

16. (1) considers the interview serious (2) is gregarious (3) shows signs of amusement.

17. (1) laughs easily (2) left the interview satisfied (3) is married to a laborer.

18. (1) is a typical housewife (2) has family problems (3) is intelligent.

19. (1) is seeking employment (2) responding quickly (3) an average dresser.

20. (1) is sitting straight (2) enjoying herself (3) a good sport.

21. (1) is satisfied with life (2) clenching her hands (3) cooperative.

22. (1) is middle aged (2) easy to get along with (3) in a happy frame of mind.

23. (1) is well liked (2) trying to cover up her nervousness (3) from a fair sized family.

24. (1) is fidgeting (2) shy (3) feeling nervous.

25. (1) is a modest dresser (2) active in the community (3) uncertain of her answers.

26. (1) wishes a job to provide for her children's education (2) seems a well balanced person (3) talks fluently.

27. (1) is between 35-40 years old (2) an emotionally stable person (3) looking for a job.

28. (1) is single (2) has a pleasing manner (3) would feel relaxed in social interaction.

29. (1) is enjoying life (2) dark complected (3) married.

30. (1) is seeking information (2) about 35 years old (3) participating in the conversation.

31. (1) feels excited (2) lacks movement (3) is likable.

32. (1) is shrugging her shoulders (2) looking for a job (3) lower middle class.

33. (1) sits rigidly (2) feels very happy (3) responds well.

34. (1) is very friendly (2) left the interview feeling very satisfied (3) sitting stifly.

35. (1) gave short answers at first (2) enjoys her family (3) has dark features.

36. (1) is a clerical worker (2) has her coat partly unbuttoned (3) feels anger easily.

37. (1) is amusing (2) a modest dresser (3) feels inadequate.

38. (1) is an easy going person (2) pretty well groomed (3) very tense.

39. (1) wants to make an impression on interviewer (2) is from a laboring class (3) has good posture.

40. (1) is one who would go to a neighborhood bar (2) feels self conscious (3) dressed in red.

41. (1) is verbal (2) a housewife (3) feeling under pressure.

42. (1) is very happy (2) a mother of 3 children (3) doing most of the talking.

43. (1) is using too much makeup (2) worries a lot (3) gabby.

44. (1) enjoyed the experience (2) lacks movement (3) dressed okay.

45. (1) will hold a grudge (2) is outwardly relaxed (3) solidly built.

46. (1) sat on edge of chair (2) became self confident as interview progressed (3) is a good listener.

47. (1) is worrying (2) moving her head (3) wearing a coat.

48. (1) is chatty (2) a good housekeeper (3) not sure of herself.

49. (1) is a neat dresser (2) laughing often (3) indecisive.

50. (1) married while at college (2) overjoyed at end of interview (3) uses her hands.

THE CASE OF MR. W.

51. (1) prefers to work with his mind (2) had a subservient role in the interview (3) is the indifferent type.

52. (1) is unsure of himself (2) looks like a "beat" (3) is wearing a striped sweater.

53. (1) is an agressive individual (2) feels tense (3) could be a college student.

54. (1) is a nonconformist (2) has black hair (3) is relaxed.

55. (1) is thinking the questions through (2) wearing a sweater (3) talking fast.

56. (1) is wearing glasses (2) somewhat perplexed (3) holding his chin.

57. (1) is unshaven (2) had two years of college (3) does not feel like saying much.

58. (1) is unmarried (2) often grasps his chin (3) is on guard most of the time.

59. (1) is a "lost youth" (2) has little money (3) has little patience with his intellectual inferiors.

60. (1) feels like helping people (2) is the studious type (3) about 25-30 years old.

61. (1) is probably in college (2) felt fully relaxed only at the end (3) kept hand on chin.

62. (1) is uncertain of his ability (2) emphasizes his words (3) has a sense of humor.

63. (1) wears horn rimmed glasses (2) is the serious type (3) has an academic problem on his mind.

64. (1) leaves smiling (2) is an attentive young man (3) is uncertain of the future.

65. (1) does not trust the interviewer (2) could be a delinquent (3) smiles little.

66. (1) is a cold person (2) glad to leave (3) a semi-skilled work.

67. (1) is nervous (2) above average in intelligence (3) holding a pencil.

68. (1) uses his hands as props (2) enjoys reading (3) licks his lips.

69. (1) is confident in his opinions (2) of medium height (3) does not

70. (1) Looks like a rebel (2) changes his facial expression little (3) enjoys talking to his peers.

71. (1) was eager to leave (2) left quickly (3) is reliable.

72. (1) changes his mind often (2) replys quickly (3) is an introvert.

73. (1) has been turned down by several fraternities (2) hopes he has put his story over (3) has black hair.

74. (1) left quickly (2) lacks social graces (3) feels self conscious.

75. (1) is slightly cocky (2) thought the interview a challenge (3) is a beatnik.

76. (1) answers quickly (2) is a skilled workman (3) felt satisfied with his showing.

77. (1) is mechanically inclined (2) preoccupied with being precisely correct (3) a pseudo-intellectual.

78. (1) did most of the talking (2) felt under stress (3) smiled when smiled at.

79. (1) is wearing a sweater (2) unable to project his personality (3) considers himself well informed.

80. (1) is on guard (2) has a wuick sense of humor (3) has a part time job.

81. (1) rocked back and forth (2) has curly hair (3) is earnestly interested in the situation.

82. (1) knows what's going on (2) needs a shave (3) is fluent in speaking.

83. (1) talks with emphasis (2) feels religious (3) leads an uncomplicated life.

84. (1) is from a large city (2) lacks tact (3) was very glad when interview was over.

85. (1) makes quick replies (2) was worried at first (3) sat forward on the chair.

86. (1) raises eyebrows (2) remains tense throughout interview (3) talks with vigor.

87. (1) felt fully relaxed only at end (2) is probably in college (3) kept hand on chin.

88. (1) has nervous habits (2) is not too intelligent (3) aspires to be great.

89. (1) is happy to leave (2) a rebel (3) a careless dresser.

90. (1) feels confused (2) raises eyebrows when speaking (3) had on a loud sweater.

91. (1) did not enjoy the conversation (2) smiled only when smiled at (3) refrained from eye contact with interviewer.

92. (1) is not the intellectual type (2) left in an abrupt manner (3) is happy to leave.

93. (1) feels a bit insecure (2) uses his hands in expression (3) is in his early 20's.

94. (1) can't keep his mouth shut (2) is an attentive young man (3) is upset by the situation.

95. (1) dresses poorly (2) feels he is being treated unjustly (3) is dark complected.

96. (1) changed his tone of voice as interview progressed (2) gave a quick smile upon leaving (3) thought he had put his side of the story over.

97. (1) has a closed smile (2) thinks before answering (3) needs a haircut.

98. (1) feels quite relaxed (2) gives answers to the point (3) is opinionated.

99. (1) gives no details in his answers (2) changes his facial expression little (3) is self-concerned.

100. (1) is fearful of the future (2) is a nonconformist (3) would nurse a beer.

THE CASE OF MRS. N.

101. (1) enjoys gossip (2) looks drawn (3) is a scrub woman.

102. (1) is a sweet old lady (2) looks Midwestern (3) felt confident at the beginning.

103. (1) is not interested in the discussion (2) fidgets her fingers (3) is dominant at home.

104. (1) responds in an easy manner (2) feels sure of herself (3) is a sweet old lady.

105. (1) has a low skilled job (2) is concerned with giving the right answers (3) wearing glasses.

106. (1) does not feel disturbed (2) her face shows hard work (3) doesn't get along at work.

107. (1) feels she is religious (2) is in her sixties (3) left with an empty smile.

108. (1) thinks out the answer to each question (2) has her hair combed back (3) is friendly.

109. (1) wears a black coat (2) is well mannered (3) concerned with what is happening.

110. (1) is applying for relief (2) wringing her hands (3) pleasant looking.

111. (1) is a typical grandmother (2) is well mannered (3) interested in others.

112. (1)is concerned about the future (2) well groomed (3) poised.

113. (1) puckers her lips (2) doubts future employment (3) gives answers of moderate length.

114. (1) could be a retired school teacher (2) felt she told everything necessary (3) facially expressive.

115. (1) has her hair in a net (2) has a dry manner (3) does not care about wealth.

116. (1) her husband is dead (2) is expressive in a subdued way (3) feels lonesome.

117. (1) is retired (2) has a meager education (3) enjoys her grandchildren.

118. (1) uses her hands in talking (2) is an independent old lady

119. (1) has animated hands (2) feels lonesome at times (3) has a quiet nature.

120. (1) is seeking a job (2) adaptable (3) elderly.

121. (1) is a slow person (2) has a high school education (3) is trying to explain why she was fired.

122. (1) is content with life (2) has a sense of humor (3) is dressed sufficiently well.

123. (1) is pleasant (2) feels confident (3) is a gossip.

124. (1) felt excited (2) is from lower middle class (3) timid.

125. (1) feels anxious (2) is elderly (3) smug.

126. (1) visits her grandchildren from time to time (2) wonders what she'll do when she stops working (3) is in good health.

127. (1) has brown hair (2) is a slow speaker (3) feels relaxed.

128. (1) is a grandmother (2) thinking of retiring (3) lives alone.

129. (1) smirks (2) has dyed hair (3) wanted to impress the interviewer.

130. (1) is wearing errings (2) enjoys reading women's magazines. (3) has a placid manner.

131. (1) is wearing glasses (2) proud of her past (3) 50-60 years old.

132. (1)is the easy going type (2) is wearing a coat (3) enjoys discussing her grandchildren.

133. (1) feels tense (2) is self-sufficient (3) moves her head and shoulders.

134. (1) never feels angry long (2) is the practical type (3) fumbled with a magazine.

135. (1) left smiling (2) has been married many years (3) feels calm.

136. (1) is middle class (2) trying to make a good impression (3) was born on a farm.

137. (1) smiles (2) talks at a moderate pace (3) wonders about her children.

138. (1) didn't get much out of the situation (2) wears glasses (3) has a closed smile.

139. (1) is a good homemaker (2) a neat dresser (3) is a satisfied person.

140. (1) feels qualified for a housekeeping job (2) is able to get along (3) elderly.

141. (1) is intelligent (2) is happy to be sitting and talking (3) stubborn.

142. (1) enjoys music (2) is selfish (3) uses her hands.

143. (1)is elderly (2) unmoved by the situation (3) lower middle class.

144. (1) loves to gossip (2) has a twitch (3) is hard working type.

145. (1) could be a sales clerk (2) feels emotionally stable (3) is the resourseful type.

146. (1) is in her sixties (2) felt relieved when she got up (3) is a nice old lady.

147. (1) her hands became nervous (2) is the grandmother type (3) thought deeply on most questions.

148. (1) clenched her hands (2) is not used to city life (3) is a stabilizing influence.

149. (1) is dignified (2) wants to keep active (3) is wearing jewelry.

150. (1) gives short answers at first (2) is charming (3) feels bored.

APPENDIX C

A STUDY OF FIRST IMPRESSIONS

H. C. Smith
Spring, 1961

Directions:

This is a study of the impressions people make on others. You will see three people in silent movies. Try to form as life-like an impression of each as you can.

The first will be of Mrs. P.; the second of Mr. W.: And the third of Mrs. N. As each film is finished the camera will be stopped. Then, in each of the groups of statements numbered below pick the one that is like your impression of the person. Mark the number of this statement on the separate answer sheet.

Work as rapidly as you can!

THE CASE OF MRS. P.

1. (1) is sincere (2) wearing a coat (3) fairly attractive.

2. (1) is about 40 years old (2) talkative (3) self-satisfied.

3. (1) did most of the talking (2) felt the interview had been successful (3) is one who makes a good impression.

4. (1) moistens her lips (2) is glad to leave (3) experienced with small groups.

5. (1) feels inadequate (2) is facially expressive (3) average looking.

6. (1) is an anxious person (2) a pleasing person (3) a conservative dresser.

7. (1) is an average person (2) smiles openly (3) is looking for work.

8. (1) considers the interview serious (2) is gregarious (3) shows signs of amusement.

9. (1) is a typical housewife (2) has family problems (3) is intelligent.

10. (1) is seeking employment (2) responding quickly (3) an average dresser.

11. (1) is sitting straight (2) enjoying herself (3) a good sport.

12. (1) is a modest dresser (2) active in the community (3) uncertain of her answers.

13. (1) wishes a job to provide for her children's education (2) seems a well balanced person (3) talks fluently.

14. (1) is between 35-40 years old (2) an emotionally stable person (3) looking for a job.

15. (1) is enjoying life (2) dark complected (3) married.

16. (1) is shrugging her shoulders (2) looking for a job (3) lower middle class.

17. is very friendly (2) left the interview feeling very satisfied (3) sitting stifly.

18. gave short answers at first (2) enjoys her family (3) has dark features.

19. is a clerical worker (2) has her coat partly unbuttoned (3) feels anger easily.

20. (1) is amusing (2) a modest dresser (3) feels inadequate.

21. (1) wants to make an impression on interviewer (2) is from a laboring class (3) has good posture.

22. (1) is one who would go to a neighborhood bar (2) feels self conscious (3) dressed in red.

23. (1) is verbal (2) a housewife (3) feeling under pressure.

24. (1) is using too much makeup (2) worries a lot (3) gabby.

25. (1) enjoyed the experience (2) lacks movement (3) dressed okay.

26. (1) sat on edge of chair (2) became self confident as interview progressed (3) is a good listener.

27. (1) is worrying (2) moving her head (3) wearing a coat.

28. (1) is chatty (2) a good housekeeper (3) not sure of herself.

29. (1) is a neat dresser (2) laughing often (3) indecisive.

30. (1) married while at college (2) overjoyed at end of interview (3) uses her hands.

THE CASE OF MR. W.

31. (1) is unsure of himself (2) looks like a "beat" (3) is wearing a striped sweater.

32. (1) is a nonconformist (2) has black hair (3) is relaxed.

33. (1) is thinking the questions through (2) wearing a sweater (3) talking fast.

34. (1) is wearing glasses (2) somewhat perplexed (3) holding his chin.

35. (1) is unmarried (2) often grasps his chin (3) is on guard most of the time.

36. (1) is a "lost youth" (2) has little money (3) has little patience with his intellectual inferiors.

37. (1) feels like helping people (2) is the studious type (3) about 25-30 years old.

38. (1) is probably in college (2) felt fully relaxed only at the end (3) kept hand on chin.

39. (1) wears horn rimmed glasses (2) is the serious type (3) has an academic problem on his mind.

40. (1) leaves smiling (2) is an attentive young man (3) is uncertain of the future.

41. (1) does not trust the interviewer (2) could be a delinquent (3) smiles little.

42. (1) is confident in his opinions (2) of medium height (3) does not have much money.

43. (1) was eager to leave (2) left quickly (3) is reliable.

44. (1) has been turned down by several fraternities (2) hopes he has put his story over (3) has black hair.

45. (1) answers quickly (2) is a skilled workman (3) felt satisfied with his showing.

46. (1) did most of the talking (2) felt under stress (3) smiled when smiled at.

47. (1) is wearing a sweater (2) unable to project his personality (3) considers himself well informed.

48. (1) is on guard (2) has a quick sense of humor (3) has a part time job.

49. (1) rocked back and forth (2) has curly hair (3) is earnestly interested in the situation.

50. (1) knows what's going on (2) needs a shave (3) is fluent in speaking.

51. (1) raises eyebrows (2) remains tense throughout interview (3) talks with vigor.

52. (1) felt fully relaxed only at end (2) is probably in college (3) kept hand on chin.

53. (1) feels confused (2) raises eyebrows when speaking (3) had on a loud sweater.

54. (1) is not the intellectual type (2) left in an abrupt manner (3) is happy to leave.

55. (1) feels a bit insecure (2) uses his hands in expression (3) is in his early 20's.

56. (1) dresses poorly (2) feels he is being treated unjustly (3) is dark complected.

57. (1) changed his tone of voice as interview progressed (2) gave a quick smile upon leaving (3) thought he had put his side of the story over.

58. (1) has a closed smile (2) thinks before answering (3) needs a haircut.

59. (1) gives no details in his answers (2) changes his facial expression little (3) is self-concerned.

60. (1) is fearful of the future (2) is a nonconformist (3) would nurse a beer.

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61. (1) enjoys gossip (2) looks drawn (3) is a scrub woman.

62. (1) is not interested in the discussion (2) fidgets her fingers (3) is dominant at home.

63. (1) responds in an easy manner (2) feels sure of herself (3) is a sweet old lady.

64. (1) has a low skilled job (2) is concerned with giving the right answers (3) wearing glasses.

65. (1) does not feel disturbed (2) her face shows hard work (3) doesn't get along at work.

66. (1) feels she is religious (2) is in her sixties (3) left with an empty smile.

67. (1) thinks out the answer to each question (2) has her hair combed back (3) is friendly.

68. (1) wears a black coat (2) is well mannered (3) concerned with what is happening.

69. (1) is a typical grandmother (2) is well mannered (3) interested in others.

70. (1) puckers her lips (2) doubts future employment (3) gives answers of moderate length.

71. (1) could be a retired school teacher (2) felt she told everything necessary (3) facially expressive.

72. (1) has her hair in a net (2) has a dry manner (3) does not care about wealth.

73. (1) has animated hands (2) feels lonesome at times (3) has a quiet nature.

74. (1) is seeking a job (2) adaptable (3) elderly.

75. (1) is content with life (2) has a sense of humor (3) is dressed sufficiently well.

76. (1) is pleasant (2) feels confident (3) is a gossip.

77. (1) feels anxious (2) is elderly (3) smug.

78. (1) visits her grandchildren from time to time (2) wonders what she'll do when she stops working (3) is in good health.

79. (1) has brown hair (2) is a slow speaker (3) feels relaxed.

80. (1) smirks (2) has dyed hair (3) wanted to impress the interviewer.

81. (1) is wearing glasses (2) proud of her past (3) 50-60 years old.

82. (1) is the easy going type (2) is wearing a coat (3) enjoys discussing her grandchildren.

83. (1) left smiling (2) has been married many years (3) feels calm.

84. (1) didn't get much out of the situation (2) wears glasses (3) has a closed smile.

85. (1) is a good homemaker (2) a neat dresser (3) is a satisfied person.

86. (1) is elderly (2) unmoved by the situation (3) lower middle class.

87. (1) loves to gossip (2) has a twitch (3) is hard working type.

88. (1) could be a sales clerk (2) feels emotionally stable (3) is the resourseful type.

89. (1) her hands became nervous (2) is the grandmother type (3) thought deeply on most questions.

90. (1) clenched her hands (2) is not used to city life (3) is a stabilizing influence.

APPENDIX D

H. C. Smith
May 1961

EMP Test

DIRECTIONS: Read each statement below and decide whether or not it is true with respect to yourself. Mark "1" if it is true or mostly true; mark "2" if it is false or mostly false.

1. I particularly like to work at tasks that require great effort.
2. I see life as a constant series of problems that must be solved.
3. I generally seek whatever makes me feel most cheerful here and now.
4. I enjoy work more than play.
5. I am guided in all my conduct by firm principles.
6. I find that a well-ordered mode of life with regular hours and an established routine is most congenial to me.
7. It is occasionally difficult for me to keep my mind on one thing for a long time.
8. I always keep my head in dangerous situations.
9. In difficult situations, I sometimes become too excited.
10. Failures tend to have a rather depressive effect on me.
11. The necessity for very careful and precise thinking about a critical problem occasionally upsets me.
12. Once I have decided something is wrong, I always resist the temptation to do it.
13. Unfair criticism sometimes interferes with my work.
14. I am in my element when I am in a crowd of people.
15. Books have sometimes been more entertaining to me than companions.
16. I usually enjoy spending an evening alone.
17. I like to have people around me practically all the time.
18. I am inclined to limit my friends to a few.
19. I treat a domineering person in the same way he treats me.
20. I believe that everyone's intentions are good.
21. I almost always forgive people who hurt me.
22. I approve of the things that all the other members of my family do.

(over)

23. I enjoy putting myself in the background and working with zest for another person.

24. I sometimes complain to a waiter when I am served inferior or poorly prepared food.

25. In matters of conduct I conform very closely to custom.

26. I am apt to criticize those who are in authority.

27. Compared to your own self-respect, the respect of others means very little.

28. The trouble with many people is that they do not take things seriously enough.

29. Science should have as much to say about moral values as religion does.

30. I avoid situations where I am expected to conform very closely to conventional standards.

31. I would rather see a good movie than read a book.

32. I like abstract painting.

33. I am only interested in ideas that are thoroughly practical.

34. My daydreams are a mildly important part of my life.

35. I am always eager to take a chance alone in a situation of doubtful outcome.

36. I seldom feel despairing even when I fail.

37. I feel that I have a tremendous amount to contribute to other people.

38. My marks on examinations are rather often lower than I really expected.

39. People have frequently said I was too modest.

40. I feel that I am temperamentally quite different from most people.

41. Personal criticism generally bothers me a little.

42. Occasionally, when I have failed at something, I have become angry at someone who really had nothing to do with my failure.

43. I dislike working with a group unless I know that my efforts are recognized and appreciated by those present.

44. I am critical of people whose ideas are not very good.

For the following interests, mark "1" if you like it, "2" if you are indifferent or dislike it. Work rapidly, recording your first impressions.

45. Consul

46. Governor of a State

47. Hotel Keeper or Manager

48. Inventor

49. Magazine writer

50. Physician

51. Playground director

52. Surgeon

53. Nature study

54. Conventions

55. Pet monkeys

56. "American Magazine"

57. Raising money for a charity

58. Optimists

59. Animal zoos

60. Worker in Y.M.C.A.